SIEMENS

3VA Molded Case Circuit Breakers

Totally Integrated Power – SENTRON

Edition
04/2015

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3VA Molded Case Circuit Breakers

Totally Integrated Power – SENTRON

3VA Molded Case Circuit Breakers · 04/2015

Supersedes:
3VA Molded Case Circuit Breakers · 10/2014

Refer to the Industry Mall for current updates of this catalog:
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The products contained in this catalog can also be found in the Interactive Catalog CA 01.
Article No.: E86060-D4001-A510-D4-7600

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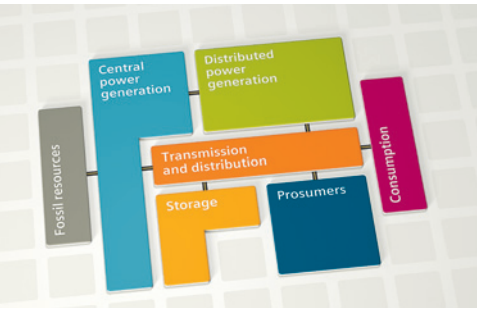
The products an systems described in this catalog are manufactured/distributed under application of a certified quality management system in accordance with EN ISO 9001:2008.

Totally Integrated Power
We bring power to the point – safely and reliably.

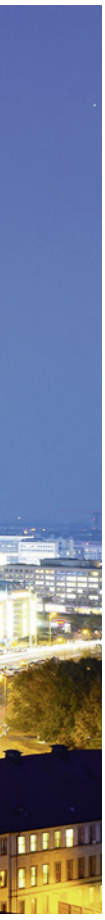


Comprehensive answers for power distribution in complex energy systems – from Siemens

Efficient, reliable, safe: These are the demands placed on electrification and especially power distribution. And our answer – for all application areas of the energy system – is Totally Integrated Power (TIP). It's based on our comprehensive range of products, systems, and solutions for low and medium voltage, rounded out by our support throughout the entire lifecycle – from planning with our own software tools to installation, operation, and services.

Smart interfaces allow linking to industrial or building automation, making it possible to fully exploit all the optimization potential of an integrated solution. This is how we provide our customers around the world with answers to their challenges. With highly efficient, reliable, and safe power distribution, we lay the foundation for sustainable infrastructure and cities, buildings, and industrial plants. We bring power to the point – wherever and whenever it is needed.

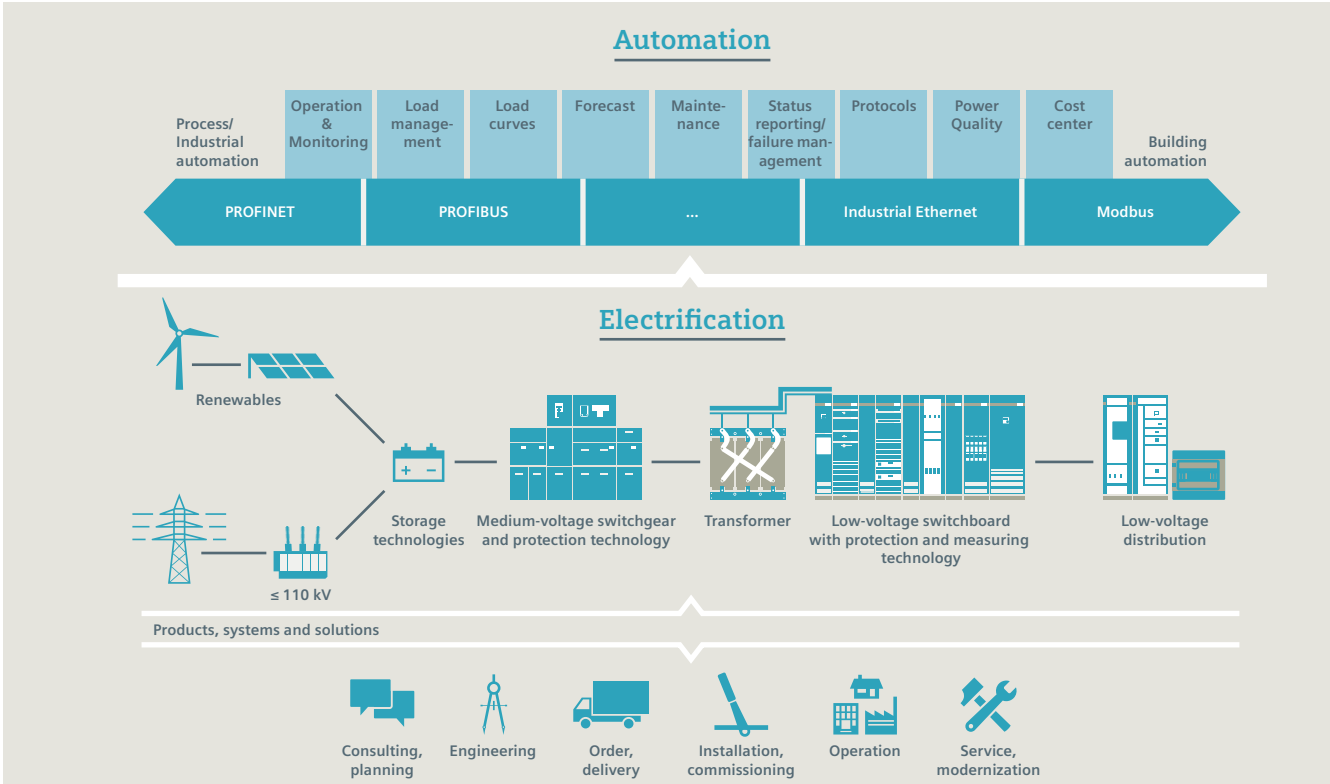
More information: www.siemens.com/tip



Totally Integrated Power offers more:

- **Consistency**:
  For simplified plant engineering and commissioning as well as smooth integration into automation solutions for building or production processes
- **One-stop-shop**:
  A reliable partner with a complete portfolio for the entire process and lifecycle – from the initial idea to after-sales service
- **Safety**:
  A comprehensive range of protection components for personnel safety and line and fire protection, safety by means of type testing
- **Reliability**:
  A reliable partner who works with customers to develop long-lasting solutions that meet the highest quality standards
- **Efficiency**:
  Bringing power to the point means greater plant availability and maximum energy efficiency in power distribution
- **Flexibility**:
  End-to-end consistency and modular design of Totally Integrated Power for any desired expansions and adaptation to future requirements
- **Advanced technology**:
  Reliable power distribution especially for applications in which supply is critical, continuous refinement of the technology

Challenges are our speciality



The right one for everyone

Our portfolio includes switchboards, distribution boards, protection, switching, measuring and monitoring devices, switches and socket outlets. All over the world, the universality, modularity and intelligence of our components and systems give you innumerable benefits – all the time they are in use. With products developed according to the respective international standards, we offer forward-looking design with innovative functions while ensuring the highest quality standards worldwide.

Sustainability in focus

As a worldwide leader in the provision of high-quality, standard-compliant products and systems for low-voltage power distribution, we contribute to the sustainable and responsible handling of electrical energy. With our integrated portfolio which ranges from power supply and distribution, through short-circuit and overload protection through to power monitoring, we support the implementation of environmentally friendly energy concepts based on wind power, photovoltaics, intelligent buildings and electromobility.

Universal, safe and intelligent power distribution

Whether in industrial plants, in infrastructure or in buildings: every technical plant depends on the reliable supply of electricity. Our products provide a safe, reliable and efficient electrical infrastructure at the medium and low-voltage levels. Our components reliably protect against accidents, faults and fires caused by electrical installations and allow consumers to utilize electrical power in a sustainable, responsible manner.
We are happy to help you with comprehensive support from the initial information gathering stage through to operation.

Everything for power distribution

Consistent solutions are required for electrical power distribution in buildings. Our answer is Totally Integrated Power (TIP). TIP stands for innovative products, systems and software tools which ensure the safe and reliable distribution of electric power. They are supplemented by circuit breakers and modules with communication capability which connect the power distribution system to the building automation or industrial automation solutions. These in turn can be linked to a comprehensive energy management system which contributes to optimizing the consumption of electricity, hence lowering the costs of operation.

Excellent support

As a competent and reliable partner, we also offer you comprehensive support – from the initial information gathering stage, through planning, configuring and ordering up to commissioning, operation and technical support. We know the needs of your working environment and your daily business. This enables us to offer you flexible and high quality support, allowing you to concentrate on your customers and their needs.

Planning Efficiency

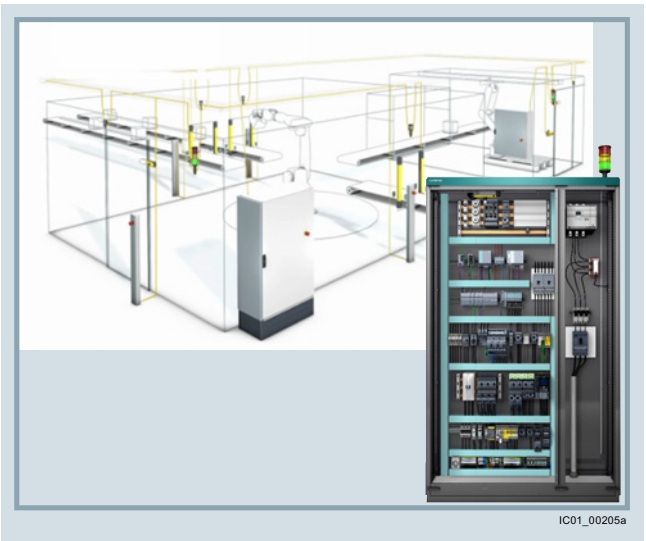
Overview

With Planning Efficiency, Siemens supplies answers to typical questions that often present themselves in electrical planning:

- What is the appropriate product for my application?
- Where can I find product data?
- How can I make processes more efficient and save more time?

The entire electronic support offered by Siemens is merged under Planning Efficiency. At each phase of the project, online functions make the everyday work of the planners easier and more efficient. Planning Efficiency focuses on optimizing the control cabinet configuration among other things.

Especially in this early phase, up to 80% of time and costs can be saved.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In order to supply the planners with all they need and to simplify the modern electrical planning of every aspect of the control cabinet configuration, the electrical support of Planning Efficiency focuses on four benefits:

- Finding the right product faster using intuitive product selection
- Time savings of up to 80 % with universal product data for your CAE and CAD systems
- User-friendly compilation of project-specific documentation
- Comprehensive support – at any time, whatever your location

Process phases

At each phase of the process, Siemens provides comprehensive online functions free of charge.

This ensures that all the necessary information and product data is available around the clock at any location worldwide.

Configurators for products and systems

With just a few mouse clicks, you will find yourself guided by the configurator to a suitable product or system. Simply enter the relevant parameters and select your individual solution.

CAx Download Manager

The CAx Download Manager can supply you with all the necessary CAx file types for the products of your choice for use in all common CAE and CAD systems. The data contained in the files is continuously updated. The whole process involves only four selection steps and is free of charge. All the files you select will then be compiled into a zip file and made available for you to download for further use. This results in a time saving of up to 80% because, thanks to the universal manufacturer data for all common CAE and CAD systems, manual acquisition of data is eliminated.

My Documentation Manager

To provide support when creating the plant documentation, we have developed a manual configurator. My Documentation Manager enables you to assemble the standard-compliant plant documentation individually with just a few clicks of the mouse. Simply select the required sections from the existing manuals of the installed Siemens products.

EPLAN Electric P8 Macro - a big plus for EPLAN users

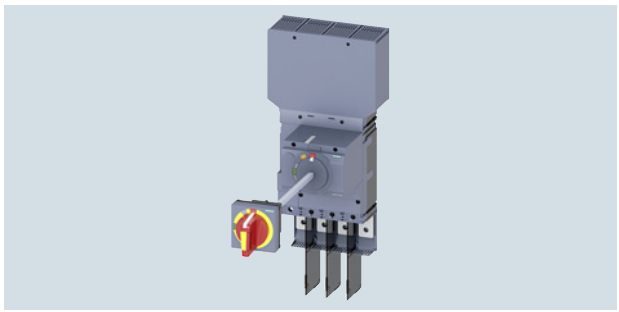
Using the EPLAN Electric P8 Macro in .edz exchange format (EPLAN Data Archived Zipped) the overall time required for data integration can be further reduced. With just a few clicks, the data types for any number of article numbers can be imported and combined. In this way, it is possible for the installed Siemens products to be displayed across different pages of the circuit diagram quickly and easily.

At a glance

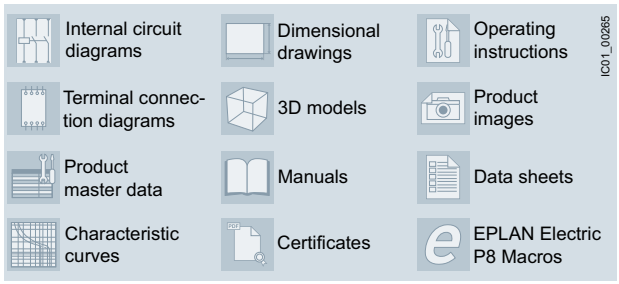
Without Planning Efficiency a lot of time would often be lost due to manual data transmission. Now you are able to concentrate on the essentials. All necessary information and product data is provided by Siemens for easy retrieval.

This makes the control cabinet configuration process more efficient and simplifies your everyday work.

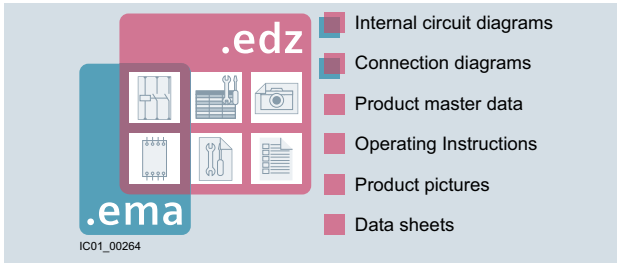
For more information see www.siemens.com/planning-efficiency.



The configurator supplies the appropriate 3D models and dimension drawings for the control cabinet construction diagram.



The CAx Download-Manager makes 11 universal data types available, as well as the EPLAN Electric P8 macro.



The EPLAN Electric P8 macro in .edz exchange format offers even more compared to the .ema exchange format.

Find out more about
Planning Efficiency in our informative videos

Technical Support

The Technical Support for low-voltage power distribution and electrical installation technology assists you with all your technical queries about our products and systems – both before and after delivery.

Still have questions?

Our experts will help you over the phone with competent specialist support

Competent and fast specialist support with:

- Product selection
- Old/new conversion
- Competitor conversion
- Special versions
- Special requirements
- Commissioning
- Issues during operation

I201_19185

Get all the information you need – with just one click

Technical Support – fast online access to the latest information (Service and Support)

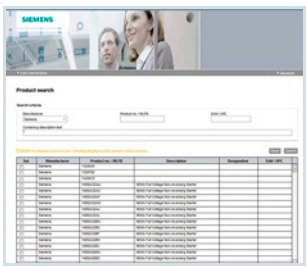
www.siemens.com/lowvoltage/product-support

In Product Support you will find FAQs, manuals, certificates, applications and tools, etc.

Support Request – the quickest route to the experts

www.siemens.com/lowvoltage/technical-support

You can put your question directly to our Technical Support team using the Support Request Form in Online Support.



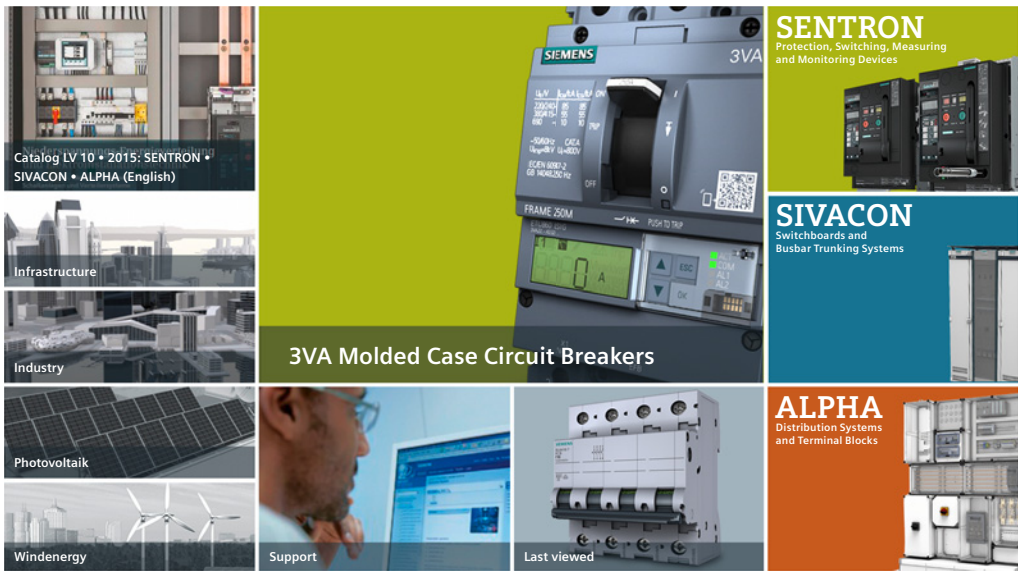
Conversion tool – the easy and efficient way of finding successor products

www.siemens.com/lowvoltage/conversion-tool

The benefits for you

- Response within 4 hours in 93% of cases
- Global support for external and internal customers as well as regional support

Get all the information you need – with just one click



www.siemens.com/lowvoltage/lv-explorer

I201_19157

LV Explorer – Discover Low Voltage in 3D
Get comprehensive and specific information about our products using our 3D animations, trailers and technical information.

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www.siemens.com/lowvoltage/support

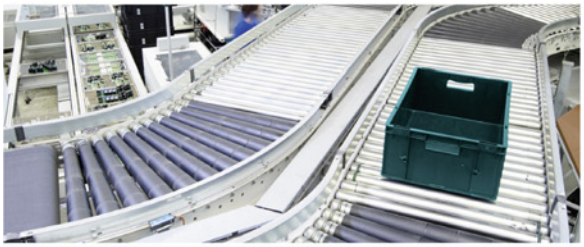
I201_19079

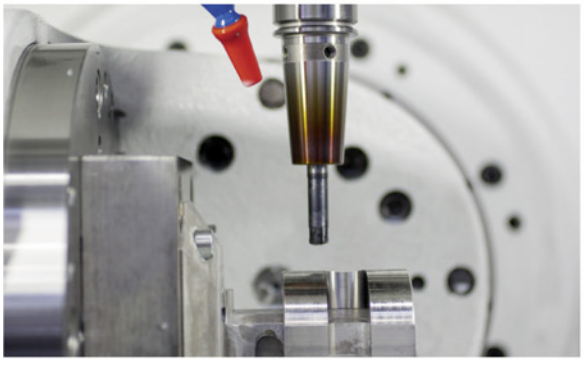
Always at your service – every step of the way
We offer comprehensive support, from planning and configuration to operation.

At home in many applications

Whether in industrial applications, infrastructure or buildings – our new 3VA molded case circuit breakers offer safe, flexible and efficient application options for low-voltage power distribution.

3VA1 molded case circuit breakers for standard applications





3VA1 molded case circuit breakers for line protection
I_n: 16 A ... 250 A

3VA1 molded case circuit breakers for line protection, 1-pole and 2-pole, e.g. as main switch
I_n: 16 A ... 160 A

3VA1 switch disconnectors for reliable safety in industrial applications
I_n: 63 A ... 250 A

3VA1 molded case circuit breakers for starter protection
I_n: 32 A ... 200 A

3VA2 molded case circuit breakers for selective applications

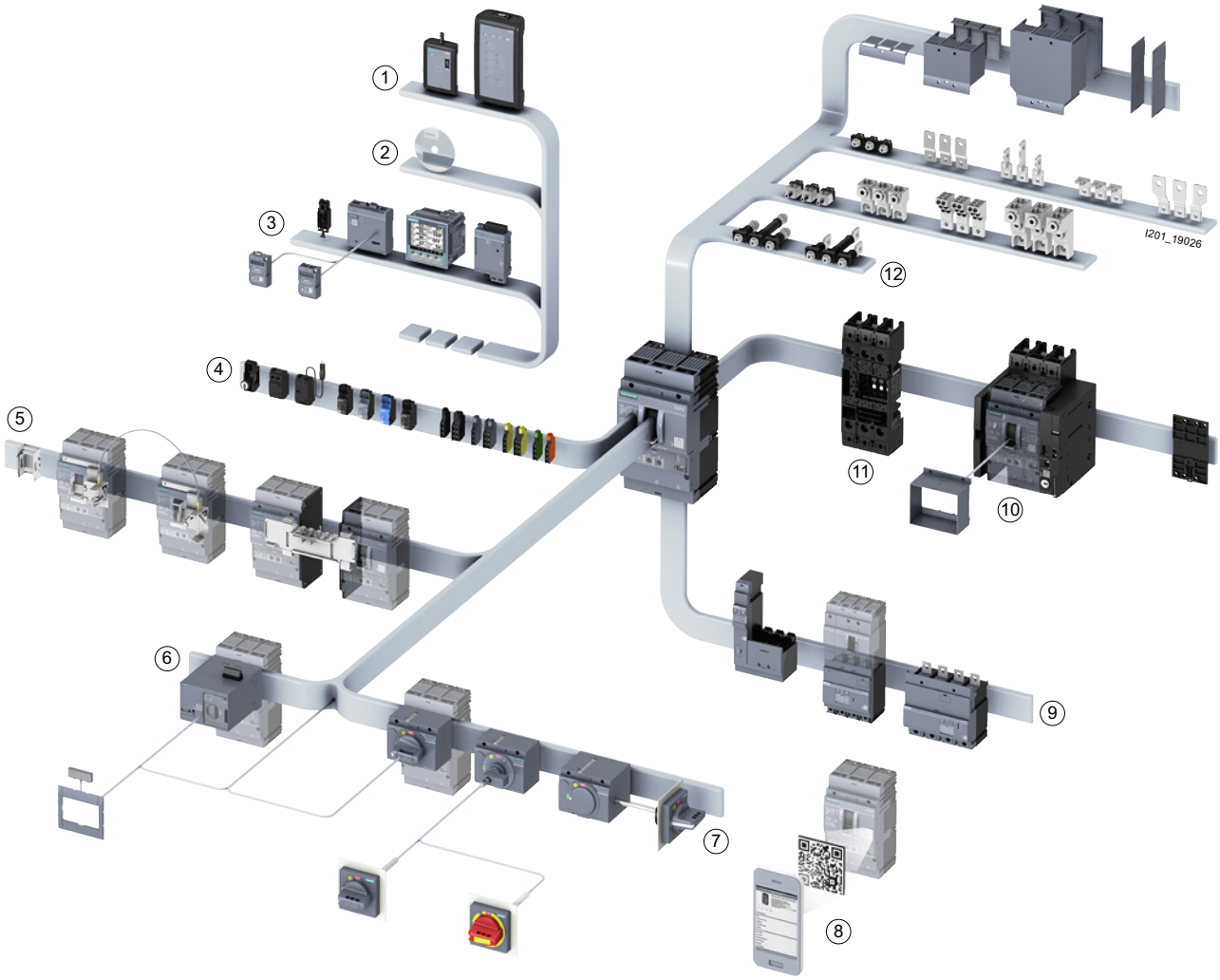
A complete system designed with you in mind

The 3VA molded case circuit breaker is a well thought-out, modular and highly variable system which is specifically designed to provide optimum support in every process step – from engineering to daily operation of the electrical power distribution system.

The 3VA molded case circuit breaker – a complete system designed with you in mind. It offers high flexibility, efficiency and safety – and enables you to

- Find solutions – independently of individual requirements
- Minimize efforts – from planning to installation and maintenance
- Increase transparency – across all energy-relevant data
- Ensure system availability – preventively and reliably

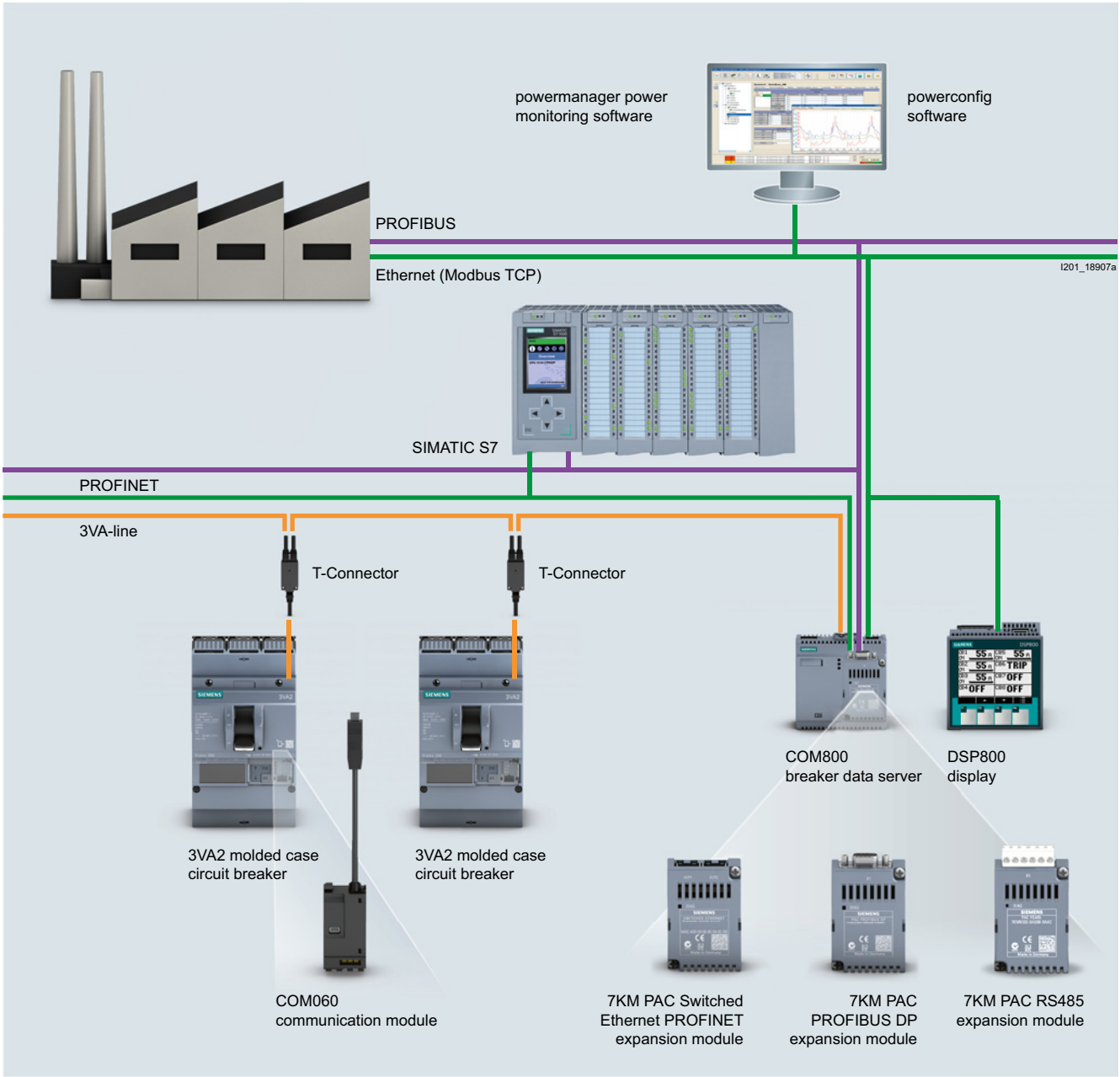
Wide range of accessories for flexible use



1 Test devices
2 powerconfig software
3 Communication
4 Internal accessories
5 Locking and interlocking
6 Motor operator
7 Manual operators
8 Knowledge Manager
9 Residual current devices
10 Draw-out technology
11 Plug-in technology
12 Connection technology

The 3VA molded case circuit breakers from the portfolio of SENTRON protection, switching, measuring and monitoring devices ensure the reliable protection of people and property as integral components of efficient power distribution systems. With a wide range of accessories they can be adapted flexibly, quickly and easily to individual requirements.

High transparency thanks to flexible communication options



The communication-capable 3VA molded case circuit breakers can be connected to higher-level management systems by means of various bus systems.

In addition, the Electronic Trip Unit (ETU) of the 8-series can measure voltage, power and energy and forward the values by means of communication modules according to requirements.

Similarly, the communication of status, error and alarm messages is possible via internal auxiliary switches – for efficient operation and optimum system monitoring.

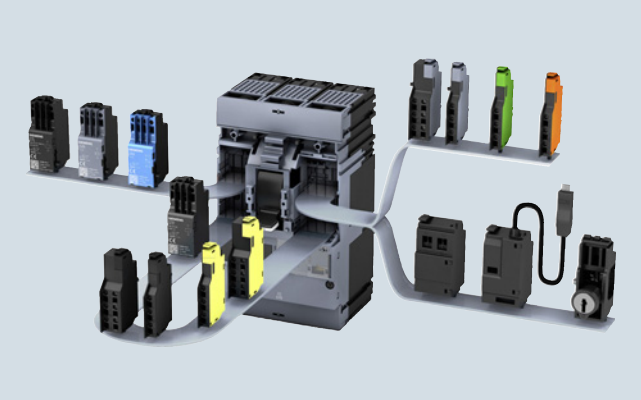
Highlights

Integrated data collection

The ETUs of the 8-series collect and transmit energy data – similar to the 7KM PAC measuring devices.

Modern design

The elegant appearance and intuitive handling are immediately convincing.



More functionality through variable internal accessories

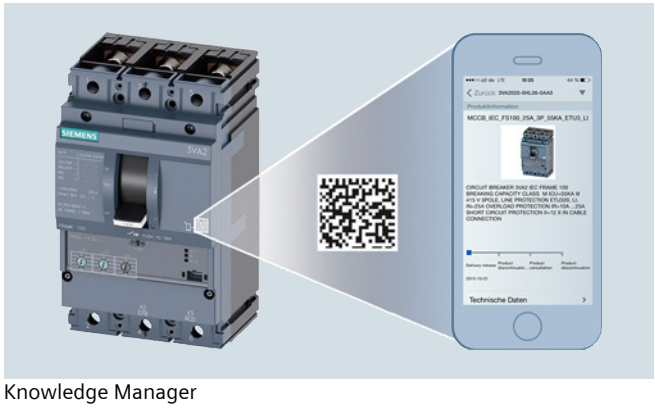
An extensive range of internal accessories is available for the 3VA molded case circuit breakers: many different functions are possible with the numerous auxiliary switches and alarm switches.

Elegant and safe

As an option, the manual operators can be equipped with an illumination kit – for clear indication of the switching position in all visibility conditions.

Clear indication

The circuit breaker position in the draw-out unit is colored and immediately recognizable.



Knowledge Manager

Technical information about installation, parameterization or maintenance can be called up directly from the system by QR code on a smartphone.

Notes

For further technical product information:

Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

Overview

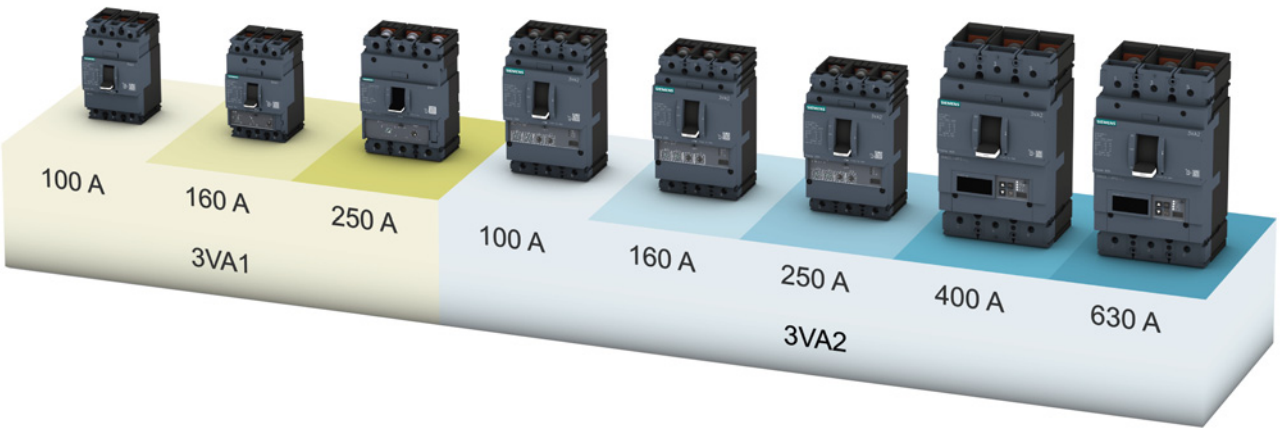
Sizes

The integrated 3VA portfolio consists of two different series of molded case circuit breakers in eight different rated operational current versions (sizes).

The new 3VA molded case circuit breakers set new standards in flexibility and the variety of modular accessories available. Standardized accessories suitable for use with several sizes of circuit breaker from all the 3VA ranges help to cut costs and save time.

The new 3VA1 molded case circuit breakers are available in 1 to 4-pole versions (3VA1 160 A) or in 3 and 4-pole versions (3VA1 100 A and 250 A). The new 3VA2 molded case circuit breakers are available in 3 and 4-pole versions.

The circuit breakers are available with rated operational currents ranging from 16 A to 630 A and rated voltages up to 690 V, depending on the series and size.



3VA1 molded case circuit breakers

The new 3VA1 molded case circuit breakers reliably perform all the tasks required for line protection.

Features

The key features of the 3VA1 series are:

- Compact design
- Depending on size: 1-pole to 4-pole versions
- Depending on size: breaking capacities of 16 kA … 70 kA at 415 V, 3 or 4-pole breakers and 36 kA at 240 V,1-pole breakers
- Fixed-mounted, plug-in version (depending on size)
- Thermal-magnetic trip units
- AC/DC applications
- No derating up to +50 °C
- Modular and easy-to-fit internal accessories with diverse functions
- Uniform accessories platform across all 3VA molded case circuit breakers

Compact dimensions

Thanks to a mounting depth of 70 mm and a cover size of 45 mm, the 3VA1 molded case circuit breakers of sizes 100 A, 160 A and 250 A are predestined for protecting cables and lines in the plant area, especially for the electrical installation area. For these applications, there is also a wide range of accessories available such as adapters for installation on standard mounting rails, as well as residual current devices (RCD310 (up to 160A) and RCD510) that can be side-mounted.

Thermal-magnetic trip unit

A thermal-magnetic principle trip unit is the basic trip unit for providing overload and short-circuit protection. This has been developed for implementing economical, cost-efficient installations up to 250 A. It is suitable for use in three-phase networks, AC networks, 400 Hz applications, and with DC currents.

3VA2 molded case circuit breakers

The new 3VA2 molded case circuit breakers reliably perform all the tasks required for line protection, generator protection, motor protection and protection of starter combinations.

This series is designed for applications with increased requirements:

- Increased breaking capacity
- Very good selective protection
- Integrated metering function
- Connection to a fieldbus communication system

Features

The most important features of the 3VA2 series are:

- Compact dimensions
- 3 and 4-pole versions
- Four breaking capacity classes from 55 kA to 150 kA
- Fixed-mounting, plug-in technology, draw-out technology
- Depending on size: selective protection response in rated operational current interval 1 : 2.5
- Electronic Trip Units
- Retrofittable communication for ETU 5-series and 8-series
- Depending on the ETU: integrated metering function
- AC applications
- No derating up to +50 °C
- Modular and easy-to-fit internal accessories with diverse functions
- Uniform accessories platform across all 3VA molded case circuit breakers

Compact dimensions with function expansions

In addition to its expanded functionality, the 3VA2 molded case circuit breaker also comes with compact dimensions for fixed mounting, as a plug-in version and a draw-out version.

A cover size of 70 mm for the door cutout and a complete selection of breaking capacity classes from 55 kA to 150 kA at 415 V AC provide the necessary flexibility for planning.

Despite its compact size, the circuit breaker offers the following benefits:

- Extremely high breaking capacity
- Extremely good selectivity
- Electronic trip units, versions with and without integrated metering function and optimal fieldbus communication interface

Selective contact system

With its contact system, the 3VA2 molded case circuit breaker is designed for fast selectivity tripping. The selective contact system ensures the following:

- Dynamic instantaneous short-circuit range
- High breaking capacity
- Selective protection response of the molded case circuit breakers in relation to each other
- Selective protection response of the molded case circuit breakers in relation to other protection devices such as downstream low-voltage fuses, etc.

Electronic Trip Units (ETUs)

The current sensor of the 3VA2 comprises an iron-cored transformer for the internal power supply and a Rogowski coil for precise current measurement. Each transformer can be optimized accordingly for its specific task. Thanks to the high accuracy of current measurement, the 3VA2 molded case circuit breaker is suitable for power/energy measurement. In addition, finer adjustment of ground fault current monitoring is possible.

The Electronic Trip Units (ETUs) provide the following protection functions:

- Overload protection L ("L" = Long-time delay)
- Short-time delayed short-circuit protection S ("S" = Short-time delay) for time-selective response in case of a short-circuit
- Instantaneous short-circuit protection I ("I" = Instantaneous)
- Protection of the neutral conductor N against overload and short-circuit ("N" = Neutral)
- Protection against residual currents to ground G ("G" = Ground fault)
- ELISA:
  Improved selective grading of downstream LV HRC fuses and upstream molded case circuit breakers by means of a special form of current-time characteristic

Energy management and communication

The Electronic Trip Units (ETUs) provide the following energy management and communication functions:

- Metering functions
- Communication
- Flexible, local, digital inputs and outputs via the EFB300 external function box
- Software commissioning support with powerconfig
- Testing and archiving with the TD300 and TD500 test devices (with powerconfig)

General data

Type		3VA10	3VA11			3VA12
Number of poles		3, 4	1	2	3, 4	3, 4
3VA1 molded case circuit breakers for line protection, standard applications						
Electrical characteristics according to IEC 60947-2						
Size		100 A	160 A	160 A	160 A	250 A
Rated operational current I_n at 50 °C ambient temperature	A	16 … 100	16 … 160	16 … 160	16 … 160	160 … 250
Rated operational voltage U_e AC 50/60 Hz	V	690	415	415	690	690
Rated insulation voltage U_i	V	800	500	500	800	800
Rated impulse withstand voltage U_{imp}	kV	8	8	8	8	8
Use in IT networks		✓	✓	✓	✓	✓
Frequency	Hz	0 ... 400	0 ... 400	0 ... 400	0 ... 400	0 ... 400
Breaking capacity						
Extremely low breaking capacity B (B)						
Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2						
220 - 240 V AC / 50/60 Hz	kA	25 / 25	--	--	--	--
380 - 415 V AC / 50/60 Hz	kA	16 / 16	--	--	--	--
690 V AC / 50/60 Hz	kA	5 / 5	--	--	--	--
Low breaking capacity N (N)						
Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2						
220 - 240 V AC / 50/60 Hz	kA	36 / 36	25 / 25	36 / 36	36 / 36	--
380 - 415 V AC / 50/60 Hz	kA	25 / 25	5 / 5	25 / 25	25 / 25	--
690 V AC / 50/60 Hz	kA	5 / 5	--	--	7 / 5	--
Standard breaking capacity S (S)						
Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2						
220 - 240 V AC / 50/60 Hz	kA	55 / 55	36 / 36	55 / 55	55 / 55	55 / 55
380 - 415 V AC / 50/60 Hz	kA	36 / 36	6 / 6	36 / 36	36 / 36	36 / 36
690 V AC / 50/60 Hz	kA	7 / 5	--	--	7 / 5	7 / 5
Medium breaking capacity M (M)						
Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2						
220 - 240 V AC / 50/60 Hz	kA	--	--	--	85 / 85	85 / 85
380 - 415 V AC / 50/60 Hz	kA	--	--	--	55 / 55	55 / 55
690 V AC / 50/60 Hz	kA	--	--	--	10 / 5	10 / 5
High breaking capacity H (H)						
Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2						
220 - 240 V AC / 50/60 Hz	kA	--	--	--	100 / 100	100 / 100
380 - 415 V AC / 50/60 Hz	kA	--	--	--	70 / 70	70 / 70
690 V AC / 50/60 Hz	kA	--	--	--	10 / 5	10 / 5
Very high breaking capacity C (C)						
Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2						
220 - 240 V AC / 50/60 Hz	kA	--	--	--	--	--
380 - 415 V AC / 50/60 Hz	kA	--	--	--	--	--
690 V AC / 50/60 Hz	kA	--	--	--	--	--
Extremely high breaking capacity L (L)						
Breaking capacity I_{cu} / I_{cs} rms value according to IEC 60947-2						
220 - 240 V AC / 50/60 Hz	kA	--	--	--	--	--
380 - 415 V AC / 50/60 Hz	kA	--	--	--	--	--
690 V AC / 50/60 Hz	kA	--	--	--	--	--

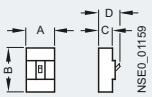
✓ Available -- Not available

					
	3VA20	3VA21	3VA22	3VA23	3VA24
	3, 4	3, 4	3, 4	3, 4	3, 4
3VA2 molded case circuit breakers for line protection, selectivity applications					
	100 A	160 A	250 A	400 A	630 A
	25 ... 100	25 ... 160	160 ... 250	250 ... 400	400 ... 630
	690	690	690	690	690
	800	800	800	800	800
	8	8	8	8	8
	✓	✓	✓	✓	✓
	50 … 60	50 … 60	50 … 60	50 … 60	50 … 60
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
	85 / 85	85 / 85	85 / 85	85 / 85	85 / 85
	55 / 55	55 / 55	55 / 55	55 / 55	55 / 55
	2 / 2	2.5 / 2.5	3 / 3	5 / 5	6 / 6
	110 / 110	110 / 110	110 / 110	110 / 110	110 / 110
	85 / 85	85 / 85	85 / 85	85 / 85	85 / 85
	2 / 2	2.5 / 2.5	3 / 3	5 / 5	6 / 6
	150 / 150	150 / 150	150 / 150	150 / 150	150 / 150
	110 / 110	110 / 110	110 / 110	110 / 110	110 / 110
	2 / 2	2.5 / 2.5	3 / 3	5 / 5	6 / 6
	200 / 200	200 / 200	200 / 200	200 / 200	200 / 200
	150 / 150	150 / 150	150 / 150	150 / 150	150 / 150
	24 / 18	24 / 18	24 / 18	On request	On request

General data





Type				3VA10	3VA11	3VA11	3VA11	3VA12
3VA1 molded case circuit breakers for line protection, standard applications								
Service life (make-break operations)								
Mechanical				15000	15000	15000	15000	15000
Electrical			380 ... 415 V	8000	8000	8000	8000	8000
Trip units	FTFM	TM210		✓	✓	✓	✓	--
	ATFM	TM220		--	--	--	✓	--
	ATAM	TM240		--	--	--	✓	✓
	LI	ETU320		--	--	--	--	--
	LIG	ETU330		--	--	--	--	--
	ELISA LI	ETU340		--	--	--	--	--
	LSI	ETU350		--	--	--	--	--
	LSI	ETU550/ETU850		--	--	--	--	--
	LSIG	ETU560/ETU860		--	--	--	--	--
3VA1 molded case circuit breakers for protecting starter combinations (standards and specifications IEC 60947-4)								
Rated operational current I_n at 50 °C ambient temperature			A	--	--	--	32 … 125	160, 200
Service life (make-break operations)								
Mechanical				15000	15000	15000	15000	15000
Electrical			380 ... 415 V	8000	8000	8000	8000	8000
Trip units	AM	TM120M		--	--	--	✓	✓
	I	ETU310M		--	--	--	--	--
	LSI	ETU350M		--	--	--	--	--
	LSIG	ETU860M		--	--	--	--	--
Switch disconnectors								
Electrical characteristics according to IEC 60947-3								
Number of poles				--	--	--	3, 4	3, 4
Rated operational current I_n at 50 °C ambient temperature			A	--	--	--	63 … 160	250
Rated operational voltage U_e AC 50/60 Hz			V	--	--	--	690	690
Rated operational voltage U_e DC			V	--	--	--	500 (3p)/600 (4p)	500 (3p)/600 (4p)
Rated short-circuit making capacity I_{cm} with upstream circuit breaker			kA	--	--	--	70 kA at 415 V	70 kA at 415 V
Permissible rated short-time current I_{cw}			±1s kA	--	--	--	2	On request
Dimensions								
	A B C D		mm mm mm mm	76.2 (3p)/101.6 (4p) 130 70 88	25.4 130 70 88	50.8 130 70 88	76.2 (3p)/101.6 (4p) 130 70 88	105 (3p), 140 (4p) 158 70 88
Weight 1-pole Box terminal			kg	--	0.39	--	--	--
1-pole Lug terminal			kg	--	0.35	--	--	--
2-pole Box terminal			kg	--	--	0.68	--	--
2-pole Lug terminal			kg	--	--	0.60	--	--
3-pole Box terminal			kg	1.02	--	--	1.02	--
3-pole Lug terminal			kg	0.90	--	--	0.90	1.8
4-pole Box terminal			kg	1.31	--	--	1.31	--
4-pole Lug terminal			kg	1.15	--	--	1.15	2.3
General information								
Standards and specifications				IEC 60947-2, -3, -4	IEC 60947-2, -3, -4	IEC 60947-2, -3, -4	IEC 60947-2, -3, -4	IEC 60947-2, -3, -4
Utilization category according to IEC 60947-2				A	A	A	A	A
Power and infeed direction				Top and bottom	Top and bottom	Top and bottom	Top and bottom	Top and bottom
Standard connection system				Lug terminal Box terminal	Lug terminal Box terminal	Lug terminal Box terminal	Lug terminal Box terminal	Lug terminal --
Isolating features according to IEC 60947				✓	✓	✓	✓	✓

✓ Available -- Not available





3VA20	3VA21	3VA22	3VA23	3VA24
3VA2 molded case circuit breakers for line protection, selectivity applications				
20000	20000	20000	15000	15000
12000	12000	10000	6000	4000
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
3VA2 molded case circuit breakers for motor protection / protection of starter combinations (according to IEC 60947-4)				
--	25 ... 100	160 ... 200	250	400 ... 500
20000	20000	20000	15000	15000
12000	12000	10000	6000	4000
--	--	--	--	--
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
105 (3p)/140 (4p) 181 86 107	105 (3p)/140 (4p) 181 86 107	105 (3p)/140 (4p) 181 86 107	138 (3p)/184 (4p) 248 110 137	138 (3p)/184 (4p) 248 110 137
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
--	--	--	--	--
2.44	2.44	--	--	--
2.29	2.29	2.41	4.3	4.3
3.14	3.14	--	--	--
2.94	2.94	3.09	4.8	4.8
IEC 60947-2, -3, -4	IEC 60947-2, -3, -4	IEC 60947-2, -3, -4	IEC 60947-2, -3, -4	IEC 60947-2, -3, -4
A	A	A	A	A/B[1)]
Top and bottom	Top and bottom	Top and bottom	Top and bottom	Top and bottom
Lug terminal Box terminal	Lug terminal Box terminal	Lug terminal	Lug terminal	Lug terminal
✓	✓	✓	✓	✓

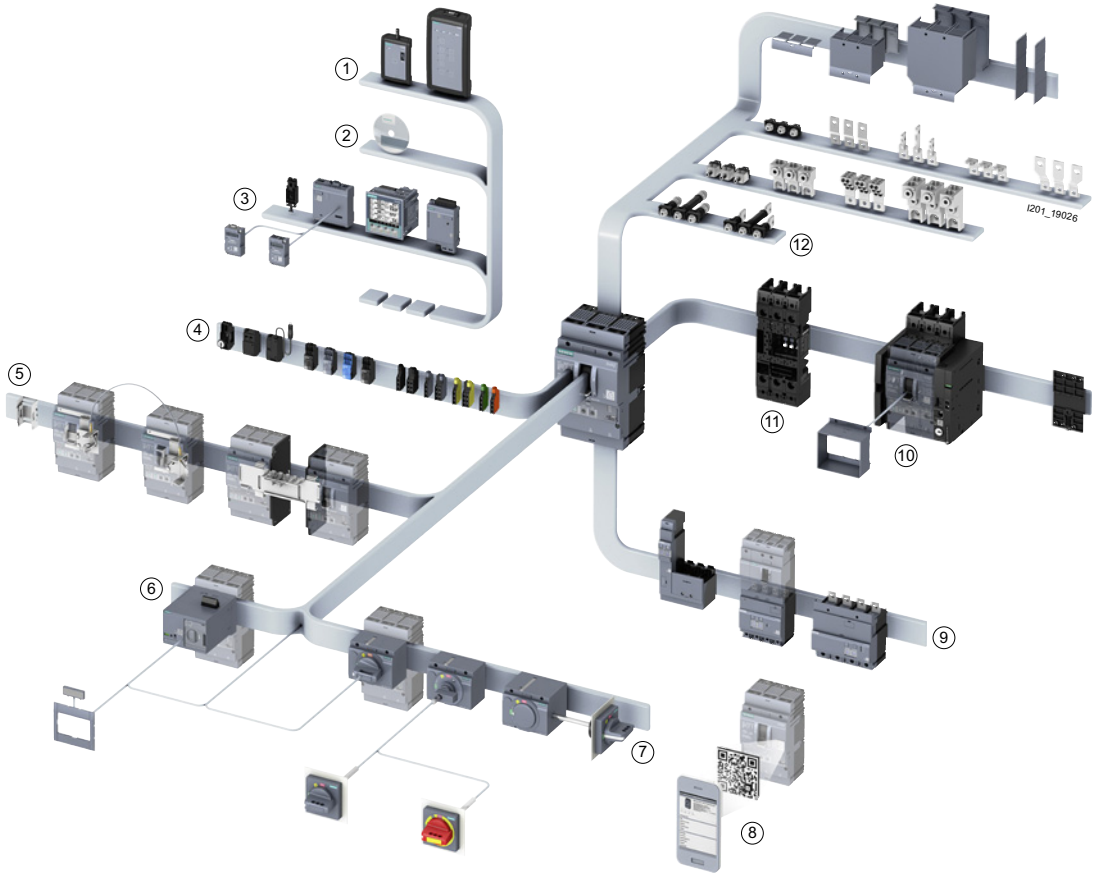
[1)] Utilization category B only for 400 A and 500 A and the trip units of the ETU5 and ETU8 series

Molded case circuit breakers and accessories in the system

The new 3VA molded case circuit breakers come with a large portfolio of internal and external accessories which can be installed flexibly in any size of circuit breaker (depending on the type of accessory).

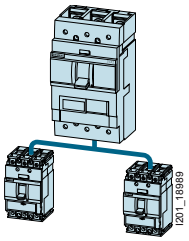
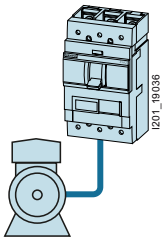
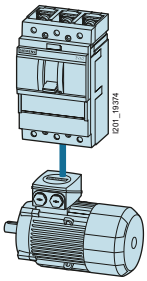
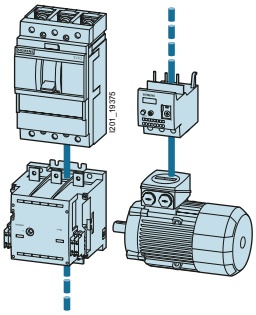
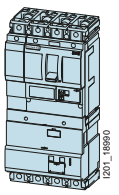
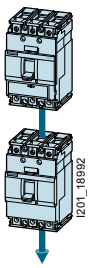
The table below shows the molded case circuit breakers in or on which the accessories can be installed, and the sizes covered by the same accessory component:

Accessories	Molded case circuit breakers							
	3VA1			3VA2				
	100	160	250	100	160	250	400	630
Auxiliary switches and alarm switches	■	■	■	■	■	■	■	■
Auxiliary releases	■	■	■	■	■	■	■	■
Connection technology	■	■	■	■	■	■	■	■
Plug-in technology		■	■	■	■	■	■	■
Draw-out technology			■	■	■	■	■	■
Front mounted rotary operator	■	■	■	■	■	■	■	■
Door mounted rotary operator	■	■	■	■	■	■	■	■
Side wall mounted rotary operator	■	■	■	■	■	■	■	■
Motor operator		■	■	■	■	■	■	■
Locking and interlocking	■	■	■	■	■	■	■	■
Residual current device, mounted on the side		■	■					
Residual current device, mounted underneath		■	■	■	■	■	■	■
Communications interface				■	■	■	■	■
EFB300				■	■	■	■	■
TD300 and TD500				■	■	■	■	■
Masking frame	■	■	■	■	■	■	■	■
DIN rail adapter	■	■						



1 Test devices
2 powerconfig software
3 Communication
4 Internal accessories
5 Locking and interlocking
6 Motor operator
7 Manual operators
8 Knowledge Manager
9 Residual current devices
10 Draw-out technology
11 Plug-in technology
12 Connection technology

Detailed information about applications and possible uses

Application	3VA1	3VA2	Description
Line protection			
	✓	✓	The trip units for line protection are designed to provide overload and short-circuit protection for: • Cables • Lines • Non motorized loads
Generator protection			
	--	✓	The setting values of the trip units are matched to protecting generators.
Motor protection			
	--	✓	The overload and short-circuit releases are designed for optimal protection and direct starting of three-phase AC squirrel-cage motors. The molded case circuit breakers for motor protection have phase-failure sensitivity and a thermal image that protects the motor against overheating. The adjustable time lag class enables users to adjust the overload release to the startup conditions of the motor to be protected. Are you IE3 ready?
Protection for starter combinations (starter protection)			
	✓	✓	Starter combinations consist of: molded case circuit breaker + contactor + overload relay. The molded case circuit breaker handles short-circuit protection and the isolating function. The task of the contactor is the operational switching of the feeder. The overload relay handles overload protection that can be specially matched to the motor. The molded case circuit breaker for the starter combination is therefore equipped with an adjustable and instantaneous short-circuit release. Are you IE3 ready?
Residual current protection			
	✓	✓	Residual current protective devices afford fault protection (formerly referred to as: protection in case of indirect contact) and supplementary protection (formerly referred to as: protection in case of direct contact) in low-voltage systems in the event of the basic insulation failing or live parts being touched. Their task is to prevent or reduce injury to personnel or livestock, or damage to property.
Switch disconnectors			
	✓	--	Switch disconnectors are deployed: • As main control switches • For on/off switching • For disconnection of loads • As switch disconnectors without overload and short-circuit protection The switch disconnectors correspond to IEC / EN 60947-3.

Design

Integrated system

The 3VA molded case circuit breakers set new standards, not only regarding technical features and functional scope, but design ergonomics too.

When it comes to operation, functionality and installation, the new 3VA series is a fully integrated system. This principle is embodied in the basic units and in all internal and external accessories.

The benefits offered by the internal and external accessories available for the 3VA molded case circuit breakers are:

- Standardized methods of operation
- Standardized functionality
- Standardized installation procedures
- Standardized accessories from 100 A to 630 A (e.g. auxiliary switches, auxiliary releases, etc.)

The right circuit breaker for all installation conditions

The new series of molded case circuit breakers can be equipped with additional components enabling them to be installed as fully functional switches in any location, a feature which affords maximum flexibility to system planners.

The following components can be used to suit the installation location:

- Handle
- Front mounted rotary operator
- Side wall mounted rotary operator
- Door mounted rotary operator
- Motor operator

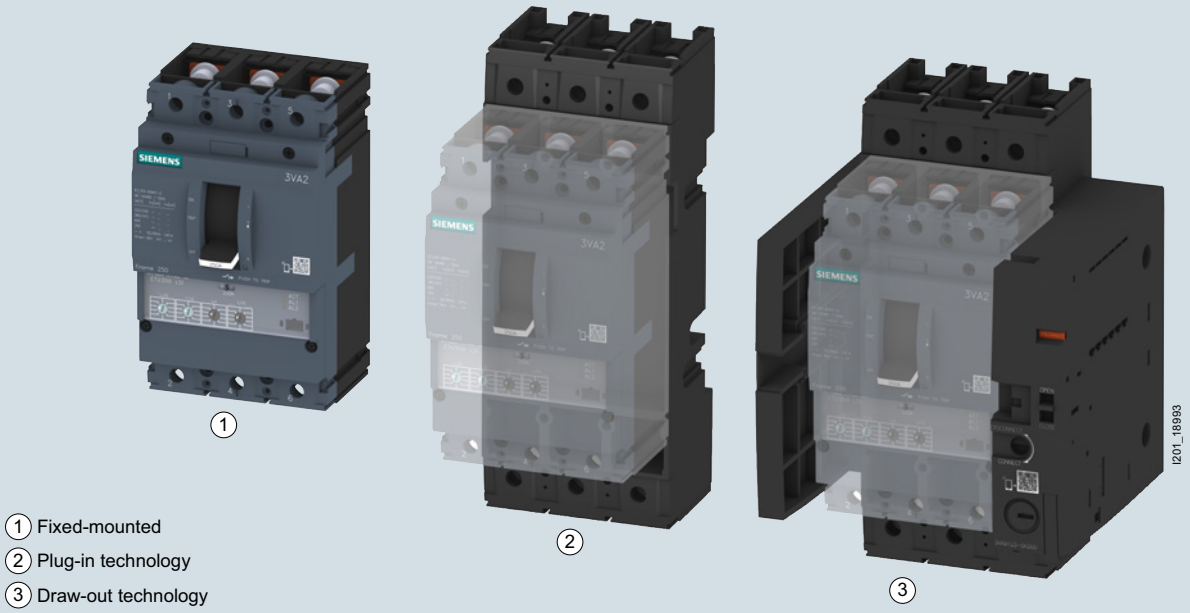
When the 3VA molded case circuit breaker is in the OFF position, it reliably disconnects all current paths of the circuit in accordance with IEC 60947-2 and IEC 60204-1 (VDE 0113). In the event of overvoltage between input and output, the reduced clearances prevent leakage currents at the surface and ensure that the dielectric strength is not degraded.

The main switch functionality is not diminished by installation of the following accessories:

- Motor operator
- Manual operator
- Residual current device

Installation variants

3VA molded case circuit breakers are available in the following installation variants:

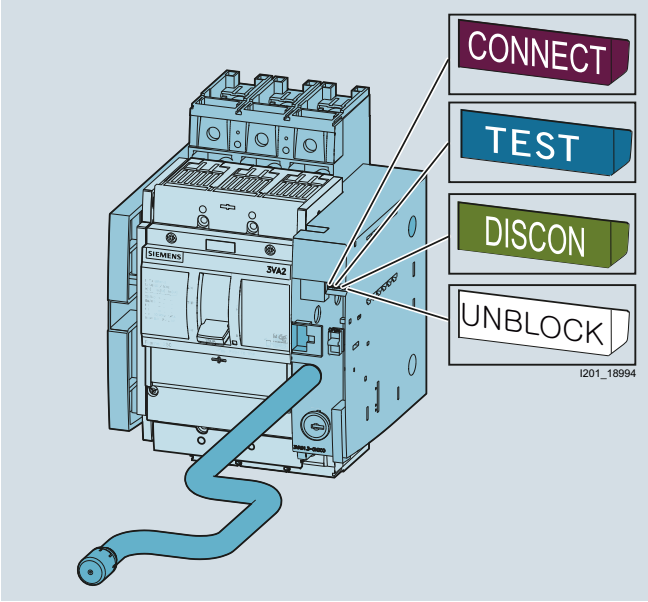


① Fixed-mounted
② Plug-in technology
③ Draw-out technology

All versions offer the full range of functions, e.g. they can be equipped with every kind of accessory. In addition, the last two variants are designed to allow speedy breaker replacement for maintenance purposes or visual indication of the electrical isolation in the main circuit.

Indication of switching positions in the draw-out unit

The picture below illustrates the colors used to indicate the switching position in the draw-out unit:



The switching position is indicated in a window of the draw-out unit and is clearly color-coded, enabling immediate identification of the current switching position of the molded case circuit breaker.

The draw-out unit has four switching positions:

- CONNECT:

Connection to main circuit and auxiliary circuit established.

- TEST:

In the TEST position, the main contacts of the molded case circuit breaker are not connected to the main circuit, but only to the auxiliary circuit. It is therefore possible to check that the auxiliary circuit is functioning properly when the main circuit is open.

- DISCONNECT:

The molded case circuit breaker is not connected to the main circuit or to the auxiliary circuit either.

- UNBLOCK:

The molded case circuit breaker is not in any of the 3 defined, fixed positions listed above. UNBLOCK is displayed while the breaker is being operated by rotating the crank handle.

Motor operator for remote control

3VA molded case circuit breakers can also be controlled remotely. Whether the circuit breaker is controlled from "just" the other side of the closed cubicle door, or the breaker is switched on via a control room, operator panel, etc., is irrelevant.

Motor operators are available as accessories for remote control of the circuit breakers.

Ergonomic design of circuit breakers, control levers and control elements

Clear status indication

The possible switching positions of manual rotary operators are listed below:

- ON – Red marking
- TRIP – Yellow marking
- OFF – Green marking

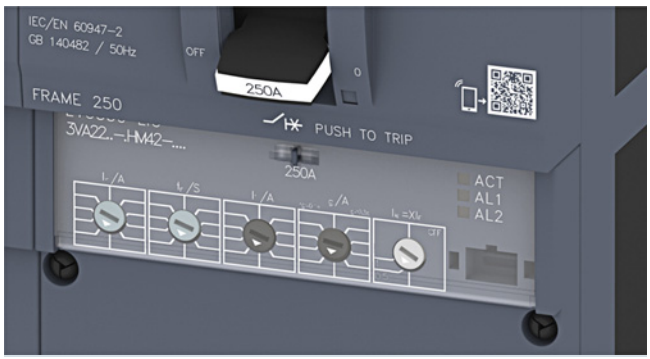
The handle clearly engages in one of these positions depending on the status of the molded case circuit breaker. The switching positions are color-coded so that you can identify the status of the circuit breaker at a glance.

Active illumination

You can retrofit an active illumination kit to manual rotary operators. The illuminated indicator in the rotary handle signals the relevant switching position in the colors red, yellow and green. This provides clear visualization of the switching position on-site under poor lighting conditions.

Ergonomic control lever

With its large contact area, the ergonomic control lever is designed to assist manual operation of the circuit breaker. The white strip around the edge of the lever makes it easy to identify in conditions of poor visibility. The additional rated operational current information stamped on the white strip also significantly eases identification of the circuit breaker when it is one of many breakers in a large switchboard installation.



Color-coded control elements

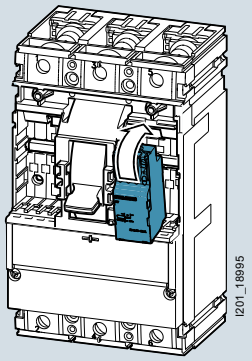
The control elements on the thermal-magnetic and electronic trip units are color-coded.

The separate color of each control element indicates that it performs a specific function, helping you to make the required settings quickly.

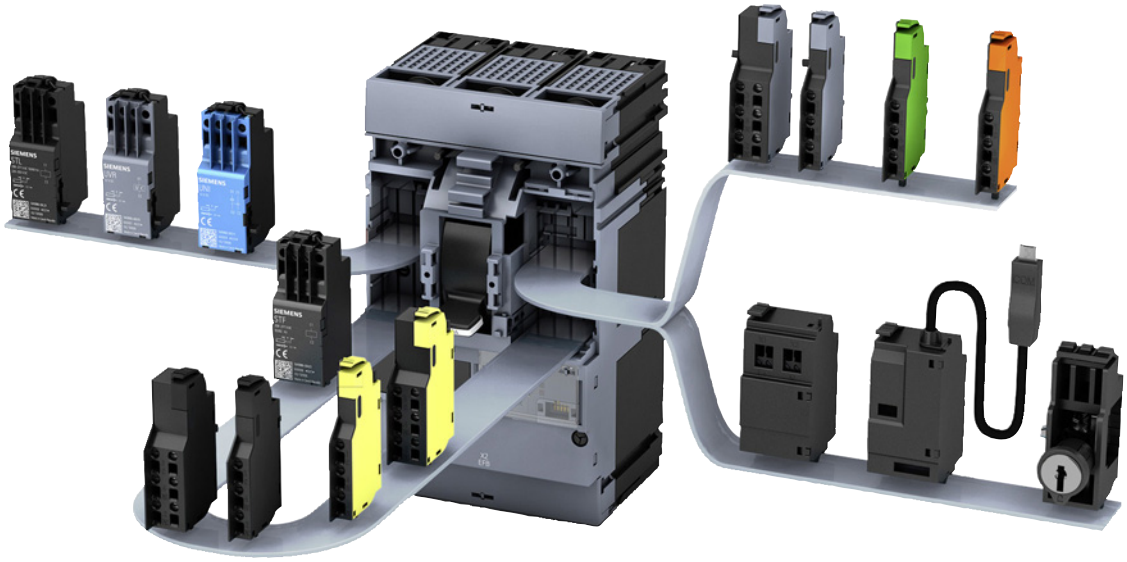
Color		Function
I_r/A	Petrol	Overload protection
I_r/A	Black	Short-circuit protection, ground fault protection
I_N=xI_r	Gray	Protection of the neutral conductor

Broad range of accessories

The internal accessories (e.g. alarm and auxiliary switches, auxiliary releases, etc.) all belong to one family and can be installed on any size of 3VA1 or 3VA2 circuit breaker. The accessories are designed for quick and easy installation. The components are coded by color and design to ensure that they are always installed at the correct position in the circuit breaker.



Color coding of accessories



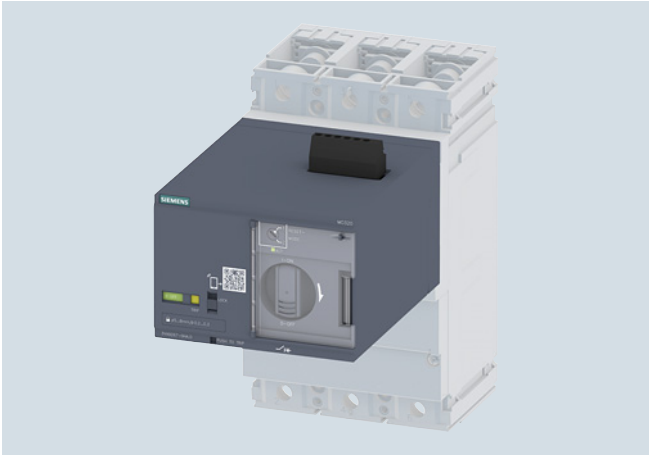
A color coding system has been used to clearly identify the specific functions of individual accessories:

Color	Auxiliary switches and alarm switches	Auxiliary releases
Black	Auxiliary switch AUX	• Shunt trip left STL • Shunt trip flexible STF
Gray	Leading changeover switch LCS	• Undervoltage release UVR • Undervoltage release with leading NO contacts UVR (LNO)
Yellow	Trip alarm switch TAS	--
Orange	Short circuit alarm switch SAS	--
Green	Electrical alarm switch EAS	--
Blue	--	Universal release UNI

The cylinder lock and communication accessories shown next to the internal accessories are explained in the chapters "Locking and interlocking" and "Communication and test/commissioning devices".

Fast assembly of motor operators

The motor operators have been designed for quick and easy assembly and disassembly. This makes for quick and easy access to the internal accessories.



General data

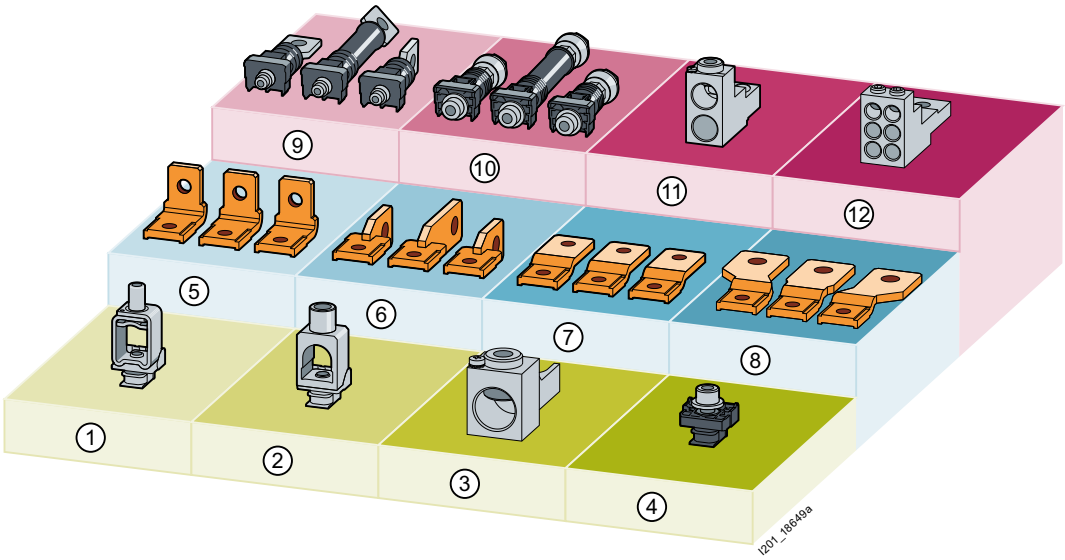
Connection technology

A large selection of connection systems is available for the new series of 3VA molded case circuit breakers.

The supported cable cross-sections are based on the size of the molded case circuit breaker and the cable terminals used. The terminals are fitted either internally or externally to the molded case circuit breaker.

The connection technology is easy to integrate in the new series of 3VA molded case circuit breakers.

With it you can implement various front and rear main conductor connections for the molded case circuit breakers in all types of installation (fixed-mounted, plug-in and draw-out).

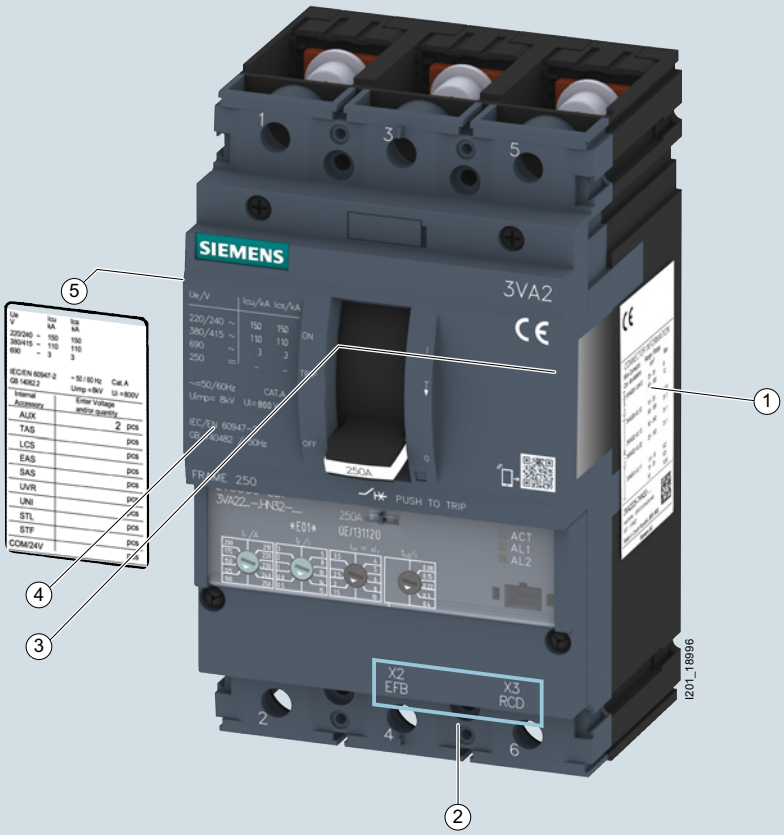


1 Box terminal
2 Circular conductor terminal
3 Circular conductor terminal, large
4 Lug terminal
5 Lug terminal, right-angled
6 Front connection bars edgewise
7 Front connection bars extended
8 Front connection bars broadened
9 Rear terminal flat
10 Rear connecting studs
11 Circular conductor terminal for 2 cables
12 Circular conductor terminal for 6 cables

Technical details

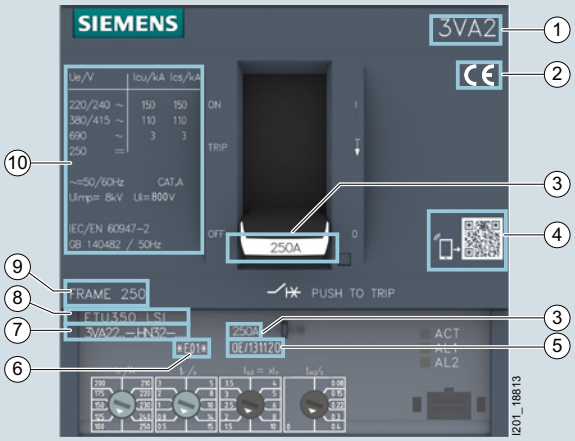
Circuit breaker identification

Each 3VA molded case circuit breaker has labels displaying all the important technical information, enabling unique identification:



1 Connection information label
2 ETU connection designations
3 Label inserts (in accessories compartment)
4 Key electrical data
5 Internal accessories labels

Breaker labeling



1 Circuit breaker designation
2 Approvals
3 Rated current
4 Knowledge Manager
5 Production date
6 Product version
7 Article number
8 ETU type
9 Size and breaking capacity class
10 Rating plate

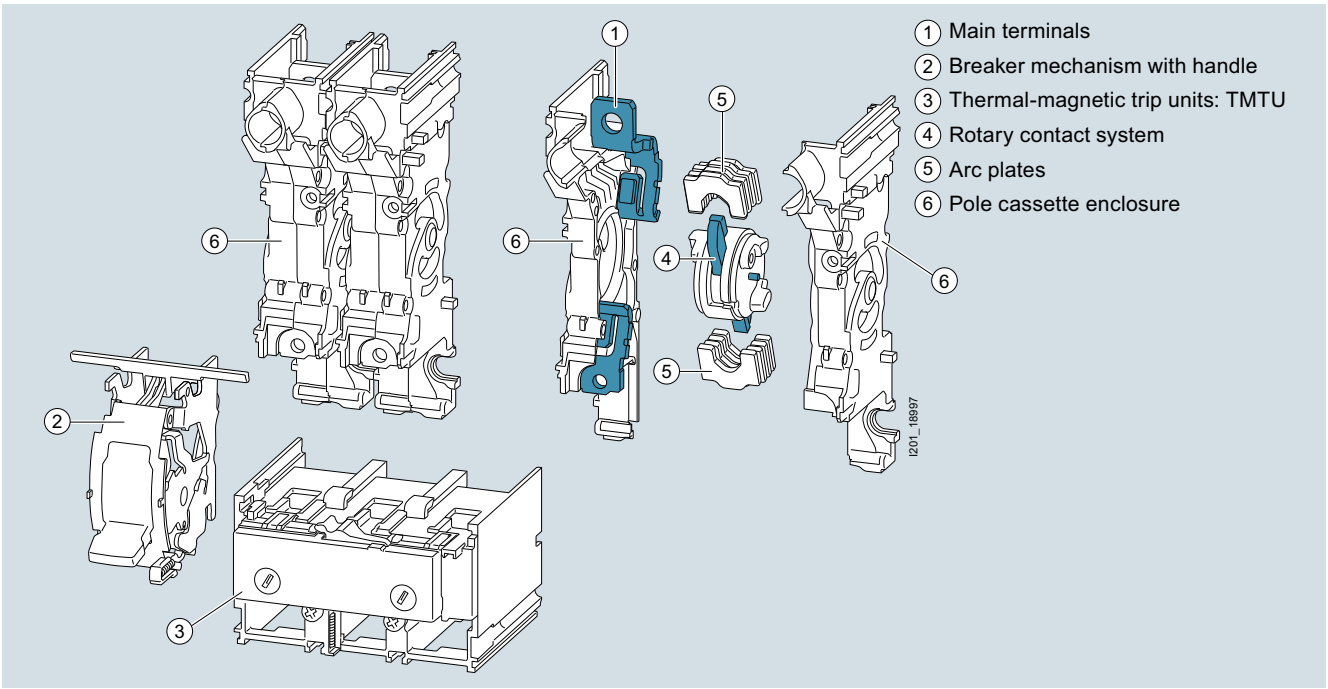
Front: Labeling

Knowledge Manager

By reading out the QR code using a smartphone and the "Siemens Industry Online Support" app, it is possible to view key product information via the Internet at any time.

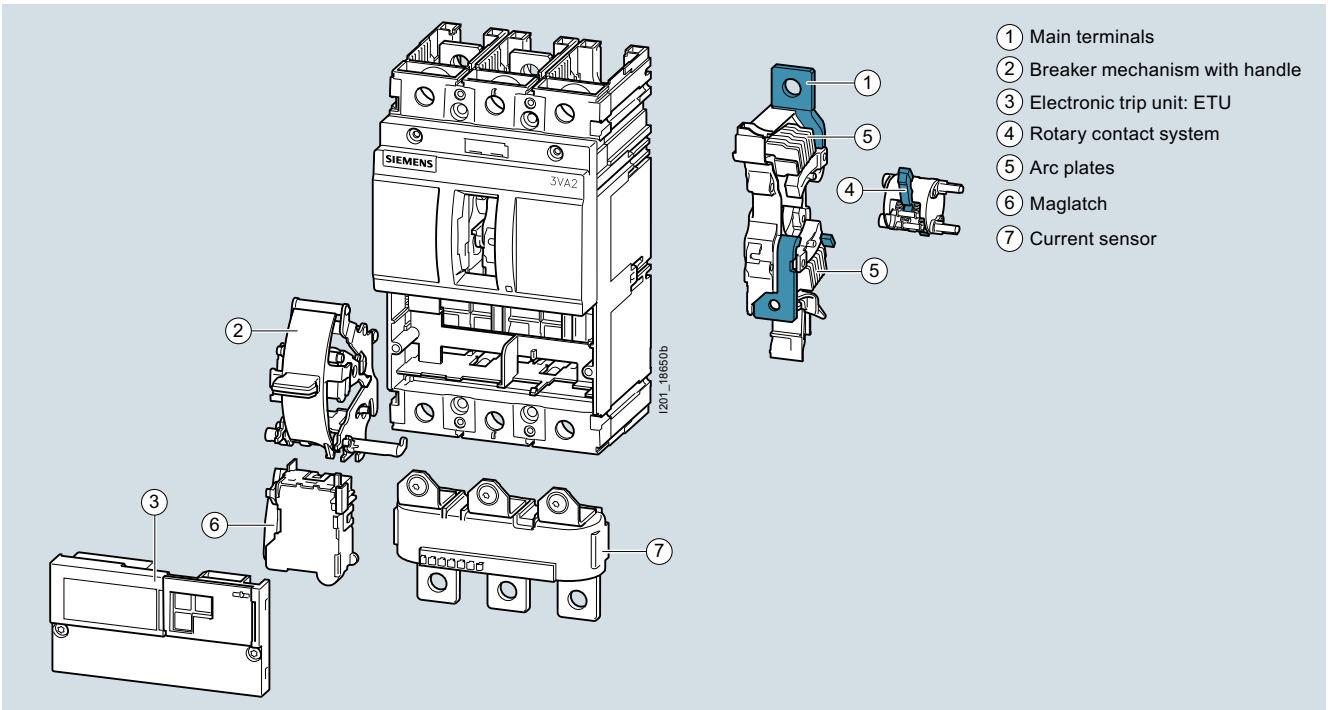
Siemens provides the app free of charge.

Design and components – 3VA1



Design of the 3VA1 molded case circuit breaker

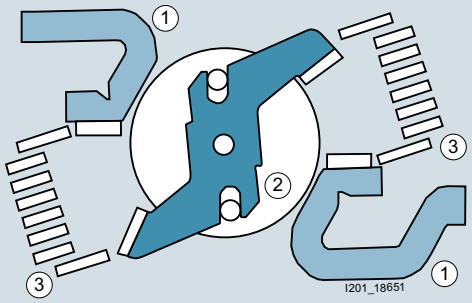
Design and components – 3VA2



Design of the 3VA2 molded case circuit breaker

Current limitation

To achieve excellent current limiting, the 3VA molded case circuit breakers are equipped with a double-rotatory contact system that opens dynamically on its own above the specified disengaging currents on the principle of magnetic repulsion before the expected peak value of the short-circuit current is reached. These limits have been coordinated and optimized to suit the overall device characteristics. This substantially reduces the thermal and mechanical loading on the molded case circuit breaker.



1 Fixed contacts
2 Rotating contact system
3 Arc splitter chamber

The switching pole cassettes of the 3VA molded case circuit breakers are optimized for high breaking capacity, and their double-rotary contact system design enables extremely good current limiting thanks to the very fast build-up of peak arc voltage generated at both contacts in the event of a short-circuit. This results in significant limitation of the let-through energy I^2t and the expected let-through current I_{sc}.

Breaking capacity

The rated ultimate short-circuit breaking capacity I_{cu} is the maximum value of the short-circuit current which the protective device is capable of disconnecting in accordance with regulations. Up to this value, the protective device is also allowed to be used in a network.

The new 3VA molded case circuit breakers are available with identical external dimensions but various breaking capacity classes according to size and rated operational current range.

- Breaking capacity of the 3VA1 series, 2 to 4-pole at 415 V AC

Breaking capacity Class / I_{cu}	**Size** 3VA1 100 A 3 and 4-pole	3VA1 160 A 2-pole	3VA1 160 A 3 and 4-pole	3VA1 250 A 3 and 4-pole
B 16 kA	✓	--	--	--
N 25 kA	✓	✓	✓	--
S 36 kA	✓	✓	✓	✓
M 55 kA	✓	✓	✓	✓
H 70 kA	--	--	✓	✓

- Breaking capacity class of the 3VA1 series, 1-pole at 240 V AC

Breaking capacity Class / I_{cu}	**Size** 3VA1 160 A 1-pole
N 25 kA	✓
S 36 kA	✓

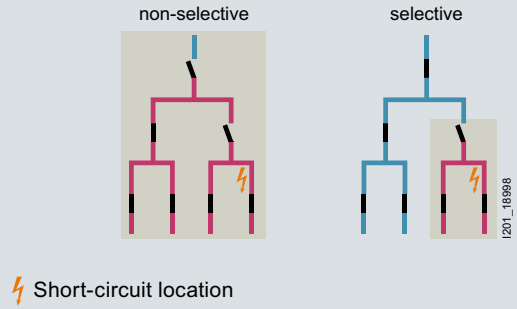
- Breaking capacity class of the 3VA2 series at 415 V AC

Breaking capacity Class / I_{cu}	**Size** 3VA2 100 A	3VA2 160 A	3VA2 250 A	3VA2 400 A	3VA2 630 A
M 55 kA	✓	✓	✓	✓	✓
H 85 kA	✓	✓	✓	✓	✓
C 110 kA	✓	✓	✓	✓	✓
L 150 kA	✓	✓	✓	✓	✓

Selectivity

Switching devices connected in series, e.g. molded case circuit breakers and fuses, work in a coordinated manner to ensure that switching devices are tripped successively. The closest, upstream switching device before the location of the short-circuit must trip. The other switching devices on the same current run do not trip. The purpose of selectivity is to minimize the effects of a fault in terms of its duration and the area affected by the fault.

Selectivity is achieved when the circuit breakers are matched to each other by means of selection, configuring and trip settings in such a way that, in the event of a fault, only the breaker closest to the location of the fault trips.



Full selectivity

There is an increasing demand for full selectivity in order to safeguard continuity of service by power distribution systems. A power system is said to be fully selective if only the protective device located upstream of the fault location when viewed in the direction of energy flow, i.e. from the infeed to the load, trips in the event of a fault.

Full selectivity always refers to the short-circuit current occurring at the installation point.

Partial selectivity

A system is said to be partially selective when selective tripping in response to a system fault is not ensured up to the maximum ultimate short-circuit breaking capacity I_{cu} of the switching devices. Selectivity is then ensured only up to a certain I_s current value (ultimate selectivity value). If the calculated prospective short-circuit current at the installation point of the downstream protective device is lower than the ultimate selectivity value specified for the switchgear assembly, then it is still possible to describe the system as fully selective.

If the values determined by the short-circuit current calculation (e.g. according to IEC/EN 60909, DIN VDE 0102) at the installation point of the downstream circuit breaker lie below the selectivity limit current listed in the respective table for the selected combination, selectivity is assured for all possible short-circuits at the installation point.

If the calculated short-circuit current at the installation point is higher than the selectivity limit current, selective tripping by the downstream circuit breaker is only assured up to the value listed in the table. A judgment must be made as to whether the value can be considered to be sufficient because the probability of the maximum short-circuit occurring is low, for example. Otherwise, a circuit breaker combination should be chosen whose selectivity limit lies above the maximum short-circuit current.

Selectivity with 3VA2 molded case circuit breakers

Series 3VA2 circuit breakers are designed to deliver excellent selective tripping combined with optimum current limiting and outstanding breaking capacity.

3VA2 molded case circuit breakers have been specifically designed to meet the following requirements:

- System-wide, high selectivity with a rated operational current interval of 1 : 2.5 up to the miniature circuit breaker
- Selectivity in combination with high current limiting and high breaking capacity
- Cost-effective design / configuring of selective power distribution systems

These molded case circuit breaker requirements are achieved in engineering terms as follows:

- Double-rotary contact system for highly dynamic opening response
- Coordinated electronic trip units
- Dynamic selectivity

Depending on use of molded case circuit breakers with a rated operational current differential in a ratio of at least 1 : 2.5, and selection of suitable breaking capacity classes, you can achieve selective tripping of the area of the installation directly affected by the fault up to the maximum ultimate short-circuit breaking capacity.

You can find information on selectivity values for the 3VA2 molded case circuit breakers on the Internet under the link for the 3VA documentation (www.siemens.com/3VA-documentation).

Electronic trip units and fast trip units

As a protective device, the molded case circuit breaker is required to clear electrical faults in the system. For this purpose, series 3VA2 circuit breakers are equipped with intelligent electronic trip units which can be combined with metering functions. The tripping characteristic of the electronic trip units can be finely and flexibly adjusted. In the event of short circuits, a fast trip unit also responds according to the arc power from the arc chute. This selective trip unit ensures that major short circuits are cleared more quickly, while at the same time ensuring that medium short circuits are interrupted selectively.

Standards and guidelines

The standards fulfilled by the 3VA molded case circuit breakers include:

- IEC / EN 60947-1
- IEC / EN 60947-2
- IEC / EN 60947-2, Appendix B, H and M
- IEC / EN 60947-3
- IEC / EN 60947-6-1

Electromagnetic compatibility

The 3VA molded case circuit breakers meet the requirements of the following standards:

- CISPR11, Class A and Class B
- IEC / EN 60947-1, Appendix S
- IEC / EN 60947-2, Appendix B, F, J and N

The 3VA molded case circuit breakers are adequately resistant to the following factors:

- Electrostatic charge
- Electrostatic discharge
- Electromagnetic waves, e.g. from transmission systems, mobile phones, radio telephone sets and radar systems
- Overvoltage, e.g. caused by lightning
- Voltage surges

Certificates

You can find information on the available certification (CE, CCC, EHC) on the Internet (www.siemens.com/lowvoltage/certificates).

In the Entry List you can use the certificate type (general product approval, explosion protection, test certificates, shipbuilding, etc.) as a filter criterion.

Ambient conditions

- Pollution degree:
  Operation of the 3VA1 and 3VA2 molded case circuit breakers is approved in accordance with IEC / EN 60947-1 and IEC / EN 60664-1 for pollution degree 3.
- Ambient temperature:
  - 3VA molded case circuit breakers are used at ambient temperatures from -25 °C to +70 °C. At temperatures above +50 °C there are reductions in the rated operational current (derating).
  - The permissible storage temperature in original Siemens packaging lies between -25 °C and +80 °C.
- Special climatic requirements:
  The 3VA molded case circuit breakers can also be used in severe operating conditions.

  Severe conditions for storage, transport and stationary use:
  The molded case circuit breakers have passed the relevant special tests according to IEC / EN 60947-1, Appendix Q for use in Class E.
  This class covers the areas MC3 + CC2 + SC1:
  - Ambient temperature
  - Humidity
  - Vibration environment
  - Shock environment

  These ambient conditions can be referred to as "Open deck, damp and cold atmosphere without salt spray" or "Difficult, non-marine conditions".

  The following standards-related criteria are complied with:
  - IEC / EN 60068-2-2 "Bd" and IEC / EN 60068-2-1 "Ab":
    Temperature range: -25 °C … +70 °C
  - IEC / EN 60068-2-30 "Db":
    Humid heat up to 55 °C and air humidity up to 95 %
  - IEC / EN 60068-2-6 "Fc"
    Vibration test
  - IEC / EN 60068-2-27 "Ea"
    Shock resistance test

  Between the tests of compliance with the standards and at the end of the tests, the usability of the devices is assured with the "Verification of operation characteristics".
- Vibration resistance and shock resistance:
  - 3VA molded case circuit breakers are insensitive to vibrations and meet the requirements relating to mechanical and electromechanical vibration strength according to IEC / EN 60068 and the specifications of the shipbuilding societies.
  - The circuit breakers resist impacts without tripping of up to 10 g and are tested to withstand their operating conditions without damage, with shock impact according to IEC / EN 60068-2-27 "Ea" with 150 m/s²/11 ms.
- Installation altitudes:
  - When 3VA1 and 3VA2 molded case circuit breakers are used at up to 2000 m above sea level, the rated data will not change.
  - An installation altitude above 2000 m can lead to higher temperatures at the switching devices. The decreased air density can significantly reduce heat dissipation, in turn reducing rated operational voltage, rated uninterrupted current and short-circuit values.

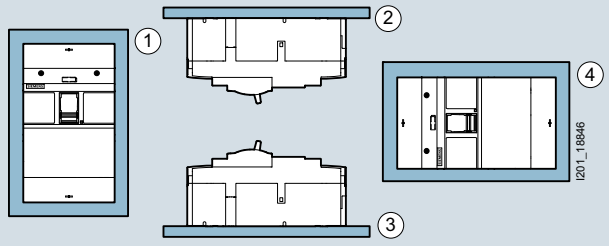
Refer to the table below for the calculation factor for determining the key values:

	Height			
	2000 m	3000 m	4000 m	5000 m
Breaking capacity I_{cu} / I_{cs}	1.00	0.90	0.80	0.70
Operating voltage U_{max}	1.00	0.90	0.80	0.70
Operating current I_{max} [1)]	1.00	0.96	0.92	0.88
Current setting I_r [2)]	1.00	1.02	1.04	1.06

2) At maximum ambient temperature 50 °C

3) Thermal-magnetic trip units only

Permissible mounting positions



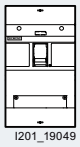
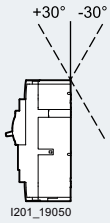
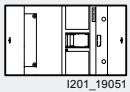
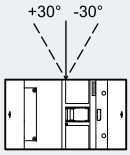
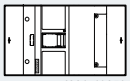
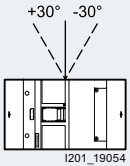
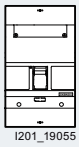
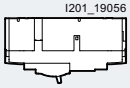
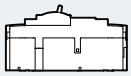
1 Vertical wall mounting
2 Ceiling mounting
3 Floor mounting
4 Laterally rotated wall mounting

Positions in which the 3VA molded case circuit breakers are allowed to be installed

General data

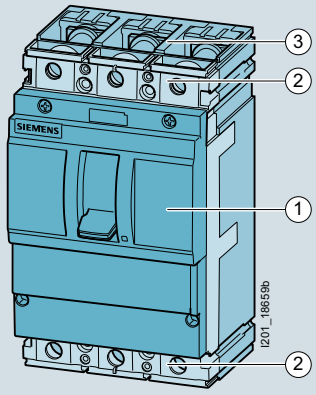
Further mounting positions, and mounting positions with accessories

The following table shows the possible variations on the mounting positions, as well as mounting positions with accessories:

	Wall mounting				Ceiling mounting	Floor mounting
	vertical upright	horizontal right	horizontal left	vertical rotated	suspended	recumbent
	 I201_19049  I201_19050	 I201_19051  I201_19052	 I201_19053  I201_19054	 I201_19055	 I201_19056	 I201_19057
3VA1 molded case circuit breakers						
Basic circuit breaker (with internal accessories)	✓	✓	✓	✓	✓	✓
On DIN rail (with internal accessories)	✓	✓	✓	✓	--	✓
3VA2 molded case circuit breakers						
Basic circuit breaker (with internal accessories)	✓	✓	✓	✓	✓	✓
3VA1 molded case circuit breakers (3 and 4-pole) and 3VA2 with accessories						
Connecting and interlocking	✓	✓	✓	✓	✓	✓
Plug-in and draw-out technology	✓	✓	✓	✓	--	--
MO320 motor operator	✓	✓	✓	✓	up to 250 A	✓
MO320 motor operator and plug-in/draw-out technology	✓	✓	✓	✓	--	✓
Front mounted rotary operator	✓	✓	✓	✓	✓	✓
Door mounted rotary operator	✓	✓	✓	✓	✓	✓
Side wall mounted rotary operator	✓	✓	✓	✓	✓	✓
Loadside RCD basic type A (RCD310, RCD510)	✓	✓	✓	✓	✓	✓
Loadside RCD basic type A (RCD320, RCD520)	✓	✓	✓	✓	✓	✓
Loadside RCD advanced type A (RCD820)	✓	✓	✓	✓	✓	✓
Modular RCD type A (MRCD)	✓	✓	✓	✓	✓	✓
3-pole on 60 mm busbar system (with internal accessories)	✓	--	--	--	--	--

Degrees of protection

3VA molded case circuit breakers comply with the following degrees of protection as defined by IEC 60529 and IEC 60947-1, Appendix C:



1 Front panel without termination area
2 Front panel termination area
3 Infeed/load ends

Level	Accessories cover		Terminal cover	
	Without	With	Without	With
1	--	IP4x	--	--
2	--	--	IP2x	IP4x
3	--	--	--	IP3x

Degree of protection IP40 is achieved when a 3VA molded case circuit breaker is installed in a switchboard with a door cutout of Level 3 with ETU. The units can be upgraded to comply with higher degrees of protection up to IP65 by installation of the following components:

- Door mounted rotary operator
- Side wall mounted rotary operator

Environmental protection

The 3VA1 and 3VA2 molded case circuit breakers meet the specifications of the European Environment Guideline 2002/95/EC RoHS (Restriction of the use of certain hazardous substances in electrical and electronic equipment). As little impact on the environment as possible was emphasized in their development and production.

General data

Protection system

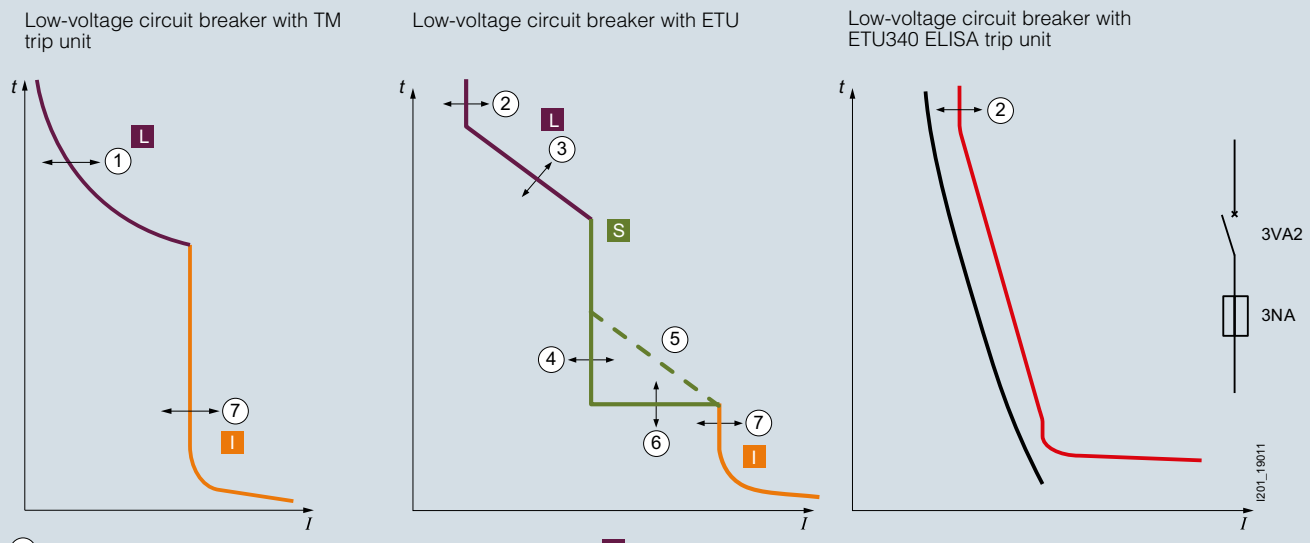
Description of functions

	Thermal-magnetic TM 2-series	Electronic ETU 3-series	Electronic with display ETU 5-series	Electronic with display and metering function – ETU 8-series
Protection				
Trip units	 I201_19004	 I201_18828	 I201_18480	 I201_18482
	Line protection: TM210, TM220, TM240 Starter protection: TM120M	Line protection: ETU320, ETU330, ETU340, ETU350 Starter protection: ETU310M Motor protection: ETU350M	Line protection: ETU550, ETU560	Line protection: ETU850, ETU860 Motor protection: ETU860M
Integrated functions				
Parameterizing				
	Setting and reading the parameters in A	Setting and reading the parameters in A and s	• Setting and reading the parameters via display / communication • Fine setting of the parameters • Reading the measured values	• Setting and reading the parameters via display / communication • Fine setting of the parameters • Reading the measured values
Status display	--			
		Indicating the ETU status via LEDs	Indicating the ETU status via LEDs	Indicating the ETU status via LEDs
Interface	--			
		Interface for test devices	Interface for test devices	Interface for test devices
Metering	--	--	--	Metering function integrated
Optional expansions				
	--	--		
			24 V module for continuous power supply (also without primary current through the molded case circuit breaker)	24 V module for continuous power supply (also without primary current through the molded case circuit breaker)
	--			
		EFB300 external function box for connecting to the ETU	EFB300 external function box for connecting to the ETU	EFB300 external function box for connecting to the ETU
	--	--		
			COM060 communication module	COM060 communication module
	--	--		
			COM800/COM100 breaker data server Interface to • PROFIBUS • PROFINET • Modbus RTU • Ethernet (Modbus TCP)	COM800/COM100 breaker data server Interface to • PROFIBUS • PROFINET • Modbus RTU • Ethernet (Modbus TCP)
	--	--		
			DSP800 external display for installing in the cubicle door	DSP800 external display for installing in the cubicle door
	--			
		TD300/TD500 test device	TD300/TD500 test device	TD300/TD500 test device

Characteristic curves

To design a low-voltage switchboard installation in accordance with the valid rules, the system planner needs to dimension the protection settings of the molded case circuit breakers.

The settings selected for the trip unit of a molded case circuit breaker depend on the type of equipment to be protected, e.g. switchboard and applications. Tripping characteristics up to a tripping time of ≥ 1 ms are represented graphically. In order to simplify the coordination of different protection devices, the current is specified as a multiple of the current setting value and the time is specified in seconds.



1 Response threshold of the long-time delayed protection, thermal
2 Response threshold of the long-time delayed protection
3 Delay of the long-time delayed protection
4 Response threshold of the short-time delayed protection
5 I^2t-Characteristic ON/OFF of the short-time delayed protection
6 Delay of the short-time delayed protection
7 Response threshold of the instantaneous protection

L Overload range
S Short-time delayed short-circuit protection
I Instantaneous short-circuit protection
Current/time characteristic of an LV HRC fuse
Current/time characteristic of an 3VA2 with ETU340 ELISA

Tripping characteristics

Special characteristic curve with the ETU340 ELISA

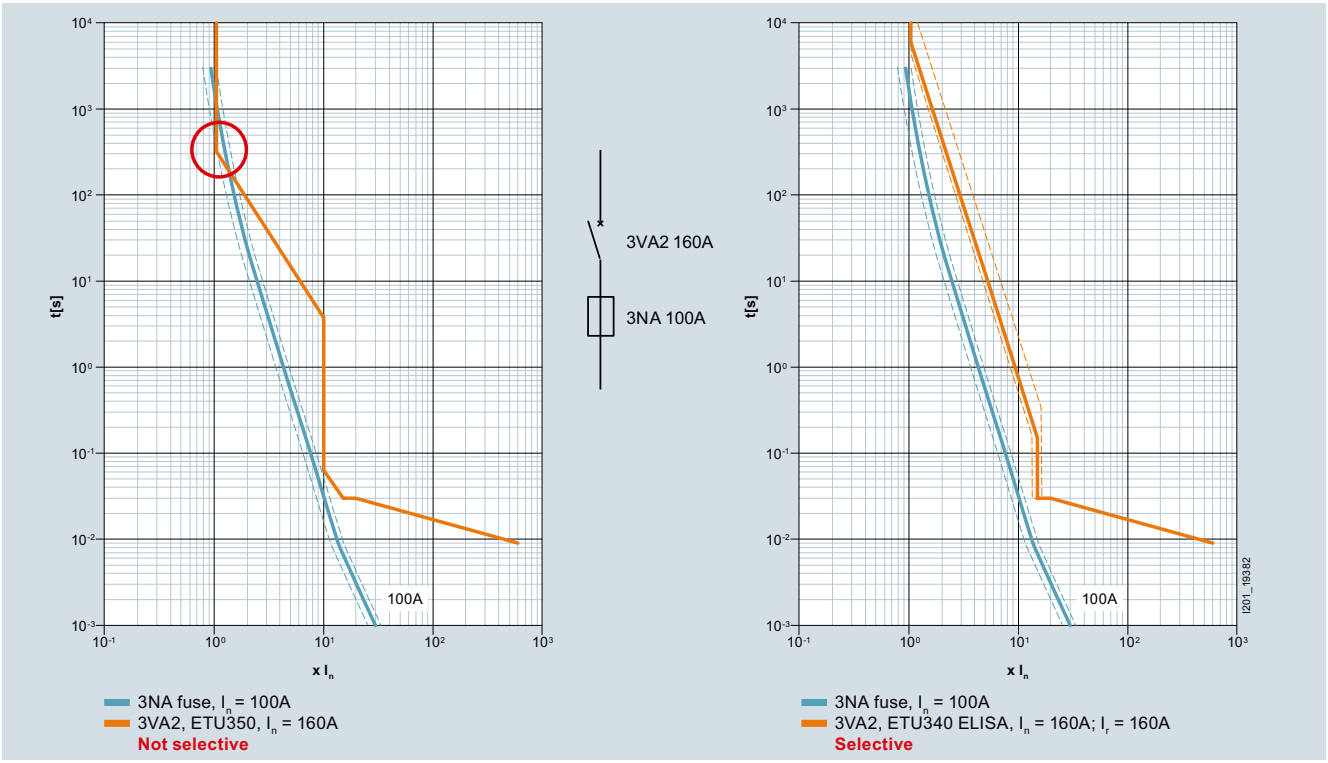
ELISA is a special form of the current-time characteristic that is used in the ETU340 ELISA of the 3VA2. Thanks to its special form, it is possible to optimize the selective grading of downstream LV HRC fuses and upstream MCCBs.

Advantages of the ELISA characteristic compared to a conventional LI/LSI characteristic

- Reduction in the rated current interval between a downstream LV HRC fuse and an upstream 3VA2 (cost savings):
  I_n 3VA2 with ELISA characteristic = 1.6 * I_n LV HRC fuse (instead of factor 2 with conventional characteristics)
  This also resulted in lower rated currents of the switching devices further upstream where applicable
- Simple selection of the 3VA:
  I_n 3VA2 with ELISA characteristic = 1.6 * I_n LV HRC fuse
- Simple setting of the parameters:
  Instead of the large number of setting parameters in the case of an ETU with LSI characteristic, setting an ETU340 ELISA could not be simpler. There is only the parameter I_r, and all others are coordinated with this.
- Faster tripping with ELISA:
  Reduced line load; a 3VA2 with ETU340 ELISA trips earlier than an LI/LSI trip unit.

Example

LV HRC fuse (I_n 100 A) is to be protected by an upstream 3VA2.



Guide to setting the tripping characteristic

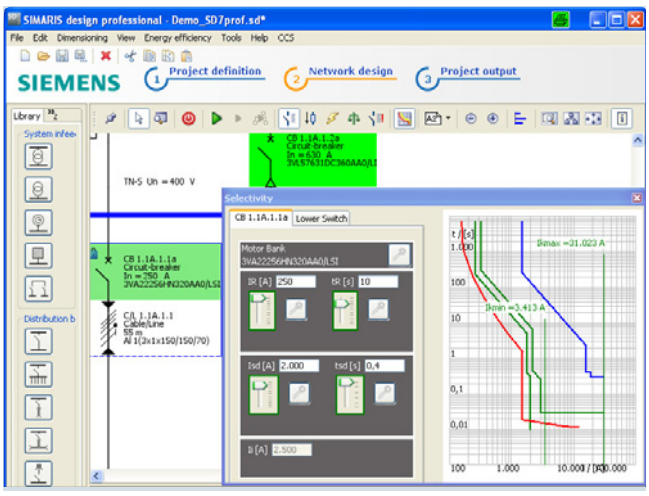
The settings selected for the trip unit of a molded case circuit breaker depend on the technical environment (e.g. switchboard and applications) and the type of equipment to be protected. The task of calculating and dimensioning the protection settings in accordance with the valid rules is the responsibility of the system planner.

SIMARIS design:

The Siemens SIMARIS software tool is a fast, simple and reliable tool for calculating and dimensioning networks in accordance with the valid rules.

For further information about SIMARIS design, please visit:

www.siemens.com/simarisdesign



Basic rules for setting the different trip parameters:

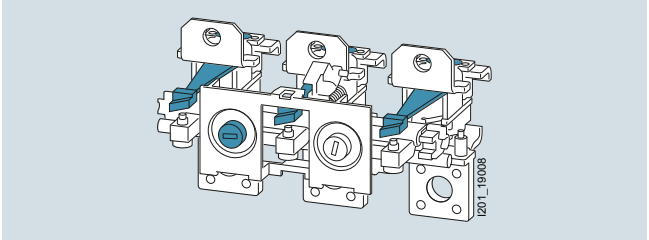
	Parameter	Buttons	Effect on characteristic curve	Brief description	Cause	Example
L	I_r	I_r/A		Operating current of the overload protection: ETU I_r = 0.4 … 1 x I_n TMTU I_r = 0.7 … 1 x I_n Absolute values in A	Optimization of the overload range by setting to the operational current of the circuit to be protected	Overload range from 300 A
	t_r	t_r/s		Delay time (or time-lag class) in the overload range. The set time is the tripping time at 6 x I_r	Improved selectivity in the overload range in switchboard with several grade levels	The tripping time of t_r = 10 s applies to 6 x I_r, in this case 6 x 300 A = 1800 A
S	I_{sd}	I_{sd}=xI_r/A		Operating current of the short-time delayed short-circuit protection	Limitation of the short-circuit range in which the current has to be switched off more quickly but possibly with a slight time delay	At I_r = 300 A and I_{sd} = 5: Tripping at 1500 A following delay t_{sd}
	t_{sd}	t_{sd}/s		Delay time of the short-time delayed short-circuit protection	Improved selectivity in the overload range in switchboard with several grade levels	t_{sd} = 0.15 s: Tripping after 0.15 seconds for current values between I_i and I_{sd}
I	I_i	I_i/A		Operating current of the instantaneous short-circuit protection	Limitation of the short-circuit range in which the impermissibly high current has to be switched off as quickly as possible	At I_i = 2000 A instantaneous tripping for currents of > 2000 A
N	I_N	I_N=xI_r		Operating current of the neutral conductor protection function	Protection of the neutral conductor for overcurrent and short-circuit	At I_N = ON, I_N = 0.5 x I_r and I_r = 300 A, overload from 150 A in the neutral conductor, instantaneous tripping at 2000 A
G	I_g+ t_g	t_g=0,1 s t_g=0,3 s		Operating current of the ground-fault protection function and delay time to tripping	Line protection	At ground-fault currents from I_r = 50 A: tripping after time t_g = 0.1

Thermal-magnetic trip unit

A thermal-magnetic trip unit consists of a thermal trip unit for protecting against overload, and a magnetic trip unit for protecting against short circuits. Both trip unit components are series-connected.

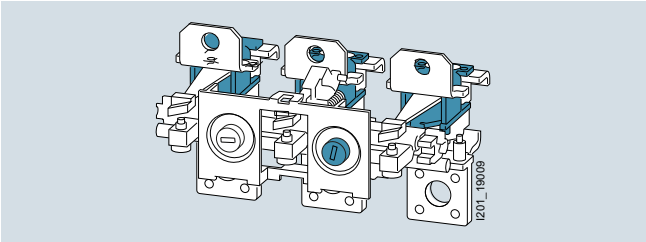
Thermal trip unit (L)

The thermal trip unit consists of a temperature-dependent bimetal that heats up as a result of the flow of current. This means the trip is current-dependent. The temperature rise in the bimetal strip depends not only on the current magnitude, but also on the ambient temperature of the molded case circuit breaker. All current values specified for thermal-magnetic trip units of 3VA circuit breakers refer to an ambient temperature of +50 °C.



Magnetic trip unit with short-circuit protection (I)

The magnetic trip unit with short-circuit protection comprises a yoke mounting through which a current path runs, and a flap armature that is kept at a distance from the yoke mounting by a tension spring.



If a short-circuit current flows along the current path, the magnetic field thus generated causes the flap armature to be moved towards the yoke mounting against the opposite force of the tension spring. The tripping time is almost current-independent and instantaneous. The flap armature releases the breaker mechanism and thus opens the switching contacts. Immediately after trip, the flap armature is moved back to its starting position by the restoring force of the tension spring.

General data

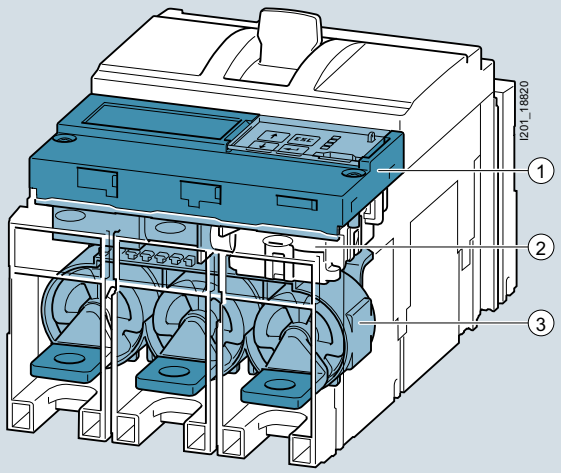
Application cases and trip unit types

The table below illustrates the applications for which different types of thermal-magnetic trip units can be used:

	TM120M AM	TM210 FTFM	TM220 ATFM	TM240 ATAM
Protection				
Starter protection	✓	--	--	--
Line protection	--	✓	✓	✓
Version available with				
1-pole and 2-pole breakers	--	✓	--	--
3-pole breaker	✓	✓	✓	✓
4-pole breaker	--	✓	✓	✓
Available protection parameters				
I_r adjustable	--	--	✓	✓
I_i adjustable	✓	--	--	✓
I_r fixed	--	✓	--	--
I_i fixed	--	✓	✓	--
I_N [1]	--	✓	✓	✓

[1] 3VA10 only without N protection
3VA11 without, 50 % or 100 % N protection
50 % N protection ≥ I_n 100 A and only in size 160 A

Electronic Trip Unit



1 Electronic Trip Unit (ETU)
2 Maglatch
3 Current sensor

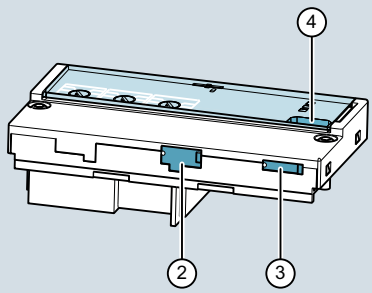
Connections on the ETU

An Electronic Trip Unit is based on the following concepts:

- Complete measurement of the current in the phases L1, L2 and L3, with N and currents to ground optional
- Rogowski coil
  - Very precise measurement of the current
  - Better ground-fault protection because the vectorial sum is more exact
- Evaluation of the current measurement values and constant comparison with the tripping limits
- Tripping by means of a maglatch

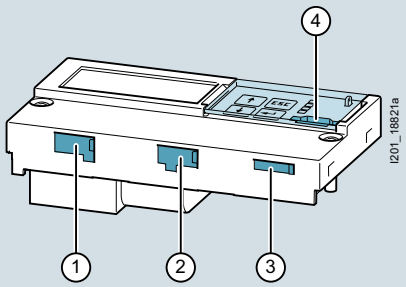
Connections

ETU 3-series:



1 Interface for external neutral current transformer for N conductor
2 Interface for connection of an EFB300 external function box

ETU 5-series and 8-series:



3 Interface for connection of an RCD820 residual current device
4 Connection for TD300 and TD500 test devices

Protection functions

	ETU310M I	ETU320 LI	ETU330 LIG	ETU340 ELISA®	ETU350 LSI	ETU350M LSI	ETU550 LSI	ETU560 LSIG	ETU850 LSI	ETU860 LSIG	ETU860M LSIG
Protection											
Starter protection	✓	--	--	--	--	--	--	--	--	--	--
Motor protection	--	--	--	--	--	✓	--	--	--	--	✓
Line protection	--	✓	✓	✓	✓	--	✓	✓	✓	✓	--
Generator protection	--	✓	✓	--	✓	--	✓	✓	✓	✓	--
Version available with											
3-pole without external neutral conductor transformer	✓	✓	✓	✓	✓	✓	--	--	--	--	✓
3-pole with external neutral conductor transformer	--	--	--	--	--	--	✓	✓	✓	✓	--
4-pole with protected neutral conductor	--	✓	✓	✓	✓	--	✓	✓	✓	✓	--
Available protection parameters											
Characteristic in L range	I^2t	I^2t	I^2t	I^4t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t	I^2t
I_r	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
t_r at 6 x I_r	--	✓	✓	--	✓	--	✓	✓	✓	✓	--
t_c	--	--	--	--	--	✓	--	--	--	--	✓
t_p	--	--	--	--	--	--	--	--	--	--	✓
Thermal image	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Thermal image can be switched on/off	--	--	--	--	--	--	✓	✓	✓	✓	--
I_{sd}	--	--	--	--	✓	✓	✓	✓	✓	✓	✓
t_{sd} at 8 x I_r	--	--	--	--	✓	✓	✓	✓	✓	✓	✓
Characteristic in S range: I^2t_{sd}	--	--	--	--	✓	--	✓	✓	✓	✓	--
Characteristic in S range: selectable I^2t_{sd} / t_{sd}	--	--	--	--	--	--	✓	✓	✓	✓	--
I_i	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
I_N [1]	--	✓	✓	✓	✓	--	✓	✓	✓	✓	--
I_g	--	--	✓	--	--	--	--	✓	--	✓	✓
t_g at 2 x I_g	--	--	✓	--	--	--	--	✓	--	✓	✓
Characteristic in G range: I^2t_g	--	--	✓	--	--	--	--	✓	--	✓	✓
Characteristic in G range: selectable I^2t_g / t_g	--	--	✓	--	--	--	--	✓	--	✓	✓
Ground-fault alarm function	--	--	--	--	--	--	--	✓	--	✓	✓
Blocking protection	--	--	--	--	--	--	--	--	--	--	✓
ZSI	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Features and options											
Setting by rotary switch	✓	✓	✓	✓	✓	✓	--	--	--	--	--
Setting by ETU display	--	--	--	--	--	--	✓	✓	✓	✓	✓
Data shown on ETU display	--	--	--	--	--	--	✓	✓	✓	✓	✓
Metering function	--	--	--	--	--	--	--	--	✓	✓	✓
Communication option	--	--	--	--	--	--	✓	✓	✓	✓	✓
Front interface	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

[1] Available in a version with external current transformer for N conductor or 4-pole breaker

✓ Available -- Not available

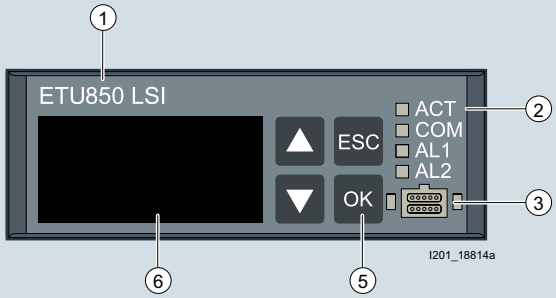
Operator controls

The following figure shows the available ETU types of the 3VA2 molded case circuit breakers.

You can decide which ETU to install according to the area of application.

ETU 3-series:

ETU 5-series and 8-series:



1 Name of the ETU
2 LED
3 Front interface
4 Rotary switch
5 Pushbuttons
6 Display

- LED displays
  The following table explains what the LED displays mean:

LED		Meaning	Description
□	ACT	Off	Current flow in the main current path is less than 20 % I_n.
	ACT	Flashing	ETU 8-series: Missing 24 V DC external power supply for metering function.
	ACT	On	ETU ready, current flow greater than 20 % I_n.
□	COM	Off	No communication with a COM800/COM100 via COM060.
	COM	Flashing	Flashing after switching on indicates that an internal COM060 communication module has been detected. After connection to this module is established, the LED will either go out (no external communication) or come on (see meaning).
	COM	On	Active communication to the COM800/COM100 breaker data server.
	ACT	On	Current flow between 90 % and 105 % I_r.
	AL1	On	
□	AL2	Off	
	ACT	On	Current flow greater than 105 % I_r.
	AL1	On	
	AL2	On	
	ACT	On	Overheating alarm
	AL1	Flashing	
	AL2	Flashing	
	ACT	Flashing	Internal fault on ETU
	COM	Flashing	
	AL1	Flashing	
	AL2	Flashing	

- Electronic Trip Units of ETU 3-series:
  The trip units of the ETU 3-series have rotary switches.
- Display of the Electronic Trip Units of ETU 5-series and 8-series:
  The trip units of the ETU 5-series and 8-series have an LCD display. The displayed values are refreshed once per second.

The following table explains what the symbols in the display mean:

Symbol	Meaning
	If this symbol is activated, the indicated value is a measured value.
	This symbol is shown when the first alarm threshold for this measured value was exceeded.
	This symbol is shown when the second alarm threshold for this measured value was exceeded.
	Display in parameter edit mode. The value can be adjusted with the arrow buttons.
	If TRIP is shown, the display indicates the information from the previous tripping.
	Naming of the displayed value.

The following table explains what functions are performed by the buttons next to the display:

Symbol	Meaning
	Goes back to the previous screen page. Increases a parameter in parameter edit mode.
	Goes forward to the next screen page. Decreases a parameter in parameter edit mode.
	Goes to parameter edit mode when a parameter is displayed. Confirms a parameter in parameter edit mode.
	Goes to the standard display. Discards a parameter in parameter edit mode.

General data

- Displays on ETU 5-series and 8-series
  The basic structure comprises the following displays:
  - Standard display
  - Alarm display
  - Measured value display
  - Parameter display

  If no selection is made within an adjustable time period, the standard display will appear.

Standard display

Shows the highest current in one of the three phases.
After timeout or ESC

Alarm display

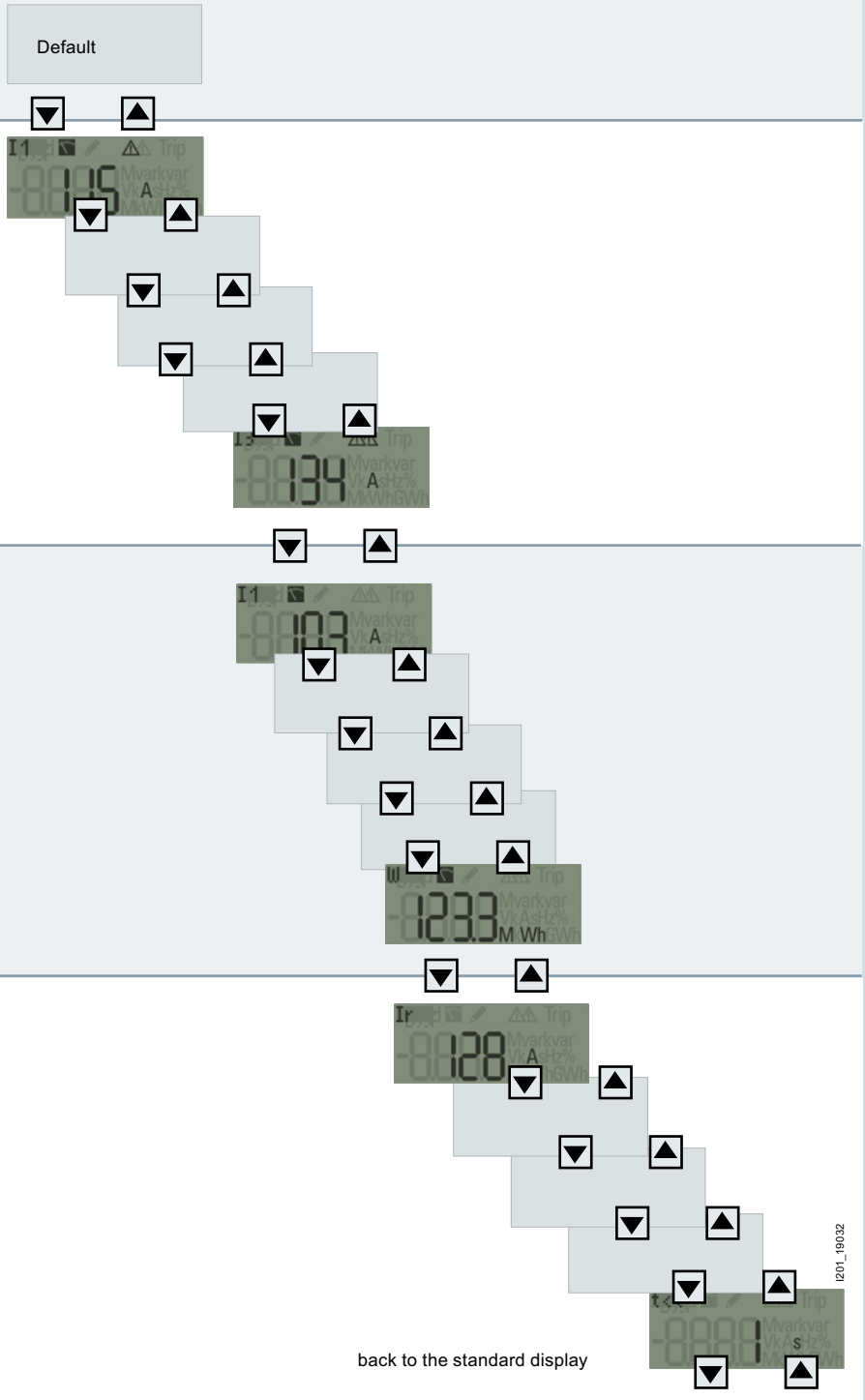
Up to five alarm displays are available.
They are only displayed if an alarm is active, otherwise, they are skipped.

Measured value display

Depending on the ETU type, the measured values available are displayed.

Parameter display

Displays the available parameters in succession.
Click (OK) in display mode, to change to edit mode



Standard display

Alarm display

Active alarms are displayed consecutively in screens AV1 … AV5. If no alarms are active, these screens are concealed.

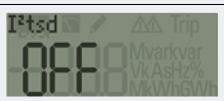
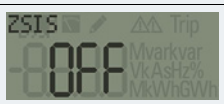
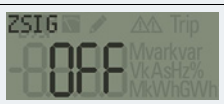
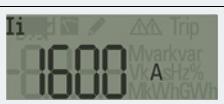
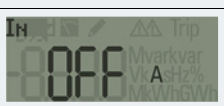
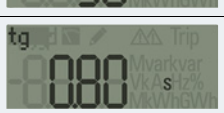
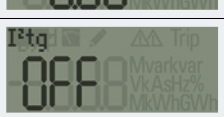
Measured value display

The table below explains the measured value display:

Number	Screen	Measured value	Description	ETU550	ETU560	ETU850	ETU860
MV 1		I_1	Instantaneous current I_1	✓	✓	✓	✓
MV 2		I_2	Instantaneous current I_2	✓	✓	✓	✓
MV 3		I_3	Instantaneous current I_3	✓	✓	✓	✓
MV 4		I_N	Instantaneous current in neutral conductor	✓	✓	✓	✓
MV 5		I_g	Instantaneous residual current to ground	--	✓	--	✓
MV 6		U_{12}	Instantaneous voltage U_1 - U_2	--	--	✓	✓
MV 7		U_{23}	Instantaneous voltage U_2 - U_3	--	--	✓	✓
MV 8		U_{31}	Instantaneous voltage U_3 - U_1	--	--	✓	✓
MV 9		f	Instantaneous frequency	--	--	✓	✓
MV 10		P	Instantaneous active power (total)	--	--	✓	✓
MV 11		Q	Instantaneous reactive power (total)	--	--	✓	✓
MV 12		PF	Instantaneous power factor	--	--	✓	✓
MV 13		W	Active energy import	--	--	✓	✓

Parameter display

The table below explains the parameter display:

Number	Screen	Parameter	Description	ETU550	ETU560	ETU850	ETU860
PV 1		I_r	Overload protection Current	✓	✓	✓	✓
PV 2		t_r	Overload protection Delay time	✓	✓	✓	✓
PV 4		ThM	Thermal image	✓	✓	✓	✓
PV 5		I_{sd}	Short-time delayed short-circuit protection	✓	✓	✓	✓
PV 6		t_{sd}	Short-time delayed short-circuit current delay time	✓	✓	✓	✓
PV 7		I^2t_{sd}	Characteristic curve in S range	✓	✓	✓	✓
PV 8a		ZSI S	Zone selective interlocking	✓	✓	✓	✓
PV 8b		ZSI G	Zone selective interlocking in the event of a ground fault	--	✓	--	✓
PV 9		I_i	Instantaneous short-circuit protection Current	✓	✓	✓	✓
PV 10		I_N	Overload protection in the neutral conductor	✓[1)]	✓[1)]	✓[1)]	✓[1)]
PV 11		I_g	Ground-fault protection Current	--	✓	--	✓
PV 12		t_g	Ground-fault protection Delay time	--	✓	--	✓
PV 13		I^2t_g	Characteristic curve for ground-fault protection	--	✓	--	✓
PV 14		I_{gA}	Ground fault alarm current	--	✓	--	✓

[1)] Applies to 4-pole molded case circuit breakers and 3-pole molded case circuit breakers with connected external neutral conductor current transformer

- Setting and changing parameters

1. Use the arrow keys to navigate to the correct display.
2. Press the <OK> button.

Edit mode is active. Activation is confirmed by display of "pencil" symbol.

3. Use the arrow keys to adjust the parameter setting.
4. Confirm the setting with the <OK> button, or cancel the operation with <ESC>.

The setting is accepted with <OK>. The parameter display now appears.

- "Tripped" display

After the ETU has initiated a trip, the "Tripped" display automatically appears:

This screen can be identified by the word "Trip" which is displayed in the top, right-hand corner. The displayed current value shows the current at the moment of tripping.

Press <ESC> to exit the display.

The additional information contained in the "Tripped" display is explained in the table below:

Number	Display in the title	Meaning	Unit
TV1	LT	Tripped by overload protection	A
TV2	ST	Tripped by short-time delayed short-circuit protection	A
TV3	Inst	Tripped by instantaneous short-circuit protection	A, kA
TV4	N	Tripped by overload in the neutral conductor	A
TV5	GF	Tripped by ground-fault protection	A
TV6	Temp	Tripped by overheating	%
TV12	RCD trip	Tripped by RCD820 residual current device	%

- Diagnostics display

When a TD500 test device is connected, you can use it to initiate a test. The following screen appears when a TD500 is connected and a test is in progress. The bar flashes at a frequency of 0.5 Hz.

The bar travels from left to right while testing is in progress. The test ends with a tripping operation.

- Activation limits

The table below shows the activation limits for the ETUs:

Current in one of the three phases	Meaning for the ETU
0 ... 20 % I_n	The ETU is not active.
20 ... 25 % I_n	The ETU is active, and the display and backlighting are off.

Load acceptance and load shedding – load management

3VA molded case circuit breakers equipped with an ETU 3-series or higher series provide two current thresholds for the purpose of implementing a local load management function. Load shedding is the upper threshold, and load acceptance the lower threshold.

(1) Incoming alarm "load shedding"
(2) Outgoing alarm "load shedding"
(3) Parameter load shedding 400 A
(4) Current in one phase
(5) Parameter load acceptance 100 A
(6) Incoming alarm "load acceptance"
(7) Outgoing alarm "load acceptance"

Note:

No tripping operation

Tripping is never initiated as a result of the current value crossing the upper or lower thresholds.

If the current in one phase exceeds the parameter setting for "load shedding", an incoming alarm "load shedding" is generated. Only when the current in all three phases drops below this threshold is an outgoing alarm "load shedding" generated.

The incoming and outgoing alarms can be output via an optional external expansion module and transferred via the communication function.

The opposite applies for the load acceptance threshold. If the current in all three phases drops below the parameter setting, an incoming alarm "load acceptance" is generated. If only one of the three currents exceeds the parameter setting, an outgoing alarm "load acceptance" is generated.

To prevent these alarms being generated by brief current peaks and troughs, they can be delayed by the time t_x from 1 s to 15 s.

General data

Measuring with a Rogowski coil

The Rogowski coil is a toroidal coil without a ferromagnetic core. It is used as a component in electronic measuring devices to measure alternating current.

Advantages of the current sensor:

- Each transformer can be optimized for its task and operating points
  - Transformers for power generation
  - Transformers for measurement
- Higher accuracy of current measurement and therefore higher accuracy for ground-fault currents

A power measurement is made possible by the more exact and more linear measurement of the current together with the integrated voltage tap in the molded case circuit breaker.

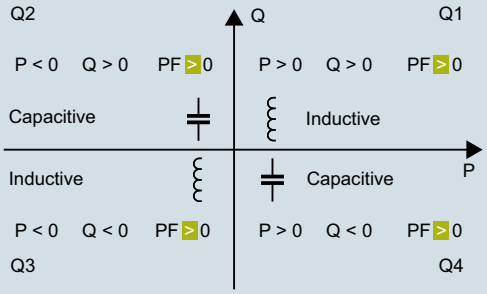
Accuracy levels of the specified measured values of the 8-series ETU, including the integrated current sensors:

Measured value	Accuracy
Current	1 % in the range from 0.2 ... 1.2 I_n
Voltage	1 % in the range from 80 ... 800 V
Active power, active energy	Class 2 acc. to IEC 61557-12

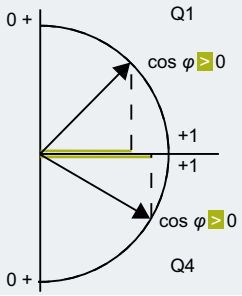
Interpretation of measured values:

IEC convention

Operation in all 4 quadrants (Q1, Q2, Q3, Q4)



cos φ values - limit value optimization (Q1, Q4)



PF Power factor

Measured current and voltage values are always positive.

The "normal" direction of energy flow of the 3VA molded case circuit breaker is top down (can also be adjusted using the powerconfig software), corresponding to operation in quadrants Q1 and Q4. If the molded case circuit breaker is supplied from below, it is operated in quadrants Q2 and Q3.

Application

3VA molded case circuit breakers can be deployed in various fields where they perform a variety of different protection tasks. The following table shows the areas in which the 3VA molded case circuit breakers are used – sorted according to breaking capacity:

	Buildings				Industry	
Molded case circuit breakers						
	3VA1	3VA1, 3VA2	3VA1, 3VA2	3VA1, 3VA2	3VA1, 3VA2	3VA1, 3VA2
Breaking capacity						
	Up to 25 kA	Up to 55 kA	Up to 85 kA	Up to 150 kA	Up to 110 kA	Up to 150 kA
Segments						
	Residential buildings	Commercial buildings	Infrastructure	Industrial buildings	Functional shell	Factory automation/ process automation
Examples						
						
	• Single high-rise building in the form of a residential building • Building complexes • Residential buildings	• Office blocks • Banks • Hotels • Bowling alleys • Cinemas • Shopping malls • Hospitals • Universities and schools	• Airports • Railway stations • Sports stadiums • Arenas • Port facilities • Trade fairs and exhibitions	• Industrial parks • Warehouses • Logistics centers	• Paper industry • Computer centers • Oil and gas industry • Food and beverages industry	• Presses • Electroplating • Rolling mills • Mills • Agitators and blending plants • Production lines

3VA molded case circuit breakers are used in a variety of functions, as shown in the table below:

	3VA1	3VA2
Line protection	✓	✓
Protection for starter combinations	✓	✓
Motor protection	--	✓
Switch disconnectors in keeping with the design of a molded case circuit breaker to IEC 60947-3	✓	--
Standard applications to 70 kA and thermal-magnetic trip units	✓	--
Generator protection	--	✓
High breaking capacity	--	✓
Selectivity	--	✓
Communication	--	✓

Molded case circuit breakers are primarily designed for the following functions:

- Subdistribution systems
- Industrial distribution systems
- Final distribution systems
- On-site isolation
- Use in machines

Notes

3VA1 Molded Case Circuit Breakers up to 250 A, TM, 400 V, up to 70 kA

NEW

Direct reference to the products in the Industry Mall from the selection and ordering data tables:

Article No.
www.siemens.com/product?Article No.
3KD2832-0NE10-0

Paper catalog:
To get more product information enter the Web address plus Article No.

PDF catalog:
Get more product information with just a mouse click.

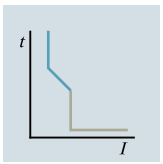
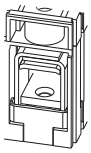
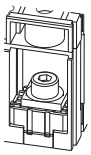
For further technical product information:

Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

Selection and ordering data

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	Operating current of the instantaneous short-circuit protection "I" I_i A	DT	I_{cu} up to 25 kA at 240 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
1-pole, fixed-mounted,3VA11, up to 160 A Thermal-magnetic trip unit							
 I201_19027							
							
Line protection, 1-pole, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i							
	**Connection with box terminal**						
	3VA11	16	16	320		3VA1196-3ED16-0AA0	
		20	20	320		3VA1120-3ED16-0AA0	
		25	25	320		3VA1125-3ED16-0AA0	
		32	32	320		3VA1132-3ED16-0AA0	
		40	40	400		3VA1140-3ED16-0AA0	
		50	50	500		3VA1150-3ED16-0AA0	
		63	63	630		3VA1163-3ED16-0AA0	
		80	80	800		3VA1180-3ED16-0AA0	
		100	100	1000		3VA1110-3ED16-0AA0	
		125	125	1250		3VA1112-3ED16-0AA0	
		160	160	1600		3VA1116-3ED16-0AA0	
	**Connection with lug terminal**						
	3VA11	16	16	320		3VA1196-3ED12-0AA0	
		20	20	320		3VA1120-3ED12-0AA0	
		25	25	320		3VA1125-3ED12-0AA0	
		32	32	320		3VA1132-3ED12-0AA0	
		40	40	400		3VA1140-3ED12-0AA0	
		50	50	500		3VA1150-3ED12-0AA0	
		63	63	630		3VA1163-3ED12-0AA0	
		80	80	800		3VA1180-3ED12-0AA0	
		100	100	1000		3VA1110-3ED12-0AA0	
		125	125	1250		3VA1112-3ED12-0AA0	
		160	160	1600		3VA1116-3ED12-0AA0	

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n	DT	I_{cu} **to 36 kA at 240 V, standard breaking capacity S** (S) See "Overview", p. 1/6 and 1/7	
A		Article No. www.siemens.com/product?Article No.	Basic price € per PU
		Connection with box terminal	
16		**3VA1196-4ED16-0AA0**	
20		**3VA1120-4ED16-0AA0**	
25		**3VA1125-4ED16-0AA0**	
32		**3VA1132-4ED16-0AA0**	
40		**3VA1140-4ED16-0AA0**	
50		**3VA1150-4ED16-0AA0**	
63		**3VA1163-4ED16-0AA0**	
80		**3VA1180-4ED16-0AA0**	
100[1)]		**3VA1110-4ED16-0AA0**	
125[1)]		**3VA1112-4ED16-0AA0**	
160[1)]		**3VA1116-4ED16-0AA0**	
		Connection with lug terminal	
16		**3VA1196-4ED12-0AA0**	
20		**3VA1120-4ED12-0AA0**	
25		**3VA1125-4ED12-0AA0**	
32		**3VA1132-4ED12-0AA0**	
40		**3VA1140-4ED12-0AA0**	
50		**3VA1150-4ED12-0AA0**	
63		**3VA1163-4ED12-0AA0**	
80		**3VA1180-4ED12-0AA0**	
100[1)]		**3VA1110-4ED12-0AA0**	
125[1)]		**3VA1112-4ED12-0AA0**	
160[1)]		**3VA1116-4ED12-0AA0**	

Line protection, 1-pole, TM210 FTFM

With fixed overload protection I_r and fixed short-circuit protection I_i

[1)] Start of delivery scheduled for 4th quarter 2015

*** You can order this quantity or a multiple thereof.**

Line protection

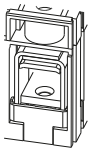
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7	
						Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

2-pole, fixed-mounted,3VA11, up to 160 A Thermal-magnetic trip unit

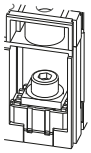
I201_19027

Line protection, 2-pole, TM210 FTFM
With fixed overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

3VA11	16	16	320	3VA1196-3ED26-0AA0
	20	20	320	3VA1120-3ED26-0AA0
	25	25	320	3VA1125-3ED26-0AA0
	32	32	320	3VA1132-3ED26-0AA0
	40	40	400	3VA1140-3ED26-0AA0
	50	50	500	3VA1150-3ED26-0AA0
	63	63	630	3VA1163-3ED26-0AA0
	80	80	800	3VA1180-3ED26-0AA0
	100	100	1000	3VA1110-3ED26-0AA0
	125	125	1250	3VA1112-3ED26-0AA0
	160	160	1600	3VA1116-3ED26-0AA0



Connection with lug terminal

3VA11	16	16	320	3VA1196-3ED22-0AA0
	20	20	320	3VA1120-3ED22-0AA0
	25	25	320	3VA1125-3ED22-0AA0
	32	32	320	3VA1132-3ED22-0AA0
	40	40	400	3VA1140-3ED22-0AA0
	50	50	500	3VA1150-3ED22-0AA0
	63	63	630	3VA1163-3ED22-0AA0
	80	80	800	3VA1180-3ED22-0AA0
	100	100	1000	3VA1110-3ED22-0AA0
	125	125	1250	3VA1112-3ED22-0AA0
	160	160	1600	3VA1116-3ED22-0AA0

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU
		Line protection, 2-pole, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i	
		Connection with box terminal	
16		3VA1196-4ED26-0AA0	
20		3VA1120-4ED26-0AA0	
25		3VA1125-4ED26-0AA0	
32		3VA1132-4ED26-0AA0	
40		3VA1140-4ED26-0AA0	
50		3VA1150-4ED26-0AA0	
63		3VA1163-4ED26-0AA0	
80		3VA1180-4ED26-0AA0	
100[1)]		3VA1110-4ED26-0AA0	
125[1)]		3VA1112-4ED26-0AA0	
160[1)]		3VA1116-4ED26-0AA0	
		Connection with lug terminal	
16		3VA1196-4ED22-0AA0	
20		3VA1120-4ED22-0AA0	
25		3VA1125-4ED22-0AA0	
32		3VA1132-4ED22-0AA0	
40		3VA1140-4ED22-0AA0	
50		3VA1150-4ED22-0AA0	
63		3VA1163-4ED22-0AA0	
80		3VA1180-4ED22-0AA0	
100[1)]		3VA1110-4ED22-0AA0	
125[1)]		3VA1112-4ED22-0AA0	
160[1)]		3VA1116-4ED22-0AA0	

[1)] Start of delivery scheduled for 4th quarter 2015

2

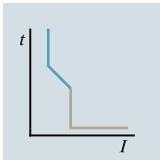
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

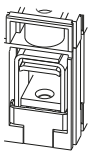
Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 16 kA at 415 V, very low breaking capacity B (B) See "Overview", p. 1/6 and 1/7	
		A	A	A		Article No. www.siemens.com/product?Article No.	Basic price € per PU

3-pole, fixed-mounted, 3VA10, up to 100 A
Thermal-magnetic trip unit

I201_19027

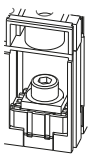


Line protection, TM210 FTFM
With fixed overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

3VA10	16	16	320	3VA1096-2ED36-0AA0
	20	20	320	3VA1020-2ED36-0AA0
	25	25	320	3VA1025-2ED36-0AA0
	32	32	320	3VA1032-2ED36-0AA0
	40	40	400	3VA1040-2ED36-0AA0
	50	50	500	3VA1050-2ED36-0AA0
	63	63	630	3VA1063-2ED36-0AA0
	80	80	800	3VA1080-2ED36-0AA0
	100	100	1000	3VA1010-2ED36-0AA0



Connection with lug terminal

3VA10	16	16	320	3VA1096-2ED32-0AA0
	20	20	320	3VA1020-2ED32-0AA0
	25	25	320	3VA1025-2ED32-0AA0
	32	32	320	3VA1032-2ED32-0AA0
	40	40	400	3VA1040-2ED32-0AA0
	50	50	500	3VA1050-2ED32-0AA0
	63	63	630	3VA1063-2ED32-0AA0
	80	80	800	3VA1080-2ED32-0AA0
	100	100	1000	3VA1010-2ED32-0AA0

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7		DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7	
		Article No. www.siemens.com/product?Article No.	Basic price € per PU		Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i						
		Connection with box terminal				
16		**3VA1096-3ED36-0AA0**			**3VA1096-4ED36-0AA0**	
20		**3VA1020-3ED36-0AA0**			**3VA1020-4ED36-0AA0**	
25		**3VA1025-3ED36-0AA0**			**3VA1025-4ED36-0AA0**	
32		**3VA1032-3ED36-0AA0**			**3VA1032-4ED36-0AA0**	
40		**3VA1040-3ED36-0AA0**			**3VA1040-4ED36-0AA0**	
50		**3VA1050-3ED36-0AA0**			**3VA1050-4ED36-0AA0**	
63		**3VA1063-3ED36-0AA0**			**3VA1063-4ED36-0AA0**	
80		**3VA1080-3ED36-0AA0**			**3VA1080-4ED36-0AA0**	
100		**3VA1010-3ED36-0AA0**			**3VA1010-4ED36-0AA0**	
		Connection with lug terminal				
16		**3VA1096-3ED32-0AA0**			**3VA1096-4ED32-0AA0**	
20		**3VA1020-3ED32-0AA0**			**3VA1020-4ED32-0AA0**	
25		**3VA1025-3ED32-0AA0**			**3VA1025-4ED32-0AA0**	
32		**3VA1032-3ED32-0AA0**			**3VA1032-4ED32-0AA0**	
40		**3VA1040-3ED32-0AA0**			**3VA1040-4ED32-0AA0**	
50		**3VA1050-3ED32-0AA0**			**3VA1050-4ED32-0AA0**	
63		**3VA1063-3ED32-0AA0**			**3VA1063-4ED32-0AA0**	
80		**3VA1080-3ED32-0AA0**			**3VA1080-4ED32-0AA0**	
100		**3VA1010-3ED32-0AA0**			**3VA1010-4ED32-0AA0**	

2

*** You can order this quantity or a multiple thereof.**

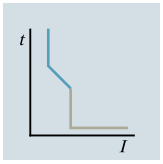
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7	
						Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

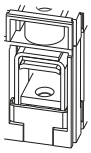
3-pole, fixed-mounted, 3VA11, up to 160 A Thermal-magnetic trip unit

I201_19027



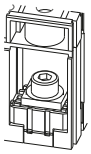
Line protection, TM210 FTFM

With fixed overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

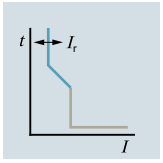
3VA11	16	16	320	3VA1196-3ED36-0AA0
	20	20	320	3VA1120-3ED36-0AA0
	25	25	320	3VA1125-3ED36-0AA0
	32	32	320	3VA1132-3ED36-0AA0
	40	40	400	3VA1140-3ED36-0AA0
	50	50	500	3VA1150-3ED36-0AA0
	63	63	630	3VA1163-3ED36-0AA0
	80	80	800	3VA1180-3ED36-0AA0
	100	100	1000	3VA1110-3ED36-0AA0
	125	125	1250	3VA1112-3ED36-0AA0
	160	160	1600	3VA1116-3ED36-0AA0



Connection with lug terminal

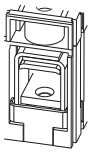
3VA11	16	16	320	3VA1196-3ED32-0AA0
	20	20	320	3VA1120-3ED32-0AA0
	25	25	320	3VA1125-3ED32-0AA0
	32	32	320	3VA1132-3ED32-0AA0
	40	40	400	3VA1140-3ED32-0AA0
	50	50	500	3VA1150-3ED32-0AA0
	63	63	630	3VA1163-3ED32-0AA0
	80	80	800	3VA1180-3ED32-0AA0
	100	100	1000	3VA1110-3ED32-0AA0
	125	125	1250	3VA1112-3ED32-0AA0
	160	160	1600	3VA1116-3ED32-0AA0

I201_19028



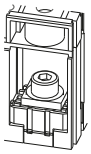
Line protection, TM220 ATFM

With adjustable overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

3VA11	16	11 ... 16	320	3VA1196-3EE36-0AA0
	20	14 ... 20	320	3VA1120-3EE36-0AA0
	25	18 ... 25	320	3VA1125-3EE36-0AA0
	32	22 ... 32	320	3VA1132-3EE36-0AA0
	40	28 ... 40	400	3VA1140-3EE36-0AA0
	50	35 ... 50	500	3VA1150-3EE36-0AA0
	63	44 ... 63	630	3VA1163-3EE36-0AA0
	80	56 ... 80	800	3VA1180-3EE36-0AA0
	100	70 ... 100	1000	3VA1110-3EE36-0AA0
	125	88 ... 125	1250	3VA1112-3EE36-0AA0
	160	112 ... 160	1600	3VA1116-3EE36-0AA0



Connection with lug terminal

3VA11	16	11 ... 16	320	3VA1196-3EE32-0AA0
	20	14 ... 20	320	3VA1120-3EE32-0AA0
	25	18 ... 25	320	3VA1125-3EE32-0AA0
	32	22 ... 32	320	3VA1132-3EE32-0AA0
	40	28 ... 40	400	3VA1140-3EE32-0AA0
	50	35 ... 50	500	3VA1150-3EE32-0AA0
	63	44 ... 63	630	3VA1163-3EE32-0AA0
	80	56 ... 80	800	3VA1180-3EE32-0AA0
	100	70 ... 100	1000	3VA1110-3EE32-0AA0
	125	88 ... 125	1250	3VA1112-3EE32-0AA0
	160	112 ... 160	1600	3VA1116-3EE32-0AA0

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM210 FTFM With fixed overload protection I_r and fixed short-circuit protection I_i									
		Connection with box terminal							
16		3VA1196-4ED36-0AA0			3VA1196-5ED36-0AA0			3VA1196-6ED36-0AA0	
20		3VA1120-4ED36-0AA0			3VA1120-5ED36-0AA0			3VA1120-6ED36-0AA0	
25		3VA1125-4ED36-0AA0			3VA1125-5ED36-0AA0			3VA1125-6ED36-0AA0	
32		3VA1132-4ED36-0AA0			3VA1132-5ED36-0AA0			3VA1132-6ED36-0AA0	
40		3VA1140-4ED36-0AA0			3VA1140-5ED36-0AA0			3VA1140-6ED36-0AA0	
50		3VA1150-4ED36-0AA0			3VA1150-5ED36-0AA0			3VA1150-6ED36-0AA0	
63		3VA1163-4ED36-0AA0			3VA1163-5ED36-0AA0			3VA1163-6ED36-0AA0	
80		3VA1180-4ED36-0AA0			3VA1180-5ED36-0AA0			3VA1180-6ED36-0AA0	
100		3VA1110-4ED36-0AA0			3VA1110-5ED36-0AA0			3VA1110-6ED36-0AA0	
125		3VA1112-4ED36-0AA0			3VA1112-5ED36-0AA0			3VA1112-6ED36-0AA0	
160		3VA1116-4ED36-0AA0			3VA1116-5ED36-0AA0			3VA1116-6ED36-0AA0	
		Connection with lug terminal							
16		3VA1196-4ED32-0AA0			3VA1196-5ED32-0AA0			3VA1196-6ED32-0AA0	
20		3VA1120-4ED32-0AA0			3VA1120-5ED32-0AA0			3VA1120-6ED32-0AA0	
25		3VA1125-4ED32-0AA0			3VA1125-5ED32-0AA0			3VA1125-6ED32-0AA0	
32		3VA1132-4ED32-0AA0			3VA1132-5ED32-0AA0			3VA1132-6ED32-0AA0	
40		3VA1140-4ED32-0AA0			3VA1140-5ED32-0AA0			3VA1140-6ED32-0AA0	
50		3VA1150-4ED32-0AA0			3VA1150-5ED32-0AA0			3VA1150-6ED32-0AA0	
63		3VA1163-4ED32-0AA0			3VA1163-5ED32-0AA0			3VA1163-6ED32-0AA0	
80		3VA1180-4ED32-0AA0			3VA1180-5ED32-0AA0			3VA1180-6ED32-0AA0	
100		3VA1110-4ED32-0AA0			3VA1110-5ED32-0AA0			3VA1110-6ED32-0AA0	
125		3VA1112-4ED32-0AA0			3VA1112-5ED32-0AA0			3VA1112-6ED32-0AA0	
160		3VA1116-4ED32-0AA0			3VA1116-5ED32-0AA0			3VA1116-6ED32-0AA0	
Line protection, TM220 ATFM With adjustable overload protection I_r and fixed short-circuit protection I_i									
		Connection with box terminal							
16		3VA1196-4EE36-0AA0			3VA1196-5EE36-0AA0			3VA1196-6EE36-0AA0	
20		3VA1120-4EE36-0AA0			3VA1120-5EE36-0AA0			3VA1120-6EE36-0AA0	
25		3VA1125-4EE36-0AA0			3VA1125-5EE36-0AA0			3VA1125-6EE36-0AA0	
32		3VA1132-4EE36-0AA0			3VA1132-5EE36-0AA0			3VA1132-6EE36-0AA0	
40		3VA1140-4EE36-0AA0			3VA1140-5EE36-0AA0			3VA1140-6EE36-0AA0	
50		3VA1150-4EE36-0AA0			3VA1150-5EE36-0AA0			3VA1150-6EE36-0AA0	
63		3VA1163-4EE36-0AA0			3VA1163-5EE36-0AA0			3VA1163-6EE36-0AA0	
80		3VA1180-4EE36-0AA0			3VA1180-5EE36-0AA0			3VA1180-6EE36-0AA0	
100		3VA1110-4EE36-0AA0			3VA1110-5EE36-0AA0			3VA1110-6EE36-0AA0	
125		3VA1112-4EE36-0AA0			3VA1112-5EE36-0AA0			3VA1112-6EE36-0AA0	
160		3VA1116-4EE36-0AA0			3VA1116-5EE36-0AA0			3VA1116-6EE36-0AA0	
		Connection with lug terminal							
16		3VA1196-4EE32-0AA0			3VA1196-5EE32-0AA0			3VA1196-6EE32-0AA0	
20		3VA1120-4EE32-0AA0			3VA1120-5EE32-0AA0			3VA1120-6EE32-0AA0	
25		3VA1125-4EE32-0AA0			3VA1125-5EE32-0AA0			3VA1125-6EE32-0AA0	
32		3VA1132-4EE32-0AA0			3VA1132-5EE32-0AA0			3VA1132-6EE32-0AA0	
40		3VA1140-4EE32-0AA0			3VA1140-5EE32-0AA0			3VA1140-6EE32-0AA0	
50		3VA1150-4EE32-0AA0			3VA1150-5EE32-0AA0			3VA1150-6EE32-0AA0	
63		3VA1163-4EE32-0AA0			3VA1163-5EE32-0AA0			3VA1163-6EE32-0AA0	
80		3VA1180-4EE32-0AA0			3VA1180-5EE32-0AA0			3VA1180-6EE32-0AA0	
100		3VA1110-4EE32-0AA0			3VA1110-5EE32-0AA0			3VA1110-6EE32-0AA0	
125		3VA1112-4EE32-0AA0			3VA1112-5EE32-0AA0			3VA1112-6EE32-0AA0	
160		3VA1116-4EE32-0AA0			3VA1116-5EE32-0AA0			3VA1116-6EE32-0AA0	

*** You can order this quantity or a multiple thereof.**

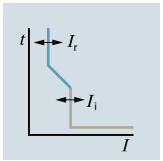
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7	
						Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

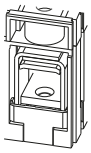
3-pole, fixed-mounted, 3VA11/3VA12, up to 250 A
Thermal-magnetic trip unit

I201_19035



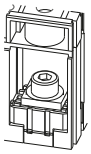
Line protection, TM240 ATAM

With adjustable overload protection I_r and adjustable short-circuit protection I_i



Connection with box terminal

3VA11	16	11 ... 16	160 ... 320	3VA1196-3EF36-0AA0
	20	14 ... 20	160 ... 320	3VA1120-3EF36-0AA0
	25	18 ... 25	160 ... 320	3VA1125-3EF36-0AA0
	32	16 ... 32	160 ... 320	3VA1132-3EF36-0AA0
	40	28 ... 40	200 ... 400	3VA1140-3EF36-0AA0
	50	35 ... 50	250 ... 500	3VA1150-3EF36-0AA0
	63	44 ... 63	315 ... 630	3VA1163-3EF36-0AA0
	80	56 ... 80	400 ... 800	3VA1180-3EF36-0AA0
	100	70 ... 100	500 ... 1000	3VA1110-3EF36-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3EF36-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3EF36-0AA0



Connection with lug terminal

3VA11	16	11 ... 16	160 ... 320	3VA1196-3EF32-0AA0
	20	14 ... 20	160 ... 320	3VA1120-3EF32-0AA0
	25	18 ... 25	160 ... 320	3VA1125-3EF32-0AA0
	32	16 ... 32	160 ... 320	3VA1132-3EF32-0AA0
	40	28 ... 40	200 ... 400	3VA1140-3EF32-0AA0
	50	35 ... 50	250 ... 500	3VA1150-3EF32-0AA0
	63	44 ... 63	315 ... 630	3VA1163-3EF32-0AA0
	80	56 ... 80	400 ... 800	3VA1180-3EF32-0AA0
	100	70 ... 100	500 ... 1000	3VA1110-3EF32-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3EF32-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3EF32-0AA0
3VA12	160	112 ... 160	800 ... 1600	--
	200	140 ... 200	1000 ... 2000	--
	250	175 ... 250	1250 ... 2500	--

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7	DT	I_{cu} up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7
		Article No. www.siemens.com/product?Article No. Basic price € per PU		Article No. www.siemens.com/product?Article No. Basic price € per PU		Article No. www.siemens.com/product?Article No. Basic price € per PU
Line protection, TM240 ATAM With adjustable overload protection I_r and adjustable short-circuit protection I_i						
		Connection with box terminal				
16		3VA1196-4EF36-0AA0		3VA1196-5EF36-0AA0		3VA1196-6EF36-0AA0
20		3VA1120-4EF36-0AA0		3VA1120-5EF36-0AA0		3VA1120-6EF36-0AA0
25		3VA1125-4EF36-0AA0		3VA1125-5EF36-0AA0		3VA1125-6EF36-0AA0
32		3VA1132-4EF36-0AA0		3VA1132-5EF36-0AA0		3VA1132-6EF36-0AA0
40		3VA1140-4EF36-0AA0		3VA1140-5EF36-0AA0		3VA1140-6EF36-0AA0
50		3VA1150-4EF36-0AA0		3VA1150-5EF36-0AA0		3VA1150-6EF36-0AA0
63		3VA1163-4EF36-0AA0		3VA1163-5EF36-0AA0		3VA1163-6EF36-0AA0
80		3VA1180-4EF36-0AA0		3VA1180-5EF36-0AA0		3VA1180-6EF36-0AA0
100		3VA1110-4EF36-0AA0		3VA1110-5EF36-0AA0		3VA1110-6EF36-0AA0
125		3VA1112-4EF36-0AA0		3VA1112-5EF36-0AA0		3VA1112-6EF36-0AA0
160		3VA1116-4EF36-0AA0		3VA1116-5EF36-0AA0		3VA1116-6EF36-0AA0
		Connection with lug terminal				
16		3VA1196-4EF32-0AA0		3VA1196-5EF32-0AA0		3VA1196-6EF32-0AA0
20		3VA1120-4EF32-0AA0		3VA1120-5EF32-0AA0		3VA1120-6EF32-0AA0
25		3VA1125-4EF32-0AA0		3VA1125-5EF32-0AA0		3VA1125-6EF32-0AA0
32		3VA1132-4EF32-0AA0		3VA1132-5EF32-0AA0		3VA1132-6EF32-0AA0
40		3VA1140-4EF32-0AA0		3VA1140-5EF32-0AA0		3VA1140-6EF32-0AA0
50		3VA1150-4EF32-0AA0		3VA1150-5EF32-0AA0		3VA1150-6EF32-0AA0
63		3VA1163-4EF32-0AA0		3VA1163-5EF32-0AA0		3VA1163-6EF32-0AA0
80		3VA1180-4EF32-0AA0		3VA1180-5EF32-0AA0		3VA1180-6EF32-0AA0
100		3VA1110-4EF32-0AA0		3VA1110-5EF32-0AA0		3VA1110-6EF32-0AA0
125		3VA1112-4EF32-0AA0		3VA1112-5EF32-0AA0		3VA1112-6EF32-0AA0
160		3VA1116-4EF32-0AA0		3VA1116-5EF32-0AA0		3VA1116-6EF32-0AA0
160		3VA1216-4EF32-0AA0		3VA1216-5EF32-0AA0		3VA1216-6EF32-0AA0
200		3VA1220-4EF32-0AA0		3VA1220-5EF32-0AA0		3VA1220-6EF32-0AA0
250		3VA1225-4EF32-0AA0		3VA1225-5EF32-0AA0		3VA1225-6EF32-0AA0

*** You can order this quantity or a multiple thereof.**

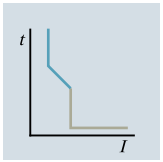
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

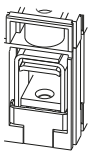
Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 16 kA at 415 V, very low breaking capacity B (B) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

4-pole, fixed-mounted, 3VA10, up to 100 A
Thermal-magnetic trip unit

I201_19027

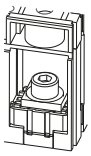


Line protection, TM210 FTFM, without neutral conductor protection
With fixed overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

3VA10	16	16	320	3VA1096-2ED46-0AA0
	20	20	320	3VA1020-2ED46-0AA0
	25	25	320	3VA1025-2ED46-0AA0
	32	32	320	3VA1032-2ED46-0AA0
	40	40	400	3VA1040-2ED46-0AA0
	50	50	500	3VA1050-2ED46-0AA0
	63	63	630	3VA1063-2ED46-0AA0
	80	80	800	3VA1080-2ED46-0AA0
	100	100	1000	3VA1010-2ED46-0AA0



Connection with lug terminal

3VA10	16	16	320	3VA1096-2ED42-0AA0
	20	20	320	3VA1020-2ED42-0AA0
	25	25	320	3VA1025-2ED42-0AA0
	32	32	320	3VA1032-2ED42-0AA0
	40	40	400	3VA1040-2ED42-0AA0
	50	50	500	3VA1050-2ED42-0AA0
	63	63	630	3VA1063-2ED42-0AA0
	80	80	800	3VA1080-2ED42-0AA0
	100	100	1000	3VA1010-2ED42-0AA0

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM210 FTFM, without neutral conductor protection With fixed overload protection I_r and fixed short-circuit protection I_i						
		Connection with box terminal				
16		3VA1096-3ED46-0AA0			3VA1096-4ED46-0AA0	
20		3VA1020-3ED46-0AA0			3VA1020-4ED46-0AA0	
25		3VA1025-3ED46-0AA0			3VA1025-4ED46-0AA0	
32		3VA1032-3ED46-0AA0			3VA1032-4ED46-0AA0	
40		3VA1040-3ED46-0AA0			3VA1040-4ED46-0AA0	
50		3VA1050-3ED46-0AA0			3VA1050-4ED46-0AA0	
63		3VA1063-3ED46-0AA0			3VA1063-4ED46-0AA0	
80		3VA1080-3ED46-0AA0			3VA1080-4ED46-0AA0	
100		3VA1010-3ED46-0AA0			3VA1010-4ED46-0AA0	
		Connection with lug terminal				
16		3VA1096-3ED42-0AA0			3VA1096-4ED42-0AA0	
20		3VA1020-3ED42-0AA0			3VA1020-4ED42-0AA0	
25		3VA1025-3ED42-0AA0			3VA1025-4ED42-0AA0	
32		3VA1032-3ED42-0AA0			3VA1032-4ED42-0AA0	
40		3VA1040-3ED42-0AA0			3VA1040-4ED42-0AA0	
50		3VA1050-3ED42-0AA0			3VA1050-4ED42-0AA0	
63		3VA1063-3ED42-0AA0			3VA1063-4ED42-0AA0	
80		3VA1080-3ED42-0AA0			3VA1080-4ED42-0AA0	
100		3VA1010-3ED42-0AA0			3VA1010-4ED42-0AA0	

*** You can order this quantity or a multiple thereof.**

Line protection

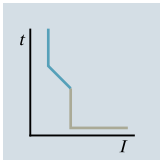
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7	
						Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

2

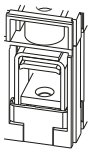
4-pole, fixed-mounted, 3VA11, up to 160 A Thermal-magnetic trip unit

I201_19027



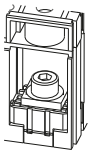
Line protection, TM210 FTFM, without neutral conductor protection

With fixed overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

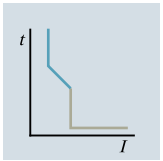
3VA11	16	16	320	3VA1196-3ED46-0AA0
	20	20	320	3VA1120-3ED46-0AA0
	25	25	320	3VA1125-3ED46-0AA0
	32	32	320	3VA1132-3ED46-0AA0
	40	40	400	3VA1140-3ED46-0AA0
	50	50	500	3VA1150-3ED46-0AA0
	63	63	630	3VA1163-3ED46-0AA0
	80	80	800	3VA1180-3ED46-0AA0
	100	100	1000	3VA1110-3ED46-0AA0
	125	125	1250	3VA1112-3ED46-0AA0
	160	160	1600	3VA1116-3ED46-0AA0



Connection with lug terminal

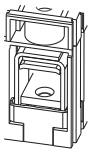
3VA11	16	16	320	3VA1196-3ED42-0AA0
	20	20	320	3VA1120-3ED42-0AA0
	25	25	320	3VA1125-3ED42-0AA0
	32	32	320	3VA1132-3ED42-0AA0
	40	40	400	3VA1140-3ED42-0AA0
	50	50	500	3VA1150-3ED42-0AA0
	63	63	630	3VA1163-3ED42-0AA0
	80	80	800	3VA1180-3ED42-0AA0
	100	100	1000	3VA1110-3ED42-0AA0
	125	125	1250	3VA1112-3ED42-0AA0
	160	160	1600	3VA1116-3ED42-0AA0

I201_19027



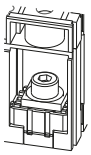
Line protection, TM210 FTFM, 50 % neutral conductor protection

With fixed overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

3VA11	100	100	1000	3VA1110-3FD46-0AA0
	125	125	1250	3VA1112-3FD46-0AA0
	160	160	1600	3VA1116-3FD46-0AA0



Connection with lug terminal

3VA11	100	100	1000	3VA1110-3FD42-0AA0
	125	125	1250	3VA1112-3FD42-0AA0
	160	160	1600	3VA1116-3FD42-0AA0

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM210 FTFM, without neutral conductor protection With fixed overload protection I_r and fixed short-circuit protection I_i									
		Connection with box terminal							
16		3VA1196-4ED46-0AA0			3VA1196-5ED46-0AA0			3VA1196-6ED46-0AA0	
20		3VA1120-4ED46-0AA0			3VA1120-5ED46-0AA0			3VA1120-6ED46-0AA0	
25		3VA1125-4ED46-0AA0			3VA1125-5ED46-0AA0			3VA1125-6ED46-0AA0	
32		3VA1132-4ED46-0AA0			3VA1132-5ED46-0AA0			3VA1132-6ED46-0AA0	
40		3VA1140-4ED46-0AA0			3VA1140-5ED46-0AA0			3VA1140-6ED46-0AA0	
50		3VA1150-4ED46-0AA0			3VA1150-5ED46-0AA0			3VA1150-6ED46-0AA0	
63		3VA1163-4ED46-0AA0			3VA1163-5ED46-0AA0			3VA1163-6ED46-0AA0	
80		3VA1180-4ED46-0AA0			3VA1180-5ED46-0AA0			3VA1180-6ED46-0AA0	
100		3VA1110-4ED46-0AA0			3VA1110-5ED46-0AA0			3VA1110-6ED46-0AA0	
125		3VA1112-4ED46-0AA0			3VA1112-5ED46-0AA0			3VA1112-6ED46-0AA0	
160		3VA1116-4ED46-0AA0			3VA1116-5ED46-0AA0			3VA1116-6ED46-0AA0	
		Connection with lug terminal							
16		3VA1196-4ED42-0AA0			3VA1196-5ED42-0AA0			3VA1196-6ED42-0AA0	
20		3VA1120-4ED42-0AA0			3VA1120-5ED42-0AA0			3VA1120-6ED42-0AA0	
25		3VA1125-4ED42-0AA0			3VA1125-5ED42-0AA0			3VA1125-6ED42-0AA0	
32		3VA1132-4ED42-0AA0			3VA1132-5ED42-0AA0			3VA1132-6ED42-0AA0	
40		3VA1140-4ED42-0AA0			3VA1140-5ED42-0AA0			3VA1140-6ED42-0AA0	
50		3VA1150-4ED42-0AA0			3VA1150-5ED42-0AA0			3VA1150-6ED42-0AA0	
63		3VA1163-4ED42-0AA0			3VA1163-5ED42-0AA0			3VA1163-6ED42-0AA0	
80		3VA1180-4ED42-0AA0			3VA1180-5ED42-0AA0			3VA1180-6ED42-0AA0	
100		3VA1110-4ED42-0AA0			3VA1110-5ED42-0AA0			3VA1110-6ED42-0AA0	
125		3VA1112-4ED42-0AA0			3VA1112-5ED42-0AA0			3VA1112-6ED42-0AA0	
160		3VA1116-4ED42-0AA0			3VA1116-5ED42-0AA0			3VA1116-6ED42-0AA0	
Line protection, TM210 FTFM, 50 % neutral conductor protection With adjustable overload protection I_r and fixed short-circuit protection I_i									
		Connection with box terminal							
100		3VA1110-4FD46-0AA0			3VA1110-5FD46-0AA0			3VA1110-6FD46-0AA0	
125		3VA1112-4FD46-0AA0			3VA1112-5FD46-0AA0			3VA1112-6FD46-0AA0	
160		3VA1116-4FD46-0AA0			3VA1116-5FD46-0AA0			3VA1116-6FD46-0AA0	
		Connection with lug terminal							
100		3VA1110-4FD42-0AA0			3VA1110-5FD42-0AA0			3VA1110-6FD42-0AA0	
125		3VA1112-4FD42-0AA0			3VA1112-5FD42-0AA0			3VA1112-6FD42-0AA0	
160		3VA1116-4FD42-0AA0			3VA1116-5FD42-0AA0			3VA1116-6FD42-0AA0	

*** You can order this quantity or a multiple thereof.**

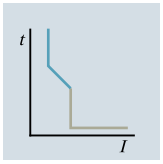
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

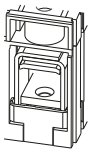
Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

4-pole, fixed-mounted, 3VA11, up to 160 A
Thermal-magnetic trip unit

I201_19027

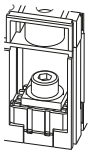


Line protection, TM210 FTFM, 100 % neutral conductor protection
With fixed overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

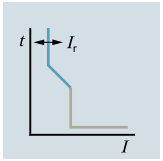
3VA11	16	16	320	3VA1196-3GD46-0AA0
	20	20	320	3VA1120-3GD46-0AA0
	25	25	320	3VA1125-3GD46-0AA0
	32	32	320	3VA1132-3GD46-0AA0
	40	40	400	3VA1140-3GD46-0AA0
	50	50	500	3VA1150-3GD46-0AA0
	63	63	630	3VA1163-3GD46-0AA0
	80	80	800	3VA1180-3GD46-0AA0
	100	100	1000	3VA1110-3GD46-0AA0
	125	125	1250	3VA1112-3GD46-0AA0
	160	160	1600	3VA1116-3GD46-0AA0



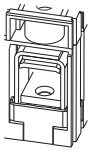
Connection with lug terminal

3VA11	16	16	320	3VA1196-3GD42-0AA0
	20	20	320	3VA1120-3GD42-0AA0
	25	25	320	3VA1125-3GD42-0AA0
	32	32	320	3VA1132-3GD42-0AA0
	40	40	400	3VA1140-3GD42-0AA0
	50	50	500	3VA1150-3GD42-0AA0
	63	63	630	3VA1163-3GD42-0AA0
	80	80	800	3VA1180-3GD42-0AA0
	100	100	1000	3VA1110-3GD42-0AA0
	125	125	1250	3VA1112-3GD42-0AA0
	160	160	1600	3VA1116-3GD42-0AA0

I201_19028

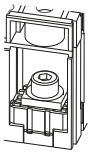


Line protection, TM220 ATFM, without neutral conductor protection
With adjustable overload protection I_r and fixed short-circuit protection I_i



Connection with box terminal

3VA11	16	11 ... 16	320	3VA1196-3EE46-0AA0
	20	14 ... 20	320	3VA1120-3EE46-0AA0
	25	18 ... 25	320	3VA1125-3EE46-0AA0
	32	22 ... 32	320	3VA1132-3EE46-0AA0
	40	28 ... 40	400	3VA1140-3EE46-0AA0
	50	35 ... 50	500	3VA1150-3EE46-0AA0
	63	44 ... 63	630	3VA1163-3EE46-0AA0
	80	56 ... 80	800	3VA1180-3EE46-0AA0
	100	70 ... 100	1000	3VA1110-3EE46-0AA0
	125	88 ... 125	1250	3VA1112-3EE46-0AA0
	160	112 ... 160	1600	3VA1116-3EE46-0AA0



Connection with lug terminal

3VA11	16	11 ... 16	320	3VA1196-3EE42-0AA0
	20	14 ... 20	320	3VA1120-3EE42-0AA0
	25	18 ... 25	320	3VA1125-3EE42-0AA0
	32	22 ... 32	320	3VA1132-3EE42-0AA0
	40	28 ... 40	400	3VA1140-3EE42-0AA0
	50	35 ... 50	500	3VA1150-3EE42-0AA0
	63	44 ... 63	630	3VA1163-3EE42-0AA0
	80	56 ... 80	800	3VA1180-3EE42-0AA0
	100	70 ... 100	1000	3VA1110-3EE42-0AA0
	125	88 ... 125	1250	3VA1112-3EE42-0AA0
	160	112 ... 160	1600	3VA1116-3EE42-0AA0

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM210 FTFM, 100 % neutral conductor protection With fixed overload protection I_r and fixed short-circuit protection I_i									
		Connection with box terminal							
16		3VA1196-4GD46-0AA0			3VA1196-5GD46-0AA0			3VA1196-6GD46-0AA0	
20		3VA1120-4GD46-0AA0			3VA1120-5GD46-0AA0			3VA1120-6GD46-0AA0	
25		3VA1125-4GD46-0AA0			3VA1125-5GD46-0AA0			3VA1125-6GD46-0AA0	
32		3VA1132-4GD46-0AA0			3VA1132-5GD46-0AA0			3VA1132-6GD46-0AA0	
40		3VA1140-4GD46-0AA0			3VA1140-5GD46-0AA0			3VA1140-6GD46-0AA0	
50		3VA1150-4GD46-0AA0			3VA1150-5GD46-0AA0			3VA1150-6GD46-0AA0	
63		3VA1163-4GD46-0AA0			3VA1163-5GD46-0AA0			3VA1163-6GD46-0AA0	
80		3VA1180-4GD46-0AA0			3VA1180-5GD46-0AA0			3VA1180-6GD46-0AA0	
100		3VA1110-4GD46-0AA0			3VA1110-5GD46-0AA0			3VA1110-6GD46-0AA0	
125		3VA1112-4GD46-0AA0			3VA1112-5GD46-0AA0			3VA1112-6GD46-0AA0	
160		3VA1116-4GD46-0AA0			3VA1116-5GD46-0AA0			3VA1116-6GD46-0AA0	
		Connection with lug terminal							
16		3VA1196-4GD42-0AA0			3VA1196-5GD42-0AA0			3VA1196-6GD42-0AA0	
20		3VA1120-4GD42-0AA0			3VA1120-5GD42-0AA0			3VA1120-6GD42-0AA0	
25		3VA1125-4GD42-0AA0			3VA1125-5GD42-0AA0			3VA1125-6GD42-0AA0	
32		3VA1132-4GD42-0AA0			3VA1132-5GD42-0AA0			3VA1132-6GD42-0AA0	
40		3VA1140-4GD42-0AA0			3VA1140-5GD42-0AA0			3VA1140-6GD42-0AA0	
50		3VA1150-4GD42-0AA0			3VA1150-5GD42-0AA0			3VA1150-6GD42-0AA0	
63		3VA1163-4GD42-0AA0			3VA1163-5GD42-0AA0			3VA1163-6GD42-0AA0	
80		3VA1180-4GD42-0AA0			3VA1180-5GD42-0AA0			3VA1180-6GD42-0AA0	
100		3VA1110-4GD42-0AA0			3VA1110-5GD42-0AA0			3VA1110-6GD42-0AA0	
125		3VA1112-4GD42-0AA0			3VA1112-5GD42-0AA0			3VA1112-6GD42-0AA0	
160		3VA1116-4GD42-0AA0			3VA1116-5GD42-0AA0			3VA1116-6GD42-0AA0	
Line protection, TM220 ATFM, without neutral conductor protection With adjustable overload protection I_r and fixed short-circuit protection I_i									
		Connection with box terminal							
16		3VA1196-4EE46-0AA0			3VA1196-5EE46-0AA0			3VA1196-6EE46-0AA0	
20		3VA1120-4EE46-0AA0			3VA1120-5EE46-0AA0			3VA1120-6EE46-0AA0	
25		3VA1125-4EE46-0AA0			3VA1125-5EE46-0AA0			3VA1125-6EE46-0AA0	
32		3VA1132-4EE46-0AA0			3VA1132-5EE46-0AA0			3VA1132-6EE46-0AA0	
40		3VA1140-4EE46-0AA0			3VA1140-5EE46-0AA0			3VA1140-6EE46-0AA0	
50		3VA1150-4EE46-0AA0			3VA1150-5EE46-0AA0			3VA1150-6EE46-0AA0	
63		3VA1163-4EE46-0AA0			3VA1163-5EE46-0AA0			3VA1163-6EE46-0AA0	
80		3VA1180-4EE46-0AA0			3VA1180-5EE46-0AA0			3VA1180-6EE46-0AA0	
100		3VA1110-4EE46-0AA0			3VA1110-5EE46-0AA0			3VA1110-6EE46-0AA0	
125		3VA1112-4EE46-0AA0			3VA1112-5EE46-0AA0			3VA1112-6EE46-0AA0	
160		3VA1116-4EE46-0AA0			3VA1116-5EE46-0AA0			3VA1116-6EE46-0AA0	
		Connection with lug terminal							
16		3VA1196-4EE42-0AA0			3VA1196-5EE42-0AA0			3VA1196-6EE42-0AA0	
20		3VA1120-4EE42-0AA0			3VA1120-5EE42-0AA0			3VA1120-6EE42-0AA0	
25		3VA1125-4EE42-0AA0			3VA1125-5EE42-0AA0			3VA1125-6EE42-0AA0	
32		3VA1132-4EE42-0AA0			3VA1132-5EE42-0AA0			3VA1132-6EE42-0AA0	
40		3VA1140-4EE42-0AA0			3VA1140-5EE42-0AA0			3VA1140-6EE42-0AA0	
50		3VA1150-4EE42-0AA0			3VA1150-5EE42-0AA0			3VA1150-6EE42-0AA0	
63		3VA1163-4EE42-0AA0			3VA1163-5EE42-0AA0			3VA1163-6EE42-0AA0	
80		3VA1180-4EE42-0AA0			3VA1180-5EE42-0AA0			3VA1180-6EE42-0AA0	
100		3VA1110-4EE42-0AA0			3VA1110-5EE42-0AA0			3VA1110-6EE42-0AA0	
125		3VA1112-4EE42-0AA0			3VA1112-5EE42-0AA0			3VA1112-6EE42-0AA0	
160		3VA1116-4EE42-0AA0			3VA1116-5EE42-0AA0			3VA1116-6EE42-0AA0	

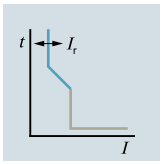
*** You can order this quantity or a multiple thereof.**

Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

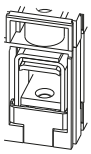
Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7	
						Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

4-pole, fixed-mounted, 3VA11, up to 160 A
Thermal-magnetic trip unit



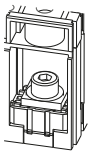
Line protection, TM220 ATFM, 50 % neutral conductor protection
With adjustable overload protection I_r and fixed short-circuit protection I_i

Connection with box terminal

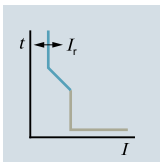


3VA11	100	70 ... 100	1000	3VA1110-3FE46-0AA0
	125	88 ... 125	1250	3VA1112-3FE46-0AA0
	160	112 ... 160	1600	3VA1116-3FE46-0AA0

Connection with lug terminal

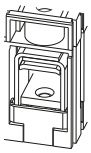


3VA11	100	70 ... 100	1000	3VA1110-3FE42-0AA0
	125	88 ... 125	1250	3VA1112-3FE42-0AA0
	160	112 ... 160	1600	3VA1116-3FE42-0AA0



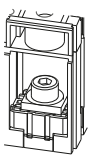
Line protection, TM220 ATFM, 100 % neutral conductor protection
With adjustable overload protection I_r and fixed short-circuit protection I_i

Connection with box terminal



3VA11	16	11 ... 16	320	3VA1196-3GE46-0AA0
	20	14 ... 20	320	3VA1120-3GE46-0AA0
	25	18 ... 25	320	3VA1125-3GE46-0AA0
	32	22 ... 32	320	3VA1132-3GE46-0AA0
	40	28 ... 40	400	3VA1140-3GE46-0AA0
	50	35 ... 50	500	3VA1150-3GE46-0AA0
	63	44 ... 63	630	3VA1163-3GE46-0AA0
	80	56 ... 80	800	3VA1180-3GE46-0AA0
	100	70 ... 100	1000	3VA1110-3GE46-0AA0
	125	88 ... 125	1250	3VA1112-3GE46-0AA0
	160	112 ... 160	1600	3VA1116-3GE46-0AA0

Connection with lug terminal



3VA11	16	11 ... 16	320	3VA1196-3GE42-0AA0
	20	14 ... 20	320	3VA1120-3GE42-0AA0
	25	18 ... 25	320	3VA1125-3GE42-0AA0
	32	22 ... 32	320	3VA1132-3GE42-0AA0
	40	28 ... 40	400	3VA1140-3GE42-0AA0
	50	35 ... 50	500	3VA1150-3GE42-0AA0
	63	44 ... 63	630	3VA1163-3GE42-0AA0
	80	56 ... 80	800	3VA1180-3GE42-0AA0
	100	70 ... 100	1000	3VA1110-3GE42-0AA0
	125	88 ... 125	1250	3VA1112-3GE42-0AA0
	160	112 ... 160	1600	3VA1116-3GE42-0AA0

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM220 ATFM, 50 % neutral conductor protection With adjustable overload protection I_r and fixed short-circuit protection I_i									
Connection with box terminal									
100		3VA1110-4FE46-0AA0			3VA1110-5FE46-0AA0			3VA1110-6FE46-0AA0	
125		3VA1112-4FE46-0AA0			3VA1112-5FE46-0AA0			3VA1112-6FE46-0AA0	
160		3VA1116-4FE46-0AA0			3VA1116-5FE46-0AA0			3VA1116-6FE46-0AA0	
Connection with lug terminal									
100		3VA1110-4FE42-0AA0			3VA1110-5FE42-0AA0			3VA1110-6FE42-0AA0	
125		3VA1112-4FE42-0AA0			3VA1112-5FE42-0AA0			3VA1112-6FE42-0AA0	
160		3VA1116-4FE42-0AA0			3VA1116-5FE42-0AA0			3VA1116-6FE42-0AA0	
Line protection, TM220 ATFM, 100 % neutral conductor protection With adjustable overload protection I_r and fixed short-circuit protection I_i									
Connection with box terminal									
16		3VA1196-4GE46-0AA0			3VA1196-5GE46-0AA0			3VA1196-6GE46-0AA0	
20		3VA1120-4GE46-0AA0			3VA1120-5GE46-0AA0			3VA1120-6GE46-0AA0	
25		3VA1125-4GE46-0AA0			3VA1125-5GE46-0AA0			3VA1125-6GE46-0AA0	
32		3VA1132-4GE46-0AA0			3VA1132-5GE46-0AA0			3VA1132-6GE46-0AA0	
40		3VA1140-4GE46-0AA0			3VA1140-5GE46-0AA0			3VA1140-6GE46-0AA0	
50		3VA1150-4GE46-0AA0			3VA1150-5GE46-0AA0			3VA1150-6GE46-0AA0	
63		3VA1163-4GE46-0AA0			3VA1163-5GE46-0AA0			3VA1163-6GE46-0AA0	
80		3VA1180-4GE46-0AA0			3VA1180-5GE46-0AA0			3VA1180-6GE46-0AA0	
100		3VA1110-4GE46-0AA0			3VA1110-5GE46-0AA0			3VA1110-6GE46-0AA0	
125		3VA1112-4GE46-0AA0			3VA1112-5GE46-0AA0			3VA1112-6GE46-0AA0	
160		3VA1116-4GE46-0AA0			3VA1116-5GE46-0AA0			3VA1116-6GE46-0AA0	
Connection with lug terminal									
16		3VA1196-4GE42-0AA0			3VA1196-5GE42-0AA0			3VA1196-6GE42-0AA0	
20		3VA1120-4GE42-0AA0			3VA1120-5GE42-0AA0			3VA1120-6GE42-0AA0	
25		3VA1125-4GE42-0AA0			3VA1125-5GE42-0AA0			3VA1125-6GE42-0AA0	
32		3VA1132-4GE42-0AA0			3VA1132-5GE42-0AA0			3VA1132-6GE42-0AA0	
40		3VA1140-4GE42-0AA0			3VA1140-5GE42-0AA0			3VA1140-6GE42-0AA0	
50		3VA1150-4GE42-0AA0			3VA1150-5GE42-0AA0			3VA1150-6GE42-0AA0	
63		3VA1163-4GE42-0AA0			3VA1163-5GE42-0AA0			3VA1163-6GE42-0AA0	
80		3VA1180-4GE42-0AA0			3VA1180-5GE42-0AA0			3VA1180-6GE42-0AA0	
100		3VA1110-4GE42-0AA0			3VA1110-5GE42-0AA0			3VA1110-6GE42-0AA0	
125		3VA1112-4GE42-0AA0			3VA1112-5GE42-0AA0			3VA1112-6GE42-0AA0	
160		3VA1116-4GE42-0AA0			3VA1116-5GE42-0AA0			3VA1116-6GE42-0AA0	

* You can order this quantity or a multiple thereof.

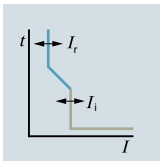
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instanta-neous short-circuit pro-tection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7	
		A	A	A		Article No. www.siemens.com/product?Article No.	Basic price € per PU

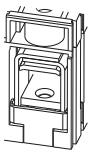
4-pole, fixed-mounted, 3VA11/3VA12, up to 250 A
Thermal-magnetic trip unit

I201_19035



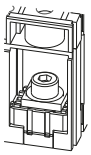
Line protection, TM240 ATAM, without neutral conductor protection

With adjustable overload protection I_r and adjustable short-circuit protection I_i



Connection with box terminal

3VA11	16	11 ... 16	160 ... 320	3VA1196-3EF46-0AA0
	20	14 ... 20	160 ... 320	3VA1120-3EF46-0AA0
	25	18 ... 25	160 ... 320	3VA1125-3EF46-0AA0
	32	16 ... 32	160 ... 320	3VA1132-3EF46-0AA0
	40	28 ... 40	200 ... 400	3VA1140-3EF46-0AA0
	50	35 ... 50	250 ... 500	3VA1150-3EF46-0AA0
	63	44 ... 63	315 ... 630	3VA1163-3EF46-0AA0
	80	56 ... 80	400 ... 800	3VA1180-3EF46-0AA0
	100	70 ... 100	500 ... 1000	3VA1110-3EF46-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3EF46-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3EF46-0AA0



Connection with lug terminal

3VA11	16	11 ... 16	160 ... 320	3VA1196-3EF42-0AA0
	20	14 ... 20	160 ... 320	3VA1120-3EF42-0AA0
	25	18 ... 25	160 ... 320	3VA1125-3EF42-0AA0
	32	16 ... 32	160 ... 320	3VA1132-3EF42-0AA0
	40	28 ... 40	200 ... 400	3VA1140-3EF42-0AA0
	50	35 ... 50	250 ... 500	3VA1150-3EF42-0AA0
	63	44 ... 63	315 ... 630	3VA1163-3EF42-0AA0
	80	56 ... 80	400 ... 800	3VA1180-3EF42-0AA0
	100	70 ... 100	500 ... 1000	3VA1110-3EF42-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3EF42-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3EF42-0AA0
3VA12	160	112 ... 160	800 ... 1600	--
	200	140 ... 200	1000 ... 2000	--
	250	175 ... 250	1250 ... 2500	--

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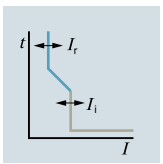
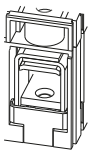


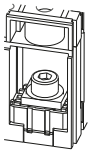
Line protection, TM240 ATAM, 50 % neutral conductor protection

With adjustable overload protection I_r and adjustable short-circuit protection I_i



Connection with box terminal

3VA11	100	70 ... 100	500 ... 1000	3VA1110-3FF46-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3FF46-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3FF46-0AA0



Connection with lug terminal

3VA11	100	70 ... 100	500 ... 1000	3VA1110-3FF42-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3FF42-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3FF42-0AA0
3VA12	160	112 ... 160	800 ... 1600	--
	200	140 ... 200	1000 ... 2000	--
	250	175 ... 250	1250 ... 2500	--

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM240 ATAM, without neutral conductor protection With adjustable overload protection I_r and adjustable short-circuit protection I_i									
		Connection with box terminal							
16		3VA1196-4EF46-0AA0			3VA1196-5EF46-0AA0			3VA1196-6EF46-0AA0	
20		3VA1120-4EF46-0AA0			3VA1120-5EF46-0AA0			3VA1120-6EF46-0AA0	
25		3VA1125-4EF46-0AA0			3VA1125-5EF46-0AA0			3VA1125-6EF46-0AA0	
32		3VA1132-4EF46-0AA0			3VA1132-5EF46-0AA0			3VA1132-6EF46-0AA0	
40		3VA1140-4EF46-0AA0			3VA1140-5EF46-0AA0			3VA1140-6EF46-0AA0	
50		3VA1150-4EF46-0AA0			3VA1150-5EF46-0AA0			3VA1150-6EF46-0AA0	
63		3VA1163-4EF46-0AA0			3VA1163-5EF46-0AA0			3VA1163-6EF46-0AA0	
80		3VA1180-4EF46-0AA0			3VA1180-5EF46-0AA0			3VA1180-6EF46-0AA0	
100		3VA1110-4EF46-0AA0			3VA1110-5EF46-0AA0			3VA1110-6EF46-0AA0	
125		3VA1112-4EF46-0AA0			3VA1112-5EF46-0AA0			3VA1112-6EF46-0AA0	
160		3VA1116-4EF46-0AA0			3VA1116-5EF46-0AA0			3VA1116-6EF46-0AA0	
		Connection with lug terminal							
16		3VA1196-4EF42-0AA0			3VA1196-5EF42-0AA0			3VA1196-6EF42-0AA0	
20		3VA1120-4EF42-0AA0			3VA1120-5EF42-0AA0			3VA1120-6EF42-0AA0	
25		3VA1125-4EF42-0AA0			3VA1125-5EF42-0AA0			3VA1125-6EF42-0AA0	
32		3VA1132-4EF42-0AA0			3VA1132-5EF42-0AA0			3VA1132-6EF42-0AA0	
40		3VA1140-4EF42-0AA0			3VA1140-5EF42-0AA0			3VA1140-6EF42-0AA0	
50		3VA1150-4EF42-0AA0			3VA1150-5EF42-0AA0			3VA1150-6EF42-0AA0	
63		3VA1163-4EF42-0AA0			3VA1163-5EF42-0AA0			3VA1163-6EF42-0AA0	
80		3VA1180-4EF42-0AA0			3VA1180-5EF42-0AA0			3VA1180-6EF42-0AA0	
100		3VA1110-4EF42-0AA0			3VA1110-5EF42-0AA0			3VA1110-6EF42-0AA0	
125		3VA1112-4EF42-0AA0			3VA1112-5EF42-0AA0			3VA1112-6EF42-0AA0	
160		3VA1116-4EF42-0AA0			3VA1116-5EF42-0AA0			3VA1116-6EF42-0AA0	
160		3VA1216-4EF42-0AA0			3VA1216-5EF42-0AA0			3VA1216-6EF42-0AA0	
200		3VA1220-4EF42-0AA0			3VA1220-5EF42-0AA0			3VA1220-6EF42-0AA0	
250		3VA1225-4EF42-0AA0			3VA1225-5EF42-0AA0			3VA1225-6EF42-0AA0	
Line protection, TM240 ATAM, 50 % neutral conductor protection With adjustable overload protection I_r and adjustable short-circuit protection I_i									
		Connection with box terminal							
100		3VA1110-4FF46-0AA0			3VA1110-5FF46-0AA0			3VA1110-6FF46-0AA0	
125		3VA1112-4FF46-0AA0			3VA1112-5FF46-0AA0			3VA1112-6FF46-0AA0	
160		3VA1116-4FF46-0AA0			3VA1116-5FF46-0AA0			3VA1116-6FF46-0AA0	
		Connection with lug terminal							
100		3VA1110-4FF42-0AA0			3VA1110-5FF42-0AA0			3VA1110-6FF42-0AA0	
125		3VA1112-4FF42-0AA0			3VA1112-5FF42-0AA0			3VA1112-6FF42-0AA0	
160		3VA1116-4FF42-0AA0			3VA1116-5FF42-0AA0			3VA1116-6FF42-0AA0	
160		3VA1216-4FF42-0AA0			3VA1216-5FF42-0AA0			3VA1216-6FF42-0AA0	
200		3VA1220-4FF42-0AA0			3VA1220-5FF42-0AA0			3VA1220-6FF42-0AA0	
250		3VA1225-4FF42-0AA0			3VA1225-5FF42-0AA0			3VA1225-6FF42-0AA0	

*** You can order this quantity or a multiple thereof.**

Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instanta-neous short-circuit pro-tection "I" I_i	DT	I_{cu} up to 25 kA at 415 V, low breaking capacity N (N) See "Overview", p. 1/6 and 1/7	
						Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

4-pole, fixed-mounted, 3VA11/3VA12, up to 250 A Thermal-magnetic trip unit

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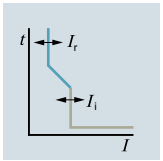
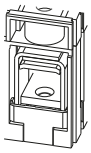
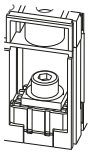


Line protection, TM240 ATAM, 100 % neutral conductor protection
With adjustable overload protection I_r and adjustable short-circuit protection I_i



Connection with box terminal

3VA11	16	11 ... 16	160 ... 320	3VA1196-3GF46-0AA0
	20	14 ... 20	160 ... 320	3VA1120-3GF46-0AA0
	25	18 ... 25	160 ... 320	3VA1125-3GF46-0AA0
	32	16 ... 32	160 ... 320	3VA1132-3GF46-0AA0
	40	28 ... 40	200 ... 400	3VA1140-3GF46-0AA0
	50	35 ... 50	250 ... 500	3VA1150-3GF46-0AA0
	63	44 ... 63	315 ... 630	3VA1163-3GF46-0AA0
	80	56 ... 80	400 ... 800	3VA1180-3GF46-0AA0
	100	70 ... 100	500 ... 1000	3VA1110-3GF46-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3GF46-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3GF46-0AA0



Connection with lug terminal

3VA11	16	11 ... 16	160 ... 320	3VA1196-3GF42-0AA0
	20	14 ... 20	160 ... 320	3VA1120-3GF42-0AA0
	25	18 ... 25	160 ... 320	3VA1125-3GF42-0AA0
	32	16 ... 32	160 ... 320	3VA1132-3GF42-0AA0
	40	28 ... 40	200 ... 400	3VA1140-3GF42-0AA0
	50	35 ... 50	250 ... 500	3VA1150-3GF42-0AA0
	63	44 ... 63	315 ... 630	3VA1163-3GF42-0AA0
	80	56 ... 80	400 ... 800	3VA1180-3GF42-0AA0
	100	70 ... 100	500 ... 1000	3VA1110-3GF42-0AA0
	125	88 ... 125	625 ... 1250	3VA1112-3GF42-0AA0
	160	112 ... 160	800 ... 1600	3VA1116-3GF42-0AA0
3VA12	160	112 ... 160	800 ... 1600	--
	200	140 ... 200	1000 ... 2000	--
	250	175 ... 250	1250 ... 2500	--

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} to 36 kA at 415 V, standard breaking capacity S (S) See "Overview", p. 1/6 and 1/7		DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7		DT	I_{cu} up to 70 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7	
		Article No. www.siemens.com/product?Article No.	Basic price € per PU		Article No. www.siemens.com/product?Article No.	Basic price € per PU		Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, TM240 ATAM, 100 % neutral conductor protection With adjustable overload protection I_r and adjustable short-circuit protection I_i									
		Connection with box terminal							
16		3VA1196-4GF46-0AA0			3VA1196-5GF46-0AA0			3VA1196-6GF46-0AA0	
20		3VA1120-4GF46-0AA0			3VA1120-5GF46-0AA0			3VA1120-6GF46-0AA0	
25		3VA1125-4GF46-0AA0			3VA1125-5GF46-0AA0			3VA1125-6GF46-0AA0	
32		3VA1132-4GF46-0AA0			3VA1132-5GF46-0AA0			3VA1132-6GF46-0AA0	
40		3VA1140-4GF46-0AA0			3VA1140-5GF46-0AA0			3VA1140-6GF46-0AA0	
50		3VA1150-4GF46-0AA0			3VA1150-5GF46-0AA0			3VA1150-6GF46-0AA0	
63		3VA1163-4GF46-0AA0			3VA1163-5GF46-0AA0			3VA1163-6GF46-0AA0	
80		3VA1180-4GF46-0AA0			3VA1180-5GF46-0AA0			3VA1180-6GF46-0AA0	
100		3VA1110-4GF46-0AA0			3VA1110-5GF46-0AA0			3VA1110-6GF46-0AA0	
125		3VA1112-4GF46-0AA0			3VA1112-5GF46-0AA0			3VA1112-6GF46-0AA0	
160		3VA1116-4GF46-0AA0			3VA1116-5GF46-0AA0			3VA1116-6GF46-0AA0	
		Connection with lug terminal							
16		3VA1196-4GF42-0AA0			3VA1196-5GF42-0AA0			3VA1196-6GF42-0AA0	
20		3VA1120-4GF42-0AA0			3VA1120-5GF42-0AA0			3VA1120-6GF42-0AA0	
25		3VA1125-4GF42-0AA0			3VA1125-5GF42-0AA0			3VA1125-6GF42-0AA0	
32		3VA1132-4GF42-0AA0			3VA1132-5GF42-0AA0			3VA1132-6GF42-0AA0	
40		3VA1140-4GF42-0AA0			3VA1140-5GF42-0AA0			3VA1140-6GF42-0AA0	
50		3VA1150-4GF42-0AA0			3VA1150-5GF42-0AA0			3VA1150-6GF42-0AA0	
63		3VA1163-4GF42-0AA0			3VA1163-5GF42-0AA0			3VA1163-6GF42-0AA0	
80		3VA1180-4GF42-0AA0			3VA1180-5GF42-0AA0			3VA1180-6GF42-0AA0	
100		3VA1110-4GF42-0AA0			3VA1110-5GF42-0AA0			3VA1110-6GF42-0AA0	
125		3VA1112-4GF42-0AA0			3VA1112-5GF42-0AA0			3VA1112-6GF42-0AA0	
160		3VA1116-4GF42-0AA0			3VA1116-5GF42-0AA0			3VA1116-6GF42-0AA0	
160		3VA1216-4GF42-0AA0			3VA1216-5GF42-0AA0			3VA1216-6GF42-0AA0	
200		3VA1220-4GF42-0AA0			3VA1220-5GF42-0AA0			3VA1220-6GF42-0AA0	
250		3VA1225-4GF42-0AA0			3VA1225-5GF42-0AA0			3VA1225-6GF42-0AA0	

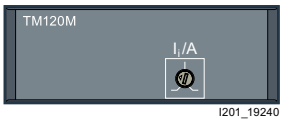
*** You can order this quantity or a multiple thereof.**

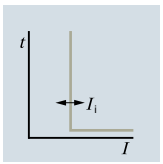
Starter protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instanta-neous short-circuit pro-tection "I" I_i	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			

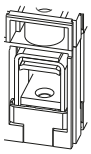
3-pole, fixed-mounted, 3VA11/3VA12, up to 200 A Magnetic trip unit





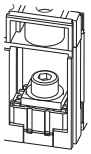
Starter protection, TM120M AM
With adjustable short-circuit protection I_i

Connection with box terminal



3VA11	32	--	220 ... 510	3VA1132-5MH36-0AA0
	40	--	280 ... 640	3VA1140-5MH36-0AA0
	50	--	350 ... 800	3VA1150-5MH36-0AA0
	63	--	440 ... 1010	3VA1163-5MH36-0AA0
	80	--	560 ... 1280	3VA1180-5MH36-0AA0
	100	--	700 ... 1600	3VA1110-5MH36-0AA0
	125	--	875 ... 2000	3VA1112-5MH36-0AA0

Connection with lug terminal



3VA11	32	--	220 ... 510	3VA1132-5MH32-0AA0
	40	--	280 ... 640	3VA1140-5MH32-0AA0
	50	--	350 ... 800	3VA1150-5MH32-0AA0
	63	--	440 ... 1010	3VA1163-5MH32-0AA0
	80	--	560 ... 1280	3VA1180-5MH32-0AA0
	100	--	700 ... 1600	3VA1110-5MH32-0AA0
	125	--	875 ... 2000	3VA1112-5MH32-0AA0
3VA12	160[1)]	--	1120 ... 2560	3VA1216-5MH32-0AA0
	200[1)]	--	1400 ... 2800	3VA1220-5MH32-0AA0

[1)] Start of delivery scheduled for 2nd quarter 2015

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} **up to 70 kA at 415 V, high breaking capacity H** (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
		Starter protection, TM120M AM With adjustable short-circuit protection I_i	
		Connection with box terminal	
32		**3VA1132-6MH36-0AA0**	
40		**3VA1140-6MH36-0AA0**	
50		**3VA1150-6MH36-0AA0**	
63		**3VA1163-6MH36-0AA0**	
80		**3VA1180-6MH36-0AA0**	
100		**3VA1110-6MH36-0AA0**	
125		**3VA1112-6MH36-0AA0**	
		Connection with lug terminal	
32		**3VA1132-6MH32-0AA0**	
40		**3VA1140-6MH32-0AA0**	
50		**3VA1150-6MH32-0AA0**	
63		**3VA1163-6MH32-0AA0**	
80		**3VA1180-6MH32-0AA0**	
100		**3VA1110-6MH32-0AA0**	
125		**3VA1112-6MH32-0AA0**	
160[1)]		**3VA1216-6MH32-0AA0**	
200[1)]		**3VA1220-6MH32-0AA0**	

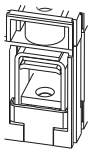
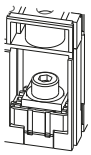
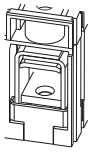
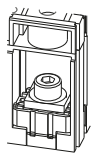
[1)] Start of delivery scheduled for 2nd quarter 2015

*** You can order this quantity or a multiple thereof.**

Switch disconnectors

Selection and ordering data

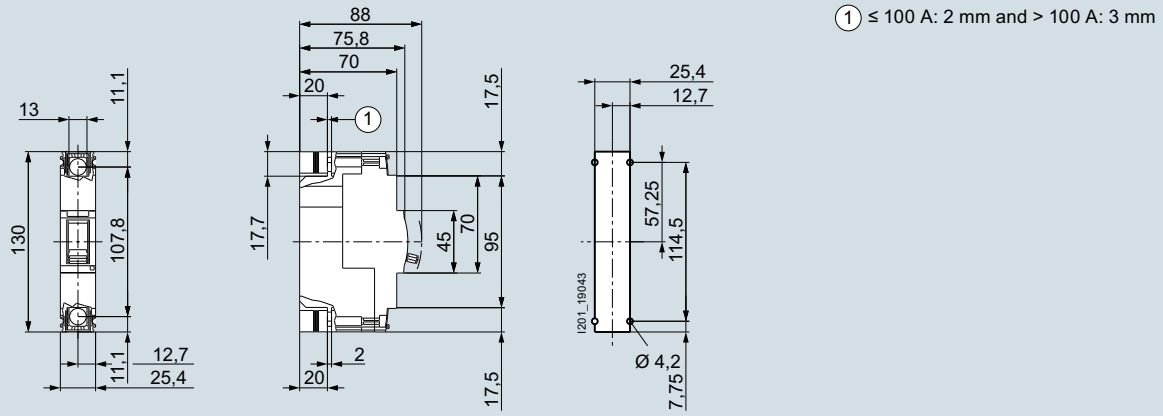
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A			
3-pole, fixed-mounted, 3VA11/3VA12, up to 250 A Without trip unit							
Switch disconnector without SD100 trip unit							
 **Connection with box terminal**							
	3VA11	63	--	--		3VA1163-1AA36-0AA0	
		100	--	--		3VA1110-1AA36-0AA0	
		125	--	--		3VA1112-1AA36-0AA0	
		160	--	--		3VA1116-1AA36-0AA0	
 **Connection with lug terminal**							
	3VA11	63	--	--		3VA1163-1AA32-0AA0	
		100	--	--		3VA1110-1AA32-0AA0	
		125	--	--		3VA1112-1AA32-0AA0	
		160	--	--		3VA1116-1AA32-0AA0	
	3VA12	250	--	--	1)	3VA1225-1AA32-0AA0	
4-pole, fixed-mounted, 3VA11/3VA12, up to 250 A Without trip unit							
Switch disconnector without SD100 trip unit							
 **Connection with box terminal**							
	3VA11	63	--	--		3VA1163-1AA46-0AA0	
		100	--	--		3VA1110-1AA46-0AA0	
		125	--	--		3VA1112-1AA46-0AA0	
		160	--	--		3VA1116-1AA46-0AA0	
 **Connection with lug terminal**							
	3VA11	63	--	--		3VA1163-1AA42-0AA0	
		100	--	--		3VA1110-1AA42-0AA0	
		125	--	--		3VA1112-1AA42-0AA0	
		160	--	--		3VA1116-1AA42-0AA0	
	3VA12	250	--	--	1)	3VA1225-1AA42-0AA0	

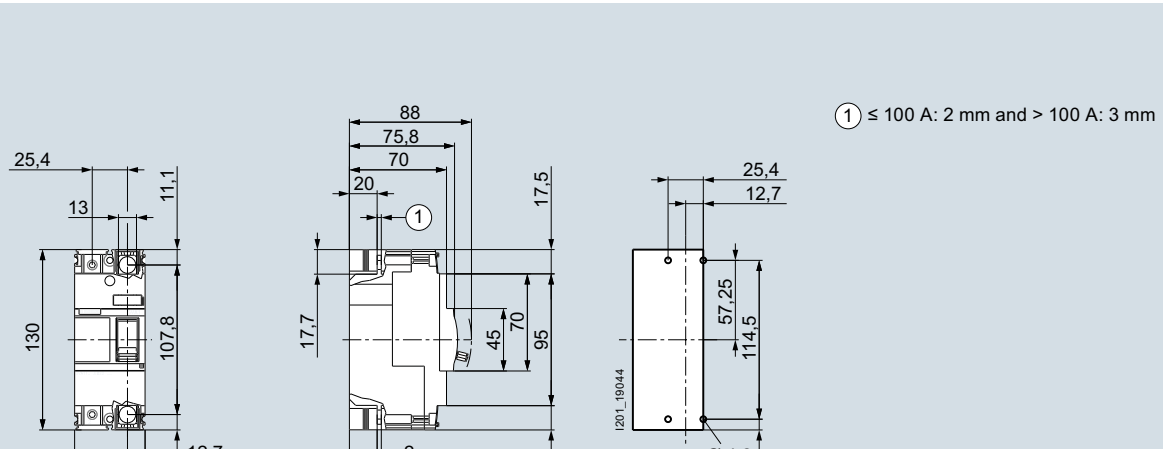
1) Start of delivery scheduled for 2nd quarter 2015

* You can order this quantity or a multiple thereof.

Overview

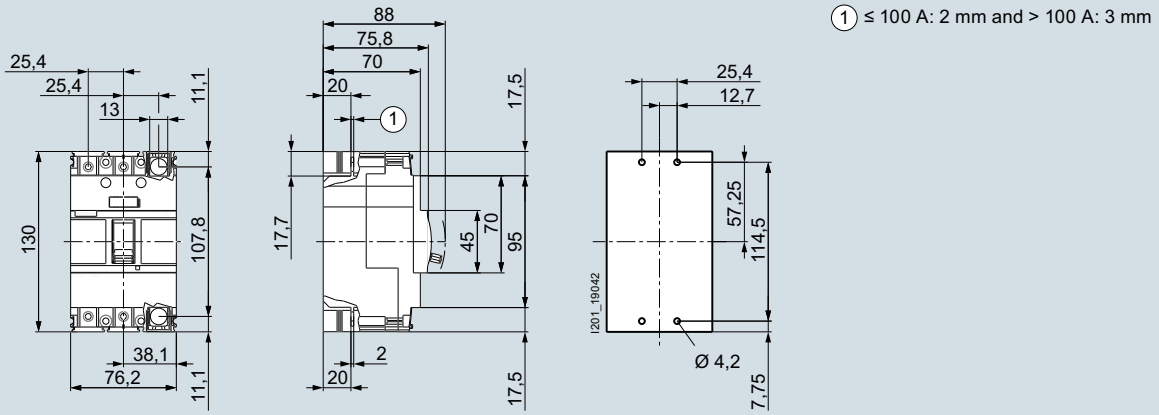


3VA11, 1-pole

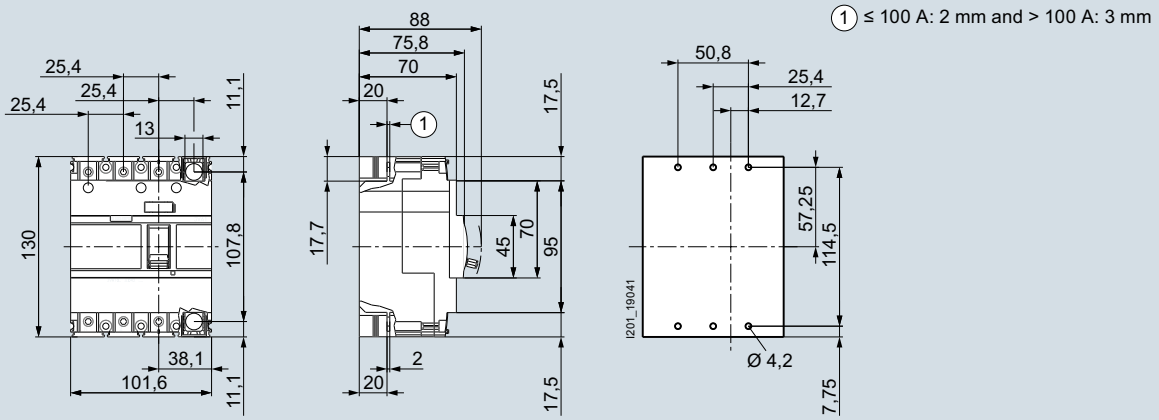


3VA11, 2-pole

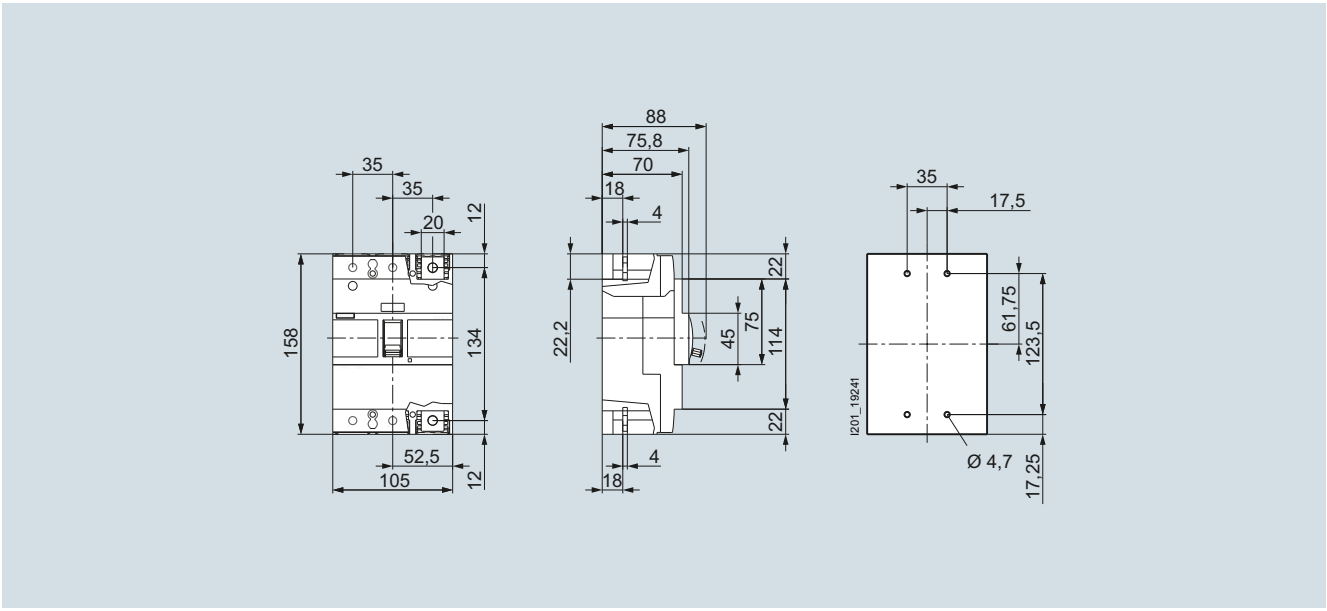
Dimensional drawings



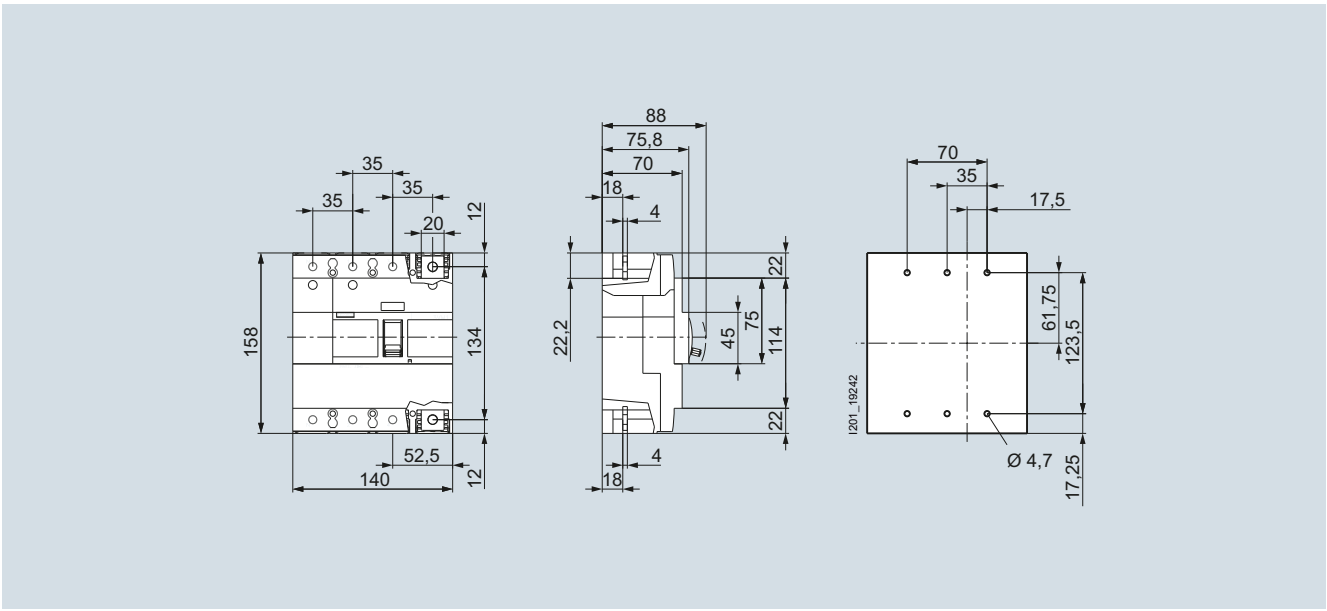
3VA10 and 3VA11, 3-pole



3VA10 and 3VA11, 4-pole



3VA12, 3-pole



3VA12, 4-pole

Further dimensional drawings can be found in the image database at: www.siemens.com/lowvoltage/picturedb

Notes

3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

NEW

Direct reference to the products in the Industry Mall from the selection and ordering data tables:

Article No.
www.siemens.com/product?Article No.
3KD2832-0NE10-0

Paper catalog:
To get more product information enter the Web address plus Article No.

PDF catalog:
Get more product information with just a mouse click.

For further technical product information:

Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

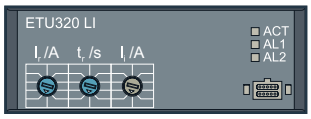
→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

Selection and ordering data

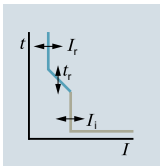
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	S function (short-time delayed short-circuit protection "S") I_{sd} A	Operating current of the instantaneous short-circuit protection "I" I_i A	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU

3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

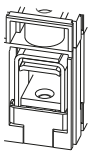


I201_18857



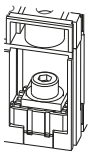
Line protection, ETU320 LI

With adjustable overload protection I_r and adjustable instantaneous short-circuit protection I_i



Connection with box terminal

3VA20	25	10 ... 25	--	38 ... 300	3VA2025-5HL36-0AA0
	40	16 ... 40	--	60 ... 480	3VA2040-5HL36-0AA0
	63	25 ... 63	--	95 ... 756	3VA2063-5HL36-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2010-5HL36-0AA0
3VA21	25	10 ... 25	--	38 ... 300	3VA2125-5HL36-0AA0
	40	16 ... 40	--	60 ... 480	3VA2140-5HL36-0AA0
	63	25 ... 63	--	95 ... 756	3VA2163-5HL36-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2110-5HL36-0AA0
	160	63 ... 160	--	240 ... 1600	3VA2116-5HL36-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	--	38 ... 300	3VA2025-5HL32-0AA0
	40	16 ... 40	--	60 ... 480	3VA2040-5HL32-0AA0
	63	25 ... 63	--	95 ... 756	3VA2063-5HL32-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2010-5HL32-0AA0
3VA21	25	10 ... 25	--	38 ... 300	3VA2125-5HL32-0AA0
	40	16 ... 40	--	60 ... 480	3VA2140-5HL32-0AA0
	63	25 ... 63	--	95 ... 756	3VA2163-5HL32-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2110-5HL32-0AA0
	160	63 ... 160	--	240 ... 1600	3VA2116-5HL32-0AA0
3VA22	160	63 ... 160	--	240 ... 1920	3VA2216-5HL32-0AA0
	250	100 ... 250	--	375 ... 2500	3VA2225-5HL32-0AA0
3VA23	250	100 ... 250	--	375 ... 3000	3VA2325-5HL32-0AA0
	400	160 ... 400	--	600 ... 4000	3VA2340-5HL32-0AA0
3VA24	400	160 ... 400	--	600 ... 4800[1]	3VA2440-5HL32-0AA0
	630	250 ... 630	--	945 ... 5670	3VA2463-5HL32-0AA0

[1] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, ETU320 LI With adjustable overload protection I_r and adjustable instantaneous short-circuit protection I_i									
		Connection with box terminal							
25		3VA2025-6HL36-0AA0			3VA2025-7HL36-0AA0			3VA2025-8HL36-0AA0	
40		3VA2040-6HL36-0AA0			3VA2040-7HL36-0AA0			3VA2040-8HL36-0AA0	
63		3VA2063-6HL36-0AA0			3VA2063-7HL36-0AA0			3VA2063-8HL36-0AA0	
100		3VA2010-6HL36-0AA0			3VA2010-7HL36-0AA0			3VA2010-8HL36-0AA0	
25		3VA2125-6HL36-0AA0			3VA2125-7HL36-0AA0			3VA2125-8HL36-0AA0	
40		3VA2140-6HL36-0AA0			3VA2140-7HL36-0AA0			3VA2140-8HL36-0AA0	
63		3VA2163-6HL36-0AA0			3VA2163-7HL36-0AA0			3VA2163-8HL36-0AA0	
100		3VA2110-6HL36-0AA0			3VA2110-7HL36-0AA0			3VA2110-8HL36-0AA0	
160		3VA2116-6HL36-0AA0			3VA2116-7HL36-0AA0			3VA2116-8HL36-0AA0	
		Connection with lug terminal							
25		3VA2025-6HL32-0AA0			3VA2025-7HL32-0AA0			3VA2025-8HL32-0AA0	
40		3VA2040-6HL32-0AA0			3VA2040-7HL32-0AA0			3VA2040-8HL32-0AA0	
63		3VA2063-6HL32-0AA0			3VA2063-7HL32-0AA0			3VA2063-8HL32-0AA0	
100		3VA2010-6HL32-0AA0			3VA2010-7HL32-0AA0			3VA2010-8HL32-0AA0	
25		3VA2125-6HL32-0AA0			3VA2125-7HL32-0AA0			3VA2125-8HL32-0AA0	
40		3VA2140-6HL32-0AA0			3VA2140-7HL32-0AA0			3VA2140-8HL32-0AA0	
63		3VA2163-6HL32-0AA0			3VA2163-7HL32-0AA0			3VA2163-8HL32-0AA0	
100		3VA2110-6HL32-0AA0			3VA2110-7HL32-0AA0			3VA2110-8HL32-0AA0	
160		3VA2116-6HL32-0AA0			3VA2116-7HL32-0AA0			3VA2116-8HL32-0AA0	
160		3VA2216-6HL32-0AA0			3VA2216-7HL32-0AA0			3VA2216-8HL32-0AA0	
250		3VA2225-6HL32-0AA0			3VA2225-7HL32-0AA0			3VA2225-8HL32-0AA0	
250		3VA2325-6HL32-0AA0			3VA2325-7HL32-0AA0		1)	3VA2325-8HL32-0AA0	
400		3VA2340-6HL32-0AA0			3VA2340-7HL32-0AA0		1)	3VA2340-8HL32-0AA0	
400		3VA2440-6HL32-0AA0			3VA2440-7HL32-0AA0		1)	3VA2440-8HL32-0AA0	
630		3VA2463-6HL32-0AA0			3VA2463-7HL32-0AA0		1)	3VA2463-8HL32-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

3

*** You can order this quantity or a multiple thereof.**

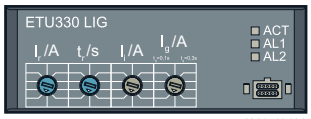
3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

Line protection

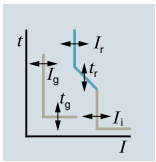
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	Operating current of the instantaneous short-circuit protection "I" I_i A	Ground-fault protection G I_g A	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU

3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

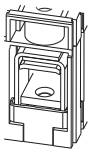


I201_18426



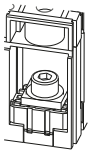
Line protection, ETU330 LIG

With adjustable overload protection I_r, adjustable instantaneous short-circuit protection I_i and adjustable ground-fault protection I_g



Connection with box terminal

3VA20	25	10 ... 25	38 ... 300	15 ... 25	3VA2025-5HM36-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2040-5HM36-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2063-5HM36-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2010-5HM36-0AA0
3VA21	25	10 ... 25	38 ... 300	15 ... 25	3VA2125-5HM36-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2140-5HM36-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2163-5HM36-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2110-5HM36-0AA0
	160	63 ... 160	240 ... 1600	32 ... 160	3VA2116-5HM36-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	38 ... 300	15 ... 25	3VA2025-5HM32-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2040-5HM32-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2063-5HM32-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2010-5HM32-0AA0
3VA21	25	10 ... 25	38 ... 300	15 ... 25	3VA2125-5HM32-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2140-5HM32-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2163-5HM32-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2110-5HM32-0AA0
	160	63 ... 160	240 ... 1600	32 ... 160	3VA2116-5HM32-0AA0
3VA22	160	63 ... 160	240 ... 1920	32 ... 160	3VA2216-5HM32-0AA0
	250	100 ... 250	375 ... 2500	50 ... 250	3VA2225-5HM32-0AA0
3VA23	250	100 ... 250	375 ... 3000	50 ... 250	3VA2325-5HM32-0AA0
	400	160 ... 400	600 ... 4000	80 ... 400	3VA2340-5HM32-0AA0
3VA24	400	160 ... 400	600 ... 4800[1)]	80 ... 400	3VA2440-5HM32-0AA0
	630	250 ... 630	945 ... 5670	126 ... 630	3VA2463-5HM32-0AA0

[1)] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, ETU330 LIG With adjustable overload protection I_n, adjustable instantaneous short-circuit protection I_i and adjustable ground-fault protection I_g									
		Connection with box terminal							
25		3VA2025-6HM36-0AA0			3VA2025-7HM36-0AA0			3VA2025-8HM36-0AA0	
40		3VA2040-6HM36-0AA0			3VA2040-7HM36-0AA0			3VA2040-8HM36-0AA0	
63		3VA2063-6HM36-0AA0			3VA2063-7HM36-0AA0			3VA2063-8HM36-0AA0	
100		3VA2010-6HM36-0AA0			3VA2010-7HM36-0AA0			3VA2010-8HM36-0AA0	
25		3VA2125-6HM36-0AA0			3VA2125-7HM36-0AA0			3VA2125-8HM36-0AA0	
40		3VA2140-6HM36-0AA0			3VA2140-7HM36-0AA0			3VA2140-8HM36-0AA0	
63		3VA2163-6HM36-0AA0			3VA2163-7HM36-0AA0			3VA2163-8HM36-0AA0	
100		3VA2110-6HM36-0AA0			3VA2110-7HM36-0AA0			3VA2110-8HM36-0AA0	
160		3VA2116-6HM36-0AA0			3VA2116-7HM36-0AA0			3VA2116-8HM36-0AA0	
		Connection with lug terminal							
25		3VA2025-6HM32-0AA0			3VA2025-7HM32-0AA0			3VA2025-8HM32-0AA0	
40		3VA2040-6HM32-0AA0			3VA2040-7HM32-0AA0			3VA2040-8HM32-0AA0	
63		3VA2063-6HM32-0AA0			3VA2063-7HM32-0AA0			3VA2063-8HM32-0AA0	
100		3VA2010-6HM32-0AA0			3VA2010-7HM32-0AA0			3VA2010-8HM32-0AA0	
25		3VA2125-6HM32-0AA0			3VA2125-7HM32-0AA0			3VA2125-8HM32-0AA0	
40		3VA2140-6HM32-0AA0			3VA2140-7HM32-0AA0			3VA2140-8HM32-0AA0	
63		3VA2163-6HM32-0AA0			3VA2163-7HM32-0AA0			3VA2163-8HM32-0AA0	
100		3VA2110-6HM32-0AA0			3VA2110-7HM32-0AA0			3VA2110-8HM32-0AA0	
160		3VA2116-6HM32-0AA0			3VA2116-7HM32-0AA0			3VA2116-8HM32-0AA0	
160		3VA2216-6HM32-0AA0			3VA2216-7HM32-0AA0			3VA2216-8HM32-0AA0	
250		3VA2225-6HM32-0AA0			3VA2225-7HM32-0AA0			3VA2225-8HM32-0AA0	
250		3VA2325-6HM32-0AA0			3VA2325-7HM32-0AA0		1)	3VA2325-8HM32-0AA0	
400		3VA2340-6HM32-0AA0			3VA2340-7HM32-0AA0		1)	3VA2340-8HM32-0AA0	
400		3VA2440-6HM32-0AA0			3VA2440-7HM32-0AA0		1)	3VA2440-8HM32-0AA0	
630		3VA2463-6HM32-0AA0			3VA2463-7HM32-0AA0		1)	3VA2463-8HM32-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

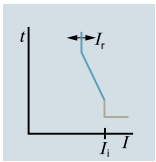
* You can order this quantity or a multiple thereof.

Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7	
		A	A	A		Article No. www.siemens.com/product?Article No.	Basic price € per PU

3-pole, fixed-mounted, 3VA21 to 3VA24, up to 630 A Electronic trip unit

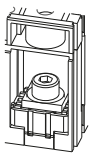


Line protection, ETU340 ELISA

With easily adjustable characteristic (characteristic curve of a fuse)

Connection with box terminal

3VA21	25	10 ... 25	375	3VA2125-5HK36-0AA0
	40	16 ... 40	600	3VA2140-5HK36-0AA0
	63	25 ... 63	945	3VA2163-5HK36-0AA0
	100	40 ... 100	1500	3VA2110-5HK36-0AA0



Connection with lug terminal

3VA21	25	10 ... 25	375	3VA2125-5HK32-0AA0
	40	16 ... 40	600	3VA2140-5HK32-0AA0
	63	25 ... 63	945	3VA2163-5HK32-0AA0
	100	40 ... 100	1500	3VA2110-5HK32-0AA0
3VA22	160	63 ... 160	2400	3VA2216-5HK32-0AA0
3VA23	250	100 ... 250	3750	3VA2325-5HK32-0AA0
3VA24	400	160 ... 400	6000[1]	3VA2440-5HK32-0AA0
	500	200 ... 500	7000	3VA2450-5HK32-0AA0
	630	250 ... 630	5670	3VA2463-5HK32-0AA0

[1] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, ETU340 ELISA With easily adjustable characteristic (characteristic curve of a fuse)									
Connection with box terminal									
25		3VA2125-6HK36-0AA0			3VA2125-7HK36-0AA0			3VA2125-8HK36-0AA0	
40		3VA2140-6HK36-0AA0			3VA2140-7HK36-0AA0			3VA2140-8HK36-0AA0	
63		3VA2163-6HK36-0AA0			3VA2163-7HK36-0AA0			3VA2163-8HK36-0AA0	
100		3VA2110-6HK36-0AA0			3VA2110-7HK36-0AA0			3VA2110-8HK36-0AA0	
Connection with lug terminal									
25		3VA2125-6HK32-0AA0			3VA2125-7HK32-0AA0			3VA2125-8HK32-0AA0	
40		3VA2140-6HK32-0AA0			3VA2140-7HK32-0AA0			3VA2140-8HK32-0AA0	
63		3VA2163-6HK32-0AA0			3VA2163-7HK32-0AA0			3VA2163-8HK32-0AA0	
100		3VA2110-6HK32-0AA0			3VA2110-7HK32-0AA0			3VA2110-8HK32-0AA0	
160		3VA2216-6HK32-0AA0			3VA2216-7HK32-0AA0			3VA2216-8HK32-0AA0	
250		3VA2325-6HK32-0AA0			3VA2325-7HK32-0AA0		1)	3VA2325-8HK32-0AA0	
400		3VA2440-6HK32-0AA0			3VA2440-7HK32-0AA0		1)	3VA2440-8HK32-0AA0	
500		3VA2450-6HK32-0AA0			3VA2450-7HK32-0AA0		1)	3VA2450-8HK32-0AA0	
630		3VA2463-6HK32-0AA0			3VA2463-7HK32-0AA0		1)	3VA2463-8HK32-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

3

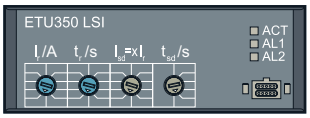
3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

Line protection

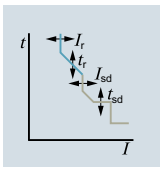
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	S function (short-time delayed short-circuit protection "S") I_{sd} A	Operating current of the instantaneous short-circuit protection "I" I_i A	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7	
							Article No. www.siemens.com/product?Article No.	Basic price € per PU

3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

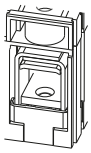


I201_18430



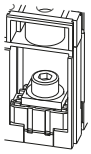
Line and generator protection, ETU350 LSI

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and fixed instantaneous short-circuit protection I_i



Connection with box terminal

	I_r x ...				
3VA20	25	10 ... 25	1.5 ... 10	300	3VA2025-5HN36-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2040-5HN36-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2063-5HN36-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2010-5HN36-0AA0
3VA21	25	10 ... 25	1.5 ... 10	300	3VA2125-5HN36-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2140-5HN36-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2163-5HN36-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2110-5HN36-0AA0
	160	63 ... 160	1.5 ... 10	1600	3VA2116-5HN36-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	1.5 ... 10	300	3VA2025-5HN32-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2040-5HN32-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2063-5HN32-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2010-5HN32-0AA0
3VA21	25	10 ... 25	1.5 ... 10	300	3VA2125-5HN32-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2140-5HN32-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2163-5HN32-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2110-5HN32-0AA0
	160	63 ... 160	1.5 ... 10	1600	3VA2116-5HN32-0AA0
3VA22	160	63 ... 160	1.5 ... 10	1920	3VA2216-5HN32-0AA0
	250	100 ... 250	1.5 ... 10	2500	3VA2225-5HN32-0AA0
3VA23	250	100 ... 250	1.5 ... 10	3000	3VA2325-5HN32-0AA0
	400	160 ... 400	1.5 ... 10	4000	3VA2340-5HN32-0AA0
3VA24	400	160 ... 400	1.5 ... 10	4800[1)]	3VA2440-5HN32-0AA0
	630	250 ... 630	1.5 ... 9	5670	3VA2463-5HN32-0AA0

[1)] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line and generator protection, ETU350 LSI With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and fixed instantaneous short-circuit protection I_i									
Connection with box terminal									
25		3VA2025-6HN36-0AA0			3VA2025-7HN36-0AA0			3VA2025-8HN36-0AA0	
40		3VA2040-6HN36-0AA0			3VA2040-7HN36-0AA0			3VA2040-8HN36-0AA0	
63		3VA2063-6HN36-0AA0			3VA2063-7HN36-0AA0			3VA2063-8HN36-0AA0	
100		3VA2010-6HN36-0AA0			3VA2010-7HN36-0AA0			3VA2010-8HN36-0AA0	
25		3VA2125-6HN36-0AA0			3VA2125-7HN36-0AA0			3VA2125-8HN36-0AA0	
40		3VA2140-6HN36-0AA0			3VA2140-7HN36-0AA0			3VA2140-8HN36-0AA0	
63		3VA2163-6HN36-0AA0			3VA2163-7HN36-0AA0			3VA2163-8HN36-0AA0	
100		3VA2110-6HN36-0AA0			3VA2110-7HN36-0AA0			3VA2110-8HN36-0AA0	
160		3VA2116-6HN36-0AA0			3VA2116-7HN36-0AA0			3VA2116-8HN36-0AA0	
Connection with lug terminal									
25		3VA2025-6HN32-0AA0			3VA2025-7HN32-0AA0			3VA2025-8HN32-0AA0	
40		3VA2040-6HN32-0AA0			3VA2040-7HN32-0AA0			3VA2040-8HN32-0AA0	
63		3VA2063-6HN32-0AA0			3VA2063-7HN32-0AA0			3VA2063-8HN32-0AA0	
100		3VA2010-6HN32-0AA0			3VA2010-7HN32-0AA0			3VA2010-8HN32-0AA0	
25		3VA2125-6HN32-0AA0			3VA2125-7HN32-0AA0			3VA2125-8HN32-0AA0	
40		3VA2140-6HN32-0AA0			3VA2140-7HN32-0AA0			3VA2140-8HN32-0AA0	
63		3VA2163-6HN32-0AA0			3VA2163-7HN32-0AA0			3VA2163-8HN32-0AA0	
100		3VA2110-6HN32-0AA0			3VA2110-7HN32-0AA0			3VA2110-8HN32-0AA0	
160		3VA2116-6HN32-0AA0			3VA2116-7HN32-0AA0			3VA2116-8HN32-0AA0	
160		3VA2216-6HN32-0AA0			3VA2216-7HN32-0AA0			3VA2216-8HN32-0AA0	
250		3VA2225-6HN32-0AA0			3VA2225-7HN32-0AA0			3VA2225-8HN32-0AA0	
250		3VA2325-6HN32-0AA0			3VA2325-7HN32-0AA0		1)	3VA2325-8HN32-0AA0	
400		3VA2340-6HN32-0AA0			3VA2340-7HN32-0AA0		1)	3VA2340-8HN32-0AA0	
400		3VA2440-6HN32-0AA0			3VA2440-7HN32-0AA0		1)	3VA2440-8HN32-0AA0	
630		3VA2463-6HN32-0AA0			3VA2463-7HN32-0AA0		1)	3VA2463-8HN32-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

* You can order this quantity or a multiple thereof.

3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

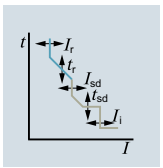
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	S function (short-time delayed short-circuit protection "S") I_{sd} A	Operating current of the instantaneous short-circuit protection "I" I_i A	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7	
							Article No. www.siemens.com/product?Article No.	Basic price € per PU

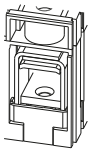
3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

I201_18480



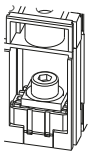
Line and generator protection, with display, ETU550 LSI

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i



Connection with box terminal

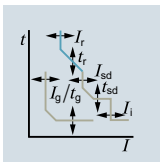
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JP36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JP36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JP36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JP36-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JP36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JP36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JP36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JP36-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JP36-0AA0



Connection with lug terminal

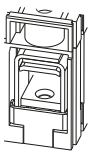
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JP32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JP32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JP32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JP32-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JP32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JP32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JP32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JP32-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JP32-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5JP32-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5JP32-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5JP32-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5JP32-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1)]	3VA2440-5JP32-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5JP32-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5JP32-0AA0

I201_18481



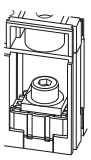
Line and generator protection, with display, ETU560 LSIG

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd}, adjustable instantaneous short-circuit protection I_i and adjustable ground-fault protection I_g



Connection with box terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JQ36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JQ36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JQ36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JQ36-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JQ36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JQ36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JQ36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JQ36-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JQ36-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JQ32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JQ32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JQ32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JQ32-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JQ32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JQ32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JQ32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JQ32-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JQ32-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5JQ32-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5JQ32-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5JQ32-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5JQ32-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1)]	3VA2440-5JQ32-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5JQ32-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5JQ32-0AA0

[1)] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line and generator protection, with display, ETU550 LSI With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i									
Connection with box terminal									
25		3VA2025-6JP36-0AA0			3VA2025-7JP36-0AA0			3VA2025-8JP36-0AA0	
40		3VA2040-6JP36-0AA0			3VA2040-7JP36-0AA0			3VA2040-8JP36-0AA0	
63		3VA2063-6JP36-0AA0			3VA2063-7JP36-0AA0			3VA2063-8JP36-0AA0	
100		3VA2010-6JP36-0AA0			3VA2010-7JP36-0AA0			3VA2010-8JP36-0AA0	
25		3VA2125-6JP36-0AA0			3VA2125-7JP36-0AA0			3VA2125-8JP36-0AA0	
40		3VA2140-6JP36-0AA0			3VA2140-7JP36-0AA0			3VA2140-8JP36-0AA0	
63		3VA2163-6JP36-0AA0			3VA2163-7JP36-0AA0			3VA2163-8JP36-0AA0	
100		3VA2110-6JP36-0AA0			3VA2110-7JP36-0AA0			3VA2110-8JP36-0AA0	
160		3VA2116-6JP36-0AA0			3VA2116-7JP36-0AA0			3VA2116-8JP36-0AA0	
Connection with lug terminal									
25		3VA2025-6JP32-0AA0			3VA2025-7JP32-0AA0			3VA2025-8JP32-0AA0	
40		3VA2040-6JP32-0AA0			3VA2040-7JP32-0AA0			3VA2040-8JP32-0AA0	
63		3VA2063-6JP32-0AA0			3VA2063-7JP32-0AA0			3VA2063-8JP32-0AA0	
100		3VA2010-6JP32-0AA0			3VA2010-7JP32-0AA0			3VA2010-8JP32-0AA0	
25		3VA2125-6JP32-0AA0			3VA2125-7JP32-0AA0			3VA2125-8JP32-0AA0	
40		3VA2140-6JP32-0AA0			3VA2140-7JP32-0AA0			3VA2140-8JP32-0AA0	
63		3VA2163-6JP32-0AA0			3VA2163-7JP32-0AA0			3VA2163-8JP32-0AA0	
100		3VA2110-6JP32-0AA0			3VA2110-7JP32-0AA0			3VA2110-8JP32-0AA0	
160		3VA2116-6JP32-0AA0			3VA2116-7JP32-0AA0			3VA2116-8JP32-0AA0	
160		3VA2216-6JP32-0AA0			3VA2216-7JP32-0AA0			3VA2216-8JP32-0AA0	
250		3VA2225-6JP32-0AA0			3VA2225-7JP32-0AA0			3VA2225-8JP32-0AA0	
250		3VA2325-6JP32-0AA0			3VA2325-7JP32-0AA0		1)	3VA2325-8JP32-0AA0	
400		3VA2340-6JP32-0AA0			3VA2340-7JP32-0AA0		1)	3VA2340-8JP32-0AA0	
400		3VA2440-6JP32-0AA0			3VA2440-7JP32-0AA0		1)	3VA2440-8JP32-0AA0	
500		3VA2450-6JP32-0AA0			3VA2450-7JP32-0AA0			--	
630		3VA2463-6JP32-0AA0			3VA2463-7JP32-0AA0		1)	3VA2463-8JP32-0AA0	
Line and generator protection, with display, ETU560 LSIG With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd}, adjustable instantaneous short-circuit protection I_i and adjustable ground-fault protection I_g									
Connection with box terminal									
25		3VA2025-6JQ36-0AA0			3VA2025-7JQ36-0AA0			3VA2025-8JQ36-0AA0	
40		3VA2040-6JQ36-0AA0			3VA2040-7JQ36-0AA0			3VA2040-8JQ36-0AA0	
63		3VA2063-6JQ36-0AA0			3VA2063-7JQ36-0AA0			3VA2063-8JQ36-0AA0	
100		3VA2010-6JQ36-0AA0			3VA2010-7JQ36-0AA0			3VA2010-8JQ36-0AA0	
25		3VA2125-6JQ36-0AA0			3VA2125-7JQ36-0AA0			3VA2125-8JQ36-0AA0	
40		3VA2140-6JQ36-0AA0			3VA2140-7JQ36-0AA0			3VA2140-8JQ36-0AA0	
63		3VA2163-6JQ36-0AA0			3VA2163-7JQ36-0AA0			3VA2163-8JQ36-0AA0	
100		3VA2110-6JQ36-0AA0			3VA2110-7JQ36-0AA0			3VA2110-8JQ36-0AA0	
160		3VA2116-6JQ36-0AA0			3VA2116-7JQ36-0AA0			3VA2116-8JQ36-0AA0	
Connection with lug terminal									
25		3VA2025-6JQ32-0AA0			3VA2025-7JQ32-0AA0			3VA2025-8JQ32-0AA0	
40		3VA2040-6JQ32-0AA0			3VA2040-7JQ32-0AA0			3VA2040-8JQ32-0AA0	
63		3VA2063-6JQ32-0AA0			3VA2063-7JQ32-0AA0			3VA2063-8JQ32-0AA0	
100		3VA2010-6JQ32-0AA0			3VA2010-7JQ32-0AA0			3VA2010-8JQ32-0AA0	
25		3VA2125-6JQ32-0AA0			3VA2125-7JQ32-0AA0			3VA2125-8JQ32-0AA0	
40		3VA2140-6JQ32-0AA0			3VA2140-7JQ32-0AA0			3VA2140-8JQ32-0AA0	
63		3VA2163-6JQ32-0AA0			3VA2163-7JQ32-0AA0			3VA2163-8JQ32-0AA0	
100		3VA2110-6JQ32-0AA0			3VA2110-7JQ32-0AA0			3VA2110-8JQ32-0AA0	
160		3VA2116-6JQ32-0AA0			3VA2116-7JQ32-0AA0			3VA2116-8JQ32-0AA0	
160		3VA2216-6JQ32-0AA0			3VA2216-7JQ32-0AA0			3VA2216-8JQ32-0AA0	
250		3VA2225-6JQ32-0AA0			3VA2225-7JQ32-0AA0			3VA2225-8JQ32-0AA0	
250		3VA2325-6JQ32-0AA0			3VA2325-7JQ32-0AA0		1)	3VA2325-8JQ32-0AA0	
400		3VA2340-6JQ32-0AA0			3VA2340-7JQ32-0AA0		1)	3VA2340-8JQ32-0AA0	
400		3VA2440-6JQ32-0AA0			3VA2440-7JQ32-0AA0		1)	3VA2440-8JQ32-0AA0	
500		3VA2450-6JQ32-0AA0			3VA2450-7JQ32-0AA0			--	
630		3VA2463-6JQ32-0AA0			3VA2463-7JQ32-0AA0		1)	3VA2463-8JQ32-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

* You can order this quantity or a multiple thereof.

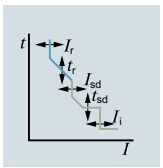
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	S function (short-time delayed short-circuit protection "S") I_{sd} A	Operating current of the instantaneous short-circuit protection "I" I_i A	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU

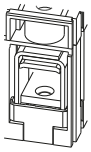
3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

I201_18482



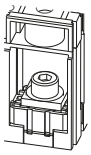
Line and generator protection, with display, with metering function, ETU850 LSI

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i



Connection with box terminal

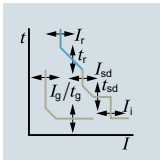
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KP36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KP36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KP36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KP36-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KP36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KP36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KP36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KP36-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KP36-0AA0



Connection with lug terminal

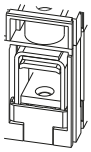
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KP32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KP32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KP32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KP32-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KP32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KP32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KP32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KP32-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KP32-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5KP32-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5KP32-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5KP32-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5KP32-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1]	3VA2440-5KP32-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5KP32-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5KP32-0AA0

I201_18483



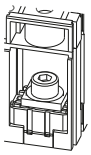
Line and generator protection, with display, with metering function, ETU860 LSIG

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd}, adjustable instantaneous short-circuit protection I_i and adjustable ground-fault protection I_g



Connection with box terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KQ36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KQ36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KQ36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KQ36-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KQ36-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KQ36-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KQ36-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KQ36-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KQ36-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KQ32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KQ32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KQ32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KQ32-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KQ32-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KQ32-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KQ32-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KQ32-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KQ32-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5KQ32-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5KQ32-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5KQ32-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5KQ32-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1]	3VA2440-5KQ32-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5KQ32-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5KQ32-0AA0

[1] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line and generator protection, with display, with metering function, ETU850 LSI									
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i									
Connection with box terminal									
25		3VA2025-6KP36-0AA0			3VA2025-7KP36-0AA0			3VA2025-8KP36-0AA0	
40		3VA2040-6KP36-0AA0			3VA2040-7KP36-0AA0			3VA2040-8KP36-0AA0	
63		3VA2063-6KP36-0AA0			3VA2063-7KP36-0AA0			3VA2063-8KP36-0AA0	
100		3VA2010-6KP36-0AA0			3VA2010-7KP36-0AA0			3VA2010-8KP36-0AA0	
25		3VA2125-6KP36-0AA0			3VA2125-7KP36-0AA0			3VA2125-8KP36-0AA0	
40		3VA2140-6KP36-0AA0			3VA2140-7KP36-0AA0			3VA2140-8KP36-0AA0	
63		3VA2163-6KP36-0AA0			3VA2163-7KP36-0AA0			3VA2163-8KP36-0AA0	
100		3VA2110-6KP36-0AA0			3VA2110-7KP36-0AA0			3VA2110-8KP36-0AA0	
160		3VA2116-6KP36-0AA0			3VA2116-7KP36-0AA0			3VA2116-8KP36-0AA0	
Connection with lug terminal									
25		3VA2025-6KP32-0AA0			3VA2025-7KP32-0AA0			3VA2025-8KP32-0AA0	
40		3VA2040-6KP32-0AA0			3VA2040-7KP32-0AA0			3VA2040-8KP32-0AA0	
63		3VA2063-6KP32-0AA0			3VA2063-7KP32-0AA0			3VA2063-8KP32-0AA0	
100		3VA2010-6KP32-0AA0			3VA2010-7KP32-0AA0			3VA2010-8KP32-0AA0	
25		3VA2125-6KP32-0AA0			3VA2125-7KP32-0AA0			3VA2125-8KP32-0AA0	
40		3VA2140-6KP32-0AA0			3VA2140-7KP32-0AA0			3VA2140-8KP32-0AA0	
63		3VA2163-6KP32-0AA0			3VA2163-7KP32-0AA0			3VA2163-8KP32-0AA0	
100		3VA2110-6KP32-0AA0			3VA2110-7KP32-0AA0			3VA2110-8KP32-0AA0	
160		3VA2116-6KP32-0AA0			3VA2116-7KP32-0AA0			3VA2116-8KP32-0AA0	
160		3VA2216-6KP32-0AA0			3VA2216-7KP32-0AA0			3VA2216-8KP32-0AA0	
250		3VA2225-6KP32-0AA0			3VA2225-7KP32-0AA0			3VA2225-8KP32-0AA0	
250		3VA2325-6KP32-0AA0			3VA2325-7KP32-0AA0		1)	3VA2325-8KP32-0AA0	
400		3VA2340-6KP32-0AA0			3VA2340-7KP32-0AA0		1)	3VA2340-8KP32-0AA0	
400		3VA2440-6KP32-0AA0			3VA2440-7KP32-0AA0		1)	3VA2440-8KP32-0AA0	
500		3VA2450-6KP32-0AA0			3VA2450-7KP32-0AA0			--	
630		3VA2463-6KP32-0AA0			3VA2463-7KP32-0AA0		1)	3VA2463-8KP32-0AA0	
Line and generator protection, with display, with metering function, ETU860 LSIG									
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd}, adjustable instantaneous short-circuit protection I_i and adjustable ground-fault protection I_g									
Connection with box terminal									
25		3VA2025-6KQ36-0AA0			3VA2025-7KQ36-0AA0			3VA2025-8KQ36-0AA0	
40		3VA2040-6KQ36-0AA0			3VA2040-7KQ36-0AA0			3VA2040-8KQ36-0AA0	
63		3VA2063-6KQ36-0AA0			3VA2063-7KQ36-0AA0			3VA2063-8KQ36-0AA0	
100		3VA2010-6KQ36-0AA0			3VA2010-7KQ36-0AA0			3VA2010-8KQ36-0AA0	
25		3VA2125-6KQ36-0AA0			3VA2125-7KQ36-0AA0			3VA2125-8KQ36-0AA0	
40		3VA2140-6KQ36-0AA0			3VA2140-7KQ36-0AA0			3VA2140-8KQ36-0AA0	
63		3VA2163-6KQ36-0AA0			3VA2163-7KQ36-0AA0			3VA2163-8KQ36-0AA0	
100		3VA2110-6KQ36-0AA0			3VA2110-7KQ36-0AA0			3VA2110-8KQ36-0AA0	
160		3VA2116-6KQ36-0AA0			3VA2116-7KQ36-0AA0			3VA2116-8KQ36-0AA0	
Connection with lug terminal									
25		3VA2025-6KQ32-0AA0			3VA2025-7KQ32-0AA0			3VA2025-8KQ32-0AA0	
40		3VA2040-6KQ32-0AA0			3VA2040-7KQ32-0AA0			3VA2040-8KQ32-0AA0	
63		3VA2063-6KQ32-0AA0			3VA2063-7KQ32-0AA0			3VA2063-8KQ32-0AA0	
100		3VA2010-6KQ32-0AA0			3VA2010-7KQ32-0AA0			3VA2010-8KQ32-0AA0	
25		3VA2125-6KQ32-0AA0			3VA2125-7KQ32-0AA0			3VA2125-8KQ32-0AA0	
40		3VA2140-6KQ32-0AA0			3VA2140-7KQ32-0AA0			3VA2140-8KQ32-0AA0	
63		3VA2163-6KQ32-0AA0			3VA2163-7KQ32-0AA0			3VA2163-8KQ32-0AA0	
100		3VA2110-6KQ32-0AA0			3VA2110-7KQ32-0AA0			3VA2110-8KQ32-0AA0	
160		3VA2116-6KQ32-0AA0			3VA2116-7KQ32-0AA0			3VA2116-8KQ32-0AA0	
160		3VA2216-6KQ32-0AA0			3VA2216-7KQ32-0AA0			3VA2216-8KQ32-0AA0	
250		3VA2225-6KQ32-0AA0			3VA2225-7KQ32-0AA0			3VA2225-8KQ32-0AA0	
250		3VA2325-6KQ32-0AA0			3VA2325-7KQ32-0AA0		1)	3VA2325-8KQ32-0AA0	
400		3VA2340-6KQ32-0AA0			3VA2340-7KQ32-0AA0		1)	3VA2340-8KQ32-0AA0	
400		3VA2440-6KQ32-0AA0			3VA2440-7KQ32-0AA0		1)	3VA2440-8KQ32-0AA0	
500		3VA2450-6KQ32-0AA0			3VA2450-7KQ32-0AA0			--	
630		3VA2463-6KQ32-0AA0			3VA2463-7KQ32-0AA0		1)	3VA2463-8KQ32-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

* You can order this quantity or a multiple thereof.

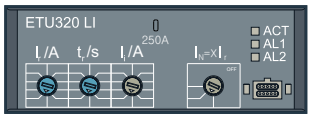
3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7
		A	A	A	A		Article No. www.siemens.com/product?Article No. / Basic price € per PU

4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit



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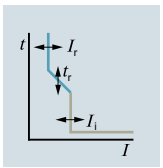
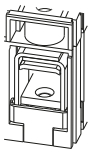


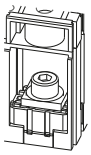
Line protection, ETU320 LI

With adjustable overload protection I_r and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit 0 %, 50 % or 100 %



Connection with box terminal

3VA20	25	10 ... 25	--	38 ... 300	3VA2025-5HL46-0AA0
	40	16 ... 40	--	60 ... 480	3VA2040-5HL46-0AA0
	63	25 ... 63	--	95 ... 756	3VA2063-5HL46-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2010-5HL46-0AA0
3VA21	25	10 ... 25	--	38 ... 300	3VA2125-5HL46-0AA0
	40	16 ... 40	--	60 ... 480	3VA2140-5HL46-0AA0
	63	25 ... 63	--	95 ... 756	3VA2163-5HL46-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2110-5HL46-0AA0
	160	63 ... 160	--	240 ... 1600	3VA2116-5HL46-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	--	38 ... 300	3VA2025-5HL42-0AA0
	40	16 ... 40	--	60 ... 480	3VA2040-5HL42-0AA0
	63	25 ... 63	--	95 ... 756	3VA2063-5HL42-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2010-5HL42-0AA0
3VA21	25	10 ... 25	--	38 ... 300	3VA2125-5HL42-0AA0
	40	16 ... 40	--	60 ... 480	3VA2140-5HL42-0AA0
	63	25 ... 63	--	95 ... 756	3VA2163-5HL42-0AA0
	100	40 ... 100	--	150 ... 1200	3VA2110-5HL42-0AA0
	160	63 ... 160	--	240 ... 1600	3VA2116-5HL42-0AA0
3VA22	160	63 ... 160	--	240 ... 1920	3VA2216-5HL42-0AA0
	250	100 ... 250	--	375 ... 2500	3VA2225-5HL42-0AA0
3VA23	250	100 ... 250	--	375 ... 3000	3VA2325-5HL42-0AA0
	400	160 ... 400	--	600 ... 4000	3VA2340-5HL42-0AA0
3VA24	400	160 ... 400	--	600 ... 4800[1)]	3VA2440-5HL42-0AA0
	630	250 ... 630	--	945 ... 5670	3VA2463-5HL42-0AA0

1) At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, ETU320 LI With adjustable overload protection I_r and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit 0 %, 50 % or 100 %									
		Connection with box terminal							
25		3VA2025-6HL46-0AA0			3VA2025-7HL46-0AA0			3VA2025-8HL46-0AA0	
40		3VA2040-6HL46-0AA0			3VA2040-7HL46-0AA0			3VA2040-8HL46-0AA0	
63		3VA2063-6HL46-0AA0			3VA2063-7HL46-0AA0			3VA2063-8HL46-0AA0	
100		3VA2010-6HL46-0AA0			3VA2010-7HL46-0AA0			3VA2010-8HL46-0AA0	
25		3VA2125-6HL46-0AA0			3VA2125-7HL46-0AA0			3VA2125-8HL46-0AA0	
40		3VA2140-6HL46-0AA0			3VA2140-7HL46-0AA0			3VA2140-8HL46-0AA0	
63		3VA2163-6HL46-0AA0			3VA2163-7HL46-0AA0			3VA2163-8HL46-0AA0	
100		3VA2110-6HL46-0AA0			3VA2110-7HL46-0AA0			3VA2110-8HL46-0AA0	
160		3VA2116-6HL46-0AA0			3VA2116-7HL46-0AA0			3VA2116-8HL46-0AA0	
		Connection with lug terminal							
25		3VA2025-6HL42-0AA0			3VA2025-7HL42-0AA0			3VA2025-8HL42-0AA0	
40		3VA2040-6HL42-0AA0			3VA2040-7HL42-0AA0			3VA2040-8HL42-0AA0	
63		3VA2063-6HL42-0AA0			3VA2063-7HL42-0AA0			3VA2063-8HL42-0AA0	
100		3VA2010-6HL42-0AA0			3VA2010-7HL42-0AA0			3VA2010-8HL42-0AA0	
25		3VA2125-6HL42-0AA0			3VA2125-7HL42-0AA0			3VA2125-8HL42-0AA0	
40		3VA2140-6HL42-0AA0			3VA2140-7HL42-0AA0			3VA2140-8HL42-0AA0	
63		3VA2163-6HL42-0AA0			3VA2163-7HL42-0AA0			3VA2163-8HL42-0AA0	
100		3VA2110-6HL42-0AA0			3VA2110-7HL42-0AA0			3VA2110-8HL42-0AA0	
160		3VA2116-6HL42-0AA0			3VA2116-7HL42-0AA0			3VA2116-8HL42-0AA0	
160		3VA2216-6HL42-0AA0			3VA2216-7HL42-0AA0			3VA2216-8HL42-0AA0	
250		3VA2225-6HL42-0AA0			3VA2225-7HL42-0AA0			3VA2225-8HL42-0AA0	
250		3VA2325-6HL42-0AA0			3VA2325-7HL42-0AA0		1)	3VA2325-8HL42-0AA0	
400		3VA2340-6HL42-0AA0			3VA2340-7HL42-0AA0		1)	3VA2340-8HL42-0AA0	
400		3VA2440-6HL42-0AA0			3VA2440-7HL42-0AA0		1)	3VA2440-8HL42-0AA0	
630		3VA2463-6HL42-0AA0			3VA2463-7HL42-0AA0		1)	3VA2463-8HL42-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

3

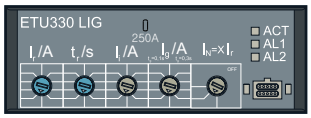
3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	Operating current of the instantaneous short-circuit protection "I" I_i	Ground-fault protection G I_g	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A	A			

4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit



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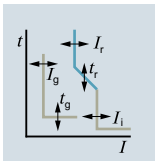
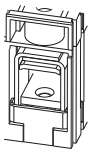


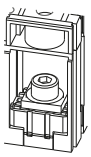
Line protection, ETU330 LIG

With adjustable overload protection I_r and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit 0 %, 50 % or 100 % and adjustable ground-fault protection I_g



Connection with box terminal

3VA20	25	10 ... 25	38 ... 300	15 ... 25	3VA2025-5HM46-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2040-5HM46-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2063-5HM46-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2010-5HM46-0AA0
3VA21	25	10 ... 25	38 ... 300	15 ... 25	3VA2125-5HM46-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2140-5HM46-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2163-5HM46-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2110-5HM46-0AA0
	160	63 ... 160	240 ... 1600	32 ... 160	3VA2116-5HM46-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	38 ... 300	15 ... 25	3VA2025-5HM42-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2040-5HM42-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2063-5HM42-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2010-5HM42-0AA0
3VA21	25	10 ... 25	38 ... 300	15 ... 25	3VA2125-5HM42-0AA0
	40	16 ... 40	60 ... 480	16 ... 40	3VA2140-5HM42-0AA0
	63	25 ... 63	95 ... 756	16 ... 63	3VA2163-5HM42-0AA0
	100	40 ... 100	150 ... 1200	20 ... 100	3VA2110-5HM42-0AA0
	160	63 ... 160	240 ... 1600	32 ... 160	3VA2116-5HM42-0AA0
3VA22	160	63 ... 160	240 ... 1920	32 ... 160	3VA2216-5HM42-0AA0
	250	100 ... 250	375 ... 2500	50 ... 250	3VA2225-5HM42-0AA0
3VA23	250	100 ... 250	375 ... 3000	50 ... 250	3VA2325-5HM42-0AA0
	400	160 ... 400	600 ... 4000	80 ... 400	3VA2340-5HM42-0AA0
3VA24	400	160 ... 400	600 ... 4800[1)]	80 ... 400	3VA2440-5HM42-0AA0
	630	250 ... 630	945 ... 5670	126 ... 630	3VA2463-5HM42-0AA0

1) At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7
A		Article No. www.siemens.com/product?Article No. — Basic price € per PU		Article No. www.siemens.com/product?Article No. — Basic price € per PU		Article No. www.siemens.com/product?Article No. — Basic price € per PU
Line protection, ETU330 LIG With adjustable overload protection I_r and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit 0 %, 50 % or 100 % and adjustable ground-fault protection I_g						
		Connection with box terminal				
25		3VA2025-6HM46-0AA0		3VA2025-7HM46-0AA0		3VA2025-8HM46-0AA0
40		3VA2040-6HM46-0AA0		3VA2040-7HM46-0AA0		3VA2040-8HM46-0AA0
63		3VA2063-6HM46-0AA0		3VA2063-7HM46-0AA0		3VA2063-8HM46-0AA0
100		3VA2010-6HM46-0AA0		3VA2010-7HM46-0AA0		3VA2010-8HM46-0AA0
25		3VA2125-6HM46-0AA0		3VA2125-7HM46-0AA0		3VA2125-8HM46-0AA0
40		3VA2140-6HM46-0AA0		3VA2140-7HM46-0AA0		3VA2140-8HM46-0AA0
63		3VA2163-6HM46-0AA0		3VA2163-7HM46-0AA0		3VA2163-8HM46-0AA0
100		3VA2110-6HM46-0AA0		3VA2110-7HM46-0AA0		3VA2110-8HM46-0AA0
160		3VA2116-6HM46-0AA0		3VA2116-7HM46-0AA0		3VA2116-8HM46-0AA0
		Connection with lug terminal				
25		3VA2025-6HM42-0AA0		3VA2025-7HM42-0AA0		3VA2025-8HM42-0AA0
40		3VA2040-6HM42-0AA0		3VA2040-7HM42-0AA0		3VA2040-8HM42-0AA0
63		3VA2063-6HM42-0AA0		3VA2063-7HM42-0AA0		3VA2063-8HM42-0AA0
100		3VA2010-6HM42-0AA0		3VA2010-7HM42-0AA0		3VA2010-8HM42-0AA0
25		3VA2125-6HM42-0AA0		3VA2125-7HM42-0AA0		3VA2125-8HM42-0AA0
40		3VA2140-6HM42-0AA0		3VA2140-7HM42-0AA0		3VA2140-8HM42-0AA0
63		3VA2163-6HM42-0AA0		3VA2163-7HM42-0AA0		3VA2163-8HM42-0AA0
100		3VA2110-6HM42-0AA0		3VA2110-7HM42-0AA0		3VA2110-8HM42-0AA0
160		3VA2116-6HM42-0AA0		3VA2116-7HM42-0AA0		3VA2116-8HM42-0AA0
160		3VA2216-6HM42-0AA0		3VA2216-7HM42-0AA0		3VA2216-8HM42-0AA0
250		3VA2225-6HM42-0AA0		3VA2225-7HM42-0AA0		3VA2225-8HM42-0AA0
250		3VA2325-6HM42-0AA0		3VA2325-7HM42-0AA0	1)	3VA2325-8HM42-0AA0
400		3VA2340-6HM42-0AA0		3VA2340-7HM42-0AA0	1)	3VA2340-8HM42-0AA0
400		3VA2440-6HM42-0AA0		3VA2440-7HM42-0AA0	1)	3VA2440-8HM42-0AA0
630		3VA2463-6HM42-0AA0		3VA2463-7HM42-0AA0	1)	3VA2463-8HM42-0AA0

1) Start of delivery scheduled for 3rd quarter 2015

3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n A	Current setting of the inverse-time delayed overload protection "L" I_r A	S function (short-time delayed short-circuit protection "S") I_{sd} A	Operating current of the instantaneous short-circuit protection "I" I_i A	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU

4-pole, fixed-mounted, 3VA21 to 3VA24, up to 630 A
Electronic trip unit

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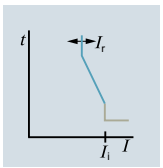
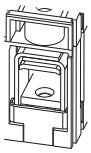


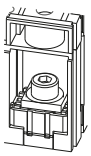
Line protection, ETU340 ELISA

With easily adjustable characteristic (characteristic curve of a fuse) with "N" overload and short-circuit release 0 % or 100 %



Connection with box terminal

3VA21	25	10 ... 25	--	375	3VA2125-5HK46-0AA0
	40	16 ... 40	--	600	3VA2140-5HK46-0AA0
	63	25 ... 63	--	945	3VA2163-5HK46-0AA0
	100	40 ... 100	--	1500	3VA2110-5HK46-0AA0



Connection with lug terminal

3VA21	25	10 ... 25	--	375	3VA2125-5HK42-0AA0
	40	16 ... 40	--	600	3VA2140-5HK42-0AA0
	63	25 ... 63	--	945	3VA2163-5HK42-0AA0
	100	40 ... 100	--	1500	3VA2110-5HK42-0AA0
3VA22	160	63 ... 160	--	2400	3VA2216-5HK42-0AA0
3VA23	250	100 ... 250	--	3750	3VA2325-5HK42-0AA0
3VA24	400	160 ... 400	--	6000[1]	3VA2440-5HK42-0AA0
	500	200 ... 500	--	7000	3VA2450-5HK42-0AA0
	630	250 ... 630	--	5670	3VA2463-5HK42-0AA0

1) At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line protection, ETU340 ELISA									
With easily adjustable characteristic (characteristic curve of a fuse) with "N" overload and short-circuit release 0 % or 100 %									
		Connection with box terminal							
25		**3VA2125-6HK46-0AA0**			**3VA2125-7HK46-0AA0**			**3VA2125-8HK46-0AA0**	
40		**3VA2140-6HK46-0AA0**			**3VA2140-7HK46-0AA0**			**3VA2140-8HK46-0AA0**	
63		**3VA2163-6HK46-0AA0**			**3VA2163-7HK46-0AA0**			**3VA2163-8HK46-0AA0**	
100		**3VA2110-6HK46-0AA0**			**3VA2110-7HK46-0AA0**			**3VA2110-8HK46-0AA0**	
		Connection with lug terminal							
25		**3VA2125-6HK42-0AA0**			**3VA2125-7HK42-0AA0**			**3VA2125-8HK42-0AA0**	
40		**3VA2140-6HK42-0AA0**			**3VA2140-7HK42-0AA0**			**3VA2140-8HK42-0AA0**	
63		**3VA2163-6HK42-0AA0**			**3VA2163-7HK42-0AA0**			**3VA2163-8HK42-0AA0**	
100		**3VA2110-6HK42-0AA0**			**3VA2110-7HK42-0AA0**			**3VA2110-8HK42-0AA0**	
160		**3VA2216-6HK42-0AA0**			**3VA2216-7HK42-0AA0**			**3VA2216-8HK42-0AA0**	
250		**3VA2325-6HK42-0AA0**			**3VA2325-7HK42-0AA0**		1)	**3VA2325-8HK42-0AA0**	
400		**3VA2440-6HK42-0AA0**			**3VA2440-7HK42-0AA0**		1)	**3VA2440-8HK42-0AA0**	
500		**3VA2450-6HK42-0AA0**			**3VA2450-7HK42-0AA0**		1)	**3VA2450-8HK42-0AA0**	
630		**3VA2463-6HK42-0AA0**			**3VA2463-7HK42-0AA0**		1)	**3VA2463-8HK42-0AA0**	

1) Start of delivery scheduled for 3rd quarter 2015

3

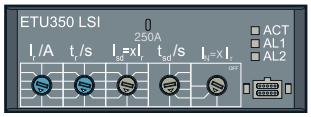
3VA2 Molded Case Circuit Breakers up to 630 A, ETU, 400/690 V, up to 150 kA

Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7	
		A	A	A	A		Article No. www.siemens.com/product?Article No.	Basic price € per PU

4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit



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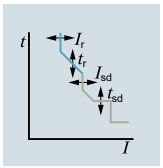
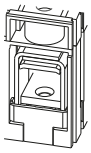
Line and generator protection, ETU350 LSI

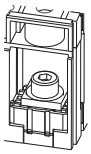
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and fixed instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit 0 %, 50 % or 100 %





Connection with box terminal

	I_r x ...				
3VA20	25	10 ... 25	1.5 ... 10	300	3VA2025-5HN46-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2040-5HN46-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2063-5HN46-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2010-5HN46-0AA0
3VA21	25	10 ... 25	1.5 ... 10	300	3VA2125-5HN46-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2140-5HN46-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2163-5HN46-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2110-5HN46-0AA0
	160	63 ... 160	1.5 ... 10	1600	3VA2116-5HN46-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	1.5 ... 10	300	3VA2025-5HN42-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2040-5HN42-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2063-5HN42-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2010-5HN42-0AA0
3VA21	25	10 ... 25	1.5 ... 10	300	3VA2125-5HN42-0AA0
	40	16 ... 40	1.5 ... 10	480	3VA2140-5HN42-0AA0
	63	25 ... 63	1.5 ... 10	756	3VA2163-5HN42-0AA0
	100	40 ... 100	1.5 ... 10	1200	3VA2110-5HN42-0AA0
	160	63 ... 160	1.5 ... 10	1600	3VA2116-5HN42-0AA0
3VA22	160	63 ... 160	1.5 ... 10	1920	3VA2216-5HN42-0AA0
	250	100 ... 250	1.5 ... 10	2500	3VA2225-5HN42-0AA0
3VA23	250	100 ... 250	1.5 ... 10	3000	3VA2325-5HN42-0AA0
	400	160 ... 400	1.5 ... 10	4000	3VA2340-5HN42-0AA0
3VA24	400	160 ... 400	1.5 ... 10	4800[1)]	3VA2440-5HN42-0AA0
	630	250 ... 630	1.5 ... 9	5670	3VA2463-5HN42-0AA0

1) At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line and generator protection, ETU350 LSI With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and fixed instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit 0 %, 50 % or 100 %									
		Connection with box terminal							
25		**3VA2025-6HN46-0AA0**			**3VA2025-7HN46-0AA0**			**3VA2025-8HN46-0AA0**	
40		**3VA2040-6HN46-0AA0**			**3VA2040-7HN46-0AA0**			**3VA2040-8HN46-0AA0**	
63		**3VA2063-6HN46-0AA0**			**3VA2063-7HN46-0AA0**			**3VA2063-8HN46-0AA0**	
100		**3VA2010-6HN46-0AA0**			**3VA2010-7HN46-0AA0**			**3VA2010-8HN46-0AA0**	
25		**3VA2125-6HN46-0AA0**			**3VA2125-7HN46-0AA0**			**3VA2125-8HN46-0AA0**	
40		**3VA2140-6HN46-0AA0**			**3VA2140-7HN46-0AA0**			**3VA2140-8HN46-0AA0**	
63		**3VA2163-6HN46-0AA0**			**3VA2163-7HN46-0AA0**			**3VA2163-8HN46-0AA0**	
100		**3VA2110-6HN46-0AA0**			**3VA2110-7HN46-0AA0**			**3VA2110-8HN46-0AA0**	
160		**3VA2116-6HN46-0AA0**			**3VA2116-7HN46-0AA0**			**3VA2116-8HN46-0AA0**	
		Connection with lug terminal							
25		**3VA2025-6HN42-0AA0**			**3VA2025-7HN42-0AA0**			**3VA2025-8HN42-0AA0**	
40		**3VA2040-6HN42-0AA0**			**3VA2040-7HN42-0AA0**			**3VA2040-8HN42-0AA0**	
63		**3VA2063-6HN42-0AA0**			**3VA2063-7HN42-0AA0**			**3VA2063-8HN42-0AA0**	
100		**3VA2010-6HN42-0AA0**			**3VA2010-7HN42-0AA0**			**3VA2010-8HN42-0AA0**	
25		**3VA2125-6HN42-0AA0**			**3VA2125-7HN42-0AA0**			**3VA2125-8HN42-0AA0**	
40		**3VA2140-6HN42-0AA0**			**3VA2140-7HN42-0AA0**			**3VA2140-8HN42-0AA0**	
63		**3VA2163-6HN42-0AA0**			**3VA2163-7HN42-0AA0**			**3VA2163-8HN42-0AA0**	
100		**3VA2110-6HN42-0AA0**			**3VA2110-7HN42-0AA0**			**3VA2110-8HN42-0AA0**	
160		**3VA2116-6HN42-0AA0**			**3VA2116-7HN42-0AA0**			**3VA2116-8HN42-0AA0**	
160		**3VA2216-6HN42-0AA0**			**3VA2216-7HN42-0AA0**			**3VA2216-8HN42-0AA0**	
250		**3VA2225-6HN42-0AA0**			**3VA2225-7HN42-0AA0**			**3VA2225-8HN42-0AA0**	
250		**3VA2325-6HN42-0AA0**			**3VA2325-7HN42-0AA0**		1)	**3VA2325-8HN42-0AA0**	
400		**3VA2340-6HN42-0AA0**			**3VA2340-7HN42-0AA0**		1)	**3VA2340-8HN42-0AA0**	
400		**3VA2440-6HN42-0AA0**			**3VA2440-7HN42-0AA0**		1)	**3VA2440-8HN42-0AA0**	
630		**3VA2463-6HN42-0AA0**			**3VA2463-7HN42-0AA0**		1)	**3VA2463-8HN42-0AA0**	

1) Start of delivery scheduled for 3rd quarter 2015

3

*** You can order this quantity or a multiple thereof.**

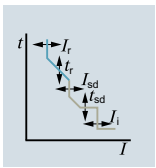
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A	A			

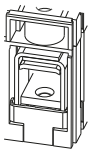
4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

I201_18480



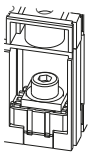
Line and generator protection, with display, ETU550 LSI

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 %



Connection with box terminal

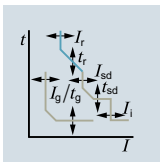
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JP46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JP46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JP46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JP46-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JP46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JP46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JP46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JP46-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JP46-0AA0



Connection with lug terminal

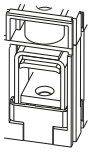
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JP42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JP42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JP42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JP42-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JP42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JP42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JP42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JP42-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JP42-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5JP42-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5JP42-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5JP42-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5JP42-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1)]	3VA2440-5JP42-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5JP42-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5JP42-0AA0

I201_18481



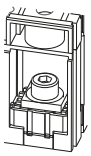
Line and generator protection, with display, ETU560 LSIG

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection I_g



Connection with box terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JQ46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JQ46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JQ46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JQ46-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JQ46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JQ46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JQ46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JQ46-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JQ46-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5JQ42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5JQ42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5JQ42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5JQ42-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5JQ42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5JQ42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5JQ42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5JQ42-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5JQ42-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5JQ42-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5JQ42-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5JQ42-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5JQ42-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1)]	3VA2440-5JQ42-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5JQ42-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5JQ42-0AA0

[1)] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line and generator protection, with display, ETU550 LSI									
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 %									
Connection with box terminal									
25		3VA2025-6JP46-0AA0			3VA2025-7JP46-0AA0			3VA2025-8JP46-0AA0	
40		3VA2040-6JP46-0AA0			3VA2040-7JP46-0AA0			3VA2040-8JP46-0AA0	
63		3VA2063-6JP46-0AA0			3VA2063-7JP46-0AA0			3VA2063-8JP46-0AA0	
100		3VA2010-6JP46-0AA0			3VA2010-7JP46-0AA0			3VA2010-8JP46-0AA0	
25		3VA2125-6JP46-0AA0			3VA2125-7JP46-0AA0			3VA2125-8JP46-0AA0	
40		3VA2140-6JP46-0AA0			3VA2140-7JP46-0AA0			3VA2140-8JP46-0AA0	
63		3VA2163-6JP46-0AA0			3VA2163-7JP46-0AA0			3VA2163-8JP46-0AA0	
100		3VA2110-6JP46-0AA0			3VA2110-7JP46-0AA0			3VA2110-8JP46-0AA0	
160		3VA2116-6JP46-0AA0			3VA2116-7JP46-0AA0			3VA2116-8JP46-0AA0	
Connection with lug terminal									
25		3VA2025-6JP42-0AA0			3VA2025-7JP42-0AA0			3VA2025-8JP42-0AA0	
40		3VA2040-6JP42-0AA0			3VA2040-7JP42-0AA0			3VA2040-8JP42-0AA0	
63		3VA2063-6JP42-0AA0			3VA2063-7JP42-0AA0			3VA2063-8JP42-0AA0	
100		3VA2010-6JP42-0AA0			3VA2010-7JP42-0AA0			3VA2010-8JP42-0AA0	
25		3VA2125-6JP42-0AA0			3VA2125-7JP42-0AA0			3VA2125-8JP42-0AA0	
40		3VA2140-6JP42-0AA0			3VA2140-7JP42-0AA0			3VA2140-8JP42-0AA0	
63		3VA2163-6JP42-0AA0			3VA2163-7JP42-0AA0			3VA2163-8JP42-0AA0	
100		3VA2110-6JP42-0AA0			3VA2110-7JP42-0AA0			3VA2110-8JP42-0AA0	
160		3VA2116-6JP42-0AA0			3VA2116-7JP42-0AA0			3VA2116-8JP42-0AA0	
160		3VA2216-6JP42-0AA0			3VA2216-7JP42-0AA0			3VA2216-8JP42-0AA0	
250		3VA2225-6JP42-0AA0			3VA2225-7JP42-0AA0			3VA2225-8JP42-0AA0	
250		3VA2325-6JP42-0AA0			3VA2325-7JP42-0AA0		1)	3VA2325-8JP42-0AA0	
400		3VA2340-6JP42-0AA0			3VA2340-7JP42-0AA0		1)	3VA2340-8JP42-0AA0	
400		3VA2440-6JP42-0AA0			3VA2440-7JP42-0AA0		1)	3VA2440-8JP42-0AA0	
500		3VA2450-6JP42-0AA0			3VA2450-7JP42-0AA0			--	
630		3VA2463-6JP42-0AA0			3VA2463-7JP42-0AA0		1)	3VA2463-8JP42-0AA0	
Line and generator protection, with display, ETU560 LSIG									
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection I_g									
Connection with box terminal									
25		3VA2025-6JQ46-0AA0			3VA2025-7JQ46-0AA0			3VA2025-8JQ46-0AA0	
40		3VA2040-6JQ46-0AA0			3VA2040-7JQ46-0AA0			3VA2040-8JQ46-0AA0	
63		3VA2063-6JQ46-0AA0			3VA2063-7JQ46-0AA0			3VA2063-8JQ46-0AA0	
100		3VA2010-6JQ46-0AA0			3VA2010-7JQ46-0AA0			3VA2010-8JQ46-0AA0	
25		3VA2125-6JQ46-0AA0			3VA2125-7JQ46-0AA0			3VA2125-8JQ46-0AA0	
40		3VA2140-6JQ46-0AA0			3VA2140-7JQ46-0AA0			3VA2140-8JQ46-0AA0	
63		3VA2163-6JQ46-0AA0			3VA2163-7JQ46-0AA0			3VA2163-8JQ46-0AA0	
100		3VA2110-6JQ46-0AA0			3VA2110-7JQ46-0AA0			3VA2110-8JQ46-0AA0	
160		3VA2116-6JQ46-0AA0			3VA2116-7JQ46-0AA0			3VA2116-8JQ46-0AA0	
Connection with lug terminal									
25		3VA2025-6JQ42-0AA0			3VA2025-7JQ42-0AA0			3VA2025-8JQ42-0AA0	
40		3VA2040-6JQ42-0AA0			3VA2040-7JQ42-0AA0			3VA2040-8JQ42-0AA0	
63		3VA2063-6JQ42-0AA0			3VA2063-7JQ42-0AA0			3VA2063-8JQ42-0AA0	
100		3VA2010-6JQ42-0AA0			3VA2010-7JQ42-0AA0			3VA2010-8JQ42-0AA0	
25		3VA2125-6JQ42-0AA0			3VA2125-7JQ42-0AA0			3VA2125-8JQ42-0AA0	
40		3VA2140-6JQ42-0AA0			3VA2140-7JQ42-0AA0			3VA2140-8JQ42-0AA0	
63		3VA2163-6JQ42-0AA0			3VA2163-7JQ42-0AA0			3VA2163-8JQ42-0AA0	
100		3VA2110-6JQ42-0AA0			3VA2110-7JQ42-0AA0			3VA2110-8JQ42-0AA0	
160		3VA2116-6JQ42-0AA0			3VA2116-7JQ42-0AA0			3VA2116-8JQ42-0AA0	
160		3VA2216-6JQ42-0AA0			3VA2216-7JQ42-0AA0			3VA2216-8JQ42-0AA0	
250		3VA2225-6JQ42-0AA0			3VA2225-7JQ42-0AA0			3VA2225-8JQ42-0AA0	
250		3VA2325-6JQ42-0AA0			3VA2325-7JQ42-0AA0		1)	3VA2325-8JQ42-0AA0	
400		3VA2340-6JQ42-0AA0			3VA2340-7JQ42-0AA0		1)	3VA2340-8JQ42-0AA0	
400		3VA2440-6JQ42-0AA0			3VA2440-7JQ42-0AA0		1)	3VA2440-8JQ42-0AA0	
500		3VA2450-6JQ42-0AA0			3VA2450-7JQ42-0AA0			--	
630		3VA2463-6JQ42-0AA0			3VA2463-7JQ42-0AA0		1)	3VA2463-8JQ42-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

*** You can order this quantity or a multiple thereof.**

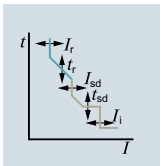
Line protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7	
		A	A	A	A		Article No. www.siemens.com/product?Article No.	Basic price € per PU

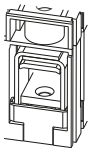
4-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

I201_18482



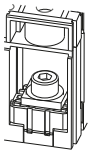
Line and generator protection, with display, with metering function, ETU850 LSI

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 %



Connection with box terminal

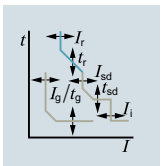
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KP46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KP46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KP46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KP46-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KP46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KP46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KP46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KP46-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KP46-0AA0



Connection with lug terminal

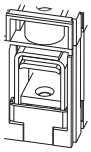
3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KP42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KP42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KP42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KP42-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KP42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KP42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KP42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KP42-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KP42-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5KP42-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5KP42-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5KP42-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5KP42-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1)]	3VA2440-5KP42-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5KP42-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5KP42-0AA0

I201_18483



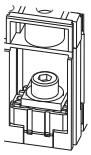
Line and generator protection, with display, with metering function, ETU860 LSIG

With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection I_g



Connection with box terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KQ46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KQ46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KQ46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KQ46-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KQ46-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KQ46-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KQ46-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KQ46-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KQ46-0AA0



Connection with lug terminal

3VA20	25	10 ... 25	15 ... 250	38 ... 300	3VA2025-5KQ42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2040-5KQ42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2063-5KQ42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2010-5KQ42-0AA0
3VA21	25	10 ... 25	15 ... 250	38 ... 300	3VA2125-5KQ42-0AA0
	40	16 ... 40	24 ... 400	60 ... 480	3VA2140-5KQ42-0AA0
	63	25 ... 63	38 ... 630	95 ... 756	3VA2163-5KQ42-0AA0
	100	40 ... 100	60 ... 1000	150 ... 1200	3VA2110-5KQ42-0AA0
	160	63 ... 160	96 ... 1600	240 ... 1600	3VA2116-5KQ42-0AA0
3VA22	160	63 ... 160	96 ... 1600	240 ... 1920	3VA2216-5KQ42-0AA0
	250	100 ... 250	150 ... 2500	375 ... 2500	3VA2225-5KQ42-0AA0
3VA23	250	100 ... 250	150 ... 2500	375 ... 3000	3VA2325-5KQ42-0AA0
	400	160 ... 400	240 ... 4000	600 ... 4000	3VA2340-5KQ42-0AA0
3VA24	400	160 ... 400	240 ... 4000	600 ... 6000[1)]	3VA2440-5KQ42-0AA0
	500	200 ... 500	300 ... 5000	750 ... 7000	3VA2450-5KQ42-0AA0
	630	250 ... 630	378 ... 5670	945 ... 5670	3VA2463-5KQ42-0AA0

[1)] At breaking capacity L 4400 A

* You can order this quantity or a multiple thereof.

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 Article No. www.siemens.com/product?Article No.	Basic price € per PU
Line and generator protection, with display, with metering function, ETU850 LSI									
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 %									
		Connection with box terminal							
25		3VA2025-6KP46-0AA0			3VA2025-7KP46-0AA0			3VA2025-8KP46-0AA0	
40		3VA2040-6KP46-0AA0			3VA2040-7KP46-0AA0			3VA2040-8KP46-0AA0	
63		3VA2063-6KP46-0AA0			3VA2063-7KP46-0AA0			3VA2063-8KP46-0AA0	
100		3VA2010-6KP46-0AA0			3VA2010-7KP46-0AA0			3VA2010-8KP46-0AA0	
25		3VA2125-6KP46-0AA0			3VA2125-7KP46-0AA0			3VA2125-8KP46-0AA0	
40		3VA2140-6KP46-0AA0			3VA2140-7KP46-0AA0			3VA2140-8KP46-0AA0	
63		3VA2163-6KP46-0AA0			3VA2163-7KP46-0AA0			3VA2163-8KP46-0AA0	
100		3VA2110-6KP46-0AA0			3VA2110-7KP46-0AA0			3VA2110-8KP46-0AA0	
160		3VA2116-6KP46-0AA0			3VA2116-7KP46-0AA0			3VA2116-8KP46-0AA0	
		Connection with lug terminal							
25		3VA2025-6KP42-0AA0			3VA2025-7KP42-0AA0			3VA2025-8KP42-0AA0	
40		3VA2040-6KP42-0AA0			3VA2040-7KP42-0AA0			3VA2040-8KP42-0AA0	
63		3VA2063-6KP42-0AA0			3VA2063-7KP42-0AA0			3VA2063-8KP42-0AA0	
100		3VA2010-6KP42-0AA0			3VA2010-7KP42-0AA0			3VA2010-8KP42-0AA0	
25		3VA2125-6KP42-0AA0			3VA2125-7KP42-0AA0			3VA2125-8KP42-0AA0	
40		3VA2140-6KP42-0AA0			3VA2140-7KP42-0AA0			3VA2140-8KP42-0AA0	
63		3VA2163-6KP42-0AA0			3VA2163-7KP42-0AA0			3VA2163-8KP42-0AA0	
100		3VA2110-6KP42-0AA0			3VA2110-7KP42-0AA0			3VA2110-8KP42-0AA0	
160		3VA2116-6KP42-0AA0			3VA2116-7KP42-0AA0			3VA2116-8KP42-0AA0	
160		3VA2216-6KP42-0AA0			3VA2216-7KP42-0AA0			3VA2216-8KP42-0AA0	
250		3VA2225-6KP42-0AA0			3VA2225-7KP42-0AA0			3VA2225-8KP42-0AA0	
250		3VA2325-6KP42-0AA0			3VA2325-7KP42-0AA0		1)	3VA2325-8KP42-0AA0	
400		3VA2340-6KP42-0AA0			3VA2340-7KP42-0AA0		1)	3VA2340-8KP42-0AA0	
400		3VA2440-6KP42-0AA0			3VA2440-7KP42-0AA0		1)	3VA2440-8KP42-0AA0	
500		3VA2450-6KP42-0AA0			3VA2450-7KP42-0AA0			--	
630		3VA2463-6KP42-0AA0			3VA2463-7KP42-0AA0		1)	3VA2463-8KP42-0AA0	
Line and generator protection, with display, with metering function, ETU860 LSIG									
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and adjustable instantaneous short-circuit protection I_i, with neutral protection against overload and short circuit from 20 %/40 % to 100 %/160 % and adjustable ground-fault protection I_g									
		Connection with box terminal							
25		3VA2025-6KQ46-0AA0			3VA2025-7KQ46-0AA0			3VA2025-8KQ46-0AA0	
40		3VA2040-6KQ46-0AA0			3VA2040-7KQ46-0AA0			3VA2040-8KQ46-0AA0	
63		3VA2063-6KQ46-0AA0			3VA2063-7KQ46-0AA0			3VA2063-8KQ46-0AA0	
100		3VA2010-6KQ46-0AA0			3VA2010-7KQ46-0AA0			3VA2010-8KQ46-0AA0	
25		3VA2125-6KQ46-0AA0			3VA2125-7KQ46-0AA0			3VA2125-8KQ46-0AA0	
40		3VA2140-6KQ46-0AA0			3VA2140-7KQ46-0AA0			3VA2140-8KQ46-0AA0	
63		3VA2163-6KQ46-0AA0			3VA2163-7KQ46-0AA0			3VA2163-8KQ46-0AA0	
100		3VA2110-6KQ46-0AA0			3VA2110-7KQ46-0AA0			3VA2110-8KQ46-0AA0	
160		3VA2116-6KQ46-0AA0			3VA2116-7KQ46-0AA0			3VA2116-8KQ46-0AA0	
		Connection with lug terminal							
25		3VA2025-6KQ42-0AA0			3VA2025-7KQ42-0AA0			3VA2025-8KQ42-0AA0	
40		3VA2040-6KQ42-0AA0			3VA2040-7KQ42-0AA0			3VA2040-8KQ42-0AA0	
63		3VA2063-6KQ42-0AA0			3VA2063-7KQ42-0AA0			3VA2063-8KQ42-0AA0	
100		3VA2010-6KQ42-0AA0			3VA2010-7KQ42-0AA0			3VA2010-8KQ42-0AA0	
25		3VA2125-6KQ42-0AA0			3VA2125-7KQ42-0AA0			3VA2125-8KQ42-0AA0	
40		3VA2140-6KQ42-0AA0			3VA2140-7KQ42-0AA0			3VA2140-8KQ42-0AA0	
63		3VA2163-6KQ42-0AA0			3VA2163-7KQ42-0AA0			3VA2163-8KQ42-0AA0	
100		3VA2110-6KQ42-0AA0			3VA2110-7KQ42-0AA0			3VA2110-8KQ42-0AA0	
160		3VA2116-6KQ42-0AA0			3VA2116-7KQ42-0AA0			3VA2116-8KQ42-0AA0	
160		3VA2216-6KQ42-0AA0			3VA2216-7KQ42-0AA0			3VA2216-8KQ42-0AA0	
250		3VA2225-6KQ42-0AA0			3VA2225-7KQ42-0AA0			3VA2225-8KQ42-0AA0	
250		3VA2325-6KQ42-0AA0			3VA2325-7KQ42-0AA0		1)	3VA2325-8KQ42-0AA0	
400		3VA2340-6KQ42-0AA0			3VA2340-7KQ42-0AA0		1)	3VA2340-8KQ42-0AA0	
400		3VA2440-6KQ42-0AA0			3VA2440-7KQ42-0AA0		1)	3VA2440-8KQ42-0AA0	
500		3VA2450-6KQ42-0AA0			3VA2450-7KQ42-0AA0			--	
630		3VA2463-6KQ42-0AA0			3VA2463-7KQ42-0AA0		1)	3VA2463-8KQ42-0AA0	

1) Start of delivery scheduled for 3rd quarter 2015

*** You can order this quantity or a multiple thereof.**

Motor and starter protection

PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Connection technology	Type	Rated current I_n	Current setting of the inverse-time delayed overload protection "L" I_r	S function (short-time delayed short-circuit protection "S") I_{sd}	Operating current of the instantaneous short-circuit protection "I" I_i	DT	I_{cu} up to 55 kA at 415 V, medium breaking capacity M (M) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU
		A	A	A	A			

3-pole, fixed-mounted, 3VA20 to 3VA24, up to 630 A
Electronic trip unit

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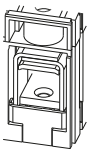
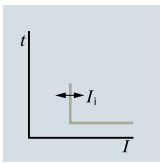
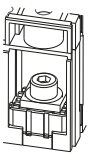


Starter protection, ETU310M I
With adjustable short-circuit protection I_i

Connection with box terminal

3VA21	25	--	--	75 ... 375	--
	40	--	--	120 ... 600	--
	63	--	--	189 ... 945	--
	100	--	--	300 ... 1500	--





Connection with lug terminal

3VA21	25	--	--	75 ... 375	--
	40	--	--	120 ... 600	--
	63	--	--	189 ... 945	--
	100	--	--	300 ... 1500	--
3VA22	160	--	--	480 ... 2400	--
	200	--	--	600 ... 3000	--
3VA23	250	--	--	750 ... 3750	--
3VA24	400	--	--	1200 ... 6000	--
	500	--	--	1500 ... 7500	--

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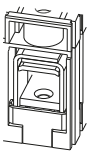
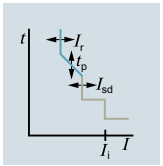
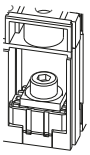


Motor protection, ETU350M LSI
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and fixed instantaneous short-circuit protection I_i

		I_r x ...		
Connection with box terminal				
3VA21	25	10 ... 25	3 ... 15	375	3VA21 25-5MN36-0AA0
	40	16 ... 40	3 ... 15	600	3VA21 40-5MN36-0AA0
	63	25 ... 63	3 ... 15	945	3VA21 63-5MN36-0AA0
	100	40 ... 100	3 ... 15	1500	3VA21 10-5MN36-0AA0





Connection with screw terminal

3VA21	25	10 ... 25	3 ... 15	375	3VA21 25-5MN32-0AA0
	40	16 ... 40	3 ... 15	600	3VA21 40-5MN32-0AA0
	63	25 ... 63	3 ... 15	945	3VA21 63-5MN32-0AA0
	100	40 ... 100	3 ... 15	1500	3VA21 10-5MN32-0AA0
3VA22	160	63 ... 160	3 ... 15	2400	3VA22 16-5MN32-0AA0
	200	80 ... 200	3 ... 15	3000	3VA22 20-5MN32-0AA0
3VA23	250	100 ... 250	3 ... 15	3750	3VA23 25-5MN32-0AA0
3VA24	400	160 ... 400	3 ... 15	6000	3VA24 40-5MN32-0AA0
	500	200 ... 500	3 ... 15	7500	3VA24 50-5MN32-0AA0

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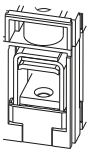
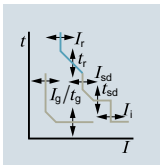
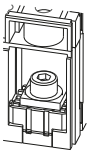


Motor protection, with display, with metering function, ETU860M LSIG
With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd}, adjustable instantaneous short-circuit protection I_i and fixed ground-fault protection I_g

Connection with box terminal

3VA21	25	10 ... 25	38 ... 375	75 ... 375	3VA21 25-5MQ36-0AA0
	40	16 ... 40	60 ... 600	120 ... 600	3VA21 40-5MQ36-0AA0
	63	25 ... 63	95 ... 945	189 ... 945	3VA21 63-5MQ36-0AA0
	100	40 ... 100	150 ... 1500	300 ... 1500	3VA21 10-5MQ36-0AA0





Connection with screw terminal

3VA21	25	10 ... 25	30 ... 375	75 ... 375	3VA21 25-5MQ32-0AA0
	40	16 ... 40	48 ... 600	120 ... 600	3VA21 40-5MQ32-0AA0
	63	25 ... 63	76 ... 945	189 ... 945	3VA21 63-5MQ32-0AA0
	100	40 ... 100	120 ... 1500	300 ... 1500	3VA21 10-5MQ32-0AA0
3VA22	160	63 ... 160	192 ... 2400	480 ... 2400	3VA22 16-5MQ32-0AA0
	200	80 ... 200	240 ... 3000	600 ... 3000	3VA22 20-5MQ32-0AA0
3VA23	250	100 ... 250	300 ... 3750	750 ... 3750	3VA23 25-5MQ32-0AA0
3VA24	400	160 ... 400	480 ... 6000	1200 ... 6000	3VA24 40-5MQ32-0AA0
	500	200 ... 500	600 ... 7500	1500 ... 7500	3VA24 50-5MQ32-0AA0

* You can order this quantity or a multiple thereof.

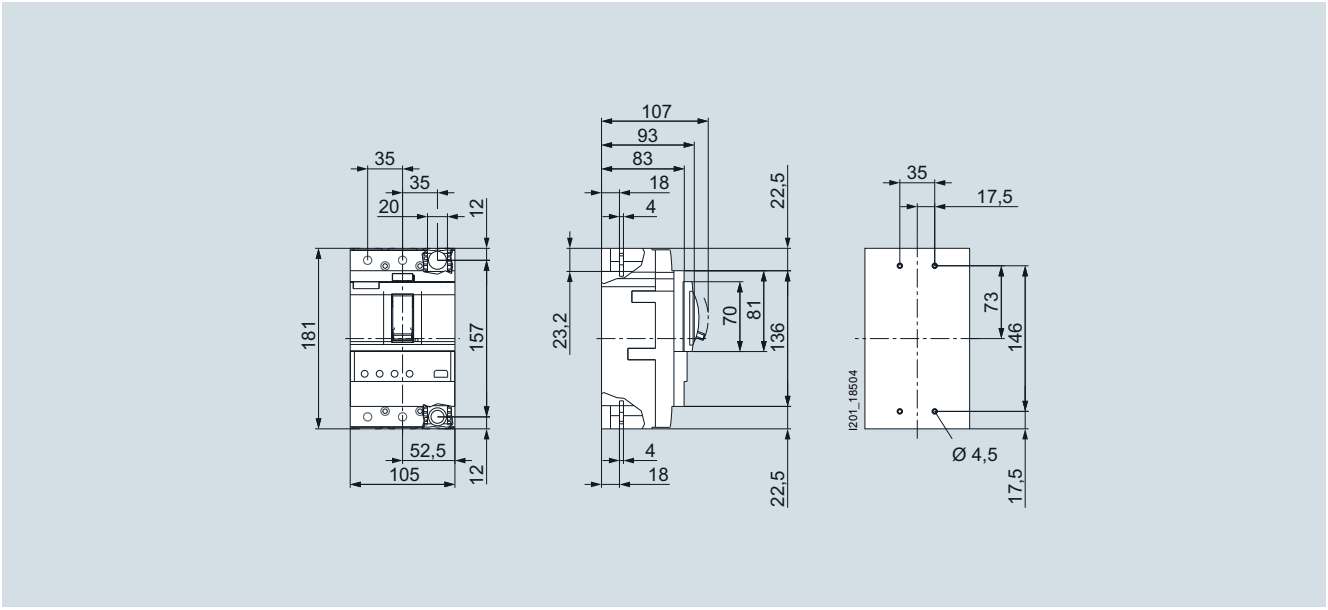
PU (UNIT, SET, M) = 1 PS*/P. unit = 1 UNIT PG = 153

Rated current I_n A	DT	I_{cu} up to 85 kA at 415 V, high breaking capacity H (H) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 110 kA at 415 V, very high breaking capacity C (C) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU	DT	I_{cu} up to 150 kA at 415 V, extremely high breaking capacity L (L) See "Overview", p. 1/6 and 1/7 — Article No. www.siemens.com/product?Article No.	Basic price € per PU
Starter protection, ETU310M I With adjustable short-circuit protection I_i									
		Connection with box terminal			**Connection with box terminal**				
25		--			3VA21 25-7MS36-0AA0			3VA21 25-8MS36-0AA0	
40		--			3VA21 40-7MS36-0AA0			3VA21 40-8MS36-0AA0	
63		--			3VA21 63-7MS36-0AA0			3VA21 63-8MS36-0AA0	
100		--			3VA21 10-7MS36-0AA0			3VA21 10-8MS36-0AA0	
		Connection with lug terminal			**Connection with lug terminal**				
25		--			3VA21 25-7MS32-0AA0			3VA21 25-8MS32-0AA0	
40		--			3VA21 40-7MS32-0AA0			3VA21 40-8MS32-0AA0	
63		--			3VA21 63-7MS32-0AA0			3VA21 63-8MS32-0AA0	
100		--			3VA21 10-7MS32-0AA0			3VA21 10-8MS32-0AA0	
160		--			3VA22 16-7MS32-0AA0			3VA22 16-8MS32-0AA0	
200		--			3VA22 20-7MS32-0AA0			--	
250		--			3VA23 25-7MS32-0AA0			3VA23 25-8MS32-0AA0	
400		--			3VA24 40-7MS32-0AA0			3VA24 40-8MS32-0AA0	
500		--			3VA24 50-7MS32-0AA0			--	
Motor protection, ETU350M LSI With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd} and fixed instantaneous short-circuit protection I_i									
		Connection with box terminal			**Connection with box terminal**				
25		--			3VA21 25-7MN36-0AA0			3VA21 25-8MN36-0AA0	
40		--			3VA21 40-7MN36-0AA0			3VA21 40-8MN36-0AA0	
63		--			3VA21 63-7MN36-0AA0			3VA21 63-8MN36-0AA0	
100		--			3VA21 10-7MN36-0AA0			3VA21 10-8MN36-0AA0	
		Connection with lug terminal			**Connection with lug terminal**				
25		--			3VA21 25-7MN32-0AA0			3VA21 25-8MN32-0AA0	
40		--			3VA21 40-7MN32-0AA0			3VA21 40-8MN32-0AA0	
63		--			3VA21 63-7MN32-0AA0			3VA21 63-8MN32-0AA0	
100		--			3VA21 10-7MN32-0AA0			3VA21 10-8MN32-0AA0	
160		--			3VA22 16-7MN32-0AA0			3VA22 16-8MN32-0AA0	
200		--			3VA22 20-7MN32-0AA0			--	
250		--			3VA23 25-7MN32-0AA0			3VA23 25-8MN32-0AA0	
400		--			3VA24 40-7MN32-0AA0			3VA24 40-8MN32-0AA0	
500		--			3VA24 50-7MN32-0AA0			--	
Motor protection, with display, with metering function, ETU860M LSIG With adjustable overload protection I_r, adjustable delayed short-circuit protection I_{sd}, adjustable instantaneous short-circuit protection I_i and fixed ground-fault protection I_g									
		Connection with box terminal			**Connection with box terminal**				
25		--			3VA21 25-7MQ36-0AA0			3VA21 25-8MQ36-0AA0	
40		--			3VA21 40-7MQ36-0AA0			3VA21 40-8MQ36-0AA0	
63		--			3VA21 63-7MQ36-0AA0			3VA21 63-8MQ36-0AA0	
100		--			3VA21 10-7MQ36-0AA0			3VA21 10-8MQ36-0AA0	
		Connection with lug terminal			**Connection with lug terminal**				
25		--			3VA21 25-7MQ32-0AA0			3VA21 25-8MQ32-0AA0	
40		--			3VA21 40-7MQ32-0AA0			3VA21 40-8MQ32-0AA0	
63		--			3VA21 63-7MQ32-0AA0			3VA21 63-8MQ32-0AA0	
100		--			3VA21 10-7MQ32-0AA0			3VA21 10-8MQ32-0AA0	
160		--			3VA22 16-7MQ32-0AA0			3VA22 16-8MQ32-0AA0	
200		--			3VA22 20-7MQ32-0AA0			--	
250		--			3VA23 25-7MQ32-0AA0			3VA23 25-8MQ32-0AA0	
400		--			3VA24 40-7MQ32-0AA0			3VA24 40-8MQ32-0AA0	
500		--			3VA24 50-7MQ32-0AA0			--	

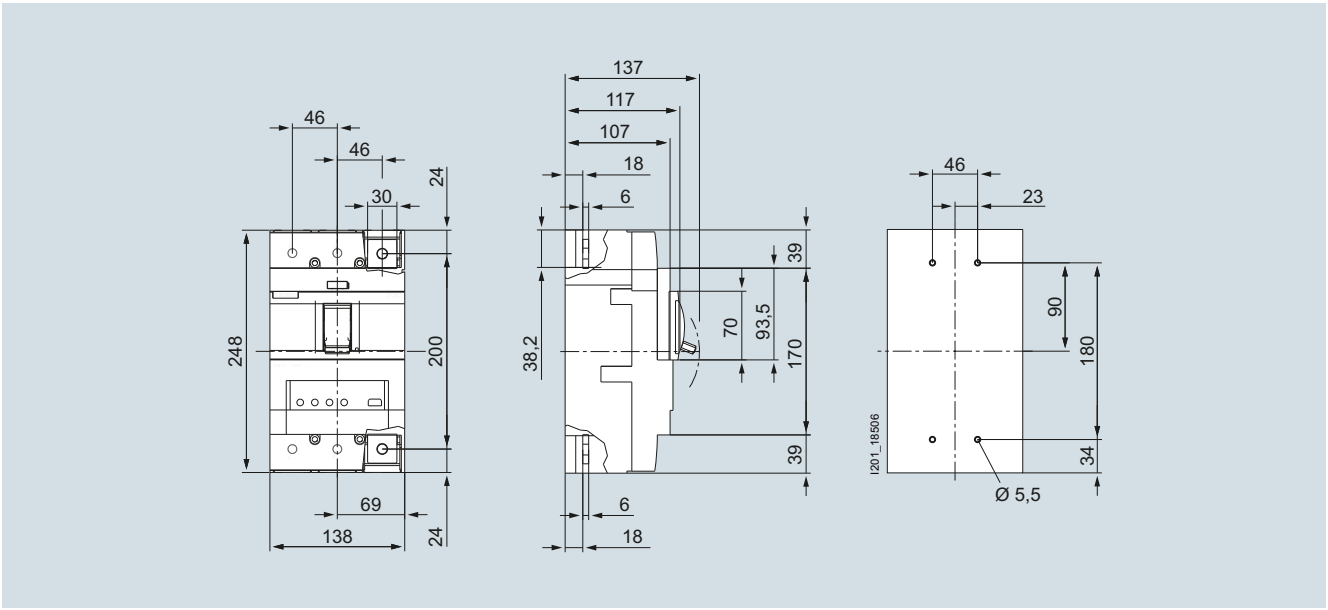
*** You can order this quantity or a multiple thereof.**

Dimensional drawings

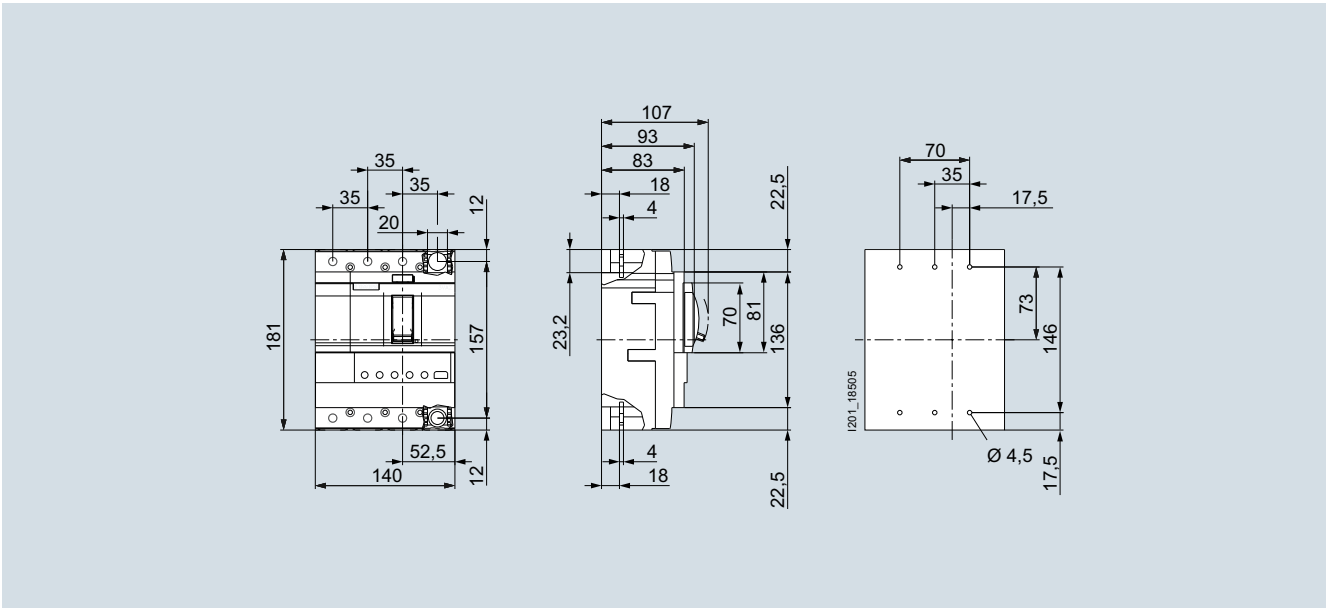
Overview



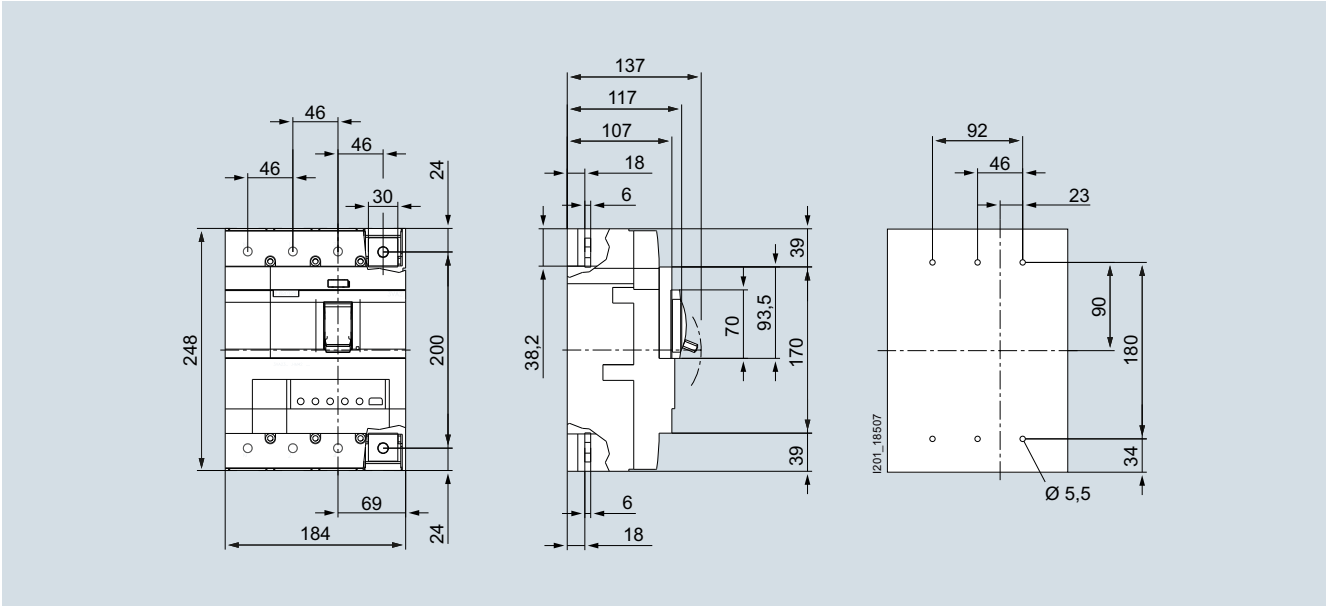
3VA20, 3VA21 and 3VA22, 3-pole



3VA23 and 3VA24, 3-pole



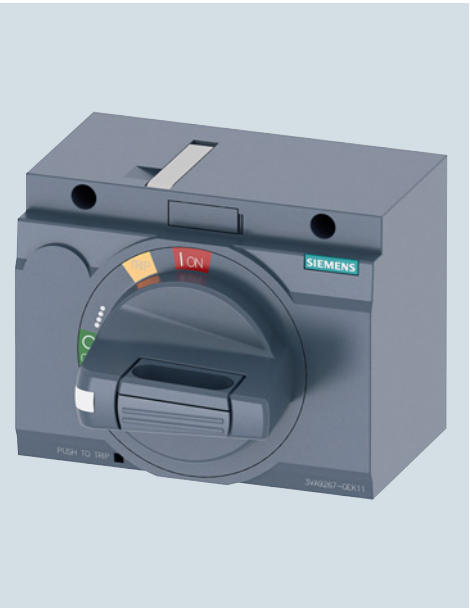
3VA20, 3VA21 and 3VA22, 4-pole



3VA23 and 3VA24, 4-pole

Further dimensional drawings can be found in the image database at: www.siemens.com/lowvoltage/picturedb

Notes



NEW

Direct reference to the products in the Industry Mall from the selection and ordering data tables:

Article No.
www.siemens.com/product?Article No.
3KD2832-0NE10-0

Paper catalog:
To get more product information enter the Web address plus Article No.

PDF catalog:
Get more product information with just a mouse click.

For further technical product information:

Siemens Industry Online Support:
www.siemens.com/lowvoltage/product-support

→ Entry type:
Application example
Certificate
Characteristic
Download
FAQ
Manual
Product note
Software archive
Technical data

Overview

Auxiliary switches

All auxiliary and alarm switches for the 3VA molded case circuit breakers and switch disconnectors belong to an integrated range of accessories. The auxiliary switches can be simply snapped into place and connected up in the accessories compartment provided on the front face of the unit to the left and right of the handle.

The purpose of the auxiliary switches AUX is to signal the position of the main contacts of the molded case circuit breaker. The contacts of the auxiliary switches open and close simultaneously with the main contacts of the molded case circuit breaker.

Leading changeover switches LCS signal the opening of the main contacts with a lead time of 20 ms in advance of the circuit breaker trips and are used for load shedding, for example.

Trip alarm switches TAS signal every circuit breaker tripping operation, regardless of the cause of the trip. The trip alarm switches are actuated whenever the molded case circuit breaker switches to the TRIP position.

Electrical alarm switches EAS are actuated as soon as the main contacts of the molded case circuit breaker open in the event that the breaker is tripped by the ETU.

Special electronic-compatible variants are available for applications which require the auxiliary switch signals to be linked to automation systems.

Auxiliary releases

Auxiliary releases allow remote electrical tripping of the circuit breaker. They can be used to monitor control or main circuits in order to implement a protective system against accidental restart following a power failure, for example.

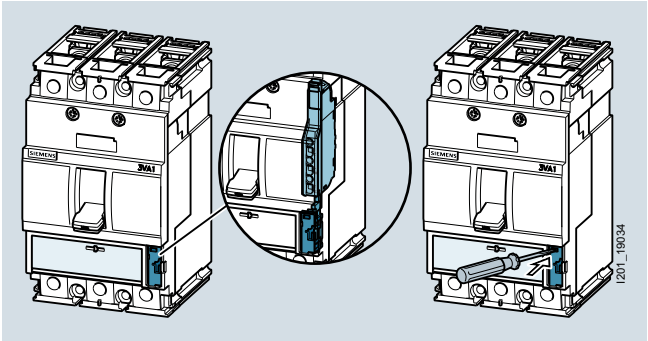
Undervoltage releases trip the 3VA molded case circuit breaker in the event that the rated voltage of a monitored circuit drops below a minimum permissible limit or fails altogether. The UVR (LNO) with its integrated leading NO contacts permits the control circuit to be safely isolated. It is therefore especially suitable for integration in the EMERGENCY-STOP circuit of a 3VA molded case circuit breaker. Safe disconnection of the main current paths and safe isolation of the EMERGENCY-STOP circuit requires the molded case circuit breaker to be switched OFF.

Shunt trips can be used to trip the 3VA molded case circuit breaker remotely. The STF variant can be mounted in either the left-hand or the right-hand accessories compartment. The STL and STL (EI) types are specifically designed for mounting in the left-hand compartment and are very low-consumption devices. The STL (EI) variant can be used to implement electrical interlocks between molded case circuit breakers.

A universal release is a single, 21 mm wide component in which a shunt trip and an undervoltage release are combined. These are subject to the same tripping conditions as the individual devices.

Short circuit alarm switches SAS

Short circuit alarm switches signal tripping operations only if they have been initiated by a short circuit. Tripping due to a short circuit is also indicated on the molded case circuit breaker.



The tripping operation must be reset by deliberate acknowledgement of the fault before the molded case circuit breaker can be switched to ON again.

Note

Short circuit alarm switches are only compatible with 3VA1 molded case circuit breakers. On breakers equipped with electronic trip units, the short circuit alarm function is performed by the electronic trip unit (ETU) and the EFB external function box.

Benefits

- The internal accessories are extremely easy to install. No tools are required because they are simply snapped into place in the accessories compartments to the left and right of the handle.
- The accessories are connected by screw terminals for auxiliary conductors with a cross-section of up to 2.5 mm^2. The terminals are mounted on the front of the unit for easy access.
- All auxiliary and alarm switches are designed as changeover contacts and therefore provide a high degree of flexibility for planning and installation purposes.
- Slimline auxiliary and alarm switches HQ and double-width auxiliary and alarm switches HP are suitable for use in applications involving diverse types of signaling contact and with high continuous currents.
- With two conductors per contact point for the auxiliary and alarm switches HP, looping through is extremely easy.
- Symbols engraved in the lid of the accessories compartment indicate the possible mounting positions of the internal accessories.

3VA with internal accessories pre-assembled at the factory

The basic circuit breakers with -0AA0 at the end of the article number are supplied without installed internal accessories.

Due to the high number of different internal accessory components available and the associated flexibility of use, it is not possible to represent all options with an article number for circuit breakers and installed internal accessories.

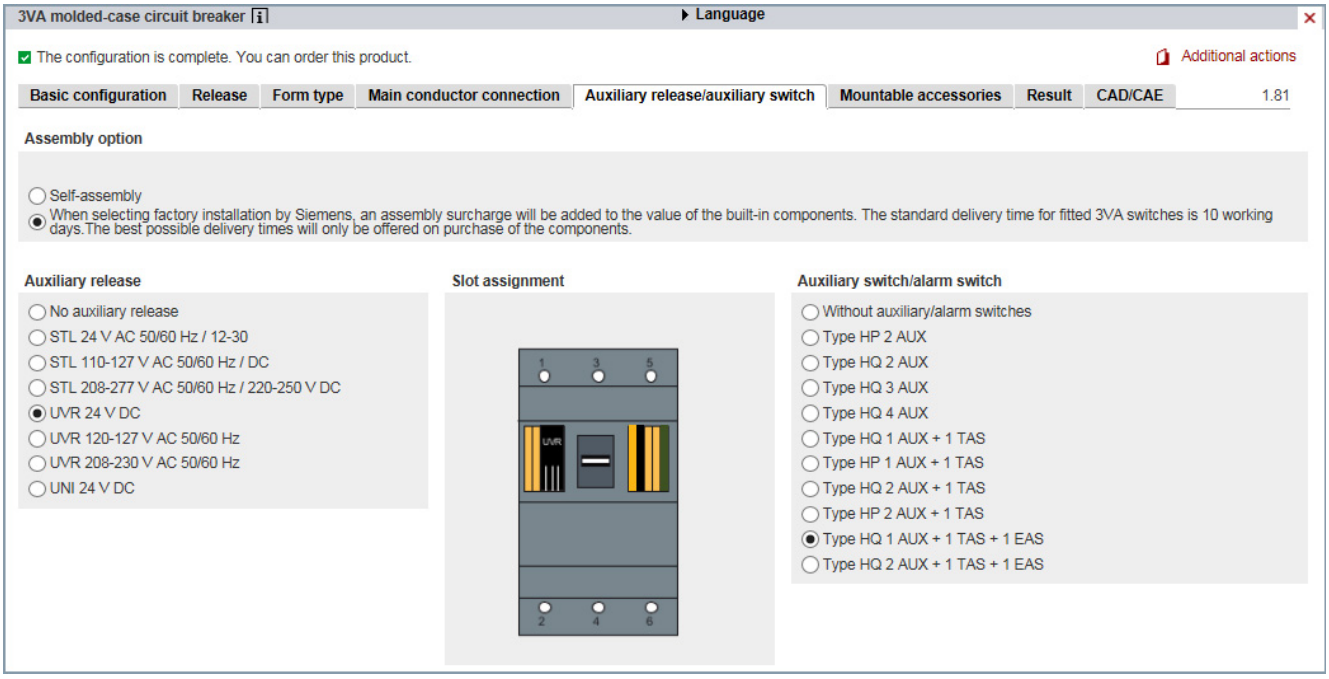
However, it is possible to order a basic circuit breaker with predefined combinations of internal accessories that are installed at the factory. This concerns a selection of different auxiliary releases and auxiliary/alarm switch combinations especially for each basic circuit breaker type.

In the case of factory installation, an installation surcharge is levied for the installed internal accessories.

The normal delivery time for equipped 3VA breakers is 10 working days. The best possible delivery times are only achieved when the individual components are ordered.

Basic circuit breakers with pre-installed internal accessories can only be ordered by registered customers using the 3VA Configurator:

www.siemens.com/lowvoltage/configurator-3va



Design

Internal accessories Optional equipment		3VA1 160 A 2-pole	3VA1 100 A 3- and 4-pole	3VA1 160 A 3- and 4-pole	3VA1 250 A 3- and 4-pole
Slot No.:		160 A 23 22 21	100 A 23 22 21 11 12 13	160 A 23 22 21 11 12 13	250 A 24 23 22 21 11 12 13 14
Auxiliary switch	**Type**				
Auxiliary switch	AUX_HQ	x x x	x x x x x x	x x x x x x	x x x x x x x x
	AUX_HQ_el	x x x	x x x x x x	x x x x x x	x x x x x x x x
	AUX_HP	x x	x	x x	x x x
Leading changeover switch	LCS_HQ			x	x
	LCS_HQ_el			x	x
	LCS_HP			x	x
Alarm switch	**Type**				
Trip alarm switch	TAS_HQ	x x	x x x x	x x x x	x x x x
	TAS_HQ_el	x x	x x x x	x x x x	x x x x
	TAS_HP	x	x	x x	x x
Short circuit alarm switch	SAS_HQ			x	x
	SAS_HQ_el			x	x
Auxiliary release	**Type**				
Shunt trip flexible	STF	x	x	x	x
Shunt trip left	STL	x	x	x	x
	STL (EI)	x	x	x	x
Residual current release	RCR [1]		x	x	x
Undervoltage release	UVR	x	x	x	x
Undervoltage release with leading NO contacts	UVR (LNO)	x	x	x	x
Universal release	UNI	x	x	x	x
Other					
Cylinder lock (type Ronis)			x	x	x

I201_19033

[1] Included in the scope of supply for side mounted RCDs

Internal accessories

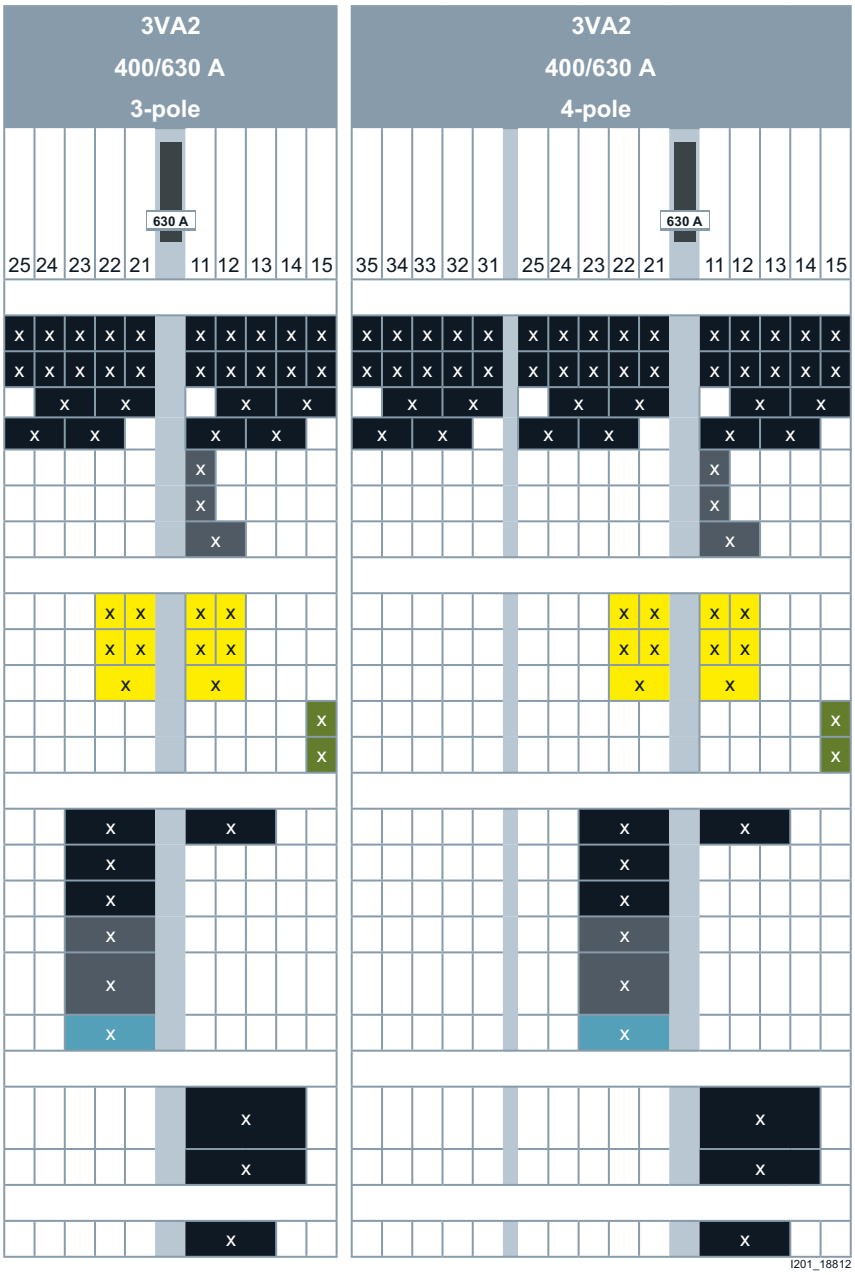
Optional equipment

	Slot No.:	3VA2 100/160/250 A 3-pole	3VA2 100/160/250 A 4-pole
		24 23 22 21 250 A 11 12 13 14	34 33 32 31 24 23 22 21 250 A 11 12 13 14
Auxiliary switch	**Type**		
Auxiliary switch	AUX_HQ	x x x x x x x x	x x x x x x x x x x x x x x x x
	AUX_HQ_el	x x x x x x x x	x x x x x x x x x x x x x x x x
	AUX_HP	x x x x x x	x x x x x x x x x x
		x x	x x
Leading changeover switch	LCS_HQ	x	x
	LCS_HQ_el	x	x
	LCS_HP	x	x
Alarm switch	**Type**		
Trip alarm switch	TAS_HQ	x x x x	x x x x
	TAS_HQ_el	x x x x	x x x x
	TAS_HP	x x	x x
Electrical alarm switch	EAS_HQ	x	x
	EAS_HQ_el	x	x
Auxiliary release	**Type**		
Shunt trip flexible	STF	x x	x x
Shunt trip left	STL	x	x
	STL (EI)	x	x
Undervoltage release	UVR	x	x
Undervoltage release with leading NO contacts	UVR (LNO)	x	x
Universal release	UNI	x	x
ETU/communication	**Type**		
Breaker data server communication module	COM060	x	x
24 V module		x	x
Other			
Cylinder lock (type Ronis)		x	x

I201_18812

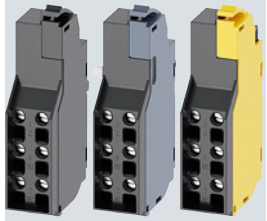
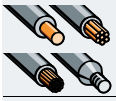
Internal accessories

Internal accessories Optional equipment	Slot No.:
Auxiliary switch	**Type**
Auxiliary switch	AUX_HQ
	AUX_HQ_el
	AUX_HP
Leading changeover switch	LCS_HQ
	LCS_HQ_el
	LCS_HP
Alarm switch	**Type**
Trip alarm switch	TAS_HQ
	TAS_HQ_el
	TAS_HP
Electrical alarm switch	EAS_HQ
	EAS_HQ_el
Auxiliary release	**Type**
Shunt trip flexible	STF
Shunt trip left	STL
	STL (EI)
Undervoltage release	UVR
Undervoltage release with leading NO contacts	UVR (LNO)
Universal release	UNI
ETU/communication	**Type**
Breaker data server communication module	COM060
24 V module	
Other	
Cylinder lock (type Ronis)	

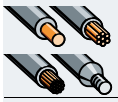


4

Technical specifications

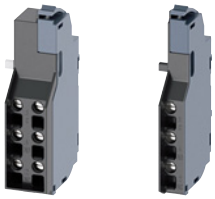
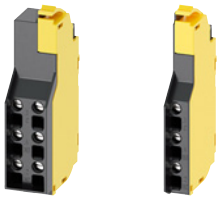
				Auxiliary switches and alarm switches HQ	Auxiliary switches and alarm switches HQ_electronic	Auxiliary switches and alarm switches HP
				 SAS AUX LCS TAS EAS	 SAS AUX LCS TAS EAS	 AUX LCS TAS
Width			mm	7	7	14
Conductor cross-sections	Solid, stranded and finely stranded, with end sleeve 	Screw connection (per contact)		1 x (0.5 - 1.5) 1 x (AWG20 - AWG16)	1 x (0.5 - 1.5) 1 x (AWG20 - AWG16)	2 x (0.75 - 2.5) 2 x (AWG18 - AWG14)
	Finely stranded with insulated end sleeve 	Screw connection (per contact)		1 x (0.5 - 1.0) 1 x (AWG20 - AWG16)	1 x (0.5 - 1.0) 1 x (AWG20 - AWG16)	2 x (0.75 - 1.0) 2 x (AWG18 - AWG16)
	Tightening torque (connection cables)		Nm	0.4 $^{+0.1}$	0.4 $^{+0.1}$	0.4 $^{+0.1}$
	Stripped length 		mm	15	15	15
Rated operating voltage		U_e	V AC 50 Hz	240	24	600
			V DC	250	24	250
Conventional free-air thermal current		$I_{th} = I_e$	A	6	0.3	10
Rated operational current	AC-12	12 V	A	6	0.3	10
		24 V	A	6	0.3	10
		48 V	A	6	--	10
		125 V	A	6	--	10
		220/240 V	A	6	--	10
		380/440 V	A	--	--	6
		600 V	A	--	--	2
	AC-15	12 V	A	3	0.3	6
		24 V	A	3	0.3	6
		48 V	A	3	--	6
		125 V	A	3	--	6
		220/240 V	A	3	--	6
		380/440 V	A	--	--	2
		600 V	A	--	--	0.6
	DC-12	12 V	A	6	0.1	6
		24 V	A	4	0.1	6
		48 V	A	2	--	2
		110 V	A	0.5	--	0.6
		250 V	A	0.25	--	0.3
	DC-13	12 V	A	1	0.07	3
		24 V	A	0.8	0.07	3
		48 V	A	0.4	--	0.8
		110 V	A	0.2	--	0.2
		250 V	A	0.1	--	0.1
Minimum load		At 24 V DC	mA	70	0.5	70
		At 5 V DC	mA	--	1	--

Internal accessories

				Shunt trip left STL	Shunt trip flexible STF	Undervoltage release UVR	Undervoltage release with leading NO contacts UVR (LNO)	Universal release UNI
								
Width			mm	21				
Conductor cross-sections	Solid, stranded and finely stranded, with end sleeve 	Screw connection (per contact)	Number x mm^2	1 x (0.5 - 1.5)				
			Number x AWG	1 x (AWG20 - AWG16)				
	Finely stranded with insulated end sleeve 	Screw connection (per contact)	Number x mm^2	1 x (0.5 - 1.0)				
			Number x AWG	1 x (AWG20 - AWG16)				
	Tightening torque (connection cables)		Nm	0.4 $^{+0.1}$				
	Stripped length 		mm	10				
Power consumption U_e	12	V DC	W	50	--	--	--	--
	24	50 V AC/60 Hz	VA	50	--	--	--	--
	24 ... 30	V DC	W	7 ... 50	--	--	--	--
	48 ... 60	50 V AC/60 Hz	VA	15 ... 20	--	--	--	--
	48 ... 60	V DC	W	20 ... 30	--	--	--	--
	110 ... 127	50 V AC/60 Hz	VA	30 ... 40	--	--	--	--
	110 ... 127	V DC	W	30 ... 40	--	--	--	--
	208 ... 277	50 V AC/60 Hz	VA	16 ... 35	--	--	--	--
	220 ... 250	V DC	W	28 ... 35	--	--	--	--
	380 ... 600	50 V AC/60 Hz	VA	10 ... 30	--	--	--	--
	24	50 V AC/60 Hz	VA	--	300	--	--	--
	48 ... 60	50 V AC/60 Hz	VA	--	340 ... 600	--	--	--
	110 ... 127	50 V AC/60 Hz	VA	--	500 ... 650	--	--	--
	208 ... 277	50 V AC/60 Hz	VA	--	360 ... 650	--	--	--
	380 ... 500	50 V AC/60 Hz	VA	--	330 ... 600	--	--	--
	600	50 V AC/60 Hz	VA	--	300	--	--	--
	12	V DC	W	--	--	< 2.5		--
	24	V DC	W	--	--	< 2.5		--
	48	V DC	W	--	--	< 2.5		--
	60	V DC	W	--	--	< 2.5		--
	125 ... 127	V DC	W	--	--	< 2.5		--
	220 ... 230	V DC	W	--	--	< 2.5		--
	250	V DC	W	--	--	< 2.5		--
	24	50 V AC/60 Hz	VA	--	--	< 2		--
	48	50 V AC/60 Hz	VA	--	--	< 2		--
	60	50 V AC/60 Hz	VA	--	--	< 2		--
	110	50 V AC/60 Hz	VA	--	--	< 2		--
	120 ... 127	50 V AC/60 Hz	VA	--	--	< 2		--
	208 ... 230	50 V AC/60 Hz	VA	--	--	< 2		--
	380 ... 400	50 V AC/60 Hz	VA	--	--	< 2.5		--
	440 ... 480	50 V AC/60 Hz	VA	--	--	< 2.5		--

				Shunt trip left STL	Shunt trip flexible STF	Undervoltage release UVR	Undervoltage release with leading auxiliary switches UVR (LNO)	Universal release UNI
								
Power consumption U_e	12	V DC (Cat II; PELV/SELV)	W	--	--	--	--	UVR: < 2.5 SHT: 20
	24	V DC (Cat II; PELV/SELV)	W	--	--	--	--	UVR: < 2.5 SHT: 20
	48	V DC (Cat II; PELV/SELV)	W	--	--	--	--	UVR: < 2.5 SHT: 20
Rated impulse withstand voltage		V_{Imp}	kV	6		4		0.5
Making current		I_{max}	at V	1.5 A/24 V AC	18 A/24 V AC	5 mA/480 V	5 mA/480 V	1.5 A/24 V
Maximum tripping time			ms	< 10				
Service life	Electrical trips			8500				
	Mechanical switching cycles of the circuit breaker			25000				
Priority over other control signals				Given				
Type of protection	Lid of the accessories compartment closed			IP40				
	Lid of the accessories compartment open			IP20				
Minimum signal duration			ms	40	40	--	--	40
Response voltage shunt trip	Pick-up (circuit breaker trips)	Us/V	%	70 ... 110		--	--	70 ... 110
Response voltage undervoltage release	Pick-up (circuit breaker can be switched on)	Us/V	%	--	--	85 ... 110		
	Pick-up (circuit breaker trips)	Us/V	%	--	--	35 ... 70		
Tripping frequency	Trips per hour			Unlimited	120	Unlimited		
Can be used for electrical interlocking of molded case circuit breakers				No	No	Yes		

Selection and ordering data

	Version		DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Auxiliary switches and alarm switches								
 3VA9988-0AA11 3VA9988-0AA12	**Auxiliary switch AUX**							
	Type/switching capacity/size	Electronic-compatible						
	HP/high switching capacity/2 slots	--		3VA9988-0AA11		1	1 unit	163
	HQ/compact size/1 slot	--		3VA9988-0AA12		1	1 unit	163
	HQ_el/compact size/1 slot	✓		3VA9988-0AA13		1	1 unit	163
 3VA9988-0AA21 3VA9988-0AA22	**Leading changeover switch LCS**							
	Type/switching capacity/size	Electronic-compatible						
	HP/high switching capacity/2 slots	--		3VA9988-0AA21		1	1 unit	163
	HQ/compact size/1 slot	--		3VA9988-0AA22		1	1 unit	163
	HQ_el/compact size/1 slot	✓		3VA9988-0AA23		1	1 unit	163
 3VA9988-0AB11 3VA9988-0AB12	**Trip alarm switch TAS**							
	Type/switching capacity/size	Electronic-compatible						
	HP/high switching capacity/2 slots	--		3VA9988-0AB11		1	1 unit	163
	HQ/compact size/1 slot	--		3VA9988-0AB12		1	1 unit	163
	HQ_el/compact size/1 slot	✓		3VA9988-0AB13		1	1 unit	163
 3VA9988-0AB32	**Short-circuit alarm switches SAS (3VA1 only)**							
	For molded case circuit breakers, rated current	Electronic-compatible						
	For 3VA1 100 A / 160 A							
	• HQ/compact size/1 slot	--		3VA9988-0AB32		1	1 unit	163
	• HQ_el/compact size/1 slot	✓		3VA9988-0AB33		1	1 unit	163
	For 3VA1 250 A							
	• HQ/compact size/1 slot	--		3VA9988-0AB34		1	1 unit	163
	• HQ_el/compact size/1 slot	✓		3VA9988-0AB35		1	1 unit	163
 3VA9988-0AB22	**Electrical alarm switches EAS (3VA2 only)**							
	Type/switching capacity/size	Electronic-compatible						
	HQ/compact size/1 slot	--		3VA9988-0AB22		1	1 unit	163
	HQ_el/compact size/1 slot	✓		3VA9988-0AB23		1	1 unit	163
Undervoltage releases								
 3VA9908-0BB15	**Undervoltage release UVR**							
	50/60 Hz V AC	V DC						
	--	12		3VA9908-0BB10		1	1 unit	153
	--	24		3VA9908-0BB11		1	1 unit	153
	--	48		3VA9908-0BB12		1	1 unit	153
	--	60		3VA9908-0BB13		1	1 unit	153
	--	125 ... 127		3VA9908-0BB14		1	1 unit	153
	--	220 ... 230		3VA9908-0BB15		1	1 unit	153
	--	250		3VA9908-0BB16		1	1 unit	153
	24	--		3VA9908-0BB20		1	1 unit	153
	48	--		3VA9908-0BB21		1	1 unit	153
	60	--		3VA9908-0BB22		1	1 unit	153
	110	--		3VA9908-0BB23		1	1 unit	153
	120 ... 127	--		3VA9908-0BB24		1	1 unit	153
	208 ... 230	--		3VA9908-0BB25		1	1 unit	153
	380 ... 400	--		3VA9908-0BB26		1	1 unit	153
	440 ... 480	--		3VA9908-0BB27		1	1 unit	153

* You can order this quantity or a multiple thereof.

Undervoltage release with leading NO contacts UVR (LNO)

3VA9908-0BC15

Undervoltage release with leading NO contacts UVR (LNO)

50/60 Hz V AC	V DC	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
--	12[1]	3VA9908-0BC10		1	1 unit	153
--	24[1]	3VA9908-0BC11		1	1 unit	153
--	48[1]	3VA9908-0BC12		1	1 unit	153
--	60[1]	3VA9908-0BC13		1	1 unit	153
--	125 ... 127[1]	3VA9908-0BC14		1	1 unit	153
--	220 ... 230[1]	3VA9908-0BC15		1	1 unit	153
--	250[1]	3VA9908-0BC16		1	1 unit	153
24[1]	--	3VA9908-0BC20		1	1 unit	153
48[1]	--	3VA9908-0BC21		1	1 unit	153
60[1]	--	3VA9908-0BC22		1	1 unit	153
110[1]	--	3VA9908-0BC23		1	1 unit	153
120 ... 127[1]	--	3VA9908-0BC24		1	1 unit	153
208 ... 230[1]	--	3VA9908-0BC25		1	1 unit	153
380 ... 400[1]	--	3VA9908-0BC26		1	1 unit	153
440 ... 480[1]	--	3VA9908-0BC27		1	1 unit	153

Shunt trip left

3VA9988-0BL33

Shunt trip left STL

50/60 Hz V AC	V DC	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
--	12	3VA9988-0BL10		1	1 unit	163
24	12 ... 30	3VA9988-0BL30		1	1 unit	163
24	24 ... 30	3VA9988-0BL30		1	1 unit	163
110 ... 127	110 ... 127	3VA9988-0BL32		1	1 unit	163
208 ... 277	220 ... 250	3VA9988-0BL33		1	1 unit	163

Shunt trip left STL (EI)

50/60 Hz V AC	V DC	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
--	24[2]	3VA9988-0BM10		1	1 unit	163

Shunt trip flexible STF

3VA9988-0BA23

Shunt trip flexible

50/60 Hz V AC	V DC	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
24	--	3VA9988-0BA20		1	1 unit	163
48 ... 60	--	3VA9988-0BA21		1	1 unit	163
110 ... 127	--	3VA9988-0BA22		1	1 unit	163
208 ... 277	--	3VA9988-0BA23		1	1 unit	163
380 ... 500	--	3VA9988-0BA24		1	1 unit	163
600	--	3VA9988-0BA25		1	1 unit	163

Universal release UNI

3VA9908-0BD13

Universal release

50/60 Hz V AC	V DC	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
--	12	3VA9908-0BD11		1	1 unit	153
--	24	3VA9908-0BD12		1	1 unit	153
--	48	3VA9908-0BD13		1	1 unit	153

Time-delay device for undervoltage releases


3VA9988-0BF22

Time-delay device

V AC	V DC	Delay time	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
110[3]	--	Fixed	3VA9988-0BF21		1	1 unit	163
230[3]	--	Fixed	3VA9988-0BF22		1	1 unit	163
--	24[3]	Fixed	3VA9988-0BF23		1	1 unit	163

[1] Start of delivery scheduled for 1st quarter 2016

[2] Start of delivery scheduled for 4th quarter 2015

[3] Start of delivery scheduled for 3rd quarter 2015

4

Overview

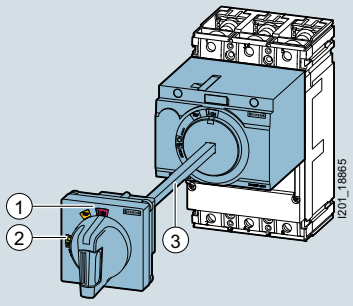
Manual operators are provided to facilitate manual operation of the 3VA molded case circuit breakers, either directly at the circuit breaker or through the door or side wall of the cubicle.

Front mounted rotary operator

The front mounted rotary operator is mounted directly on the molded case circuit breaker and is available with or without a door interlocking system. It meets the requirements for degree of protection IP30. The door interlock locks the cubicle door when the molded case circuit breaker is closed, but can be deliberately overridden if necessary.

Door mounted rotary operator

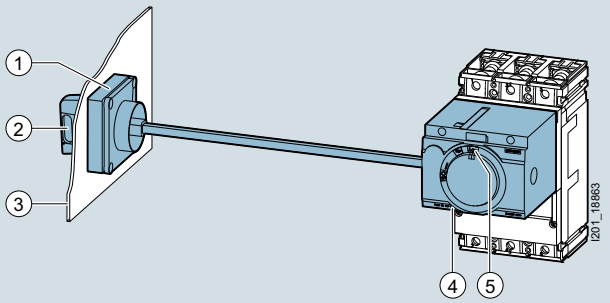
The door mounted rotary operator enables operation of the molded case circuit breaker from the cubicle door. The door element meets the requirements for degree of protection IP65 and features a door interlocking system and tolerance compensation. A variable depth adapter can be deployed to allow use of the door mounted rotary operator in conjunction with draw-out units. A supplementary handle can be attached directly to the shaft shoulder to allow convenient operation of the molded case circuit breaker when the cubicle door is open (i.e. when the control element is decoupled).



1 Door element
2 Switching position indicator ON, TRIP, OFF, RESET
3 Shaft

Side wall mounted rotary operator

The side wall mounted rotary operator is designed for installation in the cubicle side wall. It is available optionally with short shaft and mounting plate for mounting directly adjacent to the cubicle wall. The wall element meets the requirements for degree of protection IP65.



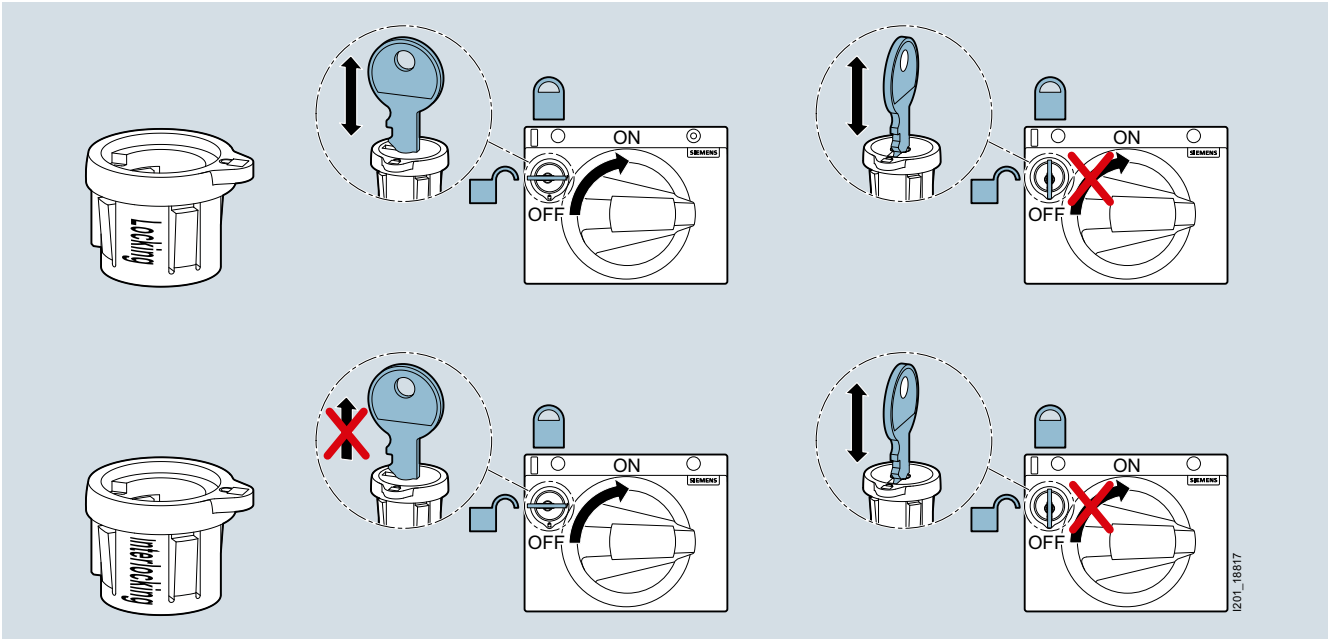
1 Side wall mounted rotary operator
2 Padlock device
3 Side wall of cubicle
4 PUSH-to-TRIP button
5 Switching position indicator ON, TRIP, OFF, RESET

All manual operators as well as the supplementary handle for the door mounted rotary operator are also available in a version for use in EMERGENCY-STOP applications. These are colored a conspicuous yellow/red for easier identification.

Interlocking methods

All manual operators are designed to allow locking of the operator at the handle and at the rotary operator with up to three padlocks in each case. It is also possible to fit a cylinder lock which can be used either to lock or to interlock molded case circuit breakers depending on the application.

If the cylinder lock is applied as a lock, it can be used to prevent the molded case circuit breaker from closing. The key can be removed at any time. If the lock is used to create an interlock, the key can be removed only when it is in the OFF position, allowing the creation of an interlock by the use of a single key for several breakers.



Using the cylinder lock (type Ronis) and the cylinder lock adapter for rotary operators, it is not only possible to lock a molded case circuit breaker, but also to create an interlock between an optional number of molded case circuit breakers of different sizes.

Interlock positions

- If the molded case circuit breaker with rotary operator is merely to be locked, then the cylinder lock adapter labeled "Locking" must be used. If the rotary operator is in the "Unlocked" position (key is horizontal), the molded case circuit breaker can be closed or opened by means of the rotary operator.
- If the key is turned to the vertical position, the position of the rotary operator is "Locked". With the rotary operator in this position, the molded case circuit breaker cannot be closed.

The key can be removed from the lock in both cases.

In order to implement an interlocking application using cylinder locks, the cylinder lock adapter for rotary operators labeled "Interlocking" must be fitted in each of the molded case circuit breakers to be included in the interlock arrangement and all breakers must be locked in the "OFF" position (key in vertical position). In order to ensure reliable functioning of the interlock, only one key must be used for the entire interlock application. All other keys must be kept or locked away in a safe place, because this one key will be used as the release instrument for only one molded case circuit breaker at a time!

In order to release or operate a molded case circuit breaker, the cylinder lock must be turned to the "Unlocked" (horizontal) position with this one particular key. Only then can the rotary operator of the circuit breaker be moved to the "ON" position. The cylinder lock key cannot be removed with the lock in the "Unlocked" position, thereby ensuring that only one molded case circuit breaker at a time can be closed.

In order to implement a locking or an interlocking application involving multiple molded case circuit breakers, the following two components must be ordered for each circuit breaker:

- Cylinder lock (type Ronis)
- Cylinder lock adapter for rotary operators

Another means of implementing an interlock is to use

a Bowden cable. This allows up to three molded case circuit breakers to be mutually interlocked via the rotary operators. There is an additional option of locking the door coupling or side wall mounted rotary operator on the masking plate using a cylinder lock (type: Kaba). This cylinder lock (type: Kaba) is not suitable for the interlocking application.

Active illumination

The manual operators are also available in illuminated variants in which the handle is illuminated red, yellow or green via LEDs (24 V DC) depending on the position of the breaker. This means that the switching position of the molded case circuit breaker can be immediately identified, even when light conditions are poor. This option can also be retrofitted.

Benefits

- Convenient circuit breaker operation inside and outside the cubicle
- Locking and interlocking for all manual operators prevents unauthorized breaker operation
- Conspicuously colored variant for EMERGENCY-STOP circuits
- Illumination for clear indication of switching position even when light conditions are poor
- All manual operators meet the standards for isolating characteristics defined by IEC / EN 60947-1

Selection and ordering data

Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
	3VA1 100 A, 160 A	3VA1 250 A	3VA2 100 A, 160 A, 250 A	3VA2 400 A, 630 A						
Front mounted rotary operators										
 3VA9267-0EK11	**Front mounted rotary operator** • Rotary operator • Handle • For IEC • Degree of protection IP30									
Type	Color									
• Standard, without illumination kit	gray	✓	--	--	--		3VA9157-0EK11		1	1 unit 163
		--	✓	--	--		3VA9257-0EK11		1	1 unit 163
		--	--	✓	--		3VA9267-0EK11		1	1 unit 163
		--	--	--	✓		3VA9467-0EK11		1	1 unit 163
• Standard, with illumination kit	gray	✓	--	--	--		3VA9157-0EK13		1	1 unit 163
		--	✓	--	--		3VA9257-0EK13		1	1 unit 163
		--	--	✓	--		3VA9267-0EK13		1	1 unit 163
		--	--	--	✓		3VA9467-0EK13		1	1 unit 163
• EMERGENCY-STOP, without illumination kit	yellow-red	✓	--	--	--		3VA9157-0EK15		1	1 unit 163
		--	✓	--	--		3VA9257-0EK15		1	1 unit 163
		--	--	✓	--		3VA9267-0EK15		1	1 unit 163
		--	--	--	✓		3VA9467-0EK15		1	1 unit 163
• EMERGENCY-STOP, with illumination kit	yellow-red	✓	--	--	--		3VA9157-0EK17		1	1 unit 163
		--	✓	--	--		3VA9257-0EK17		1	1 unit 163
		--	--	✓	--		3VA9267-0EK17		1	1 unit 163
		--	--	--	✓		3VA9467-0EK17		1	1 unit 163
• Standard, with door interlock	gray	✓	--	--	--		3VA9157-0EK21		1	1 unit 163
		--	✓	--	--		3VA9257-0EK21		1	1 unit 163
		--	--	✓	--		3VA9267-0EK21		1	1 unit 163
		--	--	--	✓		3VA9467-0EK21		1	1 unit 163
• Standard, with door interlock, with illumination kit	gray	✓	--	--	--		3VA9157-0EK23		1	1 unit 163
		--	✓	--	--		3VA9257-0EK23		1	1 unit 163
		--	--	✓	--		3VA9267-0EK23		1	1 unit 163
		--	--	--	✓		3VA9467-0EK23		1	1 unit 163
• EMERGENCY-STOP, with door interlock	yellow-red	✓	--	--	--		3VA9157-0EK25		1	1 unit 163
		--	✓	--	--		3VA9257-0EK25		1	1 unit 163
		--	--	✓	--		3VA9267-0EK25		1	1 unit 163
		--	--	--	✓		3VA9467-0EK25		1	1 unit 163
• EMERGENCY-STOP, with door interlock, with illumination kit	yellow-red	✓	--	--	--		3VA9157-0EK27		1	1 unit 163
		--	✓	--	--		3VA9257-0EK27		1	1 unit 163
		--	--	✓	--		3VA9267-0EK27		1	1 unit 163
		--	--	--	✓		3VA9467-0EK27		1	1 unit 163
 3VA9267-0GK00	• Without handle, with shaft stub, without door interlock • For retrofitting with 3VL handle	gray	✓	--	--	--		3VA9157-0GK00		1	1 unit 163
			--	✓	--	--		3VA9257-0GK00		1	1 unit 163
			--	--	✓	--		3VA9267-0GK00		1	1 unit 163
			--	--	--	✓		3VA9467-0GK00		1	1 unit 163

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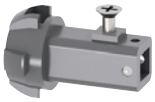
* You can order this quantity or a multiple thereof.

	Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A, 160 A	3VA1 250 A	3VA2 100 A, 160 A, 250 A	3VA2 400 A, 630 A						
Door mounted rotary operator											
 3VA9267-0FK21	**Door mounted rotary operator** • Rotary operator • Shaft 300 mm • Mounting tolerance compensation • Handle with masking plate 75 x 75 mm • Degree of protection IP65										
	Type / Color										
	• Standard / gray	✓	--	--	--		3VA9157-0FK21		1	1 unit	163
		--	✓	--	--		3VA9257-0FK21		1	1 unit	163
		--	--	✓	--		3VA9267-0FK21		1	1 unit	163
		--	--	--	✓		3VA9467-0FK21		1	1 unit	163
	• Standard, with illumination kit / gray	✓	--	--	--		3VA9157-0FK23		1	1 unit	163
		--	✓	--	--		3VA9257-0FK23		1	1 unit	163
		--	--	✓	--		3VA9267-0FK23		1	1 unit	163
		--	--	--	✓		3VA9467-0FK23		1	1 unit	163
	• EMERGENCY-STOP / yellow-red	✓	--	--	--		3VA9157-0FK25		1	1 unit	163
		--	✓	--	--		3VA9257-0FK25		1	1 unit	163
		--	--	✓	--		3VA9267-0FK25		1	1 unit	163
		--	--	--	✓		3VA9467-0FK25		1	1 unit	163
	• EMERGENCY-STOP, with illumination kit / yellow-red	✓	--	--	--		3VA9157-0FK27		1	1 unit	163
		--	✓	--	--		3VA9257-0FK27		1	1 unit	163
		--	--	✓	--		3VA9267-0FK27		1	1 unit	163
		--	--	--	✓		3VA9467-0FK27		1	1 unit	163
 3VA9487-0GC01	**Supplementary handle for door mounted rotary operator**										
	Type / Color										
	• Standard / gray	✓	✓	--	--		3VA9287-0GC01		1	1 unit	163
		--	--	✓	✓		3VA9487-0GC01		1	1 unit	163
	• EMERGENCY-STOP / yellow-red	✓	✓	--	--		3VA9287-0GC05		1	1 unit	163
		--	--	✓	✓		3VA9487-0GC05		1	1 unit	163
 8UD1900-2WB00	**Shaft** 8 mm										
	Variants										
	• 300 mm long						8UD1900-2WA00		1	1 unit	153
	• 600 mm long						8UD1900-2WB00		1	1 unit	153
 8UD1900-2DA00	**Adapter for shaft 8 mm x 8 mm** With door mounted rotary operator and side wall mounted rotary operator						8UD1900-2DA00		1	1 unit	153
 8UD1900-2HA00	**Door coupling** 8 × 8 mm						8UD1900-2HA00		1	1 unit	153
 3VA9487-0GA80	**Fixing bracket for shaft**	✓	✓	--	--		3VA9287-0GA80		1	1 unit	163
		--	--	✓	✓		3VA9487-0GA80		1	1 unit	163
 3VA9487-0GB10	**Variable depth adapter** 8 × 8 mm						3VA9487-0GB10		1	1 unit	163
 8UD1900-2GA00	**Mounting tolerance compensation** 8 × 8 mm						8UD1900-2GA00		1	1 unit	153

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*** You can order this quantity or a multiple thereof.**

Manual operators

Side wall mounted rotary operator

	Version		For molded case circuit breakers / rated current 3VA1 100 A, 160 A	3VA1 250 A	3VA2 100 A 160 A, 250 A	3VA2 400 A, 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
	Side wall mounted rotary operator • Without mounting plate - Rotary operator with shaft 300 mm - Handle with masking plate 75 x 75 mm - Degree of protection IP65											
 3VA9267-0PK11	Type	Color										
	• Standard	gray	✓	--	--	--		3VA9157-0PK11		1	1 unit	163
			--	✓	--	--		3VA9257-0PK11		1	1 unit	163
			--	--	✓	--		3VA9267-0PK11		1	1 unit	163
			--	--	--	✓		3VA9467-0PK11		1	1 unit	163
	• Standard, with illumination kit	gray	✓	--	--	--		3VA9157-0PK13		1	1 unit	163
			--	✓	--	--		3VA9257-0PK13		1	1 unit	163
			--	--	✓	--		3VA9267-0PK13		1	1 unit	163
			--	--	--	✓		3VA9467-0PK13		1	1 unit	163
	• EMERGEN-CY-STOP	yellow-red	✓	--	--	--		3VA9157-0PK15		1	1 unit	163
				✓	--	--		3VA9257-0PK15		1	1 unit	163
			--	--	✓	--		3VA9267-0PK15		1	1 unit	163
			--	--	--	✓		3VA9467-0PK15		1	1 unit	163
	• EMERGENCY-STOP, with illu-mination kit	yellow-red	✓	--	--	--		3VA9157-0PK17		1	1 unit	163
			--	✓	--	--		3VA9257-0PK17		1	1 unit	163
			--	--	✓	--		3VA9267-0PK17		1	1 unit	163
			--	--	--	✓		3VA9467-0PK17		1	1 unit	163
	• With mounting plate - Rotary operator with short shaft - Handle with masking plate 75 x 75 mm - Degree of protection IP65											
 3VA9267-0PK51	Type	Color										
	• Standard	gray	✓	--	--	--		3VA9157-0PK51		1	1 unit	163
			--	✓	--	--		3VA9257-0PK51		1	1 unit	163
			--	--	✓	--		3VA9267-0PK51		1	1 unit	163
	• Standard, with illumination kit	gray	✓	--	--	--		3VA9157-0PK53		1	1 unit	163
			--	✓	--	--		3VA9257-0PK53		1	1 unit	163
			--	--	✓	--		3VA9267-0PK53		1	1 unit	163
	• EMERGENCY-STOP	yellow-red	✓	--	--	--		3VA9157-0PK55		1	1 unit	163
			--	✓	--	--		3VA9257-0PK55		1	1 unit	163
			--	--	✓	--		3VA9267-0PK55		1	1 unit	163
	• EMERGENCY-STOP, with illumination kit	yellow-red	✓	--	--	--		3VA9157-0PK57		1	1 unit	163
			--	✓	--	--		3VA9257-0PK57		1	1 unit	163
			--	--	✓	--		3VA9267-0PK57		1	1 unit	163
 3VA9987-0GL30	**Extended DIN rail for N/PE terminal** • For mounting plate • Up to 250 A							3VA9987-0GL30		1	1 unit	163

Handles

	Handles with masking plate											
 8UD1731-0AB11	Type	Color	Tolerance compen-sation									
	• Standard	gray	without	✓	✓	✓	--	8UD1721-0AB11		1	1 unit	153
			with	✓	✓	✓	--	8UD1721-0AB21		1	1 unit	153
			without	--	--	--	✓	8UD1731-0AB11		1	1 unit	153
			with	--	--	--	✓	8UD1731-0AB21		1	1 unit	153
	• EMERGEN-CY-STOP	yellow-red	without	✓	✓	✓	--	8UD1721-0AB15		1	1 unit	153
			with	✓	✓	✓	--	8UD1721-0AB25		1	1 unit	153
			without	--	--	--	✓	8UD1731-0AB15		1	1 unit	153
			with	--	--	--	✓	8UD1731-0AB25		1	1 unit	153

* You can order this quantity or a multiple thereof.

	Version		DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
General accessories for manual operators								
 3VA9087-0SX10	**Labeling plate for manual operators**			3VA9087-0SX10		1	10 units	163
 8UD1900-0KA20	**Illumination kit for manual operators** 24 V DC voltage	For molded case circuit breakers						
		3VA1, 100 ... 250 A Front mounted rotary operator		8UD1900-0KA10		1	1 unit	153
		3VA2, 100 ... 630 A Front mounted rotary operator		8UD1900-0KA20		1	1 unit	153
		3VA1, 3VA2, 100 … 630 A Door mounted rotary operator and side wall mounted rotary operator		8UD1900-0KA20		1	1 unit	153
 8UD1900-0MB01	**Cylinder lock (type Kaba)** • For door mounted rotary operator and side wall mounted rotary operator (in the masking plate) • Standard masking plate	Key 1		8UD1900-0MB01		1	1 unit	153
		Key 2		8UD1900-0NB01		1	1 unit	153
		Key 3		8UD1900-0PB01		1	1 unit	153
		Key 4		8UD1900-0QB01		1	1 unit	153
 8UD1900-0MB05	**Cylinder lock (type Kaba)** • For door mounted rotary operator and side wall mounted rotary operator (in the masking plate) • EMERGENCY-STOP masking plate	Key 1		8UD1900-0MB05		1	1 unit	153
		Key 2		8UD1900-0NB05		1	1 unit	153
		Key 3		8UD1900-0PB05		1	1 unit	153
		Key 4		8UD1900-0QB05		1	1 unit	153
 3VA9488-0VF20	**Rotary operator interlock** • Contains 1 unit • For interlocking up to 3 operators (with 3 modules) • Interlocking via Bowden cable (not included in scope of delivery) see page 4/59	For molded case circuit breakers						
		3VA1, 160 A		3VA9158-0VF20		On Request		
		3VA1, 250 A		3VA9258-0VF20		On Request		
		3VA2, 250 A		3VA9268-0VF20		On Request		
		3VA2, 630 A		3VA9468-0VF20		On Request		
 3VA9980-0VL10	**Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking or interlocking • For installation in all rotary operators with shaft stub • For mounting in the adapter kit for the accessories compartment							
		Key 1		3VA9980-0VL10		1	1 unit	163
		Key 2		3VA9980-0VL20		1	1 unit	163
		Key 3		3VA9980-0VL30		1	1 unit	163
		Key 4		3VA9980-0VL40		1	1 unit	163
	Note							
	The cylinder lock adapter for rotary operators is also needed for locking or interlocking circuit breakers via rotary operators.							
 3VA9980-0LF20	**Cylinder lock adapter for rotary operators** To mount the cylinder lock in the rotary operator (also possible with door mounted rotary operator and side wall mounted rotary operator)			3VA9980-0LF20		1	1 unit	163

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* You can order this quantity or a multiple thereof.

Motor operators

Overview

The MO320 motor operator closes and opens the molded case circuit breaker by means of control cable commands (e.g. from pushbuttons or a PLC). It can also be operated manually, however, and a handle is provided on the unit for this purpose.

The motor operator also features a clear switching position indicator which indicates ON and OFF and, via LED, whether the circuit breaker has tripped (TRIP). The motor operator therefore meets the standards for isolating characteristics defined by IEC / EN 60947-1. It is thus possible to identify the switching position of the molded case circuit breaker at any time.

Two different reset modes can be selected, i.e. in one mode, the operator resets the molded case circuit breaker automatically and in the other, it waits for confirmation by an OFF signal before it resets the breaker.

Furthermore, the motor operator can be locked in the OFF position by means of several padlocks.

Benefits

- Remote operation of the molded case circuit breaker by means of control cable commands
- Clear switching position indication including TRIP provides a quick visual overview and prevents operating errors
- Locking capability prevents unauthorized operations
- Meets the standards for isolating characteristics defined by IEC / EN 60947-1

Design

- The MO320 motor operator is simply snapped into position on a mounting frame which is installed instead of the accessories lid of the molded case circuit breaker.

Technical specifications

MO320 motor operator	3VA1		3VA2	
	160 A	250 A	250 A	630 A
Type of protection	IP20, with escutcheon IP30			
Rated control supply voltage (operating range of control supply voltage)	24 V ... 60 V DC (0.85 ... 1.26) 110 V ... 230 V AC/ 110 V ... 250 V DC (0.85 ... 1.1)			
Rated operational power	250 W, max. 500 W (60 ms)			
Make time, typically	< 800 ms	< 800 ms	< 1000 ms	< 1700 ms
Break time, typically	< 800 ms	< 800 ms	< 1000 ms	< 1400 ms

Selection and ordering data

	Version	For molded case circuit breakers / rated current 3VA1 160 A	3VA1 250 A	3VA2 100 A, 160 A, 250 A	3VA2 400 A, 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Motor operators											
	Motor operator										
	Motor operators without stored energy features (MO320)										
	Variants										
	• 24 ... 60 V DC	✓	--	--	--		3VA9157-0HA10		1	1 unit	163
		--	✓	--	--		3VA9257-0HA10		1	1 unit	163
		--	--	✓	--		3VA9267-0HA10		1	1 unit	163
		--	--	--	✓		3VA9467-0HA10		1	1 unit	163
	• 110 ... 230 V AC, 110 ... 250 V DC	✓	--	--	--		3VA9157-0HA20		1	1 unit	163
		--	✓	--	--		3VA9257-0HA20		1	1 unit	163
		--	--	✓	--		3VA9267-0HA20		1	1 unit	163
		--	--	--	✓		3VA9467-0HA20		1	1 unit	163

3VA9267-0HA10

* You can order this quantity or a multiple thereof.

Overview

The proper functioning and in particular the safety of electrical installations does not just depend on the quality and design of the components, but also on the method of installation.

The following aspects of electrical installations are of crucial importance for the implementation of a safe, properly functioning connection to the 3VA molded case circuit breakers:

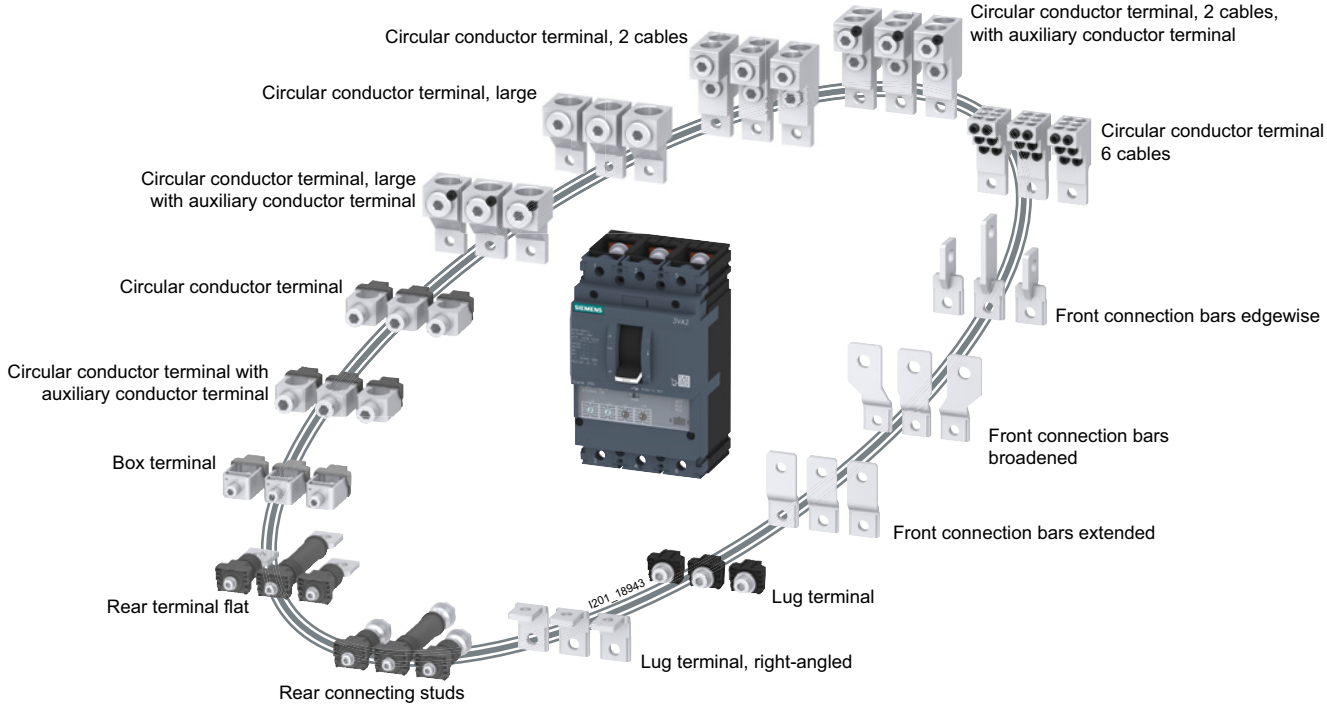
- Installation, e.g. connection to cables or busbars
- Dimensioning of the cables and busbars
- Installation medium, e.g. rigid or flexible

The following catalog pages provide all the information needed to ensure that a 3VA molded case circuit breaker is safely connected.

Connection technology for the 3VA molded case circuit breaker

The connection technology of the 3VA molded case circuit breakers is designed to support uncomplicated and convenient commissioning of the 3VA molded case circuit breakers and to meet all installation requirements.

To meet this objective, an extensive portfolio of connection components is available.



Connection technology

Front terminals

The portfolio of connection components for the molded case circuit breakers includes a large selection of front cable and busbar terminals.

Connection technology available from/installed at the factory

All 3VA molded case circuit breakers are available as standard with a lug terminal (clip-in nut and clamping screw) at the infeed and load ends.

For units up to size 160 A, a box terminal for direct cable connection can be optionally selected instead of the lug terminal. The box terminal is preassembled and installed at the factory.

The connection technology available from/installed at the factory can be selected in the 12th position of the circuit breaker MLFB.

Connection technology	Illustration	3VA1			3VA2				
		100	160	250	100	160	250	400	630
Lug terminal		✓	✓	✓	✓	✓	✓	✓	✓
Box terminal		✓	✓	--	✓	✓	--	--	--

✓ Available

Insulated busbars and cables with cable lugs can be connected directly to the lug terminal. Furthermore, all connection bar extensions are assembled at the molded case circuit breaker using the lug terminal:

- Front connection bars extended (phase barriers included in scope of supply)
- Front connection bars broadened (phase barriers included in scope of supply)
- Front connection bars edgewise (phase barriers included in scope of supply)
- Lug terminal, right-angled (phase barriers included in scope of supply)

The implementation of insulation measures (phase barriers or terminal covers) is recommended. With some accessory components, insulation measures are essential (and these are included in the scope of supply of the relevant component).

In addition to the factory-mounted connection technology included in the scope of the supply of the breaker, the following front connection components are available as accessories:

		Cable medium			
					
Front terminals	**Illustration**	**Solid, stranded and finely stranded cables**	**Cable lugs**	**Busbars**	**Flexible busbars**
Box terminal		✓ Cu cable	--	--	✓
Circular conductor terminal of aluminum		✓ Cu/Al cable	--	--	--
Circular conductor terminal of aluminum with auxiliary conductor terminal		✓ Cu/Al cable	--	--	--
Circular conductor terminal of aluminum, large (extended terminal cover included in scope of supply)		✓ Cu/Al cable	--	--	--
Circular conductor terminal of aluminum, large with auxiliary conductor terminal (extended terminal cover included in scope of supply)		✓ Cu/Al cable	--	--	--
Circular conductor terminal of aluminum, 2 cables (extended terminal cover included in scope of supply)		✓ Cu/Al cable	--	--	--
Circular conductor terminal of aluminum, 2 cables with auxiliary conductor terminal (extended terminal cover included in scope of supply)		✓ Cu/Al cable	--	--	--
Circular conductor terminal 6 cables (extended terminal cover included in scope of supply)		✓ Cu/Al cable	--	--	--
Lug terminal		--	✓	✓	✓
Front connection bars extended (phase barriers included in scope of supply)		--	✓	✓	✓
Front connection bars broadened (phase barriers included in scope of supply)		--	✓	✓	✓
Front connection bars edgewise (phase barriers included in scope of supply)		--	✓	✓	✓

✓ Available -- Not available

The circular conductor terminals (large, 2 cables, and 6 cables) are supplied as standard with extended terminal covers.

Connection technology

Rear terminals

The following connection components are available for implementing a rear terminal:

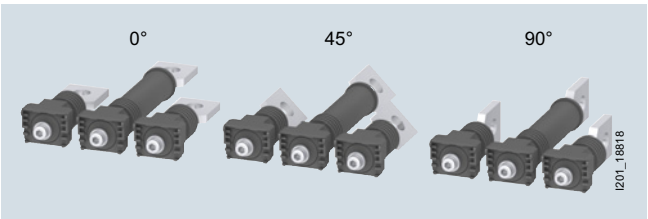
		Cable medium			
					
Rear terminals	**Illustration**	**Solid, stranded and finely stranded cables**	**Cable lugs**	**Busbars**	**Flexible busbars**
Rear terminal flat		--	✓	✓	✓
Rear connecting stud		--	✓	✓	✓
Lug terminal, right-angled (phase barriers in scope of supply)[1]		✓ [2]	✓	✓	✓

✓ Available -- Not available

[1] Can only be connected to breaker side N,1,3,5

[2] In conjunction with a box terminal

The rear terminal flat can be mounted at an angle in increments of 45°:



Insulated busbars and cables with cable lugs can be connected to the right-angled lug terminal. A box terminal can be mounted to allow direct connection of a cable to the right-angled lug terminal.

General note about connection technology

All connection components are available in the following sets:

- Set with 3 units
- Set with 4 units

The rear terminals are an exception as these can also be ordered individually (1 unit).

The termination areas for plug-in design (plug-in socket) and draw-out design (socket for draw-out unit) are designed in the same way as those of the molded case circuit breaker, i.e. the connection technology which is available for 3VA molded case circuit breakers can be used in the same way for the plug-in and draw-out sockets.

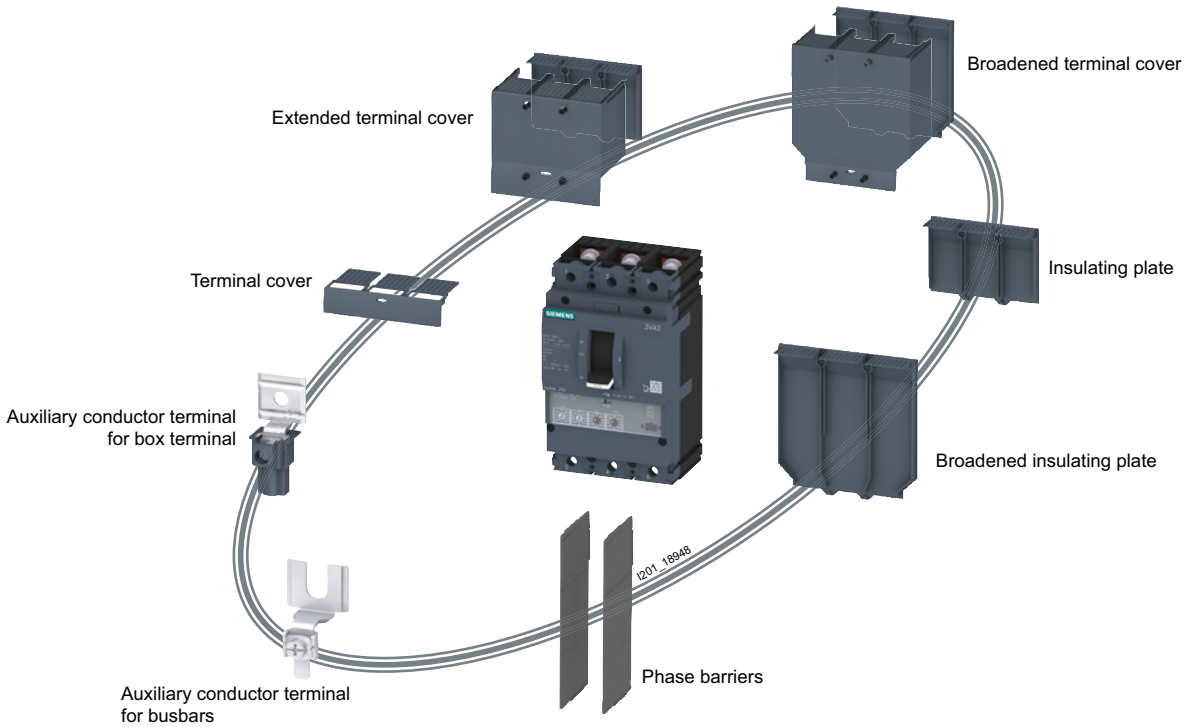
Conductor cross-sections

Connection technology	Cable medium	Cables and busbars	Dimensions	3VA1		3VA2		
				100 A/160 A	250 A	100 A/160 A/250 A	400 A	630 A
Box terminal 	Solid cable	Cu cable	mm^2	1.5 ... 16	6 ... 16	6 ... 16	--	--
	Stranded cable	Cu cable	mm^2	1.5 ... 70	6 ... 120 50 ... 185	6 ... 120 25 ... 185	35 ... 300	35 ... 300
	Finely stranded cable	Cu cable	mm^2	1.5 ... 50	10 ... 95 95 ... 150	10 ... 95 35 ... 150	25 ... 240	25 ... 240
	Finely stranded with insulated end sleeve	Cu cable	mm^2	1.5 ... 50	6 ... 95 50 ... 150	6 ... 95 25 ... 150	25 ... 240	25 ... 240
	Flexible copper busbar	Flexible busbar	mm x mm	2x ..6x [13 x 0.5] ... 2x ..9x [9 x 0.8]	2x ..6x [13 x 0.5] ... 2x ..6x [15.5 x 0.8] ... 2x ..6x [20 x 1]	2x ..6x [13 x 0.5] ... 2x ..6x [15.5 x 0.8] ... 2x ..6x [20 x 1]	2x ..10x [20 x 1] ... 2x ..10x [24 x 1]	2x ..10x [20 x 1] ... 2x ..10x [24 x 1]
Circular conductor terminal 	Solid cable	Cu/Al cable	mm^2	2.5/4 ... 16	--	1.5/4 ... 16	--	--
	Stranded cable	Cu/Al cable	mm^2	1.5/4 ... 50	35 ... 185	1.5/4 ... 50 16 ... 185	50 ... 300	--
	Finely stranded cable	Cu cable	mm^2	1.5 ... 35	35 ... 150	1.5 ... 35 25 ... 150	50 ... 240	--
	Finely stranded with insulated end sleeve	Cu cable	mm^2	1.5 ... 35	35 ... 150	1.5 ... 35 16 ... 120	50 ... 240	--
Circular conductor terminal, large 	Solid cable			--	--	--	--	--
	Stranded cable	Cu/Al cable	mm^2	25 ... 150	50 ... 240	50 ... 240	--	--
	Finely stranded cable	Cu cable	mm^2	25 ... 120	50 ... 185	50 ... 185	--	--
	Finely stranded with insulated end sleeve	Cu cable	mm^2	25 ... 95	50 ... 185	50 ... 185	--	--
Circular conductor terminal for 2 cables 	Solid cable			--	--	--	--	--
	Stranded cable	Cu/Al cable	mm^2	--	25 ... 150	25 ... 150	70 ... 300	70 ... 300
	Finely stranded cable	Cu cable	mm^2	--	25 ... 150	25 ... 150	70 ... 240	70 ... 240
	Finely stranded with insulated end sleeve	Cu cable	mm^2	--	25 ... 70	25 ... 70	70 ... 185	70 ... 185
Circular conductor terminal for 6 cables 	Solid cable	Cu/Al cable	mm^2	1.5/4 ... 16	1.5/4 ... 16	1.5/4 ... 16	1.5/4 ... 16	1.5/4 ... 16
	Stranded cable	Cu/Al cable	mm^2	1.5/4 ... 35	1.5/4 ... 35	1.5/4 ... 35	1.5/4 ... 35	1.5/4 ... 35
	Finely stranded cable	Cu cable	mm^2	1.5 ... 25	1.5 ... 25	1.5 ... 25	1.5 ... 25	1.5 ... 25
	Finely stranded with insulated end sleeve	Cu cable	mm^2	1.5 ... 25	1.5 ... 25	1.5 ... 25	1.5 ... 25	1.5 ... 25
Busbar connection	Direct (width x height)	Busbar	mm x mm	17 x 6.5	25 x 8	25 x 8	35 x 10	35 x 10
	Front connection bars extended	Busbar	mm x mm	22 x 8	32 x 10	32 x 10	40 x 12.5	40 x 12.5
	Front connection bars broadened	Busbar	mm x mm	30 x 8	35 x 10	35 x 10	60 x 12.5	60 x 12.5

Further connection accessories

Insulation / auxiliary conductor connections

The connection accessories portfolio includes an extensive selection of insulating components (phase barriers, terminal covers, etc.). Auxiliary conductor connections for box terminals and busbars are also available.



Terminal covers

Terminal covers are insulating and sealable insulation accessories which protect against accidental contact with main current paths. When mounted on the circuit breaker, terminal covers at the front provide degree of protection IP4x and when correctly installed at the infeed and load ends of the breaker, degree of protection IP2x. All terminal covers have a recess on the inside face which can be drilled out if necessary so that safe isolation can be afforded by commercially available voltage detectors.

- Short terminal covers are normally installed for all types of front termination which do not exceed the geometric dimensions of the molded case circuit breaker (the termination area) (e.g. box terminal, lug terminal, etc.).
- Extended terminal covers are required when bar extensions or external terminals (i.e. terminals which exceed the dimensions of the termination area of the molded case circuit breaker) are installed. The extended terminal cover consists of two parts, an insulating plate and the top half of the terminal cover. Both parts are attached by screws and thus afford the degrees of protection specified above.
- Broad terminal covers are required when broadened connection bars are installed. The extended terminal cover consists of two parts, a broadened insulating plate and the top half of the terminal cover. Both parts are attached by screws and thus afford the degrees of protection specified above.

Insulating plates

The purpose of insulating plates is to insulate the main terminals of the molded case circuit breaker from the mounting plate (cubicle).

- Insulating plate: in combination with bar extensions, for example
- Insulating plate broadened: in combination with broadened connection bars, for example

Auxiliary conductor terminals

All circular conductor terminals can be ordered with or without auxiliary conductor terminal (see 4/21 Front terminals). The following accessories are available to allow the implementation of an auxiliary conductor terminal in combination with a box terminal or busbar connection:

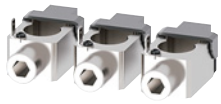
- Auxiliary conductor terminal for box terminal: This terminal is fastened by screws in the box terminal with the cable.
- Auxiliary conductor terminal for busbars: This terminal is attached by screws directly to the busbar.

All auxiliary conductor terminals are rated for a maximum load of 6 A. Cables of up to 2.5 mm^2 can be connected.

Benefits

- High degree of flexibility
- Cables and busbars can be connected quickly and easily to the 3VA2 molded case circuit breaker
- Extensive selection of connection accessories

Selection and ordering data

	Version	Minimum mm² for stranded cable	Maximum mm² for stranded cable	For molded case circuit breakers/ rated current 3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Box terminals													
 3VA9163-0JA12	**Box terminal** • Connection of Cu cable • Included in scope of supply: 3 single terminals	1.5 mm²	70 mm²	✓	--	--	--		3VA9153-0JA11		1	1 unit	163
		6 mm²	120 mm²	--	✓	--	--		3VA9253-0JA11		1	1 unit	163
		50 mm²	185 mm²	--	✓	--	--		3VA9253-0JA12		1	1 unit	163
		6 mm²	120 mm²	--	--	✓	--		3VA9163-0JA12		1	1 unit	163
		25 mm²	185 mm²	--	--	✓	--		3VA9263-0JA12		1	1 unit	163
		35 mm²	300 mm²	--	--	--	✓		3VA9483-0JA13		1	1 unit	163
 3VA9164-0JA12	**Box terminal** • Connection of Cu cable • Included in scope of supply: 4 single terminals	1.5 mm²	70 mm²	✓	--	--	--		3VA9154-0JA11		1	1 unit	163
		6 mm²	120 mm²	--	✓	--	--		3VA9254-0JA11		1	1 unit	163
		50 mm²	185 mm²	--	✓	--	--		3VA9254-0JA12		1	1 unit	163
		6 mm²	120 mm²	--	--	✓	--		3VA9164-0JA12		1	1 unit	163
		25 mm²	185 mm²	--	--	✓	--		3VA9264-0JA12		1	1 unit	163
		35 mm²	300 mm²	--	--	--	✓		3VA9484-0JA13		1	1 unit	163
Circular conductor terminals													
 3VA9103-0JB11	**Circular conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals	1.5 mm²	50 mm²	✓	--	--	--		3VA9113-0JB11		1	1 unit	153
		35 mm²	185 mm²	--	✓	--	--		3VA9253-0JB12		1	1 unit	163
		1.5 mm²	50 mm²	--	--	✓	--		3VA9103-0JB11		1	1 unit	153
		16 mm²	185 mm²	--	--	✓	--		3VA9263-0JB12		1	1 unit	163
		50 mm²	300 mm²	--	--	--	✓		3VA9383-0JB13		1	1 unit	163
 3VA9104-0JB11	**Circular conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals	1.5 mm²	50 mm²	✓	--	--	--		3VA9114-0JB11		1	1 unit	153
		35 mm²	185 mm²	--	✓	--	--		3VA9254-0JB12		1	1 unit	163
		1.5 mm²	50 mm²	--	--	✓	--		3VA9104-0JB11		1	1 unit	153
		16 mm²	185 mm²	--	--	✓	--		3VA9264-0JB12		1	1 unit	163
		50 mm²	300 mm²	--	--	--	✓		3VA9384-0JB13		1	1 unit	163
 3VA9103-0JG11	**Circular conductor terminal with auxiliary conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals	16 mm²	50 mm²	✓	--	--	--		3VA9113-0JG11		1	1 unit	153
		35 mm²	185 mm²	--	✓	--	--		3VA9253-0JG12		1	1 unit	163
		1.5 mm²	50 mm²	--	--	✓	--		3VA9103-0JG11		1	1 unit	153
		16 mm²	185 mm²	--	--	✓	--		3VA9263-0JG12		1	1 unit	163
		50 mm²	300 mm²	--	--	--	✓		3VA9383-0JG13		1	1 unit	163
 3VA9104-0JG11	**Circular conductor terminal with auxiliary conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals	16 mm²	50 mm²	✓	--	--	--		3VA9114-0JG11		1	1 unit	153
		35 mm²	185 mm²	--	✓	--	--		3VA9254-0JG12		1	1 unit	163
		1.5 mm²	50 mm²	--	--	✓	--		3VA9104-0JG11		1	1 unit	153
		16 mm²	185 mm²	--	--	✓	--		3VA9264-0JG12		1	1 unit	163
		50 mm²	300 mm²	--	--	--	✓		3VA9384-0JG13		1	1 unit	163
 3VA9112-0JJ12	**Circular conductor terminal, large** • Connection of Cu/Al cable • Included in scope of supply: 2 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9112-0JJ12		1	1 unit	153
 3VA9113-0JJ12	**Circular conductor terminal, large** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9113-0JJ12		1	1 unit	153
		50 mm²	240 mm²	--	✓	--	--		3VA9213-0JJ13		1	1 unit	153
		50 mm²	240 mm²	--	--	✓	--		3VA9223-0JJ13		1	1 unit	153

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*** You can order this quantity or a multiple thereof.**

Connection technology

	Version	Minimum mm² for stranded cable	Maximum mm² for stranded cable	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
				3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
 3VA9114-0JJ12	**Circular conductor terminal, large** • Connection of Cu/ Al cable • Included in scope of supply: 4 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9114-0JJ12		1	1 unit	153
		50 mm²	240 mm²	--	✓	--	--		3VA9214-0JJ13		1	1 unit	153
		50 mm²	240 mm²	--	--	✓	--		3VA9224-0JJ13		1	1 unit	153
 3VA9112-0JC12	**Circular conductor terminal, large, with auxiliary conductor terminal** • Connection of Cu/ Al cable • Included in scope of supply: 2 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9112-0JC12		1	1 unit	153
 3VA9223-0JC12	**Circular conductor terminal, large, with auxiliary conductor terminal** • Connection of Cu/ Al cable • Included in scope of supply: 3 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9113-0JC12		1	1 unit	153
		50 mm²	240 mm²	--	✓	--	--		3VA9213-0JC13		1	1 unit	153
		50 mm²	240 mm²	--	--	✓	--		3VA9223-0JC13		1	1 unit	153
 3VA9114-0JC12	**Circular conductor terminal, large, with auxiliary conductor terminal** • Connection of Cu/ Al cable • Included in scope of supply: 4 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9114-0JC12		1	1 unit	153
		50 mm²	240 mm²	--	✓	--	--		3VA9214-0JC13		1	1 unit	153
		50 mm²	240 mm²	--	--	✓	--		3VA9224-0JC13		1	1 unit	153
 3VA9223-0JJ22	**Circular conductor terminal, 2 cables** • Connection of Cu/ Al cable • Included in scope of supply: 3 single terminals and 1 extended terminal cover	2 x 25 mm²	2 x 150 mm²	--	✓	--	--		3VA9213-0JJ22		1	1 unit	153
		2 x 25 mm²	2 x 150 mm²	--	--	✓	--		3VA9223-0JJ22		1	1 unit	153
		2 x 70 mm²	2 x 300 mm²	--	--	--	✓		3VA9403-0JJ23		1	1 unit	153
 3VA9224-0JJ22	**Circular conductor terminal, 2 cables** • Connection of Cu/ Al cable • Included in scope of supply: 4 single terminals and 1 extended terminal cover	2 x 25 mm²	2 x 150 mm²	--	✓	--	--		3VA9214-0JJ22		1	1 unit	153
		2 x 25 mm²	2 x 150 mm²	--	--	✓	--		3VA9224-0JJ22		1	1 unit	153
		2 x 70 mm²	2 x 300 mm²	--	--	--	✓		3VA9404-0JJ23		1	1 unit	153

* You can order this quantity or a multiple thereof.

	Version	Minimum mm² for stranded cable	Maximum mm² for stranded cable	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
				3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
 3VA9223-0JC22	**Circular conductor terminal, 2 cables, with auxiliary conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 extended terminal cover	2 x 25 mm²	2 x 150 mm²	--	✓	--	--		3VA9213-0JC22		1	1 unit	153
		2 x 25 mm²	2 x 150 mm²	--	--	✓	--		3VA9223-0JC22		1	1 unit	153
		2 x 70 mm²	2 x 300 mm²	--	--	--	✓		3VA9403-0JC23		1	1 unit	153
 3VA9224-0JC22	**Circular conductor terminal, 2 cables, with auxiliary conductor terminal** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals and 1 extended terminal cover	2 x 25 mm²	2 x 150 mm²	--	✓	--	--		3VA9214-0JC22		1	1 unit	153
		2 x 25 mm²	2 x 150 mm²	--	--	✓	--		3VA9224-0JC22		1	1 unit	153
		2 x 70 mm²	2 x 300 mm²	--	--	--	✓		3VA9404-0JC23		1	1 unit	153
 3VA9112-0JF60	**Circular conductor terminal, 6 cables** • Connection of Cu/Al cable • Included in scope of supply: 2 single terminals and 1 extended terminal cover	6 x 1.5 mm²	6 x 35 mm²	✓	--	--	--		3VA9112-0JF60		1	1 unit	153
 3VA9223-0JF60	**Circular conductor terminal, 6 cables** • Connection of Cu/Al cable • Included in scope of supply: 3 single terminals and 1 extended terminal cover	6 x 1.5 mm²	6 x 35 mm²	✓	--	--	--		3VA9113-0JF60		1	1 unit	153
				--	✓	--	--		3VA9213-0JF60		1	1 unit	153
				--	--	✓	--		3VA9223-0JF60		1	1 unit	153
				--	--	--	✓		3VA9303-0JF60		1	1 unit	153
 3VA9224-0JF60	**Circular conductor terminal, 6 cables** • Connection of Cu/Al cable • Included in scope of supply: 4 single terminals and 1 extended terminal cover	6 x 1.5 mm²	6 x 35 mm²	✓	--	--	--		3VA9114-0JF60		1	1 unit	153
				--	✓	--	--		3VA9214-0JF60		1	1 unit	153
				--	--	✓	--		3VA9224-0JF60		1	1 unit	153
				--	--	--	✓		3VA9304-0JF60		1	1 unit	153

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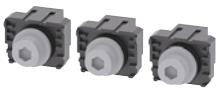
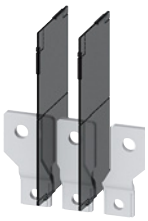
*** You can order this quantity or a multiple thereof.**

Connection technology

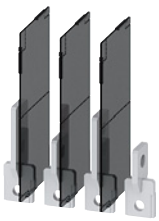
Lug terminals

	Version	Max. terminal width	Max. busbar thickness	For molded case circuit breakers/ rated current 3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
 3VA9203-0QA00	**Lug terminal** Included in scope of supply: • 3 single terminals	17 mm	6.5 mm	✓	--	--	--		3VA9113-0QA00		1	1 unit	153
		25 mm	8 mm	--	✓	--	--		3VA9213-0QA00		1	1 unit	153
		25 mm	8 mm	--	--	✓	--		3VA9203-0QA00		1	1 unit	153
		35 mm	10 mm	--	--	--	✓		3VA9403-0QA00		1	1 unit	153
 3VA9204-0QA00	**Lug terminal** Included in scope of supply: • 4 single terminals	17 mm	6.5 mm	✓	--	--	--		3VA9114-0QA00		1	1 unit	153
		25 mm	8 mm	--	✓	--	--		3VA9214-0QA00		1	1 unit	153
		25 mm	8 mm	--	--	✓	--		3VA9204-0QA00		1	1 unit	153
		35 mm	10 mm	--	--	--	✓		3VA9404-0QA00		1	1 unit	153

Connection bar extensions

	Version	Max. terminal width	Max. busbar thickness	For molded case circuit breakers/ rated current 3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
 3VA9263-0QB00	**Front connection bars extended** Included in scope of supply: • 3 single terminals • 2 phase barriers	22 mm	8 mm	✓	--	--	--		3VA9153-0QB00		1	1 unit	163
		32 mm	10 mm	--	✓	--	--		3VA9253-0QB00		1	1 unit	163
		32 mm	10 mm	--	--	✓	--		3VA9263-0QB00		1	1 unit	163
		40 mm	12.5 mm	--	--	--	✓		3VA9483-0QB00		1	1 unit	163
 3VA9264-0QB00	**Front connection bars extended** Included in scope of supply: • 4 single terminals • 3 phase barriers	22 mm	8 mm	✓	--	--	--		3VA9154-0QB00		1	1 unit	163
		32 mm	10 mm	--	✓	--	--		3VA9254-0QB00		1	1 unit	163
		32 mm	10 mm	--	--	✓	--		3VA9264-0QB00		1	1 unit	163
		40 mm	12.5 mm	--	--	--	✓		3VA9484-0QB00		1	1 unit	163
 3VA9263-0QC00	**Front connection bars broadened** Included in scope of supply: • 3 single terminals • 2 phase barriers Distance between pole centers: 100/160 A = 35 mm 250 A = 45mm 400/630 A = 70 mm	30 mm	8 mm	✓	--	--	--		3VA9153-0QC00		1	1 unit	163
		35 mm	10 mm	--	✓	--	--		3VA9253-0QC00		1	1 unit	163
		35 mm	10 mm	--	--	✓	--		3VA9263-0QC00		1	1 unit	163
		60 mm	12.5 mm	--	--	--	✓		3VA9483-0QC00		1	1 unit	163
 3VA9264-0QC00	**Front connection bars broadened** Included in scope of supply: • 4 single terminals • 3 phase barriers Distance between pole centers: 100/160 A = 35 mm 250 A = 45mm 400/630 A = 70 mm	30 mm	8 mm	✓	--	--	--		3VA9154-0QC00		1	1 unit	163
		35 mm	10 mm	--	✓	--	--		3VA9254-0QC00		1	1 unit	163
		35 mm	10 mm	--	--	✓	--		3VA9264-0QC00		1	1 unit	163
		60 mm	12.5 mm	--	--	--	✓		3VA9484-0QC00		1	1 unit	163
 3VA9263-0QD00	**Front connection bars edgewise** Included in scope of supply: • 3 single terminals • 2 phase barriers	20 mm	6 mm	✓	--	--	--		3VA9153-0QD00		1	1 unit	163
		25 mm	7 mm	--	✓	--	--		3VA9253-0QD00		1	1 unit	163
		25 mm	7 mm	--	--	✓	--		3VA9263-0QD00		1	1 unit	163
		40 mm	8 mm	--	--	--	✓		3VA9483-0QD00		1	1 unit	163

* You can order this quantity or a multiple thereof.

	Version	Max. terminal width	Max. busbar thickness	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
				3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
 3VA9264-0QD00	**Front connection bars edgewise** Included in scope of supply: • 4 single terminals • 3 phase barriers	20 mm	6 mm	✓	--	--	--		3VA9154-0QD00		1	1 unit	163
		25 mm	7 mm	--	✓	--	--		3VA9254-0QD00		1	1 unit	163
		25 mm	7 mm	--	--	✓	--		3VA9264-0QD00		1	1 unit	163
		40 mm	8 mm	--	--	--	✓		3VA9484-0QD00		1	1 unit	163
 3VA9223-0QG00	**Lug terminal, right-angled**[1] Included in scope of supply: • 3 single terminals • 2 phase barriers	22 mm	8 mm	✓	--	--	--		3VA9113-0QG00		1	1 unit	153
		32 mm	10 mm	--	✓	--	--		3VA9213-0QG00		1	1 unit	153
		32 mm	10 mm	--	--	✓	--		3VA9223-0QG00		1	1 unit	153
		40 mm	12.5 mm	--	--	--	✓		3VA9403-0QG00		1	1 unit	153
 3VA9224-0QG00	**Lug terminal, right-angled**[1] Included in scope of supply: • 4 single terminals • 3 phase barriers	22 mm	8 mm	✓	--	--	--		3VA9114-0QG00		1	1 unit	153
		32 mm	10 mm	--	✓	--	--		3VA9214-0QG00		1	1 unit	153
		32 mm	10 mm	--	--	✓	--		3VA9224-0QG00		1	1 unit	153
		40 mm	12.5 mm	--	--	--	✓		3VA9404-0QG00		1	1 unit	153

[1] Can only be connected to breaker side N,1,3,5

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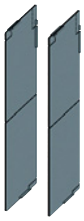
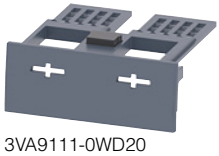
	Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
Rear terminals flat											
 3VA9203-0QE00	**Rear terminal flat** Included in scope of supply: • 2 short terminals flat • 1 long terminal flat	✓	--	--	--		3VA9113-0QE00		1	1 unit	153
		--	✓	--	--		3VA9213-0QE00		1	1 unit	153
		--	--	✓	--		3VA9203-0QE00		1	1 unit	153
		--	--	--	✓		3VA9403-0QE00		1	1 unit	153
 3VA9204-0QE00	**Rear terminal flat** Included in scope of supply: • 2 short terminals flat • 2 long terminals flat	✓	--	--	--		3VA9114-0QE00		1	1 unit	153
		--	✓	--	--		3VA9214-0QE00		1	1 unit	153
		--	--	✓	--		3VA9204-0QE00		1	1 unit	153
		--	--	--	✓		3VA9404-0QE00		1	1 unit	153
 3VA9201-0QE10	**Rear terminal flat** Included in scope of supply: • 1 short terminal flat	✓	--	--	--		3VA9111-0QE10		1	1 unit	153
		--	✓	--	--		3VA9211-0QE10		1	1 unit	153
		--	--	✓	--		3VA9201-0QE10		1	1 unit	153
		--	--	--	✓		3VA9401-0QE10		1	1 unit	153
 3VA9201-0QE20	**Rear terminal flat** Included in scope of supply: • 1 long terminal flat	✓	--	--	--		3VA9111-0QE20		1	1 unit	153
		--	✓	--	--		3VA9211-0QE20		1	1 unit	153
		--	--	✓	--		3VA9201-0QE20		1	1 unit	153
		--	--	--	✓		3VA9401-0QE20		1	1 unit	153
Rear connecting studs											
 3VA9203-0QF00	**Rear connecting stud** Included in scope of supply: • 1 long connecting stud • 2 short connecting studs	✓	--	--	--		3VA9113-0QF00		1	1 unit	153
		--	✓	--	--		3VA9213-0QF00		1	1 unit	153
		--	--	✓	--		3VA9203-0QF00		1	1 unit	153
		--	--	--	✓		3VA9403-0QF00		1	1 unit	153
 3VA9204-0QF00	**Rear connecting stud** Included in scope of supply: • 2 long connecting studs • 2 short connecting studs	✓	--	--	--		3VA9114-0QF00		1	1 unit	153
		--	✓	--	--		3VA9214-0QF00		1	1 unit	153
		--	--	✓	--		3VA9204-0QF00		1	1 unit	153
		--	--	--	✓		3VA9404-0QF00		1	1 unit	153
 3VA9201-0QF10	**Rear connecting stud** Included in scope of supply: • 1 short connecting stud	✓	--	--	--		3VA9111-0QF10		1	1 unit	153
		--	✓	--	--		3VA9211-0QF10		1	1 unit	153
		--	--	✓	--		3VA9201-0QF10		1	1 unit	153
		--	--	--	✓		3VA9401-0QF10		1	1 unit	153
 3VA9111-0QF20	**Rear connecting stud** Included in scope of supply: • 1 long connecting stud	✓	--	--	--		3VA9111-0QF20		1	1 unit	153
		--	✓	--	--		3VA9211-0QF20		1	1 unit	153
		--	--	✓	--		3VA9201-0QF20		1	1 unit	153
		--	--	--	✓		3VA9401-0QF20		1	1 unit	153

* You can order this quantity or a multiple thereof.

	Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
Phase barriers											
 3VA9262-0WA00	**Phase barriers** Included in scope of supply: • 2 phase barriers	✓	--	--	--		3VA9152-0WA00		1	1 unit	163
		--	✓	--	--		3VA9252-0WA00		1	1 unit	163
		--	--	✓	--		3VA9262-0WA00		1	1 unit	163
		--	--	--	✓		3VA9482-0WA00		1	1 unit	163
Terminal covers											
 3VA9111-0WD10	**Terminal cover for 1-pole breakers**	✓	--	--	--		3VA9111-0WD10		1	1 unit	153
 3VA9111-0WD20	**Terminal cover for 2-pole breakers**	✓	--	--	--		3VA9111-0WD20		1	1 unit	153
 3VA9221-0WD30	**Terminal cover for 3-pole breakers**	✓	--	--	--		3VA9111-0WD30		1	1 unit	153
		--	✓	--	--		3VA9211-0WD30		1	1 unit	153
		--	--	✓	--		3VA9221-0WD30		1	1 unit	153
		--	--	--	✓		3VA9481-0WD30		1	1 unit	163
 3VA9221-0WD40	**Terminal cover for 4-pole breakers**	✓	--	--	--		3VA9111-0WD40		1	1 unit	153
		--	✓	--	--		3VA9211-0WD40		1	1 unit	153
		--	--	✓	--		3VA9221-0WD40		1	1 unit	153
		--	--	--	✓		3VA9481-0WD40		1	1 unit	163
 3VA9111-0WF20	**Extended terminal cover, 2-pole**	✓	--	--	--		3VA9111-0WF20		1	1 unit	153
 3VA9221-0WF30	**Extended terminal cover for 3-pole breakers**	✓	--	--	--		3VA9111-0WF30		1	1 unit	153
		--	✓	--	--		3VA9211-0WF30		1	1 unit	153
		--	--	✓	--		3VA9221-0WF30		1	1 unit	153
		--	--	--	✓		3VA9481-0WF30		1	1 unit	163
 3VA9221-0WF40	**Extended terminal cover for 4-pole breakers**	✓	--	--	--		3VA9111-0WF40		1	1 unit	153
		--	✓	--	--		3VA9211-0WF40		1	1 unit	153
		--	--	✓	--		3VA9221-0WF40		1	1 unit	153
		--	--	--	✓		3VA9481-0WF40		1	1 unit	163

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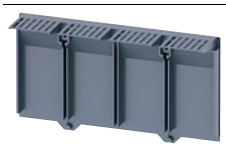
*** You can order this quantity or a multiple thereof.**

Connection technology

	Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
 3VA9221-0WG30	**Broadened terminal cover for 3-pole breakers**	✓	--	--	--		3VA9111-0WG30		1	1 unit	153
		--	✓	--	--		3VA9211-0WG30		1	1 unit	153
		--	--	✓	--		3VA9221-0WG30		1	1 unit	153
		--	--	--	✓		3VA9401-0WG30		1	1 unit	153
 3VA9221-0WG40	**Broadened terminal cover for 4-pole breakers**	✓	--	--	--		3VA9111-0WG40		1	1 unit	153
		--	✓	--	--		3VA9211-0WG40		1	1 unit	153
		--	--	✓	--		3VA9221-0WG40		1	1 unit	153
		--	--	--	✓		3VA9401-0WG40		1	1 unit	153
Insulating plates											
 3VA9111-0WJ20	**Insulating plate, 2-pole**	✓	--	--	--		3VA9111-0WJ20		1	1 unit	153
 3VA9221-0WJ30	**Insulating plate, 3-pole**	✓	--	--	--		3VA9111-0WJ30		1	1 unit	153
		--	✓	--	--		3VA9211-0WJ30		1	1 unit	153
		--	--	✓	--		3VA9221-0WJ30		1	1 unit	153
		--	--	--	✓		3VA9481-0WJ30		1	1 unit	163
 3VA9221-0WJ40	**Insulating plate, 4-pole**	✓	--	--	--		3VA9111-0WJ40		1	1 unit	153
		--	✓	--	--		3VA9211-0WJ40		1	1 unit	153
		--	--	✓	--		3VA9221-0WJ40		1	1 unit	153
		--	--	--	✓		3VA9481-0WJ40		1	1 unit	163
 3VA9221-0WK30	**Insulating plate broadened, 3-pole**	✓	--	--	--		3VA9111-0WK30		1	1 unit	153
		--	✓	--	--		3VA9211-0WK30		1	1 unit	153
		--	--	✓	--		3VA9221-0WK30		1	1 unit	153
		--	--	--	✓		3VA9481-0WK30		1	1 unit	163
 3VA9221-0WK40	**Insulating plate broadened, 4-pole**	✓	--	--	--		3VA9111-0WK40		1	1 unit	153
		--	✓	--	--		3VA9211-0WK40		1	1 unit	153
		--	--	✓	--		3VA9221-0WK40		1	1 unit	153
		--	--	--	✓		3VA9481-0WK40		1	1 unit	163

* You can order this quantity or a multiple thereof.

	Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
DC insulating plate											
 3VA9113-0SG10	**DC insulating plate for 3VA1**										
	Variants										
	• For fixed-mounted molded case circuit breakers										
	- 3-pole	✓	--	--	--		**3VA9113-0SG10**		1	1 unit	163
	- 4-pole	✓	--	--	--		**3VA9114-0SG10**		1	1 unit	163
Side plate											
 3VA9112-0SG20	**Side plate for 3VA1**										
	Variants										
	• For fixed-mounted molded case circuit breakers										
	- 2-pole	✓	--	--	--		**3VA9112-0SG20**		1	1 unit	153
Auxiliary conductor terminals											
 3VA9200-0WB00	**Auxiliary conductor terminal for box terminal**	✓	--	--	--		**3VA9110-0WB00**		1	10 units	153
		--	✓	✓	--		**3VA9200-0WB00**		1	10 units	153
		--	--	--	✓		**3VA9480-0WB00**		1	10 units	163
 3VA9200-0WC00	**Auxiliary conductor terminal for busbar**	✓	--	--	--		**3VA9110-0WC00**		1	10 units	153
		--	✓	✓	--		**3VA9200-0WC00**		1	10 units	153
		--	--	--	✓		**3VA9480-0WC00**		1	10 units	163

*** You can order this quantity or a multiple thereof.**

Plug-in and draw-out technology

Overview

Using plug-in and draw-out technology the 3VA molded case circuit breakers can be installed/removed or replaced quickly and safely. In this case, the cables or busbars of the main current paths are connected to the connectors of the plug-in socket or the draw-out socket.

The termination areas of the sockets for these versions are designed in the same way as those of the molded case circuit breakers but, due to the different requirements for creepages and clearances, have slightly different dimensions.

This means that all connections without insulating measures (e.g. box terminals) from the range of breakers can also be used with the socket for plug-in or draw-out units.

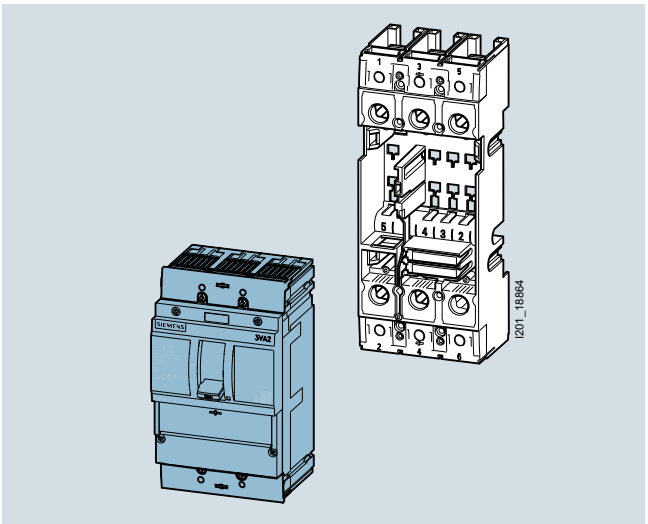
Connections with insulating measures have their own article numbers and are listed below.

A 3VA molded case circuit breaker in the plug-in or draw-out version has plug-in contacts on the input and load side of the main terminals. When the circuit breaker is plugged or moved into the socket, the plug-in contacts slide into the socket-side tulip contacts and connect the main current paths with the circuit breaker. In addition, auxiliary circuit connectors can be used to connect the auxiliary and control signals from the internal accessories of the molded case circuit breaker to the outside.

The main differences between plug-in units and draw-out units are convenience of operation and the potential for functional expansion.

Plug-in technology

Plug-in technology is the less expensive and more space-saving of the two solutions. The plug-in version of the molded case circuit breaker is equipped with plug-in contacts on the back of the 3VA molded case circuit breaker. These make a friction-locked and keyed connection with the corresponding mating connectors in the plug-in socket. The plug-in unit can be supplied as a complete kit or as a conversion kit for breakers including screw-fastened terminal covers.

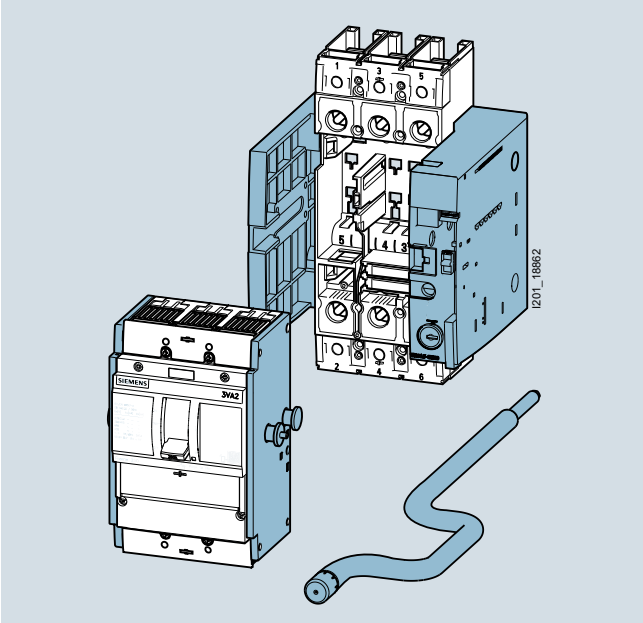


Draw-out technology

Draw-out versions of the molded case circuit breaker are also equipped with plug-in contacts at the main current paths. In addition, side walls including guide and support bolts are bolted to the sides of the molded case circuit breaker. With this version, the mating component is the draw-out socket. It is also equipped with a guide mechanism via which the molded case circuit breaker is moved into the draw-out socket by means of a handle in order to connect the breaker to the main circuits. The operator can clearly read from a position indicator whether the breaker is properly connected to the main circuits or safely isolated from them (so that it can be withdrawn).

Position signaling switches which transmit the position information CONNECT, TEST, and DISCONNECT can be integrated in the right-hand side wall of the draw-out unit. A special set of position signaling switches transfers the position data to the COM060 communication module via a preassembled wires.

The draw-out complete kit as well as the draw-out conversion kit for one breaker are available. Both kits include screw-fastened terminal covers for the breaker. The crank handle for the draw-out unit must be ordered separately.



Benefits

- Molded case circuit breakers can be replaced quickly and easily for the purpose of overhaul or servicing
- Electrical isolation and clearly visible isolating distance
- Socket can be interlocked to prevent the 3VA molded case circuit breaker from being plugged in or moved in
- Identical connection technology for all molded case circuit breakers, whether they are plug-in, draw-out or fixed-mounted units
- Test of the auxiliary and control circuit connections in the test position of the draw-out unit possible without contacted main current paths

Selection and ordering data

	Version	For molded case circuit breakers/rated current 3VA1 160 A	3VA1 250 A	3VA2 100 A 160 A, 250 A	3VA2 400 A, 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Plug-in socket											
	Plug-in unit, complete kit Comprising: • Plug-in socket • Conversion kit • Mounting screw kit										
	Variants										
 3VA9123-0KP00	• 3-pole	✓	--	--	--		3VA9113-0KP00		1	1 unit	153
		--	✓	--	--		3VA9213-0KP00		1	1 unit	153
		--	--	✓	--		3VA9123-0KP00		1	1 unit	153
		--	--	--	✓		3VA9323-0KP00		1	1 unit	153
 3VA9124-0KP00	• 4-pole	✓	--	--	--		3VA9114-0KP00		1	1 unit	153
		--	✓	--	--		3VA9214-0KP00		1	1 unit	153
		--	--	✓	--		3VA9124-0KP00		1	1 unit	153
		--	--	--	✓		3VA9324-0KP00		1	1 unit	153
	Plug-in unit, conversion kit Comprising: • Screw-fastened terminal covers for molded case circuit breakers • Plug-in contacts • Cable cage • Autotrip plunger										
	Variants										
 3VA9123-0KP10	• 3-pole	✓	--	--	--		3VA9113-0KP10		1	1 unit	153
		--	✓	--	--		3VA9213-0KP10		1	1 unit	153
		--	--	✓	--		3VA9123-0KP10		1	1 unit	153
		--	--	--	✓		3VA9323-0KP10		1	1 unit	153
 3VA9124-0KP10	• 4-pole	✓	--	--	--		3VA9114-0KP10		1	1 unit	153
		--	✓	--	--		3VA9214-0KP10		1	1 unit	153
		--	--	✓	--		3VA9124-0KP10		1	1 unit	153
		--	--	--	✓		3VA9324-0KP10		1	1 unit	153

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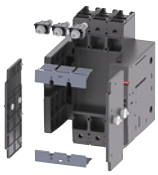
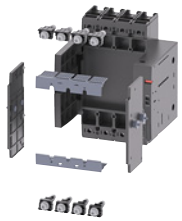
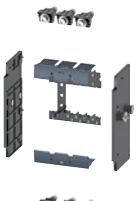
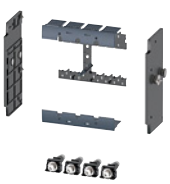
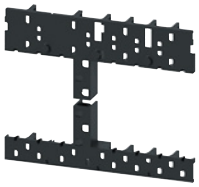
* You can order this quantity or a multiple thereof.

Plug-in and draw-out technology

Draw-out units

	Version	For molded case circuit breakers/rated current 3VA1 160 A	3VA1 250 A	3VA2 100 A, 160 A, 250 A	3VA2 400 A, 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
 3VA9123-0KD00	**Draw-out unit, complete kit** Comprising: • Draw-out socket • Conversion kit • Mounting screw kit										
	Variants										
	• 3-pole	--	✓	--	--		3VA9213-0KD00		1	1 unit	153
		--	--	✓	--		3VA9123-0KD00		1	1 unit	153
		--	--	--	✓		3VA9323-0KD00		1	1 unit	153
 3VA9124-0KD00	• 4-pole	--	✓	--	--		3VA9214-0KD00		1	1 unit	153
		--	--	✓	--		3VA9124-0KD00		1	1 unit	153
		--	--	--	✓		3VA9324-0KD00		1	1 unit	153
 3VA9123-0KD10	**Draw-out unit, conversion kit** Conversion kit comprising: • Screw-fastened terminal covers for molded case circuit breakers • Side wall • Plug-in contacts • Cable cage • Autotrip plunger										
	Variants										
	• 3-pole	--	✓	--	--		3VA9213-0KD10		1	1 unit	153
		--	--	✓	--		3VA9123-0KD10		1	1 unit	153
		--	--	--	✓		3VA9323-0KD10		1	1 unit	153
 3VA9124-0KD10	• 4-pole	--	✓	--	--		3VA9214-0KD10		1	1 unit	153
		--	--	✓	--		3VA9124-0KD10		1	1 unit	153
		--	--	--	✓		3VA9324-0KD10		1	1 unit	153

* You can order this quantity or a multiple thereof.

	Version	For molded case circuit breakers/rated current 3VA1 160 A	3VA1 250 A	3VA2 100 A, 160 A, 250 A	3VA2 400 A, 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Cable cage											
 3VA9167-0KB02	**Cable cage for plug-in/draw-out unit 3-/4-pole (spare part)** Cable duct for routing of the required cables from the internal accessories on the back of the circuit breaker	✓	--	--	--		3VA9157-0KB02		1	1 unit	163
		--	✓	--	--		3VA9257-0KB02		1	1 unit	163
		--	--	✓	--		3VA9167-0KB02		1	1 unit	163
		--	--	--	✓		3VA9367-0KB02		1	1 unit	163
Door feedthrough											
 3VA9167-0KT00	**Door feedthrough**	--	✓	--	--		3VA9257-0KT00		1	1 unit	163
		--	--	✓	--		3VA9167-0KT00		1	1 unit	163
		--	--	--	✓		3VA9367-0KT00		1	1 unit	163
Terminal covers											
	Terminal cover for plug-in/draw-out unit (spare part) • To provide circuit breaker touch protection • For mounting on the molded case circuit breaker										
	Variants										
  3VA9123-0KB01	• 3-pole	✓	--	--	--		3VA9113-0KB01		1	1 unit	153
		--	✓	--	--		3VA9213-0KB01		1	1 unit	153
		--	--	✓	--		3VA9123-0KB01		1	1 unit	153
		--	--	--	✓		3VA9353-0KB01		1	1 unit	163
  3VA9124-0KB01	• 4-pole	✓	--	--	--		3VA9114-0KB01		1	1 unit	153
		--	✓	--	--		3VA9214-0KB01		1	1 unit	153
		--	--	✓	--		3VA9124-0KB01		1	1 unit	153
		--	--	--	✓		3VA9354-0KB01		1	1 unit	163

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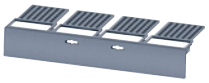
* You can order this quantity or a multiple thereof.

Plug-in and draw-out technology

	Version	For molded case circuit breakers/rated current 3VA1 160 A	3VA1 250 A	3VA2 100 A, 160 A, 250 A	3VA2 400 A, 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
	Terminal cover for plug-in or draw-out socket • For touch protection in the termination area of the plug-in or draw-out socket • For mounting on the plug-in or draw-out socket										
	Variants										
 3VA9153-0KB03	• 3-pole	✓	--	--	--		3VA9153-0KB03		1	1 unit	163
		--	✓	--	--		3VA9253-0KB03		1	1 unit	163
		--	--	✓	--		3VA9163-0KB03		1	1 unit	163
		--	--	--	✓		3VA9353-0KB03		1	1 unit	163
 3VA9154-0KB03	• 4-pole	✓	--	--	--		3VA9154-0KB03		1	1 unit	163
		--	✓	--	--		3VA9254-0KB03		1	1 unit	163
		--	--	✓	--		3VA9164-0KB03		1	1 unit	163
		--	--	--	✓		3VA9354-0KB03		1	1 unit	163
	Terminal cover, extended for plug-in or draw-out socket • For touch protection in the termination area of the plug-in or draw-out socket • For mounting on the plug-in or draw-out socket										
	Variants										
 3VA9153-0KB04	• 3-pole	✓	--	--	--		3VA9153-0KB04		1	1 unit	163
		--	✓	--	--		3VA9253-0KB04		1	1 unit	163
		--	--	✓	--		3VA9163-0KB04		1	1 unit	163
		--	--	--	✓		3VA9353-0KB04		1	1 unit	163
 3VA9154-0KB04	• 4-pole	✓	--	--	--		3VA9154-0KB04		1	1 unit	163
		--	✓	--	--		3VA9254-0KB04		1	1 unit	163
		--	--	✓	--		3VA9164-0KB04		1	1 unit	163
		--	--	--	✓		3VA9354-0KB04		1	1 unit	163
	Terminal cover, broadened, for plug-in or draw-out socket • For touch protection in the termination area of the plug-in or draw-out socket • For mounting on the plug-in or draw-out socket										
	Variants										
 3VA9153-0KB05	• 3-pole	✓	--	--	--		3VA9153-0KB05		1	1 unit	163
		--	✓	--	--		3VA9253-0KB05		1	1 unit	163
		--	--	✓	--		3VA9163-0KB05		1	1 unit	163
		--	--	--	✓		3VA9353-0KB05		1	1 unit	163
 3VA9154-0KB05	• 4-pole	✓	--	--	--		3VA9154-0KB05		1	1 unit	163
		--	✓	--	--		3VA9254-0KB05		1	1 unit	163
		--	--	✓	--		3VA9164-0KB05		1	1 unit	163
		--	--	--	✓		3VA9354-0KB05		1	1 unit	163

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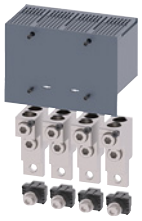
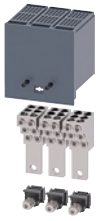
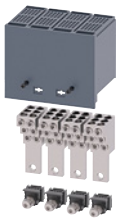
* You can order this quantity or a multiple thereof.

	Version	Minimum mm² for stranded cable	Maximum mm² for stranded cable	For molded case circuit breakers/ rated current 3VA1 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Circular conductor terminals for plug-in and draw-out sockets													
 3VA9153-0JC12	**Circular conductor terminal, large, with auxiliary conductor terminal** Included in scope of supply: 3 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9153-0JC12		1	1 unit	163
		50 mm²	240 mm²	--	✓	--	--		3VA9253-0JC13		1	1 unit	163
		50 mm²	240 mm²	--	--	✓	--		3VA9263-0JC13		1	1 unit	163
 3VA9154-0JC12	**Circular conductor terminal, large, with auxiliary conductor terminal** Included in scope of supply: 4 single terminals and 1 extended terminal cover	25 mm²	150 mm²	✓	--	--	--		3VA9154-0JC12		1	1 unit	163
		50 mm²	240 mm²	--	✓	--	--		3VA9254-0JC13		1	1 unit	163
		50 mm²	240 mm²	--	--	✓	--		3VA9264-0JC13		1	1 unit	163
 3VA9263-0JC22	**Circular conductor terminal, 2 cables, with auxiliary conductor terminal** Included in scope of supply: 3 single terminals and 1 extended terminal cover	2 x 25 mm²	2 x 150 mm²	--	✓	--	--		3VA9253-0JC22		1	1 unit	163
		2 x 25 mm²	2 x 150 mm²	--	--	✓	--		3VA9263-0JC22		1	1 unit	163
		2 x 70 mm²	2 x 300 mm²	--	--	--	✓		3VA9483-0JC23		1	1 unit	163
 3VA9264-0JC22	**Circular conductor terminal, 2 cables, with auxiliary conductor terminal** Included in scope of supply: 4 single terminals and 1 extended terminal cover	2 x 25 mm²	2 x 150 mm²	--	✓	--	--		3VA9254-0JC22		1	1 unit	163
		2 x 25 mm²	2 x 150 mm²	--	--	✓	--		3VA9264-0JC22		1	1 unit	163
		2 x 70 mm²	2 x 300 mm²	--	--	--	✓		3VA9484-0JC23		1	1 unit	163
 3VA9153-0JF60	**Circular conductor terminal, 6 cables** Included in scope of supply: 3 single terminals and 1 extended terminal cover	6 x 1.5 mm²	6 x 35 mm²	✓	--	--	--		3VA9153-0JF60		1	1 unit	163
		6 x 1.5 mm²	6 x 35 mm²	--	✓	--	--		3VA9253-0JF60		1	1 unit	163
		6 x 1.5 mm²	6 x 35 mm²	--	--	✓	--		3VA9263-0JF60		1	1 unit	163
		6 x 1.5 mm²	6 x 35 mm²	--	--	--	✓		3VA9383-0JF60		1	1 unit	163
 3VA9154-0JF60	**Circular conductor terminal, 6 cables** Included in scope of supply: 4 single terminals and 1 extended terminal cover	6 x 1.5 mm²	6 x 35 mm²	✓	--	--	--		3VA9154-0JF60		1	1 unit	163
		6 x 1.5 mm²	6 x 35 mm²	--	✓	--	--		3VA9254-0JF60		1	1 unit	163
		6 x 1.5 mm²	6 x 35 mm²	--	--	✓	--		3VA9264-0JF60		1	1 unit	163
		6 x 1.5 mm²	6 x 35 mm²	--	--	--	✓		3VA9384-0JF60		1	1 unit	163

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* You can order this quantity or a multiple thereof.

Plug-in and draw-out technology

	Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
Auxiliary conductor terminals for plug-in and draw-out units											
 3VA9280-0WB00	**Auxiliary conductor terminal for box terminal**	✓	--	--	--		3VA9150-0WB00		1	10 units	163
		--	✓	✓	--		3VA9280-0WB00		1	10 units	163
		--	--	--	✓		3VA9480-0WB00		1	10 units	163
 3VA9280-0WC00	**Auxiliary conductor terminal for busbar**	✓	--	--	--		3VA9150-0WC00		1	10 units	163
		--	✓	✓	--		3VA9280-0WC00		1	10 units	163
		--	--	--	✓		3VA9480-0WC00		1	10 units	163
Other accessories											
 3VA9987-0KC00	**Communication link for draw-out unit** Comprising: • Cable kit with 3 special position signaling switches • Connecting cable 3VA9987-0KC10						3VA9987-0KC00		1	1 unit	163
 3VA9987-0KB00	**Position signaling switch** For draw-out unit						3VA9987-0KB00		1	1 unit	163
 3VA9987-0KC10	**Spare connecting cable** To connect the position signaling switches for communication with the COM060						3VA9987-0KC10		1	1 unit	163
 3VA9987-0KD81	**Crank handle for draw-out unit** Insulated, incl. crank holder						3VA9987-0KD81		1	1 unit	163
 3VA9987-0KD80	**Auxiliary circuit connector**										
	Variants										
	• For all draw-out units						3VA9987-0KD80		1	1 unit	163
	• For all plug-in units						3VA9987-0KP80		1	1 unit	163

* You can order this quantity or a multiple thereof.

	Version		DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
 3VA9980-0VL10	**Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking • For installation in all rotary operators with shaft stub • For mounting in the adapter kit for the accessories compartment	Key 1		**3VA9980-0VL10**		1	1 unit	163
		Key 2		**3VA9980-0VL20**		1	1 unit	163
		Key 3		**3VA9980-0VL30**		1	1 unit	163
		Key 4		**3VA9980-0VL40**		1	1 unit	163
 3VA9980-0LF40	**Cylinder lock adapter for draw-out unit** • For fitting a cylinder lock in the right-hand side wall of the draw-out unit • To prevent unauthorized withdrawal or insertion of the circuit breaker into the draw-out unit • Circuit breaker can be locked in the CONNECT, TEST and DISCONNECT positions			**3VA9980-0LF40**		1	1 unit	163

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* You can order this quantity or a multiple thereof.

Overview

Residual current devices can be used to prevent or reduce hazardous residual currents that could cause injury to personnel and livestock, and damage to property. These are available as accessory components for the 3VA series up to the largest circuit breaker size. The new portfolio of residual current devices of the 3VA series includes three different RCD designs so that an optimum solution is available for every conceivable type of application: mounted below, mounted on the side, and modular. All residual current devices detect both purely sinusoidal AC residual currents as well as pulsating DC residual currents (type A), and the combination of molded case circuit breakers or switch disconnectors with mounted residual current devices complies with IEC 60947-2 Annex B, while the combination with modular residual current devices complies with IEC 60947-2 Annex M.

Residual current devices "Basic" type

The residual current devices of the "Basic" type can be combined with the 3VA1 molded case circuit breakers or switch disconnectors. The following features characterize these devices:

- Compact design
- 45 mm cover size
- LEDs for signaling "ready" state and pre-alarms
- Tripped signal at device and via electrical contacts
- Deliberate acknowledgment following a trip via a reset push-button on the residual current device

RCD310 and RCD510 are suitable for side mounting on the thermal-magnetic trip unit, and versions RCD320 and RCD520 are mounted below the breaker. On the residual current devices of the 5-series (RCD5..), tripping can be delayed by up to three seconds so that in the event of a fault, only the branch containing the fault is switched off by means of appropriate selective grading of the series-switched residual current devices. The device types of the 3-series (RCD3..) are instantaneous versions, in other words, they trip immediately for the 3VA1 160 A molded case circuit breaker. They can be supplied as 4-pole versions.

RCD310 and RCD510

The RCD310 or RCD510 units are specially designed for the infrastructure market. This is reflected in the design: they have a compact L-shaped design, the operator controls and displays are in a 45 mm cover size, DIN rail mounting is possible, and the combination of breaker and residual current device has a depth of 70 mm and thus fits optimally into a distribution board.

The RCD310/RCD510 can be combined with the 3VA1 molded case circuit breaker and the switch disconnector. They are mounted on the left side of the breaker. Through-hole technology enables direct connection of the cable to the box terminal. There is no need for time-consuming wiring of the breaker-residual current device combination. In the event of a residual current, the breaker is tripped by an RCR (residual current release) built into the left accessories compartment of the breaker and is included in the scope of delivery. However, this RCR can also be used by means of a floating contact as a shunt trip independently of the residual current device.

RCD510

RCD320 and RCD520

The RCD320 or RCD520 can be installed below the trip unit of the 3VA1 molded case circuit breaker. Equipping the molded case circuit breaker fully with internal accessories is easy because with these residual current devices, the molded case circuit breaker is tripped by a tappet that is already integrated into the residual current device and the circuit breaker. Following a trip, the molded case circuit breaker cannot be closed again until the residual current device has been reset via its reset button. Since the outgoing feeder end of the residual current device has exactly the same connection contours as the molded case circuit breaker, all connection accessories such as phase barriers, terminal covers, etc. can also be mounted on the residual current device.

RCD520

Residual current devices "Advanced" type

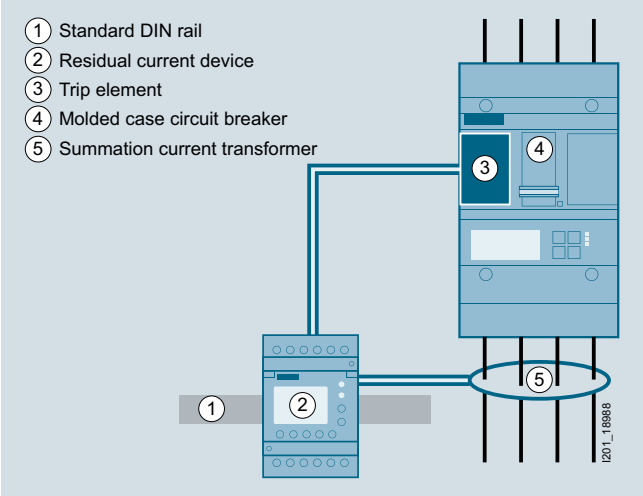
RCD820

The "Advanced" residual current devices of the type RCD820 are accessory components for the 3 and 4-pole 3VA2 molded case circuit breakers with electronic trip unit, and they can detect residual currents of type A to 10 A, and type AC to 30 A. Here, the range of functions has been significantly increased in comparison to the residual current devices of the Basic type. Thus, the RCD820 can be integrated into a communication system via which important status, diagnostics, maintenance and identification data can be queried, and commands issued. And not only that. This data can also be forwarded to a PLC or LED via the host of auxiliary contacts on the device. LEDs for signaling the "ready" state of the residual current device, the communication connection, and the two pre-alarms on the residual current device provide information on the current status on-site. Thanks to an innovative tripping concept, it is also possible to use the RCD820 purely as a display unit, so that residual currents do not result in shutdown, but instead are only indicated.

RCD820

Modular residual current device

As well as a residual current device mounted direct on the breaker, an external solution is also available. The modular solution, comprising a residual current device 5SV8101-6KK, a separate summation current transformer (5SV8702-0KK, 5SV8703-0KK, 5SV8704-0KK, 5SV8705-0KK, 5SV8706-0KK), and a trip element, has been tested in accordance with IEC 60947-2 Annex M, and can be combined with all 3VA1 and 3VA2 molded case circuit breakers. You can find out the suitable combinations on request. The residual current device is supplied with an external auxiliary voltage of 230 V~. Appropriate summation current transformers with varying diameters are offered for the different rated breaker currents. Depending on the application, it is possible to use an undervoltage release or a shunt trip as the trip element. If the trip element is omitted, the combination of residual current device and summation current transformer works purely as a display unit.



Modular residual current device

Benefits

RCD310 and RCD510

- Increased packaging density in the cubicle thanks to the compact L-shaped design
- Through-hole technology saves inconvenient wiring of the breaker and the residual current device
- Mounting of a DIN rail adapter enables attachment to a DIN rail
- Side-by-side arrangement with miniature circuit breakers possible thanks to 45 mm cover size
- Function of a shunt trip automatically integrated by RCR dual functionality
- Deliberate acknowledgment of a residual current prevents unintentional restart
- Can be used purely as a display unit

RCD320 and RCD520

- Compact design saves space in the cubicle
- Deliberate acknowledgment of a residual current prevents unintentional restart

RCD820

- Communication connection or alternatively electrical contacts ensure fast status messages – even remotely
- Advanced RCD820 is also suitable for use as a display unit
- Staggered pre-alarms prevent/avoid plant downtimes
- Local presence not required thanks to remote test, acknowledgment and commissioning of the RCD820 via electrical contacts or communication

Modular residual current device

- Modular design allows mounting on different breaker designs (e.g. 1, 2, 3 and 4-pole breakers)
- Reuse in the event of a change of application ensures cost savings
- Time savings thanks to simple upgrading of the residual current functionality in an existing plant
- Especially suitable for use where installation space is restricted

Selection and ordering data

	Version	For molded case circuit breakers/ rated current 3VA1 160 A	3VA1 250 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Side mounted residual current devices RCD for 3VA1									
	Type A (pulse current sensitive) • Mounted on the side (left) • Trip element (RCR) included in scope of delivery • Can be mounted on molded case circuit breakers and switch disconnectors with box terminal • U_e = 127 - 480 V AC, 50/60 Hz								
	Note If the molded case circuit breaker has no box terminals as connections, a set of box terminals must be ordered additionally.								
 3VA9114-0RS10	**RCD310** • 4-pole • Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 A; default: 30 mA • instantaneous (INS)	✓	--		3VA9114-0RS10		1	1 unit	153
 3VA9113-0RS20	**RCD510** • Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 A; default: 30 mA • Delay time, adjustable: Δt = instantaneous (INS) - 0.06 - 0.15 - 0.3 - 0.5 - 1 - 2 - 3 s; default: instantaneous (INS)								
	Variants								
	• 3-pole	✓	--		3VA9113-0RS20		1	1 unit	153
		--	✓		3VA9213-0RS20		1	1 unit	153
	• 4-pole	✓	--		3VA9114-0RS20		1	1 unit	153
 3VA9114-0RS20		--	✓		3VA9214-0RS20		1	1 unit	153
	Type A (pulse current sensitive) • Mounted below (under trip unit) • Can be mounted on molded case circuit breakers • U_e = 127 - 480 V AC, 50/60 Hz								
 3VA9114-0RL10	**RCD320** • 4-pole • Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 A; default: 30 mA • instantaneous (INS)	✓	--		3VA9114-0RL10		1	1 unit	153
 3VA9113-0RL20	**RCD520** • Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 A; default: 30 mA • Delay time, adjustable: Δt = instantaneous (INS) - 0.06 - 0.15 - 0.3 - 0.5 - 1 - 2 - 3 s; default: instantaneous (INS)								
	Variants								
	• 3-pole	✓	--		3VA9113-0RL20		1	1 unit	153
		--	✓		3VA9213-0RL20		1	1 unit	153
	• 4-pole	✓	--		3VA9114-0RL20		1	1 unit	153
 3VA9114-0RL20		--	✓		3VA9214-0RL20		1	1 unit	153

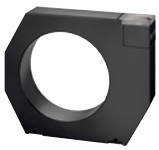
* You can order this quantity or a multiple thereof.

	Version	For molded case circuit breakers/ rated current					DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A 160 A 250 A	3VA2 100 A 160 A	3VA2 250 A	3VA2 400 A	3VA2 630 A						
Residual current devices RCD for 3VA2												
	Type A (pulse current sensitive) • Mounted below (under trip unit) • With energy infeed from below, the required auxiliary switch (AUX) must be ordered separately. • U_e = 127 - 690 V AC, 50/60 Hz											
 3VA9123-0RL30	**RCD820** • Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.05 - 0.1 - 0.3 - 0.5 - 1 - 3 - 5 - 10 - 30 A; default: 30 mA • Delay time, adjustable: Δt = 0 - 0.06 - 0.15 - 0.3 - 0.5 - 1 - 2 - 3 - 5 - 10 s; default: instantaneous (INS) • Note: 30 A setting range only for type AC applications											
 3VA9124-0RL30	Variants											
	• 3-pole	--	✓	--	--	--		**3VA9123-0RL30**		1	1 unit	153
		--	--	✓	--	--		**3VA9223-0RL30**		1	1 unit	153
		--	--	--	✓	--		**3VA9323-0RL30**		1	1 unit	153
		--	--	--	--	✓		**3VA9423-0RL30**		1	1 unit	153
	• 4-pole	--	✓	--	--	--		**3VA9124-0RL30**		1	1 unit	153
		--	--	✓	--	--		**3VA9224-0RL30**		1	1 unit	153
		--	--	--	✓	--		**3VA9324-0RL30**		1	1 unit	153
		--	--	--	--	✓		**3VA9424-0RL30**		1	1 unit	153
Modular residual current device MRCD												
 5SV8101-6KK	Modular residual current device MRCD • In accordance with IEC 60947-2 Annex M • Rated residual response current, adjustable: $I_{\Delta n}$ = 0.03 - 0.1 - 0.3 - 0.5 - 1 - 2 - 3 A; default: 30 mA • Delay time, adjustable: Δt = instantaneous (INS) - 0.06 - 0.1 - 0.2 - 0.3 - 0.4 - 0.5 - 1 - 3 - 5 - 10 s; default: instantaneous (INS) • Supply from a 1-phase auxiliary voltage source (230 V, also externally) • Suitable for 1 to 4-pole molded case circuit breakers • DIN rail mounting	✓ 250 A on request	✓	✓	✓	✓		**5SV8101-6KK**		1	1 unit	009
	Note If a molded case circuit breaker is to be tripped by the modular residual current device, an additional shunt trip is required in the molded case circuit breaker. See Internal accessories, from page 4/2.											

4

* You can order this quantity or a multiple thereof.

Residual current devices

	Version		DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Accessories for MRCD								
	Summation current transformers							
 5SV8702-0KK	• Including holder for wall mounting[1)]	Internal diameter 35 mm		**5SV8702-0KK**		1	1 unit	009
		Internal diameter 70 mm		**5SV8703-0KK**		1	1 unit	009
		Internal diameter 105 mm		**5SV8704-0KK**		1	1 unit	009
 5SV8706-0KK	• Including holder for wall mounting	Internal diameter 140 mm		**5SV8705-0KK**		1	1 unit	009
		Internal diameter 210 mm		**5SV8706-0KK**		1	1 unit	009
 5SV8900-1KK	**Holder for DIN rails** Suitable for summation current transformers with internal diameters of 35 mm, 70 mm and 105 mm			**5SV8900-1KK**		1	2 units	009

[1)] Mounting on DIN rail with optional holder for DIN rail also possible.

4

Overview

Metering function

The Rogowski coils integrated in the 3VA2 molded case circuit breakers are capable of delivering particularly accurate current measurements. An additional voltage tap is integrated in molded case circuit breakers equipped with an 8-series ETU, which means that energy data can also be measured – the 3VA2 molded case circuit breaker therefore offers a range of metering functions similar to those available with the tried-and-tested 7KM PAC measuring device!

An external current transformer for N conductors is available to allow direct measurement of the neutral conductor current with 3-pole molded case circuit breakers. When the 3-pole circuit breaker is installed in the 4-pole network, it is advisable to deploy the voltage tap at the neutral conductor so that the neutral point of the voltage network can be fixed.

Communication via the COM800/COM100 breaker data server

The 3VA2 molded case circuit breaker utilizes an innovative, modern communication concept. This concept is based on the COM800 breaker data server which can link up to eight molded case circuit breakers to different fieldbus systems. For applications involving only one 3VA2 molded case circuit breaker, the COM100 is an ideal alternative to the COM800 breaker data server.

The COM060 communication module in the molded case circuit breaker is wired via a T-Connector to the COM800/COM100 breaker data server. Integrated as standard in the COM800/COM100 breaker data server is an Ethernet interface with the Modbus TCP protocol to allow communication with powerconfig and the powermanager. Optional communication modules can be installed to provide different fieldbus protocols. An additional benefit of this structure is that the communication costs per molded case circuit breaker decrease with every further circuit breaker that is connected to the COM800 breaker data server.

The communication equipment for the molded case circuit breakers can be installed and connected extremely easily, reliably and efficiently thanks to the connector system used. The 24 V DC supply to the electronic trip units is also reliably provided by these connections. The breaker data server utilizes independent supplementary functions to deliver valuable information about the connected molded case circuit breakers and the power distribution system.

Flexible communication thanks to optional expansion modules

With COM800/COM100, the 3VA2 molded case circuit breakers can be integrated into the relevant communication networks via the following optional expansion modules:

- Switched Ethernet PROFINET IO
- PROFIBUS DPV1
- RS485 / Modbus RTU

GSDML or GSD files are also available for PROFINET and PROFIBUS for integration into the engineering system, e.g. STEP 7.

DSP800 display

The DSP800 display can be used to show breaker information (status, measured values, parameters) on the cubicle door. It communicates via the integral Ethernet interface with the COM800/COM100 and is thus able to display the data of up to 8 3VA2 molded case circuit breakers simultaneously.

EFB300 external function box

The EFB300 external function box is linked directly to the ETU of the 3VA2 molded case circuit breaker by a cable. It provides four digital outputs and one digital input. The powerconfig software can be used to set which information is to be output from the ETU via the four digital outputs:

- All reasons for tripping, categorized according to LSING
- Overload alarms AL1 and AL2
- Pre-trip alarm from overload protection system
- Load shedding and load pick-up
- Temperature alarm
- Output of an energy pulse (S0 signal), in combination with an 8-series ETU only

A zone selective interlocking functionality (ZSI) can also be implemented via the module.

Note:

A TD500 or the COM060 and COM800/COM100 combination is needed to program a change in the output assignments with powerconfig.

TD300 and TD500 test devices

The TD300 activation and trip box is a mobile, battery-operated local test device. One of its functions is to provide a temporary power supply to the Electronic Trip Units (ETUs) so that they can be operated and parameterized. It is also used to test the tripping function of the molded case circuit breaker.

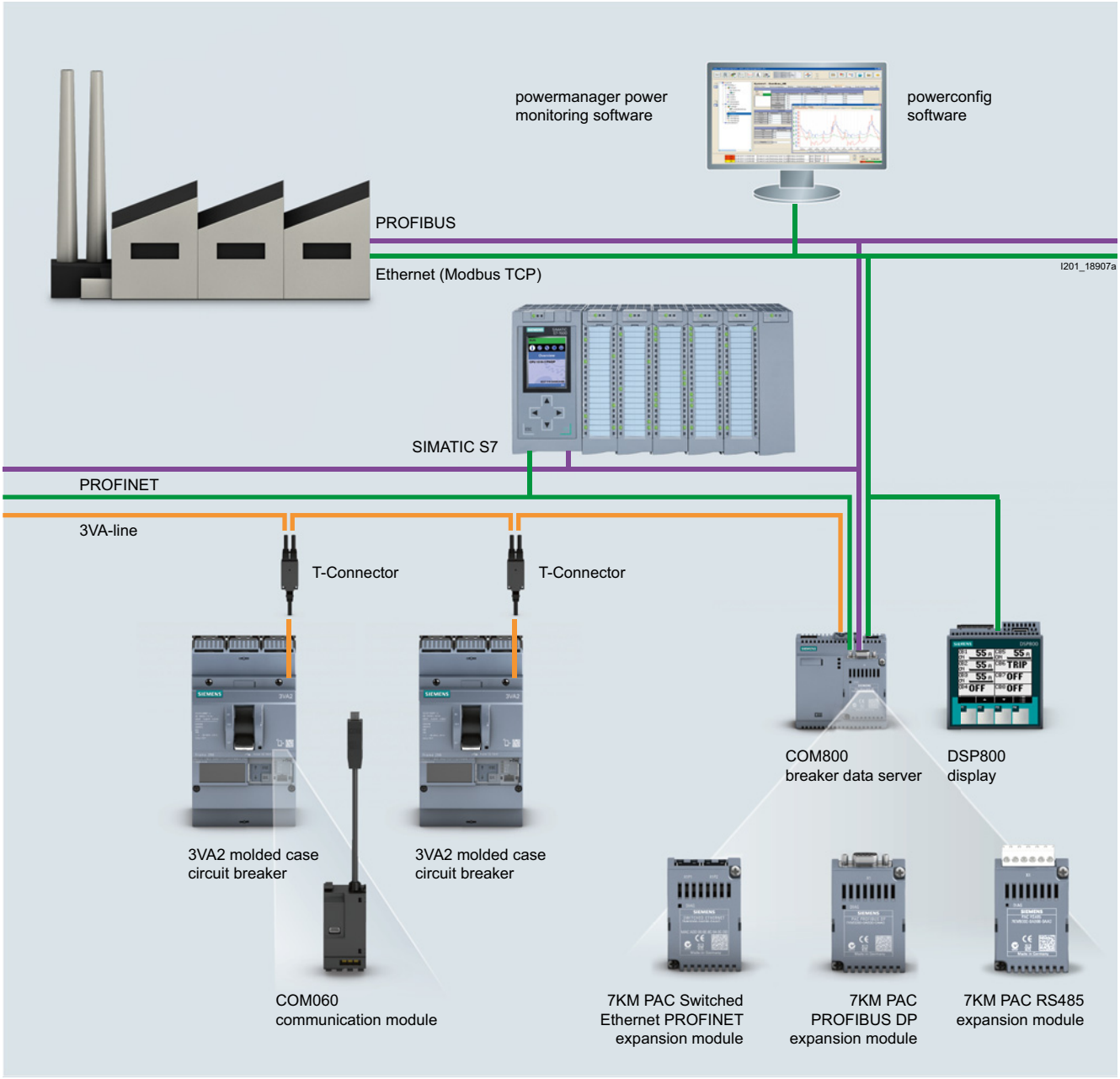
The TD500 mobile test device allows the proper functioning and connections of all connected system components to be tested at the breaker commissioning stage because it is capable of simulating every conceivable cause of breaker tripping. The molded case circuit breaker responds as if the emergency were real – it trips in accordance with the set parameters and transmits all alarm and trip signals to the connected components.

The TD500 test device can be used as a hand-held tester or in conjunction with a PC. In the latter case, the TD500 test device is connected to the PC via a supplied USB cable and acts as a gateway to the 3VA2 molded case circuit breaker. Using the powerconfig software supplied, it is possible to read out or modify the setting parameters of the molded case circuit breaker and monitor the measured values.

Benefits

- The metering function integrated in 8-series ETUs can acquire energy data without requiring additional external transformers
- The COM800 breaker data server provides a cost-efficient communication interface for up to 8 3VA2 molded case circuit breakers
- Universal bus interfaces are available for the COM800/COM100 breaker data server
- Universal S0 interface for the output of energy pulses
- 100 test results can be stored with the TD500 test device
- Status and measured values of up to 8 molded case circuit breakers are displayed in the cubicle door using the DSP800

Design



Technical specifications

Overview of the setting values

Setting values[1]			ETUs of the 5-series	ETUs of the 8-series	Display In ETU	Display DSP800	Communication COM800 / COM100
Overload protection							
Current	I_r	A	✓	✓	👁 ✎	👁	👁 ✎
Delay time	t_r	s	✓	✓	👁 ✎	👁	👁 ✎
Switch thermal memory on/off	ThM		✓	✓	👁 ✎	👁	👁 ✎
Short-time delayed short-circuit protection							
Current	I_{sd}	A	✓	✓	👁 ✎	👁	👁 ✎
Delay time	t_{sd}	s	✓	✓	👁 ✎	👁	👁 ✎
Characteristic curve in S range	I^2t_{sd}		✓	✓	👁 ✎	👁	👁 ✎
Zone selective interlocking	ZSI		✓	✓	👁 ✎	👁	👁 ✎
Instantaneous short-circuit protection							
Current	I_i	A	✓	✓	👁 ✎	👁	👁 ✎
Overload protection in the neutral conductor							
Current	I_N	A	✓	✓	👁 ✎	👁	👁 ✎
Ground-fault protection							
Current	I_g	A	✓	✓	👁 ✎	👁	👁 ✎
Delay time	t_g	s	✓	✓	👁 ✎	👁	👁 ✎
Characteristic curve	I^2t_g		✓	✓	👁 ✎	👁	👁 ✎
Alarm current	I_{gA}	A	✓	✓	👁 ✎	👁	👁 ✎

1) Depending on ETU version

Overview of the metering functions

Metering function[1]			ETUs of the 5-series	ETUs of the 8-series	Display In ETU	Display DSP800	Communication COM800 / COM100
Current							
Phase and neutral conductor currents	I_1, I_2, I_3, I_N	A	✓	✓	👁	👁	👁
Residual current to ground	I_g	A	✓	✓	👁	👁	👁
Phase with highest load		A	✓	✓	👁	👁	👁
Mean value over the three phase currents	$I_{LAVG} = (I_1+I_2+I_3)/3$	A	--	✓	--	👁	👁
Asymmetry of the phase currents	I_{nba}	%	--	✓	--	👁	👁
THD of the 3 phases	$THDI_1$, $THDI_2$, $THDI_3$	%	--	✓	--	👁	👁
Voltage							
Phase voltages incl. mean value	U_{12}, U_{23}, U_{31}, U_{phavg}	V	--	✓	👁	👁	👁
Voltages to N conductor incl. mean value	U_{1N}, U_{2N}, U_{3N}, U_{Navg}	V	--	✓	--	👁	👁
Asymmetry of the voltages		%	--	✓	--	👁	👁
THD phase/phase and phase/N	$THDI_1$, $THDI_2$, $THDI_3$	%	--	✓	--	👁	👁
Power							
Active power, total and per phase	P_1, P_2, P_3, P_{tot}	kW	--	✓	👁 (P_{tot})	👁	👁
Apparent power, total and per phase	S_1, S_2, S_3, S_{tot}	kVA	--	✓	--	👁	👁
Reactive power, total and per phase	Q_1, Q_2, Q_3, Q_{tot}	kVAr	--	✓	👁	👁	👁
Fundamental power factor	PF_1, PF_2, PF_3, PF_{avg}		--	✓	👁 (PF_{avg})	👁	👁
Energy							
Active energy, infeed and feedback	E_p	kWh	--	✓	👁	👁	👁
Reactive energy, infeed and feedback	E_q	kVArh	--	✓	--	👁	👁
Apparent energy	E_s	kVAh	--	✓	--	👁	👁
Frequency							
Present frequency	f	Hz	--	✓	👁	👁	👁
Maximum pointer function							
Min/max current, voltage, power	with time stamp		--	--	--	--	👁

1) Depending on ETU version

✓ Available -- Not available

👁 Can be displayed ✎ Can be edited

4

Communication and testing/commissioning devices

Overview of status, diagnostics and maintenance

Status, diagnostics and maintenance[1]		ETUs of the 5-series	ETUs of the 8-series	Display In ETU	Display DSP800	Communication COM800 / COM100
Breaker status	On, Off, TRIP	✓	✓	--	👁	👁
Currently pending alarm messages		✓	✓	👁	👁	👁
Reason for last trip		✓	✓	👁	👁	👁
Event Log	• of the last 100 events	✓	✓	--	👁	👁
	• of the last 10 trips	✓	✓	--	👁	👁
	• of the last 100 switching operations	✓	✓	--	👁	👁
Maintenance information	• Trip counter after LSIG trips	✓	✓	--	👁	👁
	• Operating hours counter	✓	✓	--	👁	👁
	• Switching cycle counter	✓	✓	--	👁	👁
Position in the draw-out unit		✓	✓	--	👁	👁
Temperature		✓	✓	--	👁	👁

[1] Depending on ETU version

Overview of identification

Identification		ETUs of the 5-series	ETUs of the 8-series	Display In ETU	Display DSP800	Communication COM800 / COM100
Identification data of the breaker	• Article No.	✓	✓	--	👁	👁
	• Rated operational current, number of poles, I_{cu}	✓	✓	--	👁	👁
HW/FW version		✓	✓	--	--	👁

Overview of power management functions

Power management functions			ETUs of the 5-series	ETUs of the 8-series	Display In ETU	Display DSP800	Communication COM800 / COM100
Power demand values of the last demand period	Active, reactive and apparent power in fixed block or rolling block	5 ... 60 min	--	✓	--	👁	👁
Energy pulse output	S0 signal at EFB output		--	✓	--	--	--
Load monitoring	Load shedding/load pick-up, output via EFB		✓	✓	--	👁	👁
Threshold value parameters	10 freely adjustable monitoring parameters		✓	✓	--	👁	👁

✓ Available -- Not available

👁 Can be displayed ✎ Can be edited

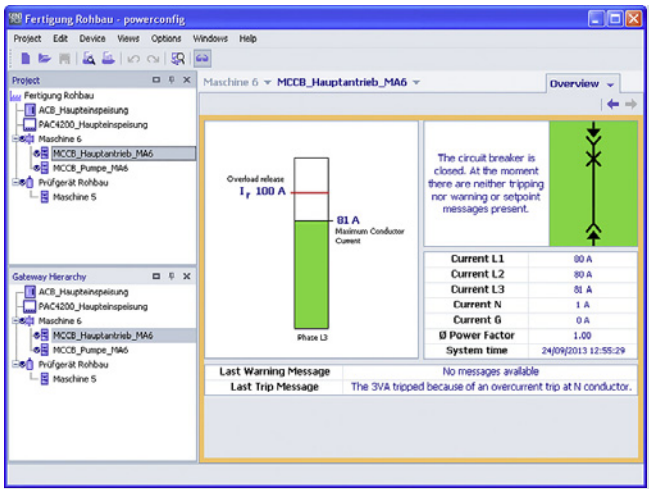
Accuracy specifications

Accuracy levels of the specified measured values of the 8-series ETU, including the integrated current sensors:

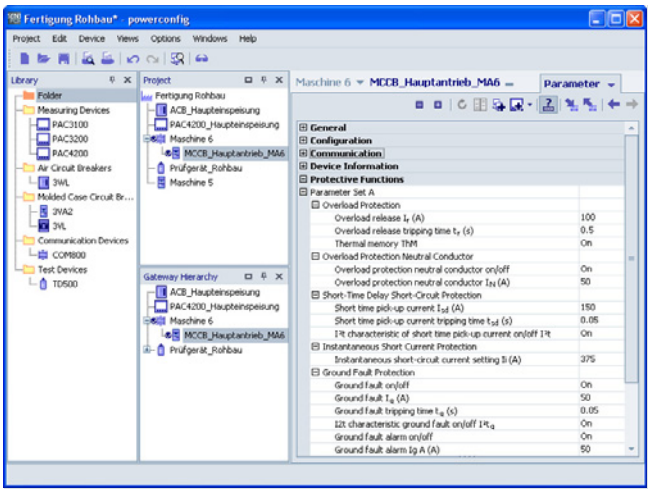
Measured value	Accuracy
Current	1 % in the range from 0.2 ... 1.2 I_n
Voltage	1 % in the range from 80 ... 800 V
Active power, active energy	Class 2 acc. to IEC 61557-12

powerconfig

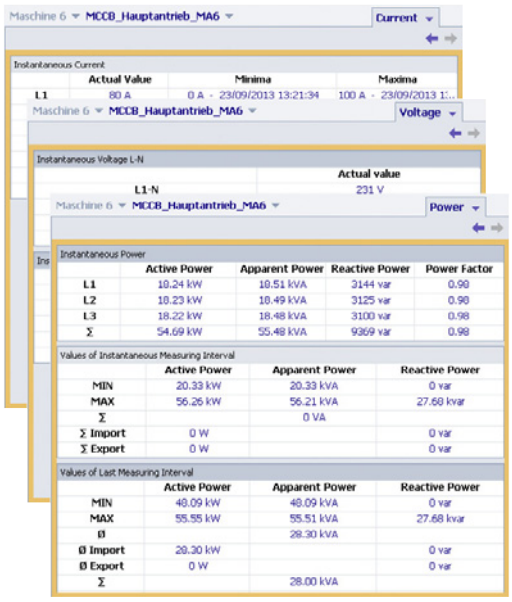
The powerconfig software for commissioning	
	Software tool for the efficient commissioning and diagnosis of communication-capable SENTRON components
License	Free use
Supported devices	3VA2 molded case circuit breakers, 7KM PAC3100/3200/4200 measuring devices, incl. expansion modules, 3WL/3VL circuit breakers
General range of functions	The PC-based tool facilitates parameterization of the devices, resulting in substantial time savings, particularly when several devices have to be set up. The device settings can be stored in the PC and printed out. The tool enables monitoring of instantaneous measured quantities, which can be printed out if required. Execution of specific device functions, such as resetting of devices and setting of energy counters
Supported languages	German, English, Chinese, Portuguese, Spanish
Service functions	Firmware updates and switching of language packs for 7KM PAC measuring devices
Function range with 3VA2	• Parameterization of all electronic 3VA2 components, e.g.: - ETUs 5-series and 8-series - COM800/COM100 breaker data servers - EFB300 (External Function Box). • Support of test functions using the TD500 test device for all ETUs - Archiving of the tests - Archiving of the parameter settings • Read-out/setup/upload and download of the protection parameters • Information about the current breaker status • Read-out of diagnostics information • Display of the current measured values of the 3VA2



powerconfig interface, here for representing the switching state and load of the 3VA2 molded case circuit breaker



Setting of parameter values



Display of actual measured quantities

Selection and ordering data

	Version	For molded case circuit breakers/ rated current 3VA2 100 A 160 A, 250 A	3VA2 400 A, 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
24 V module									
 3VA9187-0TB50	**24 V module** • 24 V DC • For mounting in the right accessories compartment of the 3VA2 • Optional energy supply for the ETU, also includes continuous operation of the ETU display and the metering function of the ETU 8-series	✓	--		3VA9187-0TB50		1	1 unit	163
		--	✓		3VA9387-0TB50		1	1 unit	163
Communication accessories in the molded case circuit breaker									
 3VA9187-0TB10	**COM060 communication module** • For mounting in the right-hand accessories compartment of the 3VA2 molded case circuit breaker (including ETU power supply) • Communication with the COM800/COM100 breaker data server via the 3VA-line • Including a T-Connector	✓	--		3VA9187-0TB10		1	1 unit	163
		--	✓		3VA9387-0TB10		1	1 unit	163
Breaker data server									
 3VA9987-0TA10	**COM800 breaker data server** • 2 terminating resistors • Central communication module for connecting up to eight 3VA2 molded case circuit breakers via the 3VA-line • Ethernet 10/100 Mbit/s interface • Module slot for plugging on an optional PROFIBUS DP or PROFINET module				3VA9987-0TA10		1	1 unit	163
 3VA9987-0TA20	**COM100 breaker data server** • 2 terminating resistors • Optimized, central communication module for connecting a 3VA2 molded case circuit breaker via the 3VA-line • Ethernet 10/100 Mbit/s interface • Module slot for plugging on an optional PROFIBUS DP or PROFINET module				3VA9987-0TA20		1	1 unit	163
 7KM9300-0AB01-0AA0	**7KM PAC PROFIBUS DP expansion module** • The 7KM PAC PROFIBUS DP expansion module is used for connecting the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to PROFIBUS DPV1. • The 7KM PAC PROFIBUS DP expansion module provides the status and measured quantities of the 3VA molded case circuit breaker for the PROFIBUS DP master. It receives information (e.g. commands) from the PROFIBUS DP master, and forwards this information to the 3VA molded case circuit breaker.				7KM9300-0AB01-0AA0		1	1 unit	133
 7KM9300-0AE01-0AA0	**7KM PAC Switched Ethernet PROFINET expansion module** • The 7KM PAC Switched Ethernet PROFINET expansion module is used to connect the COM800/COM100 breaker data server, and the connected 3VA molded cased circuit breaker, to PROFINET via two Ethernet interfaces. • The 7KM PAC Switched Ethernet PROFINET expansion module provides the status and measured quantities of the 3VA molded case circuit breaker to PROFINET via the PROFINET IO, PROFIenergy and Modbus TCP protocols.				7KM9300-0AE01-0AA0		1	1 unit	133
 7KM9300-0AE01-0AA0	**7KM PAC RS485 Modbus RTU expansion module** • The 7KM PAC RS485 Modbus expansion module is used to connect the COM800/COM100 breaker data server, and the 3VA molded case circuit breakers connected to it, to Modbus RTU. • The 7KM PAC RS485 Modbus expansion module provides the status and measured quantities of the 3VA molded case circuit breaker for the Modbus RTU master. It receives information (e.g. commands) from the Modbus RTU master, and forwards this information to the 3VA molded case circuit breaker.				7KM9300-0AM00-0AA0		1	1 unit	133

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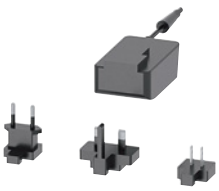
* You can order this quantity or a multiple thereof.

	Version	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Accessories for communication							
 3VA9987-0TG10	**T-Connector** • Spare part • Provides spur line feeder to COM060 and loops through to the next circuit breaker.		3VA9987-0TG10		1	1 unit	163
 3VA9987-0TC10	**Preassembled T-Connector-to-T-Connector or T-Connector-to-COM800/COM100 connecting cable**						
	• 0.4 m long		3VA9987-0TC10		1	1 unit	163
	• 1 m long		3VA9987-0TC20		1	1 unit	163
	• 2 m long		3VA9987-0TC30		1	1 unit	163
	• 4 m long		3VA9987-0TC40		1	1 unit	163
 3VA9987-0TF20	**Preassembled connecting cable for extending the COM060-to-T-Connector spur line connection**						
	• 0.4 m long		3VA9987-0TF20		1	1 unit	163
	• 0.8 m long		3VA9987-0TF10		1	1 unit	163
 3VA9987-0TE10	**Additional bus terminating resistors**		3VA9987-0TE10		1	5 units	163
 3VA9987-0UC10	**Voltage tap to external N conductor** Cable for connecting the neutral point for the metering function of the 8-series ETU, length 1.5 m		3VA9987-0UC10		1	1 unit	163
 3VA9107-0NA10	**External current transformer for N conductor** Connection of an external current transformer for the N conductor for 3-pole 3VA2 molded case circuit breakers for 5-series and 8-series ETUs, including connecting cable	• I_n = 25 ... 100 A	3VA9007-0NA10		1	1 unit	153
		• I_n = 160 ... 250 A	3VA9107-0NA10		1	1 unit	153
		• I_n = 400 ... 630 A	3VA9307-0NA10		1	1 unit	153
	Spare part: cable for connecting external current transformer for N conductor		3VA9907-0NB10		1	1 unit	153
Display							
 3VA9987-0TD10	**DSP800 display** • For displaying the status, measured values and parameters of up to 8 3VA2 molded case circuit breakers • Connection to the COM800/COM100 via Ethernet for displaying information of the COM800/COM100 and the connected 3VA2 molded case circuit breaker		3VA9987-0TD10		1	1 unit	163
External function box							
 3VA9987-0UA10	**EFB300** • External function box for connection to the ETU of the 3VA2 molded case circuit breaker • 4 digital outputs for information output • 1 digital input • ZSI functionality • S0 interface • Including cable 1.5 m in length		3VA9987-0UA10		1	1 unit	163
	Connecting cable for EFB300 Spare part						
	• Length 1.5 m		3VA9987-0UB10		1	1 unit	163
	• Length 3.0 m		3VA9987-0UB20		1	1 unit	163
	• Length 3.0 m for 3VA2 with EFB and RCD820		3VA9987-0UB30		1	1 unit	163

4

* You can order this quantity or a multiple thereof.

Communication and testing/commissioning devices

	Version	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Test devices							
 3VA9987-0MA10	**TD300** • Connection to the front interface of the ETU • Test device for activating the ETU and triggering a test trip		3VA9987-0MA10		1	1 unit	163
 3VA9987-0MB10	**TD500** • Connection to the front interface of the ETU • Initiation of various test trips (LSING) • USB interface for connection of a PC using powerconfig • ETU parameterization • Including an external power supply and connecting cable to the 3VA2 molded case circuit breaker		3VA9987-0MB10		1	1 unit	163
 3VA9987-0MX10	**Spare part: external power supply for TD500** Spare part 110 ... 240 V AC		3VA9987-0MX10		1	1 unit	163
 3VA9987-0MY10	**Spare part: cable for connecting the TD500 to the 3VA2 molded case circuit breaker**		3VA9987-0MY10		1	1 unit	163
Software							
	powerconfig • Software for assigning parameters to the 3VA2 molded case circuit breaker • For Windows XP and Windows 7 • Connection via TD500 or COM800/COM100 • powerconfig can be downloaded free of charge from Siemens Industry Online Support at http://support.automation.siemens.com/WW/view/en/63452759						

4

* You can order this quantity or a multiple thereof.

Overview

With all types of 3VA molded case circuit breakers, a basic distinction is made between:

- Locking of molded case circuit breakers
- Interlocking of molded case circuit breakers

The padlock devices make it possible to lock the 3VA molded case circuit breaker in either the OFF or the ON operating position. Once the molded case circuit breaker is locked in position, it cannot be operated again.

Using the interlocking technology, it is possible to mutually interlock two or more molded case circuit breakers. The interlock system is designed to ensure that no more than one molded case circuit breaker can be operated at a time. This is the molded case circuit breaker which has been released by the interlock system. In other words, the interlock system ensures that the other molded case circuit breaker(s) cannot close. As a result, all molded case circuit breakers which have not been released by the interlock system are securely locked in the OFF state. The following methods of interlocking can be used on 3VA molded case circuit breakers:

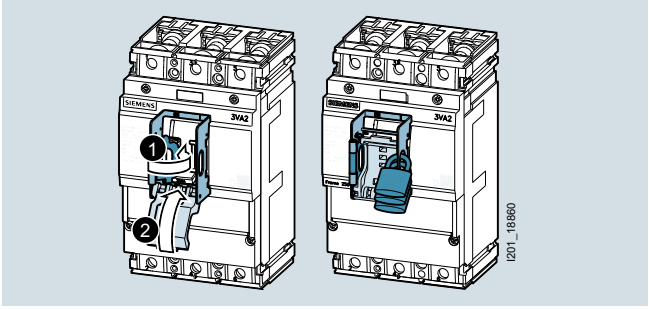
- Front interlock
- Rear interlock

Locking technology

Padlock device for the handle

A padlock device mounted and latched on the handle allows the 3VA molded case circuit breaker to be locked in the ON or the OFF position.

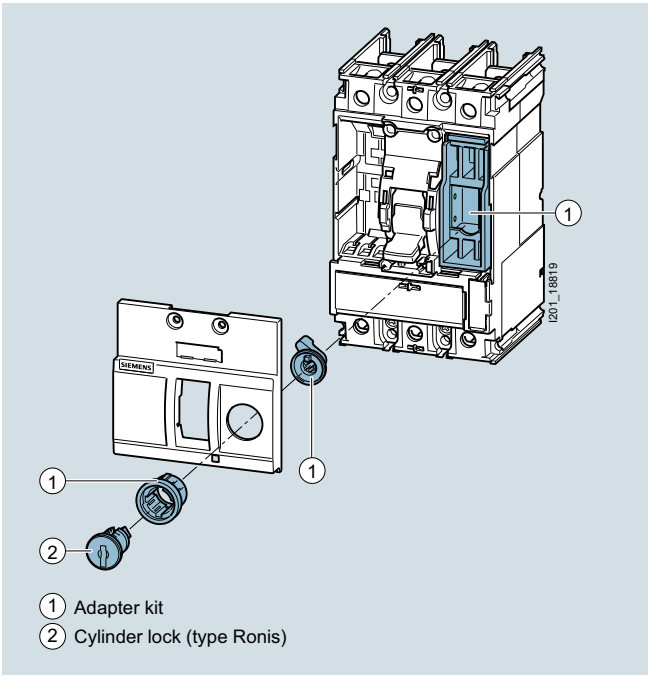
In this position, up to 3 padlocks with diameters ranging from 4.5 mm to 8.5 mm can be fitted in order to prevent the handle from being moved.



Locking with cylinder lock

The 3VA molded case circuit breaker can also be locked in the OFF (O) or ON (I) position by means of a cylinder lock supplied by Ronis. This prevents further operation of the circuit breaker. In order to lock a molded case circuit breaker in a specific operating state, the following two components need to be ordered.

- Cylinder lock (type Ronis)
- Lock adapter kit for mounting the cylinder lock in the accessories compartment



1 Adapter kit
2 Cylinder lock (type Ronis)

4

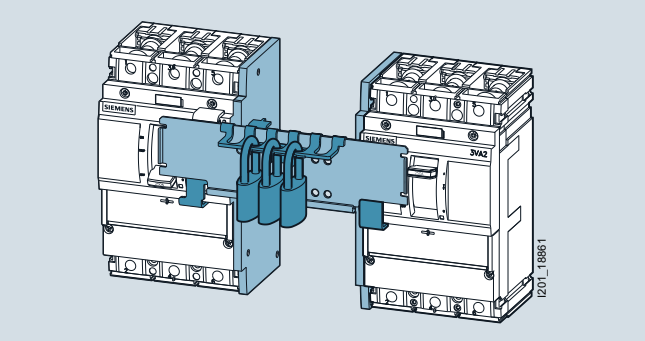
Locking and interlocking

Interlocking technology

Interlocking by means of a sliding bar

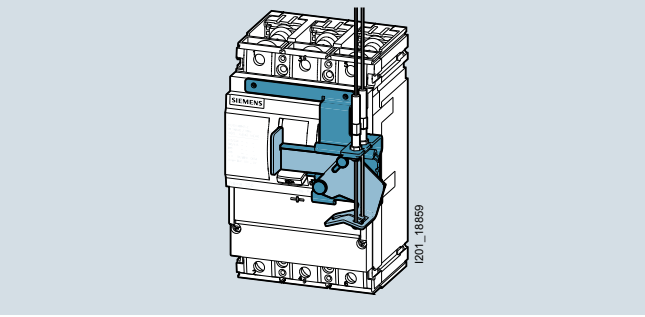
The sliding bar allows between two and three 3VA molded case circuit breakers of the same size to be mutually interlocked by means of a sliding bar.

With this device, the sliding bar is moved to block the handle of the interlocked molded case circuit breaker. For this reason, a molded case circuit breaker is always locked in the safe "OFF" position, while the released circuit breaker can still be operated. Up to three commercially available padlocks with diameters ranging from 4.5 mm to 8.5 mm can be fitted to prevent the sliding bar from being moved.



Handle interlock using a Bowden cable

With the front Bowden cable interlock, it is possible to implement a mutual interlock between two or three molded case circuit breakers of different sizes. The front Bowden cable interlock operates according to the blocking principle. In order to implement this system, modules for the Bowden cable interlock must be mounted on the molded case circuit breakers to be included in the interlock arrangement. Each of these modules is equipped with a slide which blocks or releases operation of the handle. The Bowden cable to be installed between the interlock modules ensures that only one slide at a time can release operation of the molded case circuit breaker.

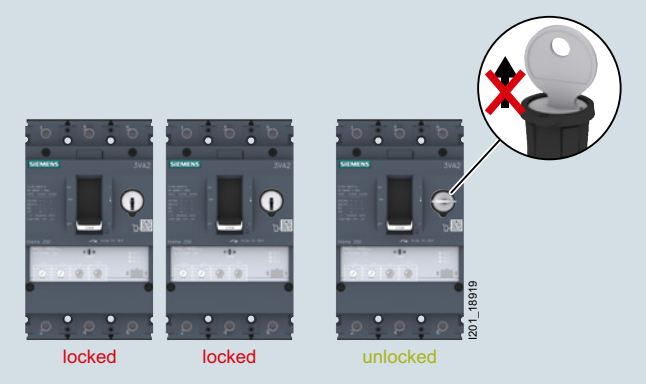


Interlocking with cylinder locks

Using the cylinder lock (type Ronis), it is not only possible to lock a molded case circuit breaker, but also to create an interlock between an optional number of molded case circuit breakers of different sizes. In order to implement an interlocking application using cylinder locks, the adapter kit with the cylinder lock (type Ronis) must be fitted in the right-hand accessories compartment of each molded case circuit breaker to be included in the interlock arrangement and all breakers must be locked in the "OFF" position. In order to ensure reliable functioning of the interlock, only one key may be used for the entire interlock application! All other keys must be kept or locked away in a safe place. This one key must be used as the release instrument for only one molded case circuit breaker at a time! In order to release or operate a molded case circuit breaker, the cylinder lock must be turned to the "Unlocked" position with this one particular key. Only then can the handle of the circuit breaker be moved to the "ON" position. When the cylinder lock is in the "Unlocked" position, the key cannot be removed and must be left in the lock.

In order to implement an interlocking application involving multiple molded case circuit breakers, the following two components must be ordered for each circuit breaker:

- Cylinder lock (type Ronis)
- Interlock adapter kit for mounting the cylinder lock in the accessories compartment



Interlocking using an interlocking module in the rotary operator

In addition to the interlocking options described above, it is also possible to mutually interlock molded case circuit breakers with rotary operators of different sizes. This type of interlock can be employed with door mounted rotary operators, side wall mounted rotary operators, front operators and rotary operators with shaft stub or combinations thereof.

For this purpose, a rotary operator interlock module must be fitted in each individual rotary operator of the molded case circuit breakers to be included in the interlock arrangement. The interlocking modules are interconnected by means of Bowden cables in a similar manner to the handle interlock. This system can be used to implement a mutual interlock between two or three molded case circuit breakers.

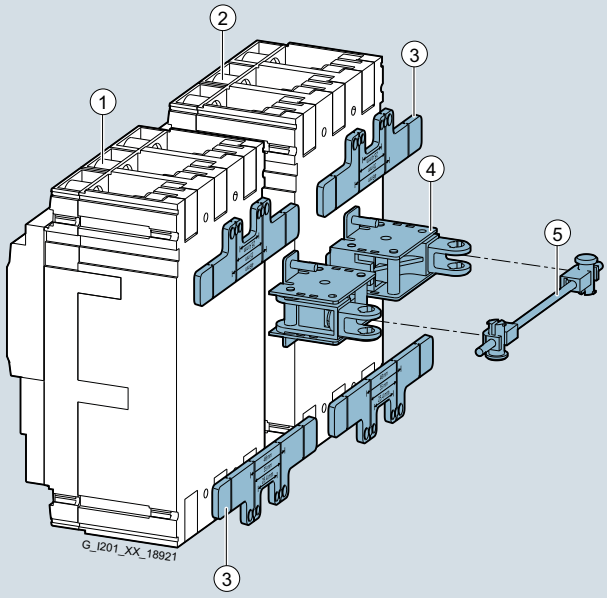
Rear interlock

The rear interlock system allows implementation of an interlock without restricting the number of accessories which can be installed at the front of the 3VA molded case circuit breaker. Using the rear interlock, it is possible to create an interlock between two molded case circuit breakers of different sizes based on the blocking principle. When one molded case circuit breaker closes, the other circuit breaker is prevented from closing by a tappet which engages in the breaker mechanism directly from the rear panel of the molded case circuit breaker.

This system requires the installation of two interlocking modules which are mounted behind the molded case circuit breakers and behind the mounting frame of the cubicle. The two interlocking modules are interconnected by means of the interlocking rod.

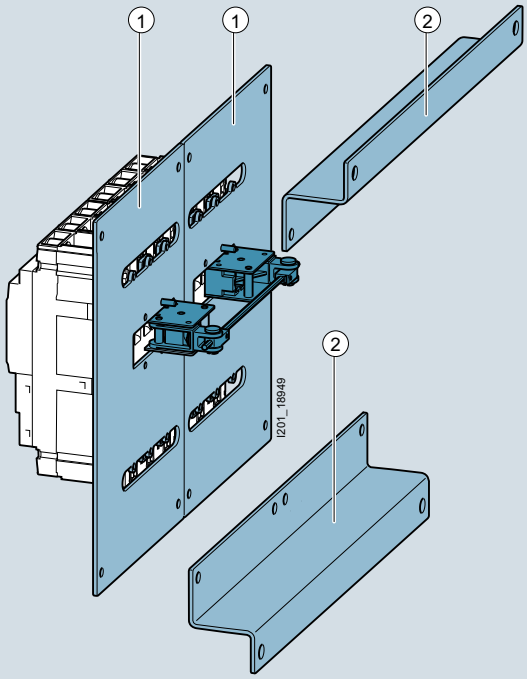
The article number of the rear interlock includes two interlocking modules, one interlocking rod and the required installation accessories.

A mounting plate comprising a plate and two DIN rails is available as an accessory to assist installation.



1 Molded case circuit breaker 1
2 Molded case circuit breaker 2
3 Installation accessories
4 Interlocking modules
5 Interlocking rod

Rear interlock without mounting frame



Mounting frame comprises:
1 Mounting plates
2 DIN rail

Rear interlock with mounting frame

Note:

The interlock components are attached to the mounting plate of the cubicle (mounting plate must be machined according to the drilling pattern in the cubicle).

Note:

The interlock together with the mounting frame is bolted to the mounting plate of the cubicle (no machining work to cubicle is required).

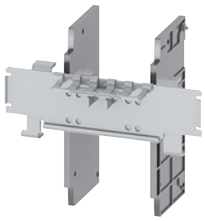
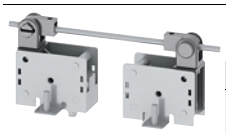
Rear interlock for plug-in or draw-out units

In order to install a rear interlock for plug-in or draw-out versions of the molded case circuit breakers, the tappet needs to be lengthened. By lengthening the tappet, the interlocking motion of the modules is guided or extended through the plug-in socket or the draw-out socket. The rear interlock for plug-in or draw-out circuit breakers is available as a complete kit. It includes two interlocking modules, installation accessories, interlocking rod and all necessary tappet extensions. It does not include a mounting frame.

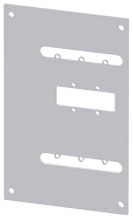
Benefits

- Broad range of applications thanks to flexibility of interlocking technology
- Locking technology ensures safe locking of molded case circuit breakers, e.g. for maintenance purposes
- No restriction to use of internal accessories or to scope of accessories installed at the front of the molded case circuit breaker (when a rear interlock is deployed)
- Molded case circuit breakers of different sizes can be mutually interlocked.

Selection and ordering data

	Version	For molded case circuit breakers/rated current 3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A	DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
Accessories for locking and interlocking											
 3VA9388-0LB10	**Locking devices for toggle levers**	✓	✓	--	--		3VA9088-0LB10		1	1 unit	163
		--	--	✓	✓		3VA9388-0LB10		1	1 unit	163
 3VA9167-0LF10	**Adapter kit for mounting cylinder lock (Ronis) in accessories compartment of 3VA2 MCCB** Comprising 2 cylinder lock casings (one for locking and one for interlocking) and the appropriate mounting module										
	Notes	✓	--	--	--		3VA9157-0LF10		1	1 unit	163
	• To implement an interlock or a lock: select suitable cylinder lock(s)	--	✓	--	--		3VA9257-0LF10		1	1 unit	163
	• For an interlock: select the same cylinder lock number	--	--	✓	--		3VA9167-0LF10		1	1 unit	163
		--	--	--	✓		3VA9367-0LF10		1	1 unit	163
 3VA9980-0VL10	**Cylinder lock (type Ronis)** • Includes a lock with 2 keys • For locking or interlocking • For installation in all rotary operators with shaft stub • For mounting in the adapter kit for the accessories compartment										
	Variants										
	• Key 1 (lock number 1)	✓	✓	✓	✓		3VA9980-0VL10		1	1 unit	163
	• Key 2 (lock number 2)	✓	✓	✓	✓		3VA9980-0VL20		1	1 unit	163
	• Key 3 (lock number 3)	✓	✓	✓	✓		3VA9980-0VL30		1	1 unit	163
	• Key 4 (lock number 4)	✓	✓	✓	✓		3VA9980-0VL40		1	1 unit	163
 3VA9168-0VF30	**Sliding bar** Complete kit for interlocking 2 circuit breakers										
	Note	✓	--	--	--		3VA9158-0VF30		1	1 unit	163
	The article number must be ordered 2 x to implement an interlock between 3 breakers of the same size.	--	✓	--	--		3VA9258-0VF30		1	1 unit	163
		--	--	✓	--		3VA9168-0VF30		1	1 unit	163
		--	--	--	✓		3VA9368-0VF30		1	1 unit	163
 3VA9167-0VF10	**Module for handle interlock using a Bowden cable**										
	Notes	✓	--	--	--		3VA9157-0VF10		1	1 unit	163
	• A separate handle interlock module is required for each 3VA.	--	✓	--	--		3VA9257-0VF10		1	1 unit	163
	• A Bowden cable must be ordered separately.	--	--	✓	--		3VA9167-0VF10		1	1 unit	163
		--	--	--	✓		3VA9367-0VF10		1	1 unit	163
 3VA9088-0VM10	**Rear interlock with rod** Complete kit	✓	✓	✓	✓		3VA9088-0VM10		1	1 unit	163
	Note										
	Mounting frames are not included in scope of delivery.										
 3VA9088-0VM30	**Rear interlock with rod** Complete kit for plug-in/draw-out unit	✓	✓	✓	✓		3VA9088-0VM30		1	1 unit	163
	Note										
	Mounting frames are not included in scope of delivery.										

* You can order this quantity or a multiple thereof.

	Version	For molded case circuit breakers/rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
3VA9980-0VC10	**Bowden cable**										
	Variants										
	• Length 0.6 m	✓	✓	✓	✓		3VA9980-0VC10		1	1 unit	163
	• Length 1.0 m	✓	✓	✓	✓		3VA9980-0VC20		1	1 unit	163
	• Length 1.5 m	✓	✓	✓	✓		3VA9980-0VC30		1	1 unit	163
 3VA9488-0VF20	**Rotary operator interlock** • Contains 1 unit • For interlocking up to 3 operators (with 3 modules) • Interlocking via Bowden cable (not included in scope of delivery)	For molded case circuit breakers									
		3VA1, 160 A					3VA9158-0VF20		On Request		
		3VA1, 250 A					3VA9258-0VF20		On Request		
		3VA2, 250 A					3VA9268-0VF20		On Request		
		3VA2, 630 A					3VA9468-0VF20		On Request		
	**Mounting frame for rear interlock with rod** The following are required for the complete mounting frame kit:										
	Variants										
	• DIN rails	✓	✓	✓	✓		3VA9088-0VK10		1	1 unit	163
	• Mounting plate	✓	--	--	--		3VA9158-0VK20		1	1 unit	163
		--	✓	--	--		3VA9258-0VK20		1	1 unit	163
		--	--	✓	--		3VA9268-0VK20		1	1 unit	163
		--	--	--	✓		3VA9468-0VK20		1	1 unit	163
	Note										
	2 mounting plates are required. They are screwed onto the DIN rail that can be ordered above. Different breakers can be mutually interlocked.										

4

* You can order this quantity or a multiple thereof.

Selection and ordering data

Version	For molded case circuit breakers/ rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
	3VA1 100 A, 160 A	3VA1 250A	3VA2 100 A 160 A, 250 A	3VA2 400 A, 630 A						
Escutcheon for door cutout										
 3VA9163-0SB10 **Escutcheon for door cutout for molded case circuit breaker**										
Variants										
• 3-pole, door cutout without ETU	✓	--	--	--		3VA9053-0SB10		1	1 unit	163
	--	✓	--	--		3VA9253-0SB10		1	1 unit	163
	--	--	✓	--		3VA9163-0SB10		1	1 unit	163
	--	--	--	✓		3VA9383-0SB10		1	1 unit	163
• 3-pole, door cutout with ETU	✓	--	--	--		3VA9053-0SB20		1	1 unit	163
	--	✓	--	--		3VA9253-0SB20		1	1 unit	163
	--	--	✓	--		3VA9163-0SB20		1	1 unit	163
	--	--	--	✓		3VA9363-0SB20		1	1 unit	163
• 4-pole, door cutout without ETU	✓	--	--	--		3VA9054-0SB10		1	1 unit	163
	--	✓	--	--		3VA9254-0SB10		1	1 unit	163
	--	--	✓	--		3VA9164-0SB10		1	1 unit	163
	--	--	--	✓		3VA9384-0SB10		1	1 unit	163
• 4-pole, door cutout with ETU	✓	--	--	--		3VA9054-0SB20		1	1 unit	163
	--	✓	--	--		3VA9254-0SB20		1	1 unit	163
	--	--	✓	--		3VA9164-0SB20		1	1 unit	163
	--	--	--	✓		3VA9364-0SB20		1	1 unit	163
Escutcheon for MO320 motor operators	✓	--	--	--		3VA9053-0SB20		1	1 unit	163
	--	✓	✓	--		3VA9257-0SB30		1	1 unit	163
	--	--	--	✓		3VA9387-0SB30		1	1 unit	163
Escutcheon for residual current module All RCD residual current modules mounted on the load side										
Variants										
• 3-pole	✓	--	--	--		3VA9053-0SB10		1	1 unit	163
	--	✓	✓	--		3VA9253-0SB10		1	1 unit	163
	--	--	--	✓		3VA9303-0SB40		1	1 unit	153
• 4-pole	✓	--	--	--		3VA9054-0SB10		1	1 unit	163
	--	✓	✓	--		3VA9254-0SB10		1	1 unit	163
	--	--	--	✓		3VA9304-0SB40		1	1 unit	153
Escutcheon for front mounted rotary operator	✓	--	--	--		3VA9053-0SB10		1	1 unit	163
	--	✓	--	--		3VA9253-0SB10		1	1 unit	163
	--	--	✓	--		3VA9163-0SB10		1	1 unit	163
	--	--	--	✓		3VA9383-0SB10		1	1 unit	163
Escutcheon for door feedthrough	--	✓	✓	--		3VA9253-0SB20		1	1 unit	163
	--	--	--	✓		3VA9353-0SB20		1	1 unit	163
 3VA9087-0SX10 **Labeling plate for escutcheon**						3VA9087-0SX10		1	10 units	163

* You can order this quantity or a multiple thereof.

	Version	For molded case circuit breakers / rated current				DT	Article No. www.siemens.com/product?Article No.	Price € per PU	PU (UNIT, SET, M)	PS*/ P. unit	PG
		3VA1 100 A 160 A	3VA1 250 A	3VA2 100 A 160 A 250 A	3VA2 400 A 630 A						
Adapter for DIN rails for 3VA1 molded case circuit breakers											
 3VA9187-0SH10	**Adapter for DIN rails for 3VA1 molded case circuit breakers**										
	Variants										
	• 1-pole[1)]	✓	--	--	--		3VA9181-0SH10		1	1 unit	163
	• 2-pole	✓	--	--	--		3VA9182-0SH10		1	1 unit	163
	• 3 and 4-pole	✓	--	--	--		3VA9187-0SH10		1	1 unit	163
	• 3 and 4-pole in conjunction with RCD310 or RCD510	✓	--	--	--		3VA9187-0SH20		1	1 unit	163
Adapter for 60 mm busbar system (8US)											
 8US1213-4AP03	**Adapter for 60mm busbar system (8US)**										
	Variants										
	• 3-pole	✓	--	--	--		8US1213-4AU01		1	1 unit	143
	• 3-pole	--	✓	✓	--		8US1213-4AP03		1	1 unit	143
Mounting screw kit											
 3VA9111-0SS10	**Mounting screw kit**										
	Variants										
	• For fixed-mounted molded case circuit breakers										
	- 1-pole	✓	--	--	--		3VA9111-0SS10		1	1 unit	153
	- 2 and 3-pole (apart from 125 A/160 A with 55 kA and 70 kA)	✓	✓	--	--		3VA9116-0SS10		1	1 unit	153
	- 3-pole (125 A/160 A with 55 kA and 70 kA) and 4-pole	✓	✓	--	--		3VA9114-0SS10		1	1 unit	153
	- 3-pole	--	--	✓	--		3VA9126-0SS10		1	1 unit	153
	- 4-pole	--	--	✓	--		3VA9124-0SS10		1	1 unit	153
	- 3 and 4-pole	--	--	--	✓		3VA9328-0SS10		1	1 unit	153
	• For plug-in technology	✓	✓	--	--		3VA9114-0SS10		1	1 unit	153
	• For plug-in and draw-out units	--	✓	--	--		3VA9114-0SS10		1	1 unit	153
		--	--	✓	--		3VA9124-0SS10		1	1 unit	153
		--	--	--	✓		3VA9328-0SS10		1	1 unit	153

[1)] For 3VA1 molded case circuit breakers, 160A 1-pole up to 25 kA

Notes

Appendix

Catalog notes

Overview

Trademarks

All product designations may be registered trademarks or product names of
Siemens AG or supplier companies whose use by third parties for their own purposes may violate the rights of the owner.

Amendments

Unless stated otherwise on the individual pages of this catalog, we reserve the right to make changes, in particular to the specified values, measurements and weights.

Dimensions

All dimensions are in mm.

Illustrations

The illustrations are not binding.

Technical data

The technical specifications are for general information purposes only. Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

Further technical information is available at
www.siemens.com/lowvoltage/product-support

- under "Entry type":
  - Application example
  - Certificate
  - Characteristic
  - Download
  - FAQ
  - Manual
  - Product note
  - Software archive
  - Technical data

Configurators can be found under
www.siemens.com/lowvoltage/configurators

Assembly, operation and maintenance

Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

Symbols

In the table below, you will find all symbols concerning connections that can occur in this catalog. In combination with orange highlighting, these identify special selection criteria.

Connections	
	Screw connection
	Ring cable lug connection
	Spring-loaded terminals

Logistics

General

With regard to delivery service, communications and environmental protection, our logistics service ensures "quality from the moment of ordering right through to delivery". By designing our infrastructure according to customer requirements and implementing electronic order processing, we have successfully optimized our logistics processes.

We are proud of our personal consulting service, on-time deliveries and 1-day transport within Germany.

To this end, we supply preferred types marked with ► ex works.

We regard the DIN ISO 9001 certification and consistent quality checks as an integral part of our services.

Electronic order processing is fast, cost-efficient and error-free. Please contact us if you want to benefit from these advantages.

Packaging, packing units

The packaging in which our equipment is dispatched provides protection against dust and mechanical damage during transport, thus ensuring that all our products arrive in perfect condition.

We select our packaging for maximum environmental compatibility and reusability (e.g. crumpled paper for protection during transport in packages up to 32 kg) and, in particular, with a view to reducing waste.

With our multi-unit and reusable packaging, we offer you specific types of packaging that are both kind to the environment and tailored to your requirements:

Your advantages at a glance:

- Lower ordering costs.
- Cost savings through same-material type packaging: Low/no disposal costs.
- Reduced time and cost thanks to short unpacking times.
- "Just-in-time" delivery directly to the production line helps reduce stock: Cost savings through reduction of storage areas.
- Fast assembly thanks to supply in sets.
- Standard Euro boxes - corresponding to the Euro pallet modular system - suitable for most conveyor systems.
- Active contribution to environmental protection.

Unless stated otherwise in the "Selection and ordering data" of this catalog, our products are supplied individually packed.

For small parts/accessories, we offer you cost-effective packaging units as standard packs containing more than one item, e.g. 5, 10, 50 or 100 units. It is essential that whole number multiples of these quantities be ordered to ensure satisfactory quality of the products and problem-free order processing.

The products are delivered in a neutral carton. The label includes warning notices, the CE marking, and device descriptions in English and German.

In addition to the Article No. (MLFB) and the number of items in the packaging, the order number for operating instructions (Instr.-Order-No.) is also specified.
They can be obtained from your local Siemens representative (you will find a list at www.siemens.com/automation/partner).

Most device Article No.'s can be obtained by means of the EAN barcode to simplify ordering and storage logistics.

The associated master data, too, is available from your local Siemens representative.

Ordering notes

Overview

Ordering special versions

When ordering products that differ from the standard versions listed in the catalog, **"–Z"** must be added to the Article No. indicated and the required features must be specified using alphanumeric order codes or plain text.

Ordering very small quantities

When very small orders are placed, the costs associated with order processing are greater than the order value. We therefore recommend that you combine several small orders. Where this is not possible, we regret that we are obliged to make a small processing charge: for orders with a net goods value of less than € 250 we charge an € 20 supplement to cover our order processing and invoicing costs.

Explanations of Selection and Ordering Data

Delivery time class (DT)

DT	Meaning
►	Preferred type
A	Two working days
B	One week
C	Three weeks
D	Six weeks
X	On request

Preferred types are device types that can be delivered immediately ex works, i.e. they are dispatched within 24 hours.

If ordered in normal quantities, the products are usually delivered within the specified delivery times, calculated from the date we receive your order.

In exceptional cases, delivery times may vary from those specified.

The delivery times are valid ex works from Siemens AG (products ready for dispatch).

Shipping times depend on the destination and the method of shipping. The standard shipping time for Germany is one day.

The specified delivery times are correct at the time of going to print and are subject to constant optimization. Up-to-date information can be found at www.siemens.com/industrymall.

Price units (PU)

The price unit defines the number of units, sets or meters to which the specified price and weight apply.

PS/P. unit (packaging size/packaging unit)

The packaging size/packaging unit defines the number, e.g. of units, sets or meters, contained within outer packaging:

- The **first digit** in the PS/P. unit column (packaging size/packaging unit) indicates the minimum order quantity. You can only order this specified quantity or a multiple thereof.
- The **second digit** in the PS/P. unit column (packaging size/packaging unit) specifies the number of units contained within the outer packaging (e.g. in a carton). You must order this quantity or a multiple thereof if you want the items to be delivered in discrete packaging quantities.

Examples:

PS/P. unit	Meaning
1 unit	You can order one item or a multiple thereof.
5 units	Five units are packed in a bag, for example. Because the bags cannot be opened, you can only order a multiple of the quantity contained in the bag: 5, 10, 15, 20 etc.
5/100 units	One carton contains (for example) 20 bags, each containing 5 units, i.e. a total of 100 units. If only cartons are available for delivery, you need to order a multiple of the carton quantity: 100, 200, 300, etc. Ordering a quantity of 220 units would result in the following delivery: two cartons, each containing 100 units (= 200 units) and 4 bags, each containing 5 units (= 20 units).
1 set	A set comprises a defined number of different parts.

Price group (PG)

Each product is allocated to a price group.

Weight

The defined weight is the net weight in kg and refers to the price unit (PU).

Examples

DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS/ P. unit	PG	Weight per PU approx. kg
►	**3NW7013**		1	1/12 units	017	0.076

DT: Preferred type
PU: One unit (on which price is based)
PS/P. unit: 1 = minimum order quantity / 12 = quantity per carton
PG: 017
Weight per PU: 76 g, always given in kg

DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS/ P. unit	PG
	8HP2021		1	1 unit	046

PU: One unit (on which price is based)
PS/P. unit: 1 = minimum order quantity
PG: 046

Note:

The article numbers shown here are examples only. They are not necessarily included in this catalog, nor is it essential that their specifications regarding selection and ordering data be up to date. When ordering, always use the selection and ordering data.

Low-voltage power distribution and electrical installation technology on the WWW

We regard product support to be just as important as the products and systems themselves.

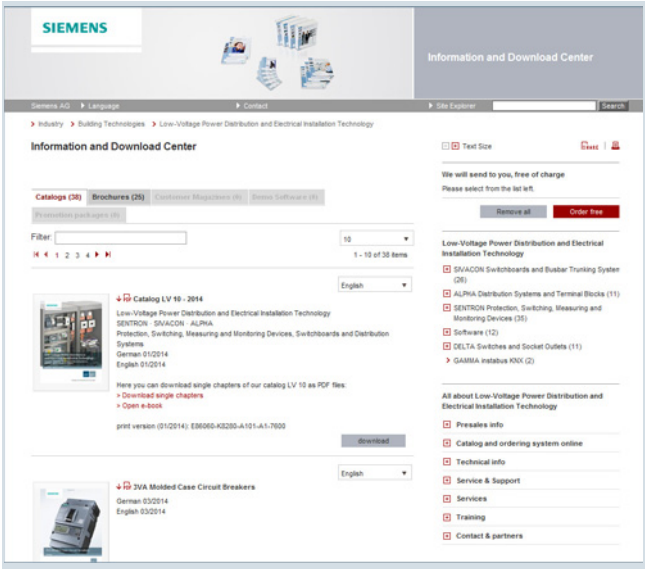
Visit our website for a comprehensive offering of support for low-voltage power distribution and electrical installation products, such as:

- Overview of the entire product portfolio
- Keeping up to date via newsletters, podcasts, blogs and Twitter
- Access to interesting videos on YouTube
- Contact with partners around the world
- Operating instructions and manuals for direct download

and much more - all conveniently and easily accessible.

www.siemens.com/lowvoltage

Information and Download Center



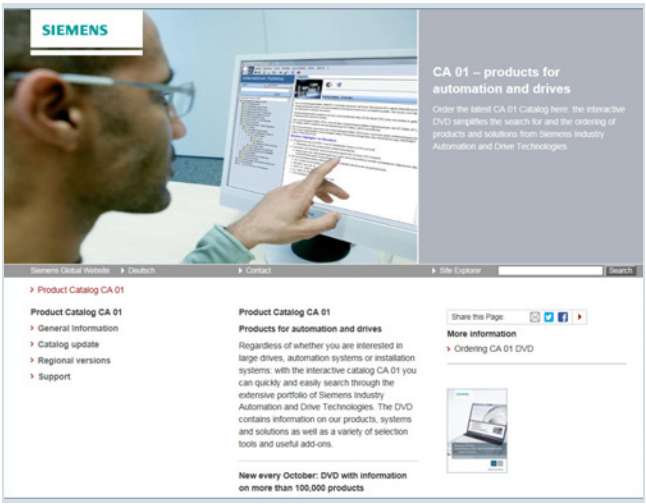
You will find regularly updated information material such as catalogs, customer magazines, brochures and trial versions of software for low-voltage power distribution and electrical installations on the Internet at

www.siemens.com/lowvoltage/infomaterial

Here you can order your copy of the available documentation or download it in common file formats (PDF, ZIP).

Further documentation

Product selection using the interactive catalog CA 01



Detailed information together with user-friendly interactive functions:

The interactive catalog CA 01 with more than 80,000 products provides a comprehensive overview of the product range from Siemens Industry.

You can find everything you need here for solving automation, switching, installation and drive technology tasks. All information is provided over a user interface that is both user-friendly and intuitive.

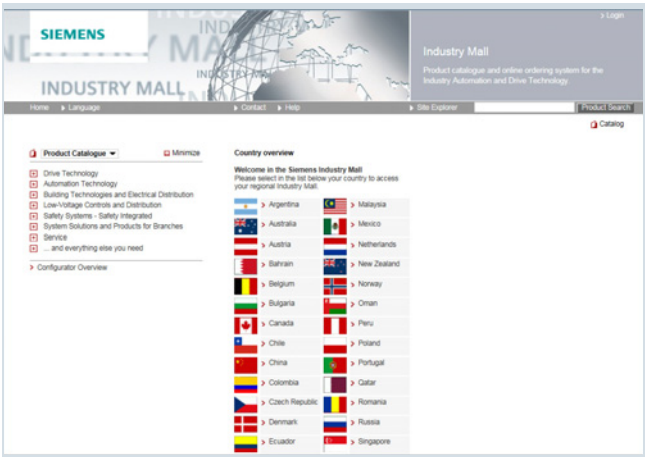
After selecting the product of your choice you can order at the press of a button, by fax or by online link.

Information about the interactive catalog CA 01 can be found on the Internet at:

www.siemens.com/automation/ca01

or on DVD.

Industry Mall



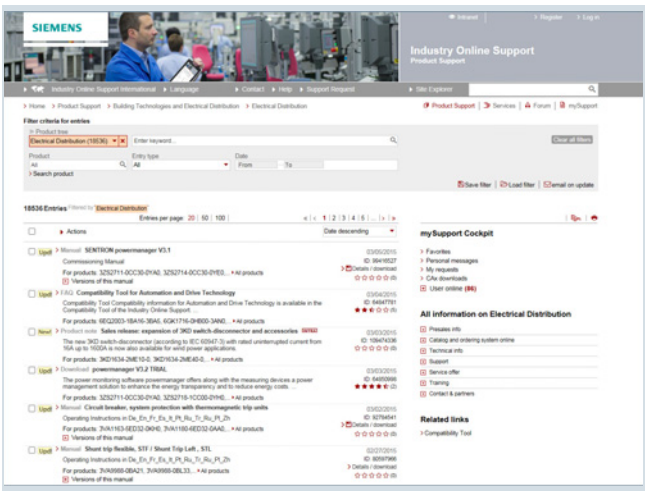
The Industry Mall – for online information, product selection and ordering:

- Detailed information including product data, illustrations, certificates and CAx data
- Simple configuring of systems
- Possible to request individualized quotations
- Availability check
- Online ordering facility
- Order tracking/order overview
- Fast access to relevant training offers and services

You can find the Industry Mall on the Internet at

www.siemens.com/industrymall

Industry Online Support



Comprehensive support – at any time, whatever your location

- FAQs, sample applications, information about successor products and product news
- Prompt assistance with technical queries
- Discussions and best practice sharing with other users in the forum
- Provision of high-quality product data for your planning programs
- Faster access to information – with helpful filter and folder functions in mySupport
- Automatic notification service to keep you up to date with the latest information about topics of interest to you

To find the link to Siemens Industry Online Support, go to

www.siemens.com/lowvoltage/product-support

Industry Online Support App

Main functions at a glance

- Scanning of product codes (EAN/QR and data matrix codes) with direct display of all technical information on the product, including graphic data (CAx data).
- Delivery of product information or entries by e-mail, so that the information can immediately be processed at the workplace.
- Submission of queries to Technical Support (Support Requests). With photo function for transmitting detailed information.
- Contents and interfaces available in six languages (German, English, French, Italian, Spanish and Chinese) – including option of temporary switchover to English.
- Offline cache function for all favorites stored in "mySupport". These entries can also be retrieved without network reception.
- Import of PDF documents into a library (e.g. iBooks or similar).
- An overview of the main functions can be found at

  www.siemens.com/lowvoltage/support-app

Android:

ANDROID APP ON Google play

Industry Online Support App ANDROID

Apple iOS:

Available on the App Store

Industry Online Support App iOS

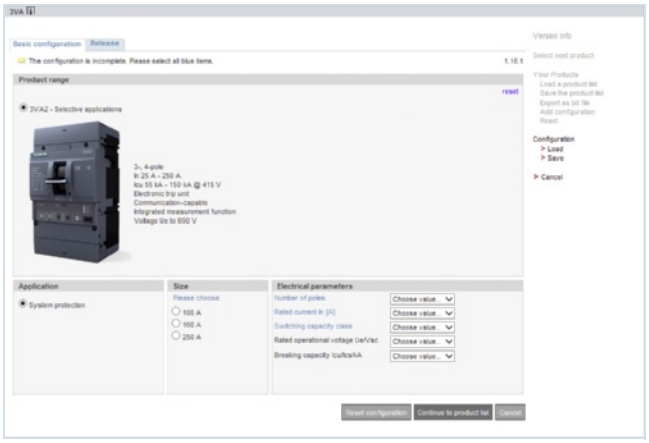
Windows:

Download from Windows Phone Store

Industry Online Support App WINDOWS 8

Further documentation

Product configurator



Find the right product faster using intuitive product selection

- Complete selection of products and systems based on technical characteristics or application requirements
- Simple, intuitive operation
- Option to save the configuration and order lists in a file format of your choice (txt, pdf, xls, csv)
- Direct transfer of the order list into the shopping cart of the Siemens Industry Mall
- Fast access to product data, diagrams, certificates and CAx data for the selected product and system configuration
- Available in multiple languages for use by customers anywhere in the world

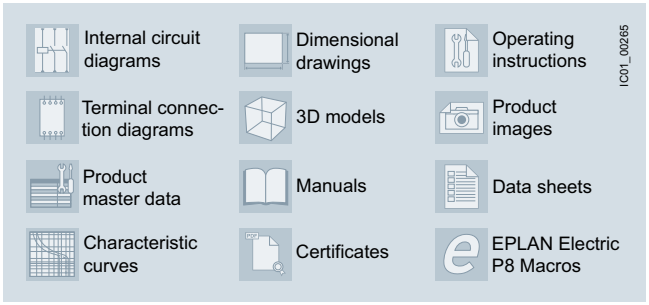
The configurators are available online in the Siemens Industry Mall and offline in Catalog CA 01. A product selection process could hardly be made any clearer, faster or easier.

You can find our configurators at the following website:

www.siemens.com/lowvoltage/configurators

CAx Download Manager

The 12 CAx data types are listed below:



The CAx Download Manager can supply you with all the necessary CAx file types for the products of your choice for use in all common CAE and CAD systems. The data contained in the files is continuously updated. The whole process involves only four selection steps and is free of charge. All your selected files are packed into a zip file which you can download for further use.

This service will cut the time it takes you to integrate product data into your CAE and CAD system by up to 80 %.

Siemens makes available up to 12 file types to support your mechanical (CAD) and electrical (CAE) planning processes for you to download at any time of the day.

Time savings of up to 80 % with universal product data for your CAE and CAD systems

- No manual data collection necessary
- Universal manufacturer data for all common CAE and CAD systems
- Standardized documentation is simple to generate
- Choice of different languages for system commissioning anywhere in the world

My Documentation Manager

In "mySupport" you can compile individual documentation for your project by dragging and dropping

* e.g. Low Voltage Directive 2006/95/EC and EC Machinery Directive 2006/42/EC

In accordance with directives*, the documentation is part of the plant and requires certification, thus giving the purchaser the right to full plant documentation.

To support you in this, a manual configurator has been developed with which you can put together individual and standard-compliant documentation – fully in accordance with the relevant project-specific requirements.

You can thus select the chapters relevant to the respective project from the available manuals of the installed Siemens components. FAQs, certificates, data sheets and your own content can also be incorporated. This means that the documentation is perfectly tailored to your individual needs, making information easier to locate.

User-friendly compilation of project-specific documentation

- Compile and structure manuals, data sheets, FAQs and certificates simply by dragging and dropping
- Insert personalized content via the Notes function
- Further processing possible thanks to selectable export formats (pdf, xml, rtf)
- After generating the documentation, automatic translation into the desired language is possible
- Always up-to-the minute thanks to the Update function

You can find "My Documentation Manager" on the Internet at

www.siemens.com/lowvoltage/mdm

Quality management

Overview

The quality management system of our EM LP Business Unit complies with the international standard EN ISO 9001.

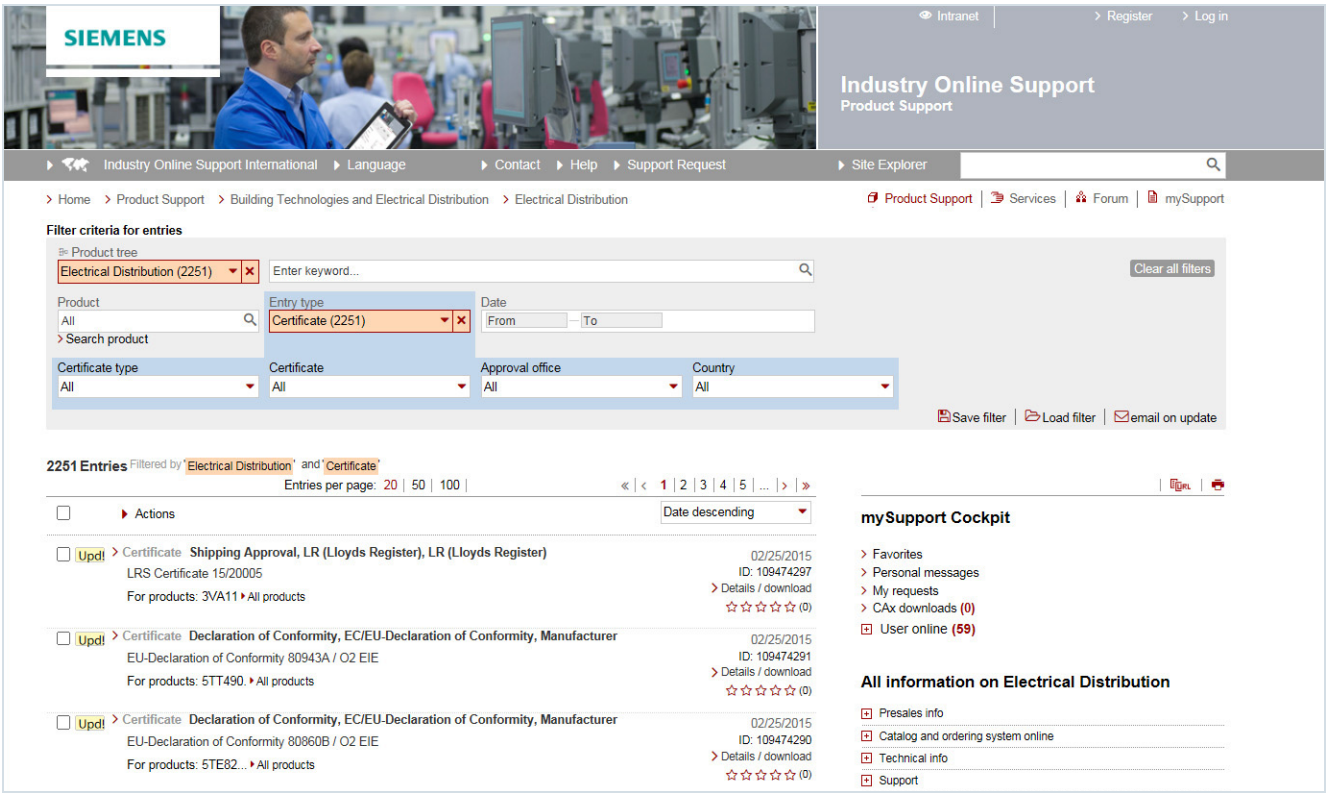
The products and systems listed in this catalog are developed and manufactured using a certified quality management system in accordance with EN ISO 9001:2008.

Overview

Certificates

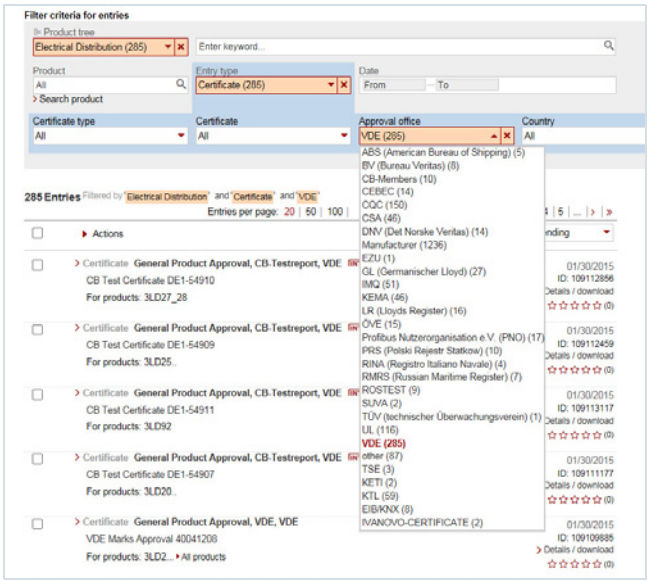
An overview, updated on a daily basis, of our products certified in accordance with CE, UL, CSA, FM, shipping authorizations etc. for low-voltage power distribution and electrical installation products can be found on the Internet at

www.siemens.com/lowvoltage/certificates



In the **Entry list** you can **filter the view** in order to quickly find comprehensive information on the following subjects:

- Product or search term
- Date
- Type of certificate (general product approval, test certificates, shipping approval, ...)
- Certificate (confirmations, UL, VDE,...)
- Approval office (TÜV, VDE, UL, ...)
- Country



Approval requirements valid in different countries

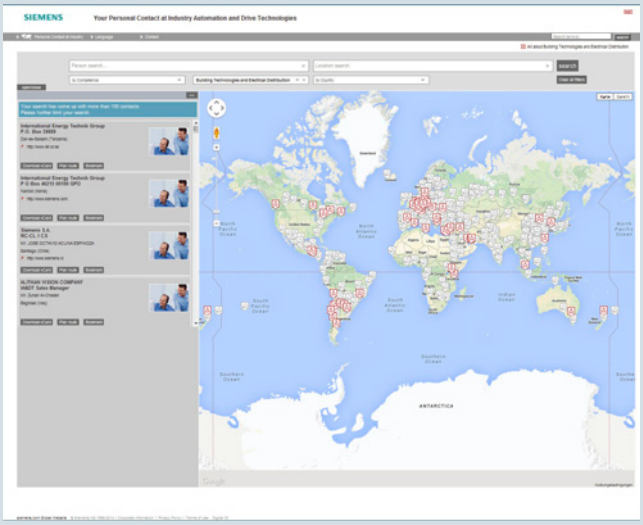
Siemens low-voltage switchgear and controlgear are designed, manufactured and tested according to the relevant German standards (DIN and VDE), IEC publications and European standards (EN).

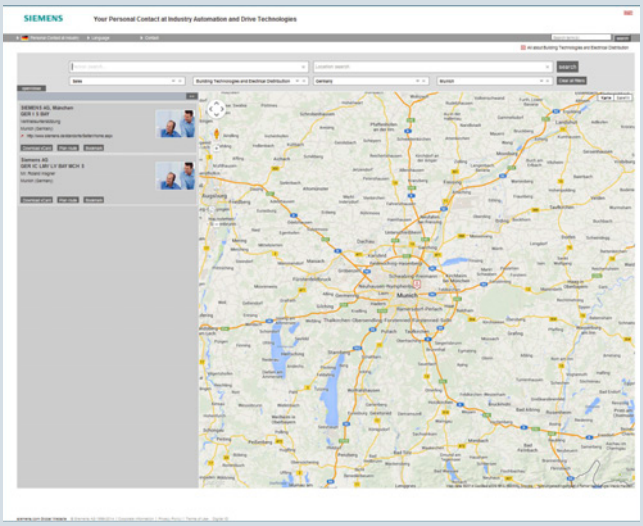
As far as is economically viable, in addition to the pertinent VDE, EN and IEC standards, the requirements of the various regulations valid in other countries are also taken into account in the design of the devices to enable global use as far as possible in the normal version.

The currently available approvals, test certificates and certificates can be viewed in Siemens Industry Online Support via the following link

www.siemens.com/lowvoltage/certificates

Contact partners at Siemens Low-Voltage Power Distribution and Electrical Installation Technology





At Siemens Low-Voltage Power Distribution and Electrical Installation Technology, more than 85 000 people are resolutely pursuing the same goal:

Long-term improvement of your competitive ability.

We are committed to this goal. Thanks to our dedication, we are continually setting new standards. In all industries – worldwide.

At your service, locally, around the globe: Partners for consulting, sales, training, service, support, spare parts ... on the entire Siemens range of Low-Voltage Power Distribution and Electrical Installation Technology.

Your personal contact can be found in our Contact Database at

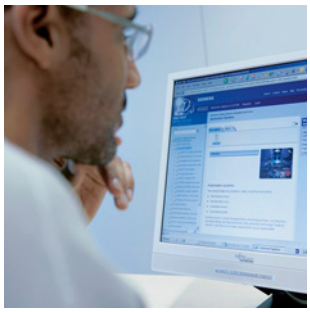
www.siemens.com/lowvoltage/contact

You start by selecting a

- competence,
- product or branch,
- country,
- city.

Unrivaled complete range of services

Online Support



Our comprehensive online information platform covers every aspect of our Service & Support and is available whenever, wherever.

More detailed information is available at
www.siemens.com/lowvoltage/product-support

Field Service

Siemens Field Service offers support with all aspects of maintenance – so that the availability of your machines and plants is assured whatever the case.

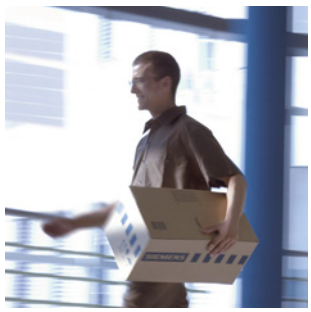
More detailed information is available at
www.siemens.com/lowvoltage/contact

Technical Support

The competent consulting service for technical issues with a broad range of customer-oriented services for all our products and systems.

More detailed information is available at
www.siemens.com/lowvoltage/contact

Spare Parts



Plants and systems in all industries worldwide are expected to meet ever higher levels of availability.

We can help you rule out unexpected stoppages: with a global network and optimum logistics chains.

More detailed information is available at
www.siemens.com/lowvoltage/contact

Training

Extend your lead – with practice-related know-how straight from the manufacturer.

More detailed information is available at
www.siemens.com/lowvoltage/training

Specification texts

You can obtain qualified, free support to help you produce specifications for technically equipping non-residential and industrial buildings at
www.siemens.com/specifications

Overview

Product information	
Website	Fast and targeted information on low-voltage power distribution: www.siemens.com/lowvoltage
Newsletter	Always up to date about our trend-setting products and systems: www.siemens.com/lowvoltage/newsletter
Product information/product & system selection	
Information and Download Center	Current catalogs, customer magazines, brochures, demo software and promotion packages: www.siemens.com/lowvoltage/infomaterial
Industry Mall	Comprehensive information and order platform for the Siemens Industry Basket: www.siemens.com/lowvoltage/mall
CA 01	The interactive catalog on DVD for automation and drive technology and low-voltage power distribution and electrical installation products
Product and system engineering	
SIMARIS software tools	Support in planning and configuring the electrical power distribution: www.siemens.com/simaris
SIMARIS ConFiguration Basic planning and configuration tool	Assists in generating offers and configuring products ranging from ALPHA distribution boards to the SIVACON S4 power distribution boards www.siemens.com/scfb
Product documentation	
Siemens Industry Online Support	Comprehensive technical information - from planning to configuration and operation: www.siemens.com/lowvoltage/product-support
Product configurator	Complete selection of products and systems based on technical characteristics or application requirements: www.siemens.com/lowvoltage/configurators
CAx Download Manager	Collation of CAx data types for standard CAE and CAD systems: www.siemens.com/lowvoltage/cax
My Documentation Manager	Compilation of project-specific documentation: www.siemens.com/lowvoltage/mdm
Image database	Collection of product photographs and graphics, such as dimensional drawings and internal circuit diagrams: www.siemens.com/lowvoltage/picturedb
Product training	
SITRAIN Portal	Comprehensive training program for our products, systems and engineering tools: www.siemens.com/lowvoltage/training
Product hotline	
Technical Support	Support in all technical queries about our products: E-mail: support.automation@siemens.com www.siemens.com/lowvoltage/contact

Software Licenses

Overview

Software types

Software requiring a license is categorized into types.
The following software types have been defined:

- Engineering software
- Runtime software

Engineering software

This includes all software products for creating (engineering) user software, e.g. for configuring, programming, parameterizing, testing, commissioning or servicing.

Data generated with engineering software and executable programs can be duplicated for your own use or for use by third-parties free-of-charge.

Runtime software

This includes all software products required for plant/machine operation, e.g. operating system, basic system, system expansions, drivers, etc.

The duplication of the runtime software and executable programs created with the runtime software for your own use or for use by third-parties is subject to a charge.

You can find information about license fees according to use in the ordering data (e.g. in the catalog). Examples of categories of use include per CPU, per installation, per channel, per instance, per axis, per control loop, per variable, etc.

Information about extended rights of use for parameterization/configuration tools supplied as integral components of the scope of delivery can be found in the readme file supplied with the relevant product(s).

License types

Siemens Industry Automation & Drive Technologies offers various types of software license:

- Floating license
- Single license
- Rental license
- Rental floating license
- Trial license
- Demo license
- Demo floating license

Floating license

The software may be installed for internal use on any number of devices by the licensee. Only the concurrent user is licensed. The concurrent user is the person using the program. Use begins when the software is started.
A license is required for each concurrent user.

Single license

Unlike the floating license, a single license permits only one installation of the software per license.

The type of use licensed is specified in the ordering data and in the Certificate of License (CoL). Types of use include for example per instance, per axis, per channel, etc.

One single license is required for each type of use defined.

Rental license

A rental license supports the "sporadic use" of engineering software. Once the license key has been installed, the software can be used for a specific period of time (the operating hours do not have to be consecutive).
One license is required for each installation of the software.

Rental floating license

The rental floating license corresponds to the rental license, except that a license is not required for each installation of the software. Rather, one license is required per object (for example, user or device).

Trial license

A trial license supports "short-term use" of the software in a non-productive context, e.g. for testing and evaluation purposes. It can be transferred to another license.

Demo license

The demo license support the "sporadic use" of engineering software in a non-productive context, for example, use for testing and evaluation purposes. It can be transferred to another license. After the installation of the license key, the software can be operated for a specific period of time, whereby usage can be interrupted as often as required.

One license is required per installation of the software.

Demo floating license

The demo floating license corresponds to the demo license, except that a license is not required for each installation of the software. Rather, one license is required per object (for example, user or device).

Certificate of license (CoL)

The CoL is the licensee's proof that the use of the software has been licensed by Siemens. A CoL is required for every type of use and must be kept in a safe place.

Downgrading

The licensee is permitted to use the software or an earlier version/release of the software, provided that the licensee owns such a version/release and its use is technically feasible.

Delivery versions

Software is constantly being updated.
The following delivery versions

- PowerPack
- Upgrade

can be used to access updates.

Existing bug fixes are supplied with the ServicePack version.

PowerPack

PowerPacks can be used to upgrade to more powerful software. The licensee receives a new license agreement and CoL (Certificate of License) with the PowerPack. This CoL, together with the CoL for the original product, proves that the new software is licensed.
A separate PowerPack must be purchased for each original license of the software to be replaced.

Upgrade

An upgrade permits the use of a new version of the software on the condition that a license for a previous version of the product is already held.
The licensee receives a new license agreement and CoL with the upgrade. This CoL, together with the CoL for the previous product, proves that the new version is licensed.
A separate upgrade must be purchased for each original license of the software to be upgraded.

Overview

ServicePack

ServicePacks are used to debug existing products. ServicePacks may be duplicated for use as prescribed according to the number of existing original licenses.

License key

Siemens Industry Automation & Drive Technologies supplies software products with and without license keys.

The license key serves as an electronic license stamp and is also the "switch" for activating the software (floating license, rental license, etc.).

The complete installation of software products requiring license keys includes the program to be licensed (the software) and the license key (which represents the license).

Software Update Service (SUS)

As part of the SUS contract, all software updates for the respective product are made available to you free of charge for a period of one year from the invoice date. The contract will automatically be extended for one year if it is not canceled three months before it expires.

The possession of the current version of the respective software is a basic condition for entering into an SUS contract.

You can download explanations concerning license conditions from www.siemens.com/automation/salesmaterial-as/catalog/en/terms_of_trade_en.pdf

IA/DT/BT Software licenses En 21.03.13

Article No. index incl. export markings

Overview

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1				
3VA1010-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1010-2ED36-0AA0	2/6	0.900	EAR99	N
3VA1010-2ED42-0AA0	2/12	1.206	EAR99	N
3VA1010-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1010-3ED32-0AA0	2/7	0.943	EAR99	N
3VA1010-3ED36-0AA0	2/7	0.900	EAR99	N
3VA1010-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1010-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1010-4ED32-0AA0	2/7	0.900	EAR99	N
3VA1010-4ED36-0AA0	2/7	1.027	EAR99	N
3VA1010-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1010-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1020-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1020-2ED36-0AA0	2/6	0.900	EAR99	N
3VA1020-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1020-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1020-3ED32-0AA0	2/7	0.900	EAR99	N
3VA1020-3ED36-0AA0	2/7	0.900	EAR99	N
3VA1020-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1020-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1020-4ED32-0AA0	2/7	0.900	EAR99	N
3VA1020-4ED36-0AA0	2/7	1.035	EAR99	N
3VA1020-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1020-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1025-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1025-2ED36-0AA0	2/6	0.900	EAR99	N
3VA1025-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1025-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1025-3ED32-0AA0	2/7	0.900	EAR99	N
3VA1025-3ED36-0AA0	2/7	0.900	EAR99	N
3VA1025-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1025-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1025-4ED32-0AA0	2/7	0.900	EAR99	N
3VA1025-4ED36-0AA0	2/7	1.037	EAR99	N
3VA1025-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1025-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1032-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1032-2ED36-0AA0	2/6	0.900	EAR99	N
3VA1032-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1032-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1032-3ED32-0AA0	2/7	0.953	EAR99	N
3VA1032-3ED36-0AA0	2/7	0.900	EAR99	N
3VA1032-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1032-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1032-4ED32-0AA0	2/7	0.973	EAR99	N
3VA1032-4ED36-0AA0	2/7	0.900	EAR99	N
3VA1032-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1032-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1040-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1040-2ED36-0AA0	2/6	0.900	EAR99	N
3VA1040-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1040-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1040-3ED32-0AA0	2/7	0.900	EAR99	N
3VA1040-3ED36-0AA0	2/7	0.900	EAR99	N
3VA1040-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1040-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1040-4ED32-0AA0	2/7	0.900	EAR99	N
3VA1040-4ED36-0AA0	2/7	1.025	EAR99	N
3VA1040-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1040-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1050-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1050-2ED36-0AA0	2/6	0.001	EAR99	N
3VA1050-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1050-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1050-3ED32-0AA0	2/7	0.900	EAR99	N
3VA1050-3ED36-0AA0	2/7	1.025	EAR99	N
3VA1050-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1050-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1050-4ED32-0AA0	2/7	0.900	EAR99	N
3VA1050-4ED36-0AA0	2/7	1.025	EAR99	N
3VA1050-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1050-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1063-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1063-2ED36-0AA0	2/6	1.009	EAR99	N
3VA1063-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1063-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1063-3ED32-0AA0	2/7	0.943	EAR99	N
3VA1063-3ED36-0AA0	2/7	0.900	EAR99	N
3VA1063-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1063-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1063-4ED32-0AA0	2/7	0.900	EAR99	N
3VA1063-4ED36-0AA0	2/7	0.900	EAR99	N
3VA1063-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1063-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1080-2ED32-0AA0	2/6	0.900	EAR99	N
3VA1080-2ED36-0AA0	2/6	1.022	EAR99	N
3VA1080-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1080-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1080-3ED32-0AA0	2/7	0.900	EAR99	N
3VA1080-3ED36-0AA0	2/7	1.011	EAR99	N
3VA1080-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1080-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1080-4ED32-0AA0	2/7	0.963	EAR99	N
3VA1080-4ED36-0AA0	2/7	1.010	EAR99	N
3VA1080-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1080-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1096-2ED32-0AA0	2/6	0.900	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1096-2ED36-0AA0	2/6	0.900	EAR99	N
3VA1096-2ED42-0AA0	2/12	1.200	EAR99	N
3VA1096-2ED46-0AA0	2/12	1.200	EAR99	N
3VA1096-3ED32-0AA0	2/7	0.900	EAR99	N
3VA1096-3ED36-0AA0	2/7	0.900	EAR99	N
3VA1096-3ED42-0AA0	2/13	1.200	EAR99	N
3VA1096-3ED46-0AA0	2/13	1.200	EAR99	N
3VA1096-4ED32-0AA0	2/7	0.900	EAR99	N
3VA1096-4ED36-0AA0	2/7	1.031	EAR99	N
3VA1096-4ED42-0AA0	2/13	1.200	EAR99	N
3VA1096-4ED46-0AA0	2/13	1.200	EAR99	N
3VA1110-1AA32-0AA0	2/26	0.800	EAR99	N
3VA1110-1AA36-0AA0	2/26	0.929	EAR99	N
3VA1110-1AA42-0AA0	2/26	1.100	EAR99	N
3VA1110-1AA46-0AA0	2/26	1.100	EAR99	N
3VA1110-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1110-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1110-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1110-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1110-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1110-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1110-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1110-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1110-3EE32-0AA0	2/8	0.960	EAR99	N
3VA1110-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1110-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1110-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1110-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1110-3EF36-0AA0	2/10	1.026	EAR99	N
3VA1110-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1110-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1110-3FD42-0AA0	2/14	1.200	EAR99	N
3VA1110-3FD46-0AA0	2/14	1.200	EAR99	N
3VA1110-3FE42-0AA0	2/18	1.200	EAR99	N
3VA1110-3FE46-0AA0	2/18	1.200	EAR99	N
3VA1110-3FF42-0AA0	2/20	1.200	EAR99	N
3VA1110-3FF46-0AA0	2/20	1.200	EAR99	N
3VA1110-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1110-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1110-3GE42-0AA0	2/18	1.232	EAR99	N
3VA1110-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1110-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1110-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1110-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1110-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1110-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1110-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1110-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1110-4ED36-0AA0	2/9	1.026	EAR99	N
3VA1110-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1110-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1110-4EE32-0AA0	2/9	0.946	EAR99	N
3VA1110-4EE36-0AA0	2/9	1.028	EAR99	N
3VA1110-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1110-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1110-4EF32-0AA0	2/11	0.963	EAR99	N
3VA1110-4EF36-0AA0	2/11	1.026	EAR99	N
3VA1110-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1110-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1110-4FD42-0AA0	2/15	1.200	EAR99	N
3VA1110-4FD46-0AA0	2/15	1.200	EAR99	N
3VA1110-4FE42-0AA0	2/19	1.200	EAR99	N
3VA1110-4FE46-0AA0	2/19	1.200	EAR99	N
3VA1110-4FF42-0AA0	2/21	1.200	EAR99	N
3VA1110-4FF46-0AA0	2/21	1.200	EAR99	N
3VA1110-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1110-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1110-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1110-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1110-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1110-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1110-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1110-5ED36-0AA0	2/9	1.026	EAR99	N
3VA1110-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1110-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1110-5EE32-0AA0	2/9	0.947	EAR99	N
3VA1110-5EE36-0AA0	2/9	1.025	EAR99	N
3VA1110-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1110-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1110-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1110-5EF36-0AA0	2/11	1.025	EAR99	N
3VA1110-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1110-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1110-5FD42-0AA0	2/15	1.200	EAR99	N
3VA1110-5FD46-0AA0	2/15	1.200	EAR99	N
3VA1110-5FE42-0AA0	2/19	1.200	EAR99	N
3VA1110-5FE46-0AA0	2/19	1.200	EAR99	N
3VA1110-5FF42-0AA0	2/21	1.200	EAR99	N
3VA1110-5FF46-0AA0	2/21	1.200	EAR99	N
3VA1110-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1110-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1110-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1110-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1110-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1110-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1110-5MH32-0AA0	2/24	0.900	EAR99	N
3VA1110-5MH36-0AA0	2/24	0.900	EAR99	N
3VA1110-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1110-6ED36-0AA0	2/9	1.025	EAR99	N
3VA1110-6ED42-0AA0	2/15	1.200	EAR99	N

Appendix

Article No. index incl. export markings

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1110-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1110-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1110-6EE36-0AA0	2/9	1.026	EAR99	N
3VA1110-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1110-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1110-6EF32-0AA0	2/11	0.944	EAR99	N
3VA1110-6EF36-0AA0	2/11	0.900	EAR99	N
3VA1110-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1110-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1110-6FD42-0AA0	2/15	1.200	EAR99	N
3VA1110-6FD46-0AA0	2/15	1.200	EAR99	N
3VA1110-6FE42-0AA0	2/19	1.200	EAR99	N
3VA1110-6FE46-0AA0	2/19	1.200	EAR99	N
3VA1110-6FF42-0AA0	2/21	1.200	EAR99	N
3VA1110-6FF46-0AA0	2/21	1.200	EAR99	N
3VA1110-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1110-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1110-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1110-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1110-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1110-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1110-6MH32-0AA0	2/25	0.900	EAR99	N
3VA1110-6MH36-0AA0	2/25	0.900	EAR99	N
3VA1112-1AA32-0AA0	2/26	0.893	EAR99	N
3VA1112-1AA36-0AA0	2/26	0.800	EAR99	N
3VA1112-1AA42-0AA0	2/26	1.140	EAR99	N
3VA1112-1AA46-0AA0	2/26	1.100	EAR99	N
3VA1112-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1112-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1112-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1112-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1112-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1112-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1112-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1112-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1112-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1112-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1112-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1112-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1112-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1112-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1112-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1112-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1112-3FD42-0AA0	2/14	1.200	EAR99	N
3VA1112-3FD46-0AA0	2/14	1.200	EAR99	N
3VA1112-3FE42-0AA0	2/18	1.200	EAR99	N
3VA1112-3FE46-0AA0	2/18	1.200	EAR99	N
3VA1112-3FF42-0AA0	2/20	1.200	EAR99	N
3VA1112-3FF46-0AA0	2/20	1.200	EAR99	N
3VA1112-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1112-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1112-3GE42-0AA0	2/18	1.286	EAR99	N
3VA1112-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1112-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1112-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1112-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1112-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1112-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1112-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1112-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1112-4ED36-0AA0	2/9	1.067	EAR99	N
3VA1112-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1112-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1112-4EE32-0AA0	2/9	1.002	EAR99	N
3VA1112-4EE36-0AA0	2/9	1.066	EAR99	N
3VA1112-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1112-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1112-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1112-4EF36-0AA0	2/11	1.065	EAR99	N
3VA1112-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1112-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1112-4FD42-0AA0	2/15	1.200	EAR99	N
3VA1112-4FD46-0AA0	2/15	1.200	EAR99	N
3VA1112-4FE42-0AA0	2/19	1.200	EAR99	N
3VA1112-4FE46-0AA0	2/19	1.200	EAR99	N
3VA1112-4FF42-0AA0	2/21	1.200	EAR99	N
3VA1112-4FF46-0AA0	2/21	1.200	EAR99	N
3VA1112-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1112-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1112-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1112-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1112-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1112-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1112-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1112-5ED36-0AA0	2/9	1.067	EAR99	N
3VA1112-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1112-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1112-5EE32-0AA0	2/9	0.996	EAR99	N
3VA1112-5EE36-0AA0	2/9	1.067	EAR99	N
3VA1112-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1112-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1112-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1112-5EF36-0AA0	2/11	1.050	EAR99	N
3VA1112-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1112-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1112-5FD42-0AA0	2/15	1.200	EAR99	N
3VA1112-5FD46-0AA0	2/15	1.200	EAR99	N
3VA1112-5FE42-0AA0	2/19	1.200	EAR99	N
3VA1112-5FE46-0AA0	2/19	1.200	EAR99	N
3VA1112-5FF42-0AA0	2/21	1.200	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1112-5FF46-0AA0	2/21	1.200	EAR99	N
3VA1112-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1112-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1112-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1112-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1112-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1112-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1112-5MH32-0AA0	2/24	0.900	EAR99	N
3VA1112-5MH36-0AA0	2/24	0.900	EAR99	N
3VA1112-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1112-6ED36-0AA0	2/9	1.067	EAR99	N
3VA1112-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1112-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1112-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1112-6EE36-0AA0	2/9	1.066	EAR99	N
3VA1112-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1112-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1112-6EF32-0AA0	2/11	0.900	EAR99	N
3VA1112-6EF36-0AA0	2/11	0.900	EAR99	N
3VA1112-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1112-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1112-6FD42-0AA0	2/15	1.200	EAR99	N
3VA1112-6FD46-0AA0	2/15	1.200	EAR99	N
3VA1112-6FE42-0AA0	2/19	1.200	EAR99	N
3VA1112-6FE46-0AA0	2/19	1.200	EAR99	N
3VA1112-6FF42-0AA0	2/21	1.200	EAR99	N
3VA1112-6FF46-0AA0	2/21	1.200	EAR99	N
3VA1112-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1112-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1112-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1112-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1112-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1112-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1112-6MH32-0AA0	2/25	0.900	EAR99	N
3VA1112-6MH36-0AA0	2/25	0.900	EAR99	N
3VA1116-1AA32-0AA0	2/26	0.800	EAR99	N
3VA1116-1AA36-0AA0	2/26	0.800	EAR99	N
3VA1116-1AA42-0AA0	2/26	1.100	EAR99	N
3VA1116-1AA46-0AA0	2/26	1.100	EAR99	N
3VA1116-3ED12-0AA0	2/2	0.393	EAR99	N
3VA1116-3ED16-0AA0	2/2	0.415	EAR99	N
3VA1116-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1116-3ED26-0AA0	2/4	0.716	EAR99	N
3VA1116-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1116-3ED36-0AA0	2/8	1.067	EAR99	N
3VA1116-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1116-3ED46-0AA0	2/14	1.342	EAR99	N
3VA1116-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1116-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1116-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1116-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1116-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1116-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1116-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1116-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1116-3FD42-0AA0	2/14	1.200	EAR99	N
3VA1116-3FD46-0AA0	2/14	1.200	EAR99	N
3VA1116-3FE42-0AA0	2/18	1.200	EAR99	N
3VA1116-3FE46-0AA0	2/18	1.200	EAR99	N
3VA1116-3FF42-0AA0	2/20	1.200	EAR99	N
3VA1116-3FF46-0AA0	2/20	1.200	EAR99	N
3VA1116-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1116-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1116-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1116-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1116-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1116-3GF46-0AA0	2/22	1.372	EAR99	N
3VA1116-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1116-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1116-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1116-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1116-4ED32-0AA0	2/9	1.003	EAR99	N
3VA1116-4ED36-0AA0	2/9	1.066	EAR99	N
3VA1116-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1116-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1116-4EE32-0AA0	2/9	0.900	EAR99	N
3VA1116-4EE36-0AA0	2/9	1.066	EAR99	N
3VA1116-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1116-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1116-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1116-4EF36-0AA0	2/11	1.063	EAR99	N
3VA1116-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1116-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1116-4FD42-0AA0	2/15	1.200	EAR99	N
3VA1116-4FD46-0AA0	2/15	1.200	EAR99	N
3VA1116-4FE42-0AA0	2/19	1.200	EAR99	N
3VA1116-4FE46-0AA0	2/19	1.200	EAR99	N
3VA1116-4FF42-0AA0	2/21	1.200	EAR99	N
3VA1116-4FF46-0AA0	2/21	1.200	EAR99	N
3VA1116-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1116-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1116-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1116-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1116-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1116-4GF46-0AA0	2/23	0.001	EAR99	N
3VA1116-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1116-5ED36-0AA0	2/9	1.061	EAR99	N
3VA1116-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1116-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1116-5EE32-0AA0	2/9	0.900	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1116-5EE36-0AA0	2/9	1.066	EAR99	N
3VA1116-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1116-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1116-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1116-5EF36-0AA0	2/11	1.066	EAR99	N
3VA1116-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1116-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1116-5FD42-0AA0	2/15	1.200	EAR99	N
3VA1116-5FD46-0AA0	2/15	1.200	EAR99	N
3VA1116-5FE42-0AA0	2/19	1.200	EAR99	N
3VA1116-5FE46-0AA0	2/19	1.200	EAR99	N
3VA1116-5FF42-0AA0	2/21	1.200	EAR99	N
3VA1116-5FF46-0AA0	2/21	1.200	EAR99	N
3VA1116-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1116-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1116-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1116-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1116-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1116-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1116-6ED32-0AA0	2/9	1.003	EAR99	N
3VA1116-6ED36-0AA0	2/9	1.067	EAR99	N
3VA1116-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1116-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1116-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1116-6EE36-0AA0	2/9	1.067	EAR99	N
3VA1116-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1116-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1116-6EF32-0AA0	2/11	1.001	EAR99	N
3VA1116-6EF36-0AA0	2/11	1.066	EAR99	N
3VA1116-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1116-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1116-6FD42-0AA0	2/15	1.200	EAR99	N
3VA1116-6FD46-0AA0	2/15	1.200	EAR99	N
3VA1116-6FE42-0AA0	2/19	1.200	EAR99	N
3VA1116-6FE46-0AA0	2/19	1.200	EAR99	N
3VA1116-6FF42-0AA0	2/21	1.200	EAR99	N
3VA1116-6FF46-0AA0	2/21	1.200	EAR99	N
3VA1116-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1116-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1116-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1116-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1116-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1116-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1120-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1120-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1120-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1120-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1120-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1120-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1120-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1120-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1120-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1120-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1120-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1120-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1120-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1120-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1120-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1120-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1120-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1120-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1120-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1120-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1120-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1120-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1120-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1120-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1120-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1120-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1120-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1120-4ED36-0AA0	2/9	1.033	EAR99	N
3VA1120-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1120-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1120-4EE32-0AA0	2/9	0.900	EAR99	N
3VA1120-4EE36-0AA0	2/9	0.900	EAR99	N
3VA1120-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1120-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1120-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1120-4EF36-0AA0	2/11	1.034	EAR99	N
3VA1120-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1120-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1120-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1120-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1120-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1120-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1120-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1120-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1120-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1120-5ED36-0AA0	2/9	1.033	EAR99	N
3VA1120-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1120-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1120-5EE32-0AA0	2/9	0.900	EAR99	N
3VA1120-5EE36-0AA0	2/9	0.900	EAR99	N
3VA1120-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1120-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1120-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1120-5EF36-0AA0	2/11	1.033	EAR99	N
3VA1120-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1120-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1120-5GD42-0AA0	2/17	1.200	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1120-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1120-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1120-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1120-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1120-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1120-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1120-6ED36-0AA0	2/9	1.034	EAR99	N
3VA1120-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1120-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1120-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1120-6EE36-0AA0	2/9	1.032	EAR99	N
3VA1120-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1120-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1120-6EF32-0AA0	2/11	0.900	EAR99	N
3VA1120-6EF36-0AA0	2/11	1.057	EAR99	N
3VA1120-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1120-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1120-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1120-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1120-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1120-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1120-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1120-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1125-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1125-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1125-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1125-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1125-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1125-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1125-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1125-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1125-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1125-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1125-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1125-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1125-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1125-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1125-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1125-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1125-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1125-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1125-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1125-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1125-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1125-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1125-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1125-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1125-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1125-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1125-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1125-4ED36-0AA0	2/9	1.036	EAR99	N
3VA1125-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1125-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1125-4EE32-0AA0	2/9	0.900	EAR99	N
3VA1125-4EE36-0AA0	2/9	0.900	EAR99	N
3VA1125-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1125-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1125-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1125-4EF36-0AA0	2/11	1.037	EAR99	N
3VA1125-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1125-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1125-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1125-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1125-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1125-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1125-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1125-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1125-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1125-5ED36-0AA0	2/9	0.900	EAR99	N
3VA1125-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1125-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1125-5EE32-0AA0	2/9	0.900	EAR99	N
3VA1125-5EE36-0AA0	2/9	1.037	EAR99	N
3VA1125-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1125-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1125-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1125-5EF36-0AA0	2/11	0.900	EAR99	N
3VA1125-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1125-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1125-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1125-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1125-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1125-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1125-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1125-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1125-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1125-6ED36-0AA0	2/9	1.036	EAR99	N
3VA1125-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1125-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1125-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1125-6EE36-0AA0	2/9	1.037	EAR99	N
3VA1125-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1125-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1125-6EF32-0AA0	2/11	0.900	EAR99	N
3VA1125-6EF36-0AA0	2/11	1.036	EAR99	N
3VA1125-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1125-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1125-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1125-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1125-6GE42-0AA0	2/19	1.200	EAR99	N

Appendix

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1125-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1125-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1125-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1132-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1132-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1132-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1132-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1132-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1132-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1132-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1132-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1132-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1132-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1132-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1132-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1132-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1132-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1132-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1132-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1132-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1132-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1132-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1132-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1132-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1132-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1132-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1132-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1132-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1132-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1132-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1132-4ED36-0AA0	2/9	1.036	EAR99	N
3VA1132-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1132-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1132-4EE32-0AA0	2/9	0.955	EAR99	N
3VA1132-4EE36-0AA0	2/9	1.036	EAR99	N
3VA1132-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1132-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1132-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1132-4EF36-0AA0	2/11	0.900	EAR99	N
3VA1132-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1132-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1132-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1132-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1132-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1132-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1132-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1132-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1132-5ED32-0AA0	2/9	0.955	EAR99	N
3VA1132-5ED36-0AA0	2/9	1.036	EAR99	N
3VA1132-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1132-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1132-5EE32-0AA0	2/9	0.954	EAR99	N
3VA1132-5EE36-0AA0	2/9	1.036	EAR99	N
3VA1132-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1132-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1132-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1132-5EF36-0AA0	2/11	0.900	EAR99	N
3VA1132-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1132-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1132-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1132-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1132-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1132-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1132-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1132-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1132-5MH32-0AA0	2/24	0.900	EAR99	N
3VA1132-5MH36-0AA0	2/24	0.900	EAR99	N
3VA1132-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1132-6ED36-0AA0	2/9	0.900	EAR99	N
3VA1132-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1132-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1132-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1132-6EE36-0AA0	2/9	1.037	EAR99	N
3VA1132-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1132-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1132-6EF32-0AA0	2/11	0.953	EAR99	N
3VA1132-6EF36-0AA0	2/11	1.040	EAR99	N
3VA1132-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1132-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1132-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1132-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1132-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1132-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1132-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1132-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1132-6MH32-0AA0	2/25	0.900	EAR99	N
3VA1132-6MH36-0AA0	2/25	0.900	EAR99	N
3VA1140-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1140-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1140-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1140-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1140-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1140-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1140-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1140-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1140-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1140-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1140-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1140-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1140-3EF32-0AA0	2/10	0.900	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1140-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1140-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1140-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1140-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1140-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1140-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1140-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1140-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1140-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1140-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1140-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1140-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1140-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1140-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1140-4ED36-0AA0	2/9	1.026	EAR99	N
3VA1140-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1140-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1140-4EE32-0AA0	2/9	0.900	EAR99	N
3VA1140-4EE36-0AA0	2/9	1.024	EAR99	N
3VA1140-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1140-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1140-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1140-4EF36-0AA0	2/11	1.026	EAR99	N
3VA1140-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1140-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1140-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1140-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1140-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1140-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1140-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1140-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1140-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1140-5ED36-0AA0	2/9	0.900	EAR99	N
3VA1140-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1140-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1140-5EE32-0AA0	2/9	0.900	EAR99	N
3VA1140-5EE36-0AA0	2/9	1.025	EAR99	N
3VA1140-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1140-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1140-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1140-5EF36-0AA0	2/11	1.025	EAR99	N
3VA1140-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1140-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1140-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1140-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1140-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1140-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1140-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1140-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1140-5MH32-0AA0	2/24	0.900	EAR99	N
3VA1140-5MH36-0AA0	2/24	0.900	EAR99	N
3VA1140-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1140-6ED36-0AA0	2/9	0.900	EAR99	N
3VA1140-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1140-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1140-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1140-6EE36-0AA0	2/9	1.028	EAR99	N
3VA1140-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1140-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1140-6EF32-0AA0	2/11	0.942	EAR99	N
3VA1140-6EF36-0AA0	2/11	0.900	EAR99	N
3VA1140-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1140-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1140-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1140-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1140-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1140-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1140-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1140-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1140-6MH32-0AA0	2/25	0.900	EAR99	N
3VA1140-6MH36-0AA0	2/25	0.900	EAR99	N
3VA1150-3ED12-0AA0	2/2	0.379	EAR99	N
3VA1150-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1150-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1150-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1150-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1150-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1150-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1150-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1150-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1150-3EE36-0AA0	2/8	1.026	EAR99	N
3VA1150-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1150-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1150-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1150-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1150-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1150-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1150-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1150-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1150-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1150-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1150-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1150-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1150-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1150-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1150-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1150-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1150-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1150-4ED36-0AA0	2/9	1.025	EAR99	N
3VA1150-4ED42-0AA0	2/15	1.200	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1150-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1150-4EE32-0AA0	2/9	0.900	EAR99	N
3VA1150-4EE36-0AA0	2/9	1.025	EAR99	N
3VA1150-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1150-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1150-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1150-4EF36-0AA0	2/11	1.025	EAR99	N
3VA1150-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1150-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1150-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1150-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1150-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1150-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1150-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1150-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1150-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1150-5ED36-0AA0	2/9	0.900	EAR99	N
3VA1150-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1150-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1150-5EE32-0AA0	2/9	0.900	EAR99	N
3VA1150-5EE36-0AA0	2/9	1.024	EAR99	N
3VA1150-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1150-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1150-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1150-5EF36-0AA0	2/11	1.025	EAR99	N
3VA1150-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1150-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1150-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1150-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1150-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1150-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1150-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1150-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1150-5MH32-0AA0	2/24	0.900	EAR99	N
3VA1150-5MH36-0AA0	2/24	0.900	EAR99	N
3VA1150-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1150-6ED36-0AA0	2/9	0.900	EAR99	N
3VA1150-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1150-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1150-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1150-6EE36-0AA0	2/9	1.024	EAR99	N
3VA1150-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1150-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1150-6EF32-0AA0	2/11	0.900	EAR99	N
3VA1150-6EF36-0AA0	2/11	1.025	EAR99	N
3VA1150-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1150-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1150-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1150-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1150-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1150-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1150-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1150-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1150-6MH32-0AA0	2/25	0.900	EAR99	N
3VA1150-6MH36-0AA0	2/25	0.900	EAR99	N
3VA1163-1AA32-0AA0	2/26	0.800	EAR99	N
3VA1163-1AA36-0AA0	2/26	0.800	EAR99	N
3VA1163-1AA42-0AA0	2/26	1.100	EAR99	N
3VA1163-1AA46-0AA0	2/26	1.100	EAR99	N
3VA1163-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1163-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1163-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1163-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1163-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1163-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1163-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1163-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1163-3EE32-0AA0	2/8	0.945	EAR99	N
3VA1163-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1163-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1163-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1163-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1163-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1163-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1163-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1163-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1163-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1163-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1163-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1163-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1163-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1163-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1163-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1163-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1163-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1163-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1163-4ED36-0AA0	2/9	1.026	EAR99	N
3VA1163-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1163-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1163-4EE32-0AA0	2/9	0.944	EAR99	N
3VA1163-4EE36-0AA0	2/9	1.026	EAR99	N
3VA1163-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1163-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1163-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1163-4EF36-0AA0	2/11	0.900	EAR99	N
3VA1163-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1163-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1163-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1163-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1163-4GE42-0AA0	2/19	1.200	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1163-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1163-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1163-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1163-5ED32-0AA0	2/9	0.943	EAR99	N
3VA1163-5ED36-0AA0	2/9	1.025	EAR99	N
3VA1163-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1163-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1163-5EE32-0AA0	2/9	0.944	EAR99	N
3VA1163-5EE36-0AA0	2/9	1.025	EAR99	N
3VA1163-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1163-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1163-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1163-5EF36-0AA0	2/11	0.100	EAR99	N
3VA1163-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1163-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1163-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1163-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1163-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1163-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1163-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1163-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1163-5MH32-0AA0	2/24	0.900	EAR99	N
3VA1163-5MH36-0AA0	2/24	0.900	EAR99	N
3VA1163-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1163-6ED36-0AA0	2/9	0.900	EAR99	N
3VA1163-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1163-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1163-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1163-6EE36-0AA0	2/9	1.026	EAR99	N
3VA1163-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1163-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1163-6EF32-0AA0	2/11	0.900	EAR99	N
3VA1163-6EF36-0AA0	2/11	0.900	EAR99	N
3VA1163-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1163-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1163-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1163-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1163-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1163-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1163-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1163-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1163-6MH32-0AA0	2/25	0.900	EAR99	N
3VA1163-6MH36-0AA0	2/25	0.900	EAR99	N
3VA1180-3ED12-0AA0	2/2	0.380	EAR99	N
3VA1180-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1180-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1180-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1180-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1180-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1180-3ED42-0AA0	2/14	1.200	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1180-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1180-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1180-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1180-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1180-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1180-3EF32-0AA0	2/10	0.900	EAR99	N
3VA1180-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1180-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1180-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1180-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1180-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1180-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1180-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1180-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1180-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1180-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1180-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1180-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1180-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1180-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1180-4ED36-0AA0	2/9	1.028	EAR99	N
3VA1180-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1180-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1180-4EE32-0AA0	2/9	0.900	EAR99	N
3VA1180-4EE36-0AA0	2/9	0.900	EAR99	N
3VA1180-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1180-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1180-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1180-4EF36-0AA0	2/11	0.900	EAR99	N
3VA1180-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1180-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1180-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1180-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1180-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1180-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1180-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1180-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1180-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1180-5ED36-0AA0	2/9	1.026	EAR99	N
3VA1180-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1180-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1180-5EE32-0AA0	2/9	0.900	EAR99	N
3VA1180-5EE36-0AA0	2/9	1.025	EAR99	N
3VA1180-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1180-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1180-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1180-5EF36-0AA0	2/11	0.900	EAR99	N
3VA1180-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1180-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1180-5GD42-0AA0	2/17	1.200	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1180-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1180-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1180-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1180-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1180-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1180-5MH32-0AA0	2/24	0.900	EAR99	N
3VA1180-5MH36-0AA0	2/24	0.900	EAR99	N
3VA1180-6ED32-0AA0	2/9	0.964	EAR99	N
3VA1180-6ED36-0AA0	2/9	1.028	EAR99	N
3VA1180-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1180-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1180-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1180-6EE36-0AA0	2/9	1.026	EAR99	N
3VA1180-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1180-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1180-6EF32-0AA0	2/11	0.900	EAR99	N
3VA1180-6EF36-0AA0	2/11	0.900	EAR99	N
3VA1180-6EF42-0AA0	2/21	1.200	EAR99	N
3VA1180-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1180-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1180-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1180-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1180-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1180-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1180-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1180-6MH32-0AA0	2/25	0.900	EAR99	N
3VA1180-6MH36-0AA0	2/25	0.900	EAR99	N
3VA1196-3ED12-0AA0	2/2	0.360	EAR99	N
3VA1196-3ED16-0AA0	2/2	0.360	EAR99	N
3VA1196-3ED22-0AA0	2/4	0.600	EAR99	N
3VA1196-3ED26-0AA0	2/4	0.600	EAR99	N
3VA1196-3ED32-0AA0	2/8	0.900	EAR99	N
3VA1196-3ED36-0AA0	2/8	0.900	EAR99	N
3VA1196-3ED42-0AA0	2/14	1.200	EAR99	N
3VA1196-3ED46-0AA0	2/14	1.200	EAR99	N
3VA1196-3EE32-0AA0	2/8	0.900	EAR99	N
3VA1196-3EE36-0AA0	2/8	0.900	EAR99	N
3VA1196-3EE42-0AA0	2/16	1.200	EAR99	N
3VA1196-3EE46-0AA0	2/16	1.200	EAR99	N
3VA1196-3EF32-0AA0	2/10	0.968	EAR99	N
3VA1196-3EF36-0AA0	2/10	0.900	EAR99	N
3VA1196-3EF42-0AA0	2/20	1.200	EAR99	N
3VA1196-3EF46-0AA0	2/20	1.200	EAR99	N
3VA1196-3GD42-0AA0	2/16	1.200	EAR99	N
3VA1196-3GD46-0AA0	2/16	1.200	EAR99	N
3VA1196-3GE42-0AA0	2/18	1.200	EAR99	N
3VA1196-3GE46-0AA0	2/18	1.200	EAR99	N
3VA1196-3GF42-0AA0	2/22	1.200	EAR99	N
3VA1196-3GF46-0AA0	2/22	1.200	EAR99	N
3VA1196-4ED12-0AA0	2/3	0.360	EAR99	N
3VA1196-4ED16-0AA0	2/3	0.360	EAR99	N
3VA1196-4ED22-0AA0	2/5	0.600	EAR99	N
3VA1196-4ED26-0AA0	2/5	0.600	EAR99	N
3VA1196-4ED32-0AA0	2/9	0.900	EAR99	N
3VA1196-4ED36-0AA0	2/9	1.031	EAR99	N
3VA1196-4ED42-0AA0	2/15	1.200	EAR99	N
3VA1196-4ED46-0AA0	2/15	1.200	EAR99	N
3VA1196-4EE32-0AA0	2/9	0.900	EAR99	N
3VA1196-4EE36-0AA0	2/9	1.032	EAR99	N
3VA1196-4EE42-0AA0	2/17	1.200	EAR99	N
3VA1196-4EE46-0AA0	2/17	1.200	EAR99	N
3VA1196-4EF32-0AA0	2/11	0.900	EAR99	N
3VA1196-4EF36-0AA0	2/11	1.034	EAR99	N
3VA1196-4EF42-0AA0	2/21	1.200	EAR99	N
3VA1196-4EF46-0AA0	2/21	1.200	EAR99	N
3VA1196-4GD42-0AA0	2/17	1.200	EAR99	N
3VA1196-4GD46-0AA0	2/17	1.200	EAR99	N
3VA1196-4GE42-0AA0	2/19	1.200	EAR99	N
3VA1196-4GE46-0AA0	2/19	1.200	EAR99	N
3VA1196-4GF42-0AA0	2/23	1.200	EAR99	N
3VA1196-4GF46-0AA0	2/23	1.200	EAR99	N
3VA1196-5ED32-0AA0	2/9	0.900	EAR99	N
3VA1196-5ED36-0AA0	2/9	1.030	EAR99	N
3VA1196-5ED42-0AA0	2/15	1.200	EAR99	N
3VA1196-5ED46-0AA0	2/15	1.200	EAR99	N
3VA1196-5EE32-0AA0	2/9	0.900	EAR99	N
3VA1196-5EE36-0AA0	2/9	1.031	EAR99	N
3VA1196-5EE42-0AA0	2/17	1.200	EAR99	N
3VA1196-5EE46-0AA0	2/17	1.200	EAR99	N
3VA1196-5EF32-0AA0	2/11	0.900	EAR99	N
3VA1196-5EF36-0AA0	2/11	1.032	EAR99	N
3VA1196-5EF42-0AA0	2/21	1.200	EAR99	N
3VA1196-5EF46-0AA0	2/21	1.200	EAR99	N
3VA1196-5GD42-0AA0	2/17	1.200	EAR99	N
3VA1196-5GD46-0AA0	2/17	1.200	EAR99	N
3VA1196-5GE42-0AA0	2/19	1.200	EAR99	N
3VA1196-5GE46-0AA0	2/19	1.200	EAR99	N
3VA1196-5GF42-0AA0	2/23	1.200	EAR99	N
3VA1196-5GF46-0AA0	2/23	1.200	EAR99	N
3VA1196-6ED32-0AA0	2/9	0.900	EAR99	N
3VA1196-6ED36-0AA0	2/9	1.032	EAR99	N
3VA1196-6ED42-0AA0	2/15	1.200	EAR99	N
3VA1196-6ED46-0AA0	2/15	1.200	EAR99	N
3VA1196-6EE32-0AA0	2/9	0.900	EAR99	N
3VA1196-6EE36-0AA0	2/9	1.031	EAR99	N
3VA1196-6EE42-0AA0	2/17	1.200	EAR99	N
3VA1196-6EE46-0AA0	2/17	1.200	EAR99	N
3VA1196-6EF32-0AA0	2/11	0.949	EAR99	N
3VA1196-6EF36-0AA0	2/11	1.031	EAR99	N
3VA1196-6EF42-0AA0	2/21	1.200	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA1196-6EF46-0AA0	2/21	1.200	EAR99	N
3VA1196-6GD42-0AA0	2/17	1.200	EAR99	N
3VA1196-6GD46-0AA0	2/17	1.200	EAR99	N
3VA1196-6GE42-0AA0	2/19	1.200	EAR99	N
3VA1196-6GE46-0AA0	2/19	1.200	EAR99	N
3VA1196-6GF42-0AA0	2/23	1.200	EAR99	N
3VA1196-6GF46-0AA0	2/23	1.200	EAR99	N
3VA1216-4EF32-0AA0	2/11	1.800	EAR99	N
3VA1216-4EF42-0AA0	2/21	2.300	EAR99	N
3VA1216-4FF42-0AA0	2/21	2.300	EAR99	N
3VA1216-4GF42-0AA0	2/23	2.300	EAR99	N
3VA1216-5EF32-0AA0	2/11	1.800	EAR99	N
3VA1216-5EF42-0AA0	2/21	2.300	EAR99	N
3VA1216-5FF42-0AA0	2/21	2.300	EAR99	N
3VA1216-5GF42-0AA0	2/23	2.300	EAR99	N
3VA1216-5MH32-0AA0	2/24	1.800	EAR99	N
3VA1216-6EF32-0AA0	2/11	1.800	EAR99	N
3VA1216-6EF42-0AA0	2/21	2.300	EAR99	N
3VA1216-6FF42-0AA0	2/21	2.300	EAR99	N
3VA1216-6GF42-0AA0	2/23	2.300	EAR99	N
3VA1216-6MH32-0AA0	2/25	1.800	EAR99	N
3VA1220-4EF32-0AA0	2/11	1.606	EAR99	N
3VA1220-4EF42-0AA0	2/21	2.090	EAR99	N
3VA1220-4FF42-0AA0	2/21	2.300	EAR99	N
3VA1220-4GF42-0AA0	2/23	2.300	EAR99	N
3VA1220-5EF32-0AA0	2/11	1.607	EAR99	N
3VA1220-5EF42-0AA0	2/21	2.087	EAR99	N
3VA1220-5FF42-0AA0	2/21	2.300	EAR99	N
3VA1220-5GF42-0AA0	2/23	2.300	EAR99	N
3VA1220-5MH32-0AA0	2/24	1.800	EAR99	N
3VA1220-6EF32-0AA0	2/11	1.610	EAR99	N
3VA1220-6EF42-0AA0	2/21	2.084	EAR99	N
3VA1220-6FF42-0AA0	2/21	2.300	EAR99	N
3VA1220-6GF42-0AA0	2/23	2.300	EAR99	N
3VA1220-6MH32-0AA0	2/25	1.800	EAR99	N
3VA1225-1AA32-0AA0	2/26	1.800	EAR99	N
3VA1225-1AA42-0AA0	2/26	2.100	EAR99	N
3VA1225-4EF32-0AA0	2/11	1.604	EAR99	N
3VA1225-4EF42-0AA0	2/21	2.083	EAR99	N
3VA1225-4FF42-0AA0	2/21	2.300	EAR99	N
3VA1225-4GF42-0AA0	2/23	2.300	EAR99	N
3VA1225-5EF32-0AA0	2/11	1.609	EAR99	N
3VA1225-5EF42-0AA0	2/21	2.087	EAR99	N
3VA1225-5FF42-0AA0	2/21	2.300	EAR99	N
3VA1225-5GF42-0AA0	2/23	2.300	EAR99	N
3VA1225-6EF32-0AA0	2/11	1.608	EAR99	N
3VA1225-6EF42-0AA0	2/21	2.084	EAR99	N
3VA1225-6FF42-0AA0	2/21	2.300	EAR99	N
3VA1225-6GF42-0AA0	2/23	2.300	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2				
3VA2010-5HL32-0AA0	3/2	2.100	EAR99	N
3VA2010-5HL36-0AA0	3/2	2.229	EAR99	N
3VA2010-5HL42-0AA0	3/14	2.930	EAR99	N
3VA2010-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2010-5HM32-0AA0	3/4	2.280	EAR99	N
3VA2010-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2010-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2010-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2010-5HN32-0AA0	3/8	2.100	EAR99	N
3VA2010-5HN36-0AA0	3/8	2.235	EAR99	N
3VA2010-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2010-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2010-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2010-5JP36-0AA0	3/10	2.440	EAR99	N
3VA2010-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2010-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2010-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2010-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2010-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2010-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2010-5KP32-0AA0	3/12	2.300	EAR99	N
3VA2010-5KP36-0AA0	3/12	2.299	EAR99	N
3VA2010-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2010-5KP46-0AA0	3/24	3.150	EAR99	N
3VA2010-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2010-5KQ36-0AA0	3/12	2.450	EAR99	N
3VA2010-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2010-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2010-6HL32-0AA0	3/3	2.098	EAR99	N
3VA2010-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2010-6HL42-0AA0	3/15	2.702	EAR99	N
3VA2010-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2010-6HM32-0AA0	3/5	2.105	EAR99	N
3VA2010-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2010-6HM42-0AA0	3/17	2.704	EAR99	N
3VA2010-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2010-6HN32-0AA0	3/9	2.280	EAR99	N
3VA2010-6HN36-0AA0	3/9	2.234	EAR99	N
3VA2010-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2010-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2010-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2010-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2010-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2010-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2010-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2010-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2010-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2010-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2010-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2010-6KP36-0AA0	3/13	2.450	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2010-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2010-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2010-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2010-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2010-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2010-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2010-7HL32-0AA0	3/3	2.290	EAR99	N
3VA2010-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2010-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2010-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2010-7HM32-0AA0	3/5	2.280	EAR99	N
3VA2010-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2010-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2010-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2010-7HN32-0AA0	3/9	2.280	EAR99	N
3VA2010-7HN36-0AA0	3/9	2.235	EAR99	N
3VA2010-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2010-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2010-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2010-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2010-7JP42-0AA0	3/23	2.708	EAR99	N
3VA2010-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2010-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2010-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2010-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2010-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2010-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2010-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2010-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2010-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2010-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2010-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2010-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2010-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2010-8HL32-0AA0	3/3	2.290	EAR99	N
3VA2010-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2010-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2010-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2010-8HM32-0AA0	3/5	2.280	EAR99	N
3VA2010-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2010-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2010-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2010-8HN32-0AA0	3/9	2.280	EAR99	N
3VA2010-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2010-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2010-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2010-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2010-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2010-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2010-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2010-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2010-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2010-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2010-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2010-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2010-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2010-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2010-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2010-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2010-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2010-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2010-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2025-5HL32-0AA0	3/2	2.280	EAR99	N
3VA2025-5HL36-0AA0	3/2	2.430	EAR99	N
3VA2025-5HL42-0AA0	3/14	2.930	EAR99	N
3VA2025-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2025-5HM32-0AA0	3/4	2.280	EAR99	N
3VA2025-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2025-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2025-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2025-5HN32-0AA0	3/8	2.280	EAR99	N
3VA2025-5HN36-0AA0	3/8	2.269	EAR99	N
3VA2025-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2025-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2025-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2025-5JP36-0AA0	3/10	2.440	EAR99	N
3VA2025-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2025-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2025-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2025-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2025-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2025-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2025-5KP32-0AA0	3/12	2.300	EAR99	N
3VA2025-5KP36-0AA0	3/12	2.320	EAR99	N
3VA2025-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2025-5KP46-0AA0	3/24	2.962	EAR99	N
3VA2025-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2025-5KQ36-0AA0	3/12	2.327	EAR99	N
3VA2025-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2025-5KQ46-0AA0	3/24	2.960	EAR99	N
3VA2025-6HL32-0AA0	3/3	2.127	EAR99	N
3VA2025-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2025-6HL42-0AA0	3/15	2.740	EAR99	N
3VA2025-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2025-6HM32-0AA0	3/5	2.130	EAR99	N
3VA2025-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2025-6HM42-0AA0	3/17	2.743	EAR99	N
3VA2025-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2025-6HN32-0AA0	3/9	2.280	EAR99	N
3VA2025-6HN36-0AA0	3/9	2.265	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2025-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2025-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2025-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2025-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2025-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2025-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2025-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2025-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2025-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2025-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2025-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2025-6KP36-0AA0	3/13	2.450	EAR99	N
3VA2025-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2025-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2025-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2025-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2025-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2025-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2025-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2025-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2025-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2025-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2025-7HM32-0AA0	3/5	2.280	EAR99	N
3VA2025-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2025-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2025-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2025-7HN32-0AA0	3/9	2.280	EAR99	N
3VA2025-7HN36-0AA0	3/9	2.265	EAR99	N
3VA2025-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2025-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2025-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2025-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2025-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2025-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2025-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2025-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2025-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2025-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2025-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2025-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2025-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2025-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2025-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2025-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2025-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2025-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2025-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2025-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2025-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2025-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2025-8HM32-0AA0	3/5	2.280	EAR99	N
3VA2025-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2025-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2025-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2025-8HN32-0AA0	3/9	2.280	EAR99	N
3VA2025-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2025-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2025-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2025-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2025-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2025-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2025-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2025-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2025-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2025-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2025-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2025-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2025-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2025-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2025-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2025-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2025-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2025-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2025-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2040-5HL32-0AA0	3/2	2.280	EAR99	N
3VA2040-5HL36-0AA0	3/2	2.430	EAR99	N
3VA2040-5HL42-0AA0	3/14	2.930	EAR99	N
3VA2040-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2040-5HM32-0AA0	3/4	2.280	EAR99	N
3VA2040-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2040-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2040-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2040-5HN32-0AA0	3/8	2.280	EAR99	N
3VA2040-5HN36-0AA0	3/8	2.269	EAR99	N
3VA2040-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2040-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2040-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2040-5JP36-0AA0	3/10	2.440	EAR99	N
3VA2040-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2040-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2040-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2040-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2040-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2040-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2040-5KP32-0AA0	3/12	2.300	EAR99	N
3VA2040-5KP36-0AA0	3/12	2.450	EAR99	N
3VA2040-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2040-5KP46-0AA0	3/24	3.150	EAR99	N
3VA2040-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2040-5KQ36-0AA0	3/12	2.450	EAR99	N

Appendix

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2040-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2040-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2040-6HL32-0AA0	3/3	2.128	EAR99	N
3VA2040-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2040-6HL42-0AA0	3/15	2.739	EAR99	N
3VA2040-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2040-6HM32-0AA0	3/5	2.126	EAR99	N
3VA2040-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2040-6HM42-0AA0	3/17	2.930	EAR99	N
3VA2040-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2040-6HN32-0AA0	3/9	2.280	EAR99	N
3VA2040-6HN36-0AA0	3/9	2.265	EAR99	N
3VA2040-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2040-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2040-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2040-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2040-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2040-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2040-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2040-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2040-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2040-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2040-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2040-6KP36-0AA0	3/13	2.450	EAR99	N
3VA2040-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2040-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2040-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2040-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2040-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2040-6KQ46-0AA0	3/25	2.965	EAR99	N
3VA2040-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2040-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2040-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2040-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2040-7HM32-0AA0	3/5	2.280	EAR99	N
3VA2040-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2040-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2040-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2040-7HN32-0AA0	3/9	2.280	EAR99	N
3VA2040-7HN36-0AA0	3/9	2.266	EAR99	N
3VA2040-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2040-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2040-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2040-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2040-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2040-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2040-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2040-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2040-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2040-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2040-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2040-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2040-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2040-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2040-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2040-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2040-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2040-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2040-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2040-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2040-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2040-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2040-8HM32-0AA0	3/5	2.280	EAR99	N
3VA2040-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2040-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2040-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2040-8HN32-0AA0	3/9	2.280	EAR99	N
3VA2040-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2040-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2040-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2040-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2040-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2040-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2040-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2040-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2040-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2040-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2040-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2040-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2040-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2040-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2040-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2040-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2040-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2040-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2040-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2063-5HL32-0AA0	3/2	2.140	EAR99	N
3VA2063-5HL36-0AA0	3/2	2.260	EAR99	N
3VA2063-5HL42-0AA0	3/14	2.930	EAR99	N
3VA2063-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2063-5HM32-0AA0	3/4	2.137	EAR99	N
3VA2063-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2063-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2063-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2063-5HN32-0AA0	3/8	2.139	EAR99	N
3VA2063-5HN36-0AA0	3/8	2.260	EAR99	N
3VA2063-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2063-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2063-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2063-5JP36-0AA0	3/10	2.440	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2063-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2063-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2063-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2063-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2063-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2063-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2063-5KP32-0AA0	3/12	2.197	EAR99	N
3VA2063-5KP36-0AA0	3/12	2.450	EAR99	N
3VA2063-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2063-5KP46-0AA0	3/24	3.150	EAR99	N
3VA2063-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2063-5KQ36-0AA0	3/12	2.450	EAR99	N
3VA2063-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2063-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2063-6HL32-0AA0	3/3	2.280	EAR99	N
3VA2063-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2063-6HL42-0AA0	3/15	2.741	EAR99	N
3VA2063-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2063-6HM32-0AA0	3/5	2.280	EAR99	N
3VA2063-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2063-6HM42-0AA0	3/17	2.930	EAR99	N
3VA2063-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2063-6HN32-0AA0	3/9	2.280	EAR99	N
3VA2063-6HN36-0AA0	3/9	2.268	EAR99	N
3VA2063-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2063-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2063-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2063-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2063-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2063-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2063-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2063-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2063-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2063-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2063-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2063-6KP36-0AA0	3/13	2.450	EAR99	N
3VA2063-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2063-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2063-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2063-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2063-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2063-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2063-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2063-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2063-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2063-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2063-7HM32-0AA0	3/5	2.280	EAR99	N
3VA2063-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2063-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2063-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2063-7HN32-0AA0	3/9	2.280	EAR99	N
3VA2063-7HN36-0AA0	3/9	2.265	EAR99	N
3VA2063-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2063-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2063-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2063-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2063-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2063-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2063-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2063-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2063-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2063-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2063-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2063-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2063-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2063-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2063-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2063-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2063-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2063-7KQ46-0AA0	3/25	2.963	EAR99	N
3VA2063-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2063-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2063-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2063-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2063-8HM32-0AA0	3/5	2.280	EAR99	N
3VA2063-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2063-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2063-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2063-8HN32-0AA0	3/9	2.280	EAR99	N
3VA2063-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2063-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2063-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2063-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2063-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2063-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2063-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2063-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2063-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2063-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2063-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2063-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2063-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2063-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2063-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2063-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2063-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2063-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2063-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2110-5HK32-0AA0	3/6	2.285	EAR99	N
3VA2110-5HK36-0AA0	3/6	2.430	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2110-5HK42-0AA0	3/18	2.930	EAR99	N
3VA2110-5HK46-0AA0	3/18	3.125	EAR99	N
3VA2110-5HL32-0AA0	3/2	2.132	EAR99	N
3VA2110-5HL36-0AA0	3/2	2.430	EAR99	N
3VA2110-5HL42-0AA0	3/14	2.750	EAR99	N
3VA2110-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2110-5HM32-0AA0	3/4	2.127	EAR99	N
3VA2110-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2110-5HM42-0AA0	3/16	2.751	EAR99	N
3VA2110-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2110-5HN32-0AA0	3/8	2.290	EAR99	N
3VA2110-5HN36-0AA0	3/8	2.261	EAR99	N
3VA2110-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2110-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2110-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2110-5JP36-0AA0	3/10	2.440	EAR99	N
3VA2110-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2110-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2110-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2110-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2110-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2110-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2110-5KP32-0AA0	3/12	2.191	EAR99	N
3VA2110-5KP36-0AA0	3/12	2.450	EAR99	N
3VA2110-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2110-5KP46-0AA0	3/24	3.150	EAR99	N
3VA2110-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2110-5KQ36-0AA0	3/12	2.355	EAR99	N
3VA2110-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2110-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2110-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2110-5MN36-0AA0	3/26	1.000	EAR99	N
3VA2110-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2110-5MQ36-0AA0	3/26	1.000	EAR99	N
3VA2110-6HK32-0AA0	3/7	2.285	EAR99	N
3VA2110-6HK36-0AA0	3/7	2.430	EAR99	N
3VA2110-6HK42-0AA0	3/19	2.930	EAR99	N
3VA2110-6HK46-0AA0	3/19	3.125	EAR99	N
3VA2110-6HL32-0AA0	3/3	2.280	EAR99	N
3VA2110-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2110-6HL42-0AA0	3/15	2.930	EAR99	N
3VA2110-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2110-6HM32-0AA0	3/5	2.290	EAR99	N
3VA2110-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2110-6HM42-0AA0	3/17	2.930	EAR99	N
3VA2110-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2110-6HN32-0AA0	3/9	2.290	EAR99	N
3VA2110-6HN36-0AA0	3/9	2.262	EAR99	N
3VA2110-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2110-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2110-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2110-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2110-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2110-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2110-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2110-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2110-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2110-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2110-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2110-6KP36-0AA0	3/13	2.450	EAR99	N
3VA2110-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2110-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2110-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2110-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2110-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2110-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2110-7HK32-0AA0	3/7	2.285	EAR99	N
3VA2110-7HK36-0AA0	3/7	2.430	EAR99	N
3VA2110-7HK42-0AA0	3/19	2.930	EAR99	N
3VA2110-7HK46-0AA0	3/19	3.125	EAR99	N
3VA2110-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2110-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2110-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2110-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2110-7HM32-0AA0	3/5	2.290	EAR99	N
3VA2110-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2110-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2110-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2110-7HN32-0AA0	3/9	2.290	EAR99	N
3VA2110-7HN36-0AA0	3/9	2.261	EAR99	N
3VA2110-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2110-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2110-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2110-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2110-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2110-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2110-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2110-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2110-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2110-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2110-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2110-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2110-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2110-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2110-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2110-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2110-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2110-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2110-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2110-7MN36-0AA0	3/27	1.000	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2110-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2110-7MQ36-0AA0	3/27	1.000	EAR99	N
3VA2110-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2110-7MS36-0AA0	3/27	1.000	EAR99	N
3VA2110-8HK32-0AA0	3/7	2.285	EAR99	N
3VA2110-8HK36-0AA0	3/7	2.430	EAR99	N
3VA2110-8HK42-0AA0	3/19	2.930	EAR99	N
3VA2110-8HK46-0AA0	3/19	3.125	EAR99	N
3VA2110-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2110-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2110-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2110-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2110-8HM32-0AA0	3/5	2.290	EAR99	N
3VA2110-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2110-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2110-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2110-8HN32-0AA0	3/9	2.290	EAR99	N
3VA2110-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2110-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2110-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2110-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2110-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2110-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2110-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2110-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2110-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2110-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2110-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2110-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2110-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2110-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2110-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2110-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2110-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2110-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2110-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2110-8MN32-0AA0	3/27	1.000	EAR99	N
3VA2110-8MN36-0AA0	3/27	1.000	EAR99	N
3VA2110-8MQ32-0AA0	3/27	1.000	EAR99	N
3VA2110-8MQ36-0AA0	3/27	1.000	EAR99	N
3VA2110-8MS32-0AA0	3/27	1.000	EAR99	N
3VA2110-8MS36-0AA0	3/27	1.000	EAR99	N
3VA2116-5HL32-0AA0	3/2	2.120	EAR99	N
3VA2116-5HL36-0AA0	3/2	2.250	EAR99	N
3VA2116-5HL42-0AA0	3/14	2.720	EAR99	N
3VA2116-5HL46-0AA0	3/14	2.930	EAR99	N
3VA2116-5HM32-0AA0	3/4	2.127	EAR99	N
3VA2116-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2116-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2116-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2116-5HN32-0AA0	3/8	2.109	EAR99	N
3VA2116-5HN36-0AA0	3/8	2.175	EAR99	N
3VA2116-5HN42-0AA0	3/20	2.720	EAR99	N
3VA2116-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2116-5JP32-0AA0	3/10	2.130	EAR99	N
3VA2116-5JP36-0AA0	3/10	2.257	EAR99	N
3VA2116-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2116-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2116-5JQ32-0AA0	3/10	2.120	EAR99	N
3VA2116-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2116-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2116-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2116-5KP32-0AA0	3/12	2.177	EAR99	N
3VA2116-5KP36-0AA0	3/12	2.297	EAR99	N
3VA2116-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2116-5KP46-0AA0	3/24	2.935	EAR99	N
3VA2116-5KQ32-0AA0	3/12	2.177	EAR99	N
3VA2116-5KQ36-0AA0	3/12	2.450	EAR99	N
3VA2116-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2116-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2116-6HL32-0AA0	3/3	2.280	EAR99	N
3VA2116-6HL36-0AA0	3/3	2.280	EAR99	N
3VA2116-6HL42-0AA0	3/15	2.717	EAR99	N
3VA2116-6HL46-0AA0	3/15	2.930	EAR99	N
3VA2116-6HM32-0AA0	3/5	2.290	EAR99	N
3VA2116-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2116-6HM42-0AA0	3/17	2.930	EAR99	N
3VA2116-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2116-6HN32-0AA0	3/9	2.290	EAR99	N
3VA2116-6HN36-0AA0	3/9	2.255	EAR99	N
3VA2116-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2116-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2116-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2116-6JP36-0AA0	3/11	2.430	EAR99	N
3VA2116-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2116-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2116-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2116-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2116-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2116-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2116-6KP32-0AA0	3/13	2.290	EAR99	N
3VA2116-6KP36-0AA0	3/13	2.440	EAR99	N
3VA2116-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2116-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2116-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2116-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2116-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2116-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2116-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2116-7HL36-0AA0	3/3	2.280	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2116-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2116-7HL46-0AA0	3/15	2.930	EAR99	N
3VA2116-7HM32-0AA0	3/5	2.290	EAR99	N
3VA2116-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2116-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2116-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2116-7HN32-0AA0	3/9	2.290	EAR99	N
3VA2116-7HN36-0AA0	3/9	2.253	EAR99	N
3VA2116-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2116-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2116-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2116-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2116-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2116-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2116-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2116-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2116-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2116-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2116-7KP32-0AA0	3/13	2.290	EAR99	N
3VA2116-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2116-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2116-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2116-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2116-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2116-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2116-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2116-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2116-8HL36-0AA0	3/3	2.280	EAR99	N
3VA2116-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2116-8HL46-0AA0	3/15	2.930	EAR99	N
3VA2116-8HM32-0AA0	3/5	2.290	EAR99	N
3VA2116-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2116-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2116-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2116-8HN32-0AA0	3/9	2.290	EAR99	N
3VA2116-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2116-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2116-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2116-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2116-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2116-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2116-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2116-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2116-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2116-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2116-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2116-8KP32-0AA0	3/13	2.290	EAR99	N
3VA2116-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2116-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2116-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2116-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2116-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2116-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2116-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2125-5HK32-0AA0	3/6	2.285	EAR99	N
3VA2125-5HK36-0AA0	3/6	2.430	EAR99	N
3VA2125-5HK42-0AA0	3/18	2.930	EAR99	N
3VA2125-5HK46-0AA0	3/18	3.125	EAR99	N
3VA2125-5HL32-0AA0	3/2	2.280	EAR99	N
3VA2125-5HL36-0AA0	3/2	2.430	EAR99	N
3VA2125-5HL42-0AA0	3/14	2.930	EAR99	N
3VA2125-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2125-5HM32-0AA0	3/4	2.290	EAR99	N
3VA2125-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2125-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2125-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2125-5HN32-0AA0	3/8	2.290	EAR99	N
3VA2125-5HN36-0AA0	3/8	2.297	EAR99	N
3VA2125-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2125-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2125-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2125-5JP36-0AA0	3/10	2.440	EAR99	N
3VA2125-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2125-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2125-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2125-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2125-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2125-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2125-5KP32-0AA0	3/12	2.300	EAR99	N
3VA2125-5KP36-0AA0	3/12	2.450	EAR99	N
3VA2125-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2125-5KP46-0AA0	3/24	3.150	EAR99	N
3VA2125-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2125-5KQ36-0AA0	3/12	2.450	EAR99	N
3VA2125-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2125-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2125-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2125-5MN36-0AA0	3/26	1.000	EAR99	N
3VA2125-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2125-5MQ36-0AA0	3/26	1.000	EAR99	N
3VA2125-6HK32-0AA0	3/7	2.285	EAR99	N
3VA2125-6HK36-0AA0	3/7	2.430	EAR99	N
3VA2125-6HK42-0AA0	3/19	2.930	EAR99	N
3VA2125-6HK46-0AA0	3/19	3.125	EAR99	N
3VA2125-6HL32-0AA0	3/3	2.280	EAR99	N
3VA2125-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2125-6HL42-0AA0	3/15	2.930	EAR99	N
3VA2125-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2125-6HM32-0AA0	3/5	2.290	EAR99	N
3VA2125-6HM36-0AA0	3/5	2.430	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2125-6HM42-0AA0	3/17	2.930	EAR99	N
3VA2125-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2125-6HN32-0AA0	3/9	2.290	EAR99	N
3VA2125-6HN36-0AA0	3/9	2.293	EAR99	N
3VA2125-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2125-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2125-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2125-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2125-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2125-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2125-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2125-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2125-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2125-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2125-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2125-6KP36-0AA0	3/13	2.450	EAR99	N
3VA2125-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2125-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2125-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2125-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2125-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2125-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2125-7HK32-0AA0	3/7	2.285	EAR99	N
3VA2125-7HK36-0AA0	3/7	2.430	EAR99	N
3VA2125-7HK42-0AA0	3/19	2.930	EAR99	N
3VA2125-7HK46-0AA0	3/19	3.125	EAR99	N
3VA2125-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2125-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2125-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2125-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2125-7HM32-0AA0	3/5	2.290	EAR99	N
3VA2125-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2125-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2125-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2125-7HN32-0AA0	3/9	2.290	EAR99	N
3VA2125-7HN36-0AA0	3/9	2.290	EAR99	N
3VA2125-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2125-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2125-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2125-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2125-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2125-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2125-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2125-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2125-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2125-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2125-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2125-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2125-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2125-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2125-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2125-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2125-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2125-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2125-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2125-7MN36-0AA0	3/27	1.000	EAR99	N
3VA2125-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2125-7MQ36-0AA0	3/27	1.000	EAR99	N
3VA2125-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2125-7MS36-0AA0	3/27	1.000	EAR99	N
3VA2125-8HK32-0AA0	3/7	2.285	EAR99	N
3VA2125-8HK36-0AA0	3/7	2.430	EAR99	N
3VA2125-8HK42-0AA0	3/19	2.930	EAR99	N
3VA2125-8HK46-0AA0	3/19	3.125	EAR99	N
3VA2125-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2125-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2125-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2125-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2125-8HM32-0AA0	3/5	2.290	EAR99	N
3VA2125-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2125-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2125-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2125-8HN32-0AA0	3/9	2.290	EAR99	N
3VA2125-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2125-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2125-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2125-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2125-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2125-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2125-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2125-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2125-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2125-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2125-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2125-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2125-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2125-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2125-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2125-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2125-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2125-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2125-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2125-8MN32-0AA0	3/27	1.000	EAR99	N
3VA2125-8MN36-0AA0	3/27	1.000	EAR99	N
3VA2125-8MQ32-0AA0	3/27	1.000	EAR99	N
3VA2125-8MQ36-0AA0	3/27	1.000	EAR99	N
3VA2125-8MS32-0AA0	3/27	1.000	EAR99	N
3VA2125-8MS36-0AA0	3/27	1.000	EAR99	N
3VA2140-5HK32-0AA0	3/6	2.285	EAR99	N
3VA2140-5HK36-0AA0	3/6	2.430	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2140-5HK42-0AA0	3/18	2.930	EAR99	N
3VA2140-5HK46-0AA0	3/18	3.125	EAR99	N
3VA2140-5HL32-0AA0	3/2	2.280	EAR99	N
3VA2140-5HL36-0AA0	3/2	2.430	EAR99	N
3VA2140-5HL42-0AA0	3/14	2.930	EAR99	N
3VA2140-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2140-5HM32-0AA0	3/4	2.290	EAR99	N
3VA2140-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2140-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2140-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2140-5HN32-0AA0	3/8	2.290	EAR99	N
3VA2140-5HN36-0AA0	3/8	2.294	EAR99	N
3VA2140-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2140-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2140-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2140-5JP36-0AA0	3/10	2.440	EAR99	N
3VA2140-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2140-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2140-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2140-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2140-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2140-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2140-5KP32-0AA0	3/12	2.300	EAR99	N
3VA2140-5KP36-0AA0	3/12	2.450	EAR99	N
3VA2140-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2140-5KP46-0AA0	3/24	3.150	EAR99	N
3VA2140-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2140-5KQ36-0AA0	3/12	2.450	EAR99	N
3VA2140-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2140-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2140-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2140-5MN36-0AA0	3/26	1.000	EAR99	N
3VA2140-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2140-5MQ36-0AA0	3/26	1.000	EAR99	N
3VA2140-6HK32-0AA0	3/7	2.285	EAR99	N
3VA2140-6HK36-0AA0	3/7	2.430	EAR99	N
3VA2140-6HK42-0AA0	3/19	2.930	EAR99	N
3VA2140-6HK46-0AA0	3/19	3.125	EAR99	N
3VA2140-6HL32-0AA0	3/3	2.280	EAR99	N
3VA2140-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2140-6HL42-0AA0	3/15	2.930	EAR99	N
3VA2140-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2140-6HM32-0AA0	3/5	2.290	EAR99	N
3VA2140-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2140-6HM42-0AA0	3/17	2.930	EAR99	N
3VA2140-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2140-6HN32-0AA0	3/9	2.290	EAR99	N
3VA2140-6HN36-0AA0	3/9	2.290	EAR99	N
3VA2140-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2140-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2140-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2140-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2140-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2140-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2140-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2140-6JQ36-0AA0	3/11	2.440	EAR99	N
3VA2140-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2140-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2140-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2140-6KP36-0AA0	3/13	2.450	EAR99	N
3VA2140-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2140-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2140-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2140-6KQ36-0AA0	3/13	2.450	EAR99	N
3VA2140-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2140-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2140-7HK32-0AA0	3/7	2.285	EAR99	N
3VA2140-7HK36-0AA0	3/7	2.430	EAR99	N
3VA2140-7HK42-0AA0	3/19	2.930	EAR99	N
3VA2140-7HK46-0AA0	3/19	3.125	EAR99	N
3VA2140-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2140-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2140-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2140-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2140-7HM32-0AA0	3/5	2.290	EAR99	N
3VA2140-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2140-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2140-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2140-7HN32-0AA0	3/9	2.290	EAR99	N
3VA2140-7HN36-0AA0	3/9	2.291	EAR99	N
3VA2140-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2140-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2140-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2140-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2140-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2140-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2140-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2140-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2140-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2140-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2140-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2140-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2140-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2140-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2140-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2140-7KQ36-0AA0	3/13	2.358	EAR99	N
3VA2140-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2140-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2140-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2140-7MN36-0AA0	3/27	1.000	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2140-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2140-7MQ36-0AA0	3/27	1.000	EAR99	N
3VA2140-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2140-7MS36-0AA0	3/27	1.000	EAR99	N
3VA2140-8HK32-0AA0	3/7	2.285	EAR99	N
3VA2140-8HK36-0AA0	3/7	2.430	EAR99	N
3VA2140-8HK42-0AA0	3/19	2.930	EAR99	N
3VA2140-8HK46-0AA0	3/19	3.125	EAR99	N
3VA2140-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2140-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2140-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2140-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2140-8HM32-0AA0	3/5	2.290	EAR99	N
3VA2140-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2140-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2140-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2140-8HN32-0AA0	3/9	2.290	EAR99	N
3VA2140-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2140-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2140-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2140-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2140-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2140-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2140-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2140-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2140-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2140-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2140-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2140-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2140-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2140-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2140-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2140-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2140-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2140-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2140-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2140-8MN32-0AA0	3/27	1.000	EAR99	N
3VA2140-8MN36-0AA0	3/27	1.000	EAR99	N
3VA2140-8MQ32-0AA0	3/27	1.000	EAR99	N
3VA2140-8MQ36-0AA0	3/27	1.000	EAR99	N
3VA2140-8MS32-0AA0	3/27	1.000	EAR99	N
3VA2140-8MS36-0AA0	3/27	1.000	EAR99	N
3VA2163-5HK32-0AA0	3/6	2.285	EAR99	N
3VA2163-5HK36-0AA0	3/6	2.430	EAR99	N
3VA2163-5HK42-0AA0	3/18	2.930	EAR99	N
3VA2163-5HK46-0AA0	3/18	3.125	EAR99	N
3VA2163-5HL32-0AA0	3/2	2.280	EAR99	N
3VA2163-5HL36-0AA0	3/2	2.430	EAR99	N
3VA2163-5HL42-0AA0	3/14	2.930	EAR99	N
3VA2163-5HL46-0AA0	3/14	3.130	EAR99	N
3VA2163-5HM32-0AA0	3/4	2.290	EAR99	N
3VA2163-5HM36-0AA0	3/4	2.430	EAR99	N
3VA2163-5HM42-0AA0	3/16	2.930	EAR99	N
3VA2163-5HM46-0AA0	3/16	3.130	EAR99	N
3VA2163-5HN32-0AA0	3/8	2.290	EAR99	N
3VA2163-5HN36-0AA0	3/8	2.291	EAR99	N
3VA2163-5HN42-0AA0	3/20	2.930	EAR99	N
3VA2163-5HN46-0AA0	3/20	3.130	EAR99	N
3VA2163-5JP32-0AA0	3/10	2.290	EAR99	N
3VA2163-5JP36-0AA0	3/10	2.440	EAR99	N
3VA2163-5JP42-0AA0	3/22	2.940	EAR99	N
3VA2163-5JP46-0AA0	3/22	3.140	EAR99	N
3VA2163-5JQ32-0AA0	3/10	2.290	EAR99	N
3VA2163-5JQ36-0AA0	3/10	2.440	EAR99	N
3VA2163-5JQ42-0AA0	3/22	2.940	EAR99	N
3VA2163-5JQ46-0AA0	3/22	3.140	EAR99	N
3VA2163-5KP32-0AA0	3/12	2.300	EAR99	N
3VA2163-5KP36-0AA0	3/12	2.450	EAR99	N
3VA2163-5KP42-0AA0	3/24	2.950	EAR99	N
3VA2163-5KP46-0AA0	3/24	3.150	EAR99	N
3VA2163-5KQ32-0AA0	3/12	2.300	EAR99	N
3VA2163-5KQ36-0AA0	3/12	2.450	EAR99	N
3VA2163-5KQ42-0AA0	3/24	2.950	EAR99	N
3VA2163-5KQ46-0AA0	3/24	3.150	EAR99	N
3VA2163-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2163-5MN36-0AA0	3/26	1.000	EAR99	N
3VA2163-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2163-5MQ36-0AA0	3/26	1.000	EAR99	N
3VA2163-6HK32-0AA0	3/7	2.285	EAR99	N
3VA2163-6HK36-0AA0	3/7	2.430	EAR99	N
3VA2163-6HK42-0AA0	3/19	2.930	EAR99	N
3VA2163-6HK46-0AA0	3/19	3.125	EAR99	N
3VA2163-6HL32-0AA0	3/3	2.280	EAR99	N
3VA2163-6HL36-0AA0	3/3	2.430	EAR99	N
3VA2163-6HL42-0AA0	3/15	2.930	EAR99	N
3VA2163-6HL46-0AA0	3/15	3.130	EAR99	N
3VA2163-6HM32-0AA0	3/5	2.290	EAR99	N
3VA2163-6HM36-0AA0	3/5	2.430	EAR99	N
3VA2163-6HM42-0AA0	3/17	2.930	EAR99	N
3VA2163-6HM46-0AA0	3/17	3.130	EAR99	N
3VA2163-6HN32-0AA0	3/9	2.290	EAR99	N
3VA2163-6HN36-0AA0	3/9	2.291	EAR99	N
3VA2163-6HN42-0AA0	3/21	2.930	EAR99	N
3VA2163-6HN46-0AA0	3/21	3.130	EAR99	N
3VA2163-6JP32-0AA0	3/11	2.290	EAR99	N
3VA2163-6JP36-0AA0	3/11	2.440	EAR99	N
3VA2163-6JP42-0AA0	3/23	2.940	EAR99	N
3VA2163-6JP46-0AA0	3/23	3.140	EAR99	N
3VA2163-6JQ32-0AA0	3/11	2.290	EAR99	N
3VA2163-6JQ36-0AA0	3/11	2.440	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2163-6JQ42-0AA0	3/23	2.940	EAR99	N
3VA2163-6JQ46-0AA0	3/23	3.140	EAR99	N
3VA2163-6KP32-0AA0	3/13	2.300	EAR99	N
3VA2163-6KP36-0AA0	3/13	2.450	EAR99	N
3VA2163-6KP42-0AA0	3/25	2.950	EAR99	N
3VA2163-6KP46-0AA0	3/25	3.150	EAR99	N
3VA2163-6KQ32-0AA0	3/13	2.300	EAR99	N
3VA2163-6KQ36-0AA0	3/13	2.354	EAR99	N
3VA2163-6KQ42-0AA0	3/25	2.950	EAR99	N
3VA2163-6KQ46-0AA0	3/25	3.150	EAR99	N
3VA2163-7HK32-0AA0	3/7	2.285	EAR99	N
3VA2163-7HK36-0AA0	3/7	2.430	EAR99	N
3VA2163-7HK42-0AA0	3/19	2.930	EAR99	N
3VA2163-7HK46-0AA0	3/19	3.125	EAR99	N
3VA2163-7HL32-0AA0	3/3	2.280	EAR99	N
3VA2163-7HL36-0AA0	3/3	2.430	EAR99	N
3VA2163-7HL42-0AA0	3/15	2.930	EAR99	N
3VA2163-7HL46-0AA0	3/15	3.130	EAR99	N
3VA2163-7HM32-0AA0	3/5	2.290	EAR99	N
3VA2163-7HM36-0AA0	3/5	2.430	EAR99	N
3VA2163-7HM42-0AA0	3/17	2.930	EAR99	N
3VA2163-7HM46-0AA0	3/17	3.130	EAR99	N
3VA2163-7HN32-0AA0	3/9	2.290	EAR99	N
3VA2163-7HN36-0AA0	3/9	2.295	EAR99	N
3VA2163-7HN42-0AA0	3/21	2.930	EAR99	N
3VA2163-7HN46-0AA0	3/21	3.130	EAR99	N
3VA2163-7JP32-0AA0	3/11	2.290	EAR99	N
3VA2163-7JP36-0AA0	3/11	2.440	EAR99	N
3VA2163-7JP42-0AA0	3/23	2.940	EAR99	N
3VA2163-7JP46-0AA0	3/23	3.140	EAR99	N
3VA2163-7JQ32-0AA0	3/11	2.290	EAR99	N
3VA2163-7JQ36-0AA0	3/11	2.440	EAR99	N
3VA2163-7JQ42-0AA0	3/23	2.940	EAR99	N
3VA2163-7JQ46-0AA0	3/23	3.140	EAR99	N
3VA2163-7KP32-0AA0	3/13	2.300	EAR99	N
3VA2163-7KP36-0AA0	3/13	2.450	EAR99	N
3VA2163-7KP42-0AA0	3/25	2.950	EAR99	N
3VA2163-7KP46-0AA0	3/25	3.150	EAR99	N
3VA2163-7KQ32-0AA0	3/13	2.300	EAR99	N
3VA2163-7KQ36-0AA0	3/13	2.450	EAR99	N
3VA2163-7KQ42-0AA0	3/25	2.950	EAR99	N
3VA2163-7KQ46-0AA0	3/25	3.150	EAR99	N
3VA2163-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2163-7MN36-0AA0	3/27	1.000	EAR99	N
3VA2163-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2163-7MQ36-0AA0	3/27	1.000	EAR99	N
3VA2163-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2163-7MS36-0AA0	3/27	1.000	EAR99	N
3VA2163-8HK32-0AA0	3/7	2.285	EAR99	N
3VA2163-8HK36-0AA0	3/7	2.430	EAR99	N
3VA2163-8HK42-0AA0	3/19	2.930	EAR99	N
3VA2163-8HK46-0AA0	3/19	3.125	EAR99	N
3VA2163-8HL32-0AA0	3/3	2.280	EAR99	N
3VA2163-8HL36-0AA0	3/3	2.430	EAR99	N
3VA2163-8HL42-0AA0	3/15	2.930	EAR99	N
3VA2163-8HL46-0AA0	3/15	3.130	EAR99	N
3VA2163-8HM32-0AA0	3/5	2.290	EAR99	N
3VA2163-8HM36-0AA0	3/5	2.430	EAR99	N
3VA2163-8HM42-0AA0	3/17	2.930	EAR99	N
3VA2163-8HM46-0AA0	3/17	3.130	EAR99	N
3VA2163-8HN32-0AA0	3/9	2.290	EAR99	N
3VA2163-8HN36-0AA0	3/9	2.430	EAR99	N
3VA2163-8HN42-0AA0	3/21	2.930	EAR99	N
3VA2163-8HN46-0AA0	3/21	3.130	EAR99	N
3VA2163-8JP32-0AA0	3/11	2.290	EAR99	N
3VA2163-8JP36-0AA0	3/11	2.440	EAR99	N
3VA2163-8JP42-0AA0	3/23	2.940	EAR99	N
3VA2163-8JP46-0AA0	3/23	3.140	EAR99	N
3VA2163-8JQ32-0AA0	3/11	2.290	EAR99	N
3VA2163-8JQ36-0AA0	3/11	2.440	EAR99	N
3VA2163-8JQ42-0AA0	3/23	2.940	EAR99	N
3VA2163-8JQ46-0AA0	3/23	3.140	EAR99	N
3VA2163-8KP32-0AA0	3/13	2.300	EAR99	N
3VA2163-8KP36-0AA0	3/13	2.450	EAR99	N
3VA2163-8KP42-0AA0	3/25	2.950	EAR99	N
3VA2163-8KP46-0AA0	3/25	3.150	EAR99	N
3VA2163-8KQ32-0AA0	3/13	2.300	EAR99	N
3VA2163-8KQ36-0AA0	3/13	2.450	EAR99	N
3VA2163-8KQ42-0AA0	3/25	2.950	EAR99	N
3VA2163-8KQ46-0AA0	3/25	3.150	EAR99	N
3VA2163-8MN32-0AA0	3/27	1.000	EAR99	N
3VA2163-8MN36-0AA0	3/27	1.000	EAR99	N
3VA2163-8MQ32-0AA0	3/27	1.000	EAR99	N
3VA2163-8MQ36-0AA0	3/27	1.000	EAR99	N
3VA2163-8MS32-0AA0	3/27	1.000	EAR99	N
3VA2163-8MS36-0AA0	3/27	1.000	EAR99	N
3VA2216-5HK32-0AA0	3/6	2.400	EAR99	N
3VA2216-5HK42-0AA0	3/18	3.080	EAR99	N
3VA2216-5HL32-0AA0	3/2	2.390	EAR99	N
3VA2216-5HL42-0AA0	3/14	2.906	EAR99	N
3VA2216-5HM32-0AA0	3/4	2.400	EAR99	N
3VA2216-5HM42-0AA0	3/16	3.080	EAR99	N
3VA2216-5HN32-0AA0	3/8	2.255	EAR99	N
3VA2216-5HN42-0AA0	3/20	3.080	EAR99	N
3VA2216-5JP32-0AA0	3/10	2.410	EAR99	N
3VA2216-5JP42-0AA0	3/22	3.090	EAR99	N
3VA2216-5JQ32-0AA0	3/10	2.410	EAR99	N
3VA2216-5JQ42-0AA0	3/22	3.090	EAR99	N
3VA2216-5KP32-0AA0	3/12	2.420	EAR99	N
3VA2216-5KP42-0AA0	3/24	3.100	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2216-5KQ32-0AA0	3/12	2.420	EAR99	N
3VA2216-5KQ42-0AA0	3/24	3.100	EAR99	N
3VA2216-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2216-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2216-6HK32-0AA0	3/7	2.400	EAR99	N
3VA2216-6HK42-0AA0	3/19	3.080	EAR99	N
3VA2216-6HL32-0AA0	3/3	2.390	EAR99	N
3VA2216-6HL42-0AA0	3/15	3.080	EAR99	N
3VA2216-6HM32-0AA0	3/5	2.400	EAR99	N
3VA2216-6HM42-0AA0	3/17	3.080	EAR99	N
3VA2216-6HN32-0AA0	3/9	2.258	EAR99	N
3VA2216-6HN42-0AA0	3/21	3.080	EAR99	N
3VA2216-6JP32-0AA0	3/11	2.410	EAR99	N
3VA2216-6JP42-0AA0	3/23	3.090	EAR99	N
3VA2216-6JQ32-0AA0	3/11	2.410	EAR99	N
3VA2216-6JQ42-0AA0	3/23	3.090	EAR99	N
3VA2216-6KP32-0AA0	3/13	2.420	EAR99	N
3VA2216-6KP42-0AA0	3/25	3.100	EAR99	N
3VA2216-6KQ32-0AA0	3/13	2.420	EAR99	N
3VA2216-6KQ42-0AA0	3/25	3.100	EAR99	N
3VA2216-7HK32-0AA0	3/7	2.400	EAR99	N
3VA2216-7HK42-0AA0	3/19	3.080	EAR99	N
3VA2216-7HL32-0AA0	3/3	2.390	EAR99	N
3VA2216-7HL42-0AA0	3/15	3.080	EAR99	N
3VA2216-7HM32-0AA0	3/5	2.400	EAR99	N
3VA2216-7HM42-0AA0	3/17	3.080	EAR99	N
3VA2216-7HN32-0AA0	3/9	2.253	EAR99	N
3VA2216-7HN42-0AA0	3/21	3.080	EAR99	N
3VA2216-7JP32-0AA0	3/11	2.410	EAR99	N
3VA2216-7JP42-0AA0	3/23	3.090	EAR99	N
3VA2216-7JQ32-0AA0	3/11	2.410	EAR99	N
3VA2216-7JQ42-0AA0	3/23	3.090	EAR99	N
3VA2216-7KP32-0AA0	3/13	2.420	EAR99	N
3VA2216-7KP42-0AA0	3/25	3.100	EAR99	N
3VA2216-7KQ32-0AA0	3/13	2.420	EAR99	N
3VA2216-7KQ42-0AA0	3/25	3.100	EAR99	N
3VA2216-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2216-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2216-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2216-8HK32-0AA0	3/7	2.400	EAR99	N
3VA2216-8HK42-0AA0	3/19	3.080	EAR99	N
3VA2216-8HL32-0AA0	3/3	2.390	EAR99	N
3VA2216-8HL42-0AA0	3/15	3.080	EAR99	N
3VA2216-8HM32-0AA0	3/5	2.400	EAR99	N
3VA2216-8HM42-0AA0	3/17	3.080	EAR99	N
3VA2216-8HN32-0AA0	3/9	2.400	EAR99	N
3VA2216-8HN42-0AA0	3/21	3.080	EAR99	N
3VA2216-8JP32-0AA0	3/11	2.410	EAR99	N
3VA2216-8JP42-0AA0	3/23	3.090	EAR99	N
3VA2216-8JQ32-0AA0	3/11	2.410	EAR99	N
3VA2216-8JQ42-0AA0	3/23	3.090	EAR99	N
3VA2216-8KP32-0AA0	3/13	2.420	EAR99	N
3VA2216-8KP42-0AA0	3/25	3.100	EAR99	N
3VA2216-8KQ32-0AA0	3/13	2.420	EAR99	N
3VA2216-8KQ42-0AA0	3/25	3.100	EAR99	N
3VA2216-8MN32-0AA0	3/27	1.000	EAR99	N
3VA2216-8MQ32-0AA0	3/27	1.000	EAR99	N
3VA2216-8MS32-0AA0	3/27	1.000	EAR99	N
3VA2220-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2220-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2220-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2220-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2220-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2225-5HL32-0AA0	3/2	2.250	EAR99	N
3VA2225-5HL42-0AA0	3/14	2.900	EAR99	N
3VA2225-5HM32-0AA0	3/4	2.247	EAR99	N
3VA2225-5HM42-0AA0	3/16	3.080	EAR99	N
3VA2225-5HN32-0AA0	3/8	2.250	EAR99	N
3VA2225-5HN42-0AA0	3/20	2.900	EAR99	N
3VA2225-5JP32-0AA0	3/10	2.260	EAR99	N
3VA2225-5JP42-0AA0	3/22	3.090	EAR99	N
3VA2225-5JQ32-0AA0	3/10	2.260	EAR99	N
3VA2225-5JQ42-0AA0	3/22	3.090	EAR99	N
3VA2225-5KP32-0AA0	3/12	2.420	EAR99	N
3VA2225-5KP42-0AA0	3/24	2.942	EAR99	N
3VA2225-5KQ32-0AA0	3/12	2.420	EAR99	N
3VA2225-5KQ42-0AA0	3/24	3.100	EAR99	N
3VA2225-6HL32-0AA0	3/3	2.250	EAR99	N
3VA2225-6HL42-0AA0	3/15	2.889	EAR99	N
3VA2225-6HM32-0AA0	3/5	2.400	EAR99	N
3VA2225-6HM42-0AA0	3/17	3.080	EAR99	N
3VA2225-6HN32-0AA0	3/9	2.242	EAR99	N
3VA2225-6HN42-0AA0	3/21	3.080	EAR99	N
3VA2225-6JP32-0AA0	3/11	2.410	EAR99	N
3VA2225-6JP42-0AA0	3/23	3.090	EAR99	N
3VA2225-6JQ32-0AA0	3/11	2.410	EAR99	N
3VA2225-6JQ42-0AA0	3/23	3.090	EAR99	N
3VA2225-6KP32-0AA0	3/13	2.420	EAR99	N
3VA2225-6KP42-0AA0	3/25	3.100	EAR99	N
3VA2225-6KQ32-0AA0	3/13	2.420	EAR99	N
3VA2225-6KQ42-0AA0	3/25	3.100	EAR99	N
3VA2225-7HL32-0AA0	3/3	2.250	EAR99	N
3VA2225-7HL42-0AA0	3/15	3.080	EAR99	N
3VA2225-7HM32-0AA0	3/5	2.400	EAR99	N
3VA2225-7HM42-0AA0	3/17	3.080	EAR99	N
3VA2225-7HN32-0AA0	3/9	2.250	EAR99	N
3VA2225-7HN42-0AA0	3/21	3.080	EAR99	N
3VA2225-7JP32-0AA0	3/11	2.410	EAR99	N
3VA2225-7JP42-0AA0	3/23	3.090	EAR99	N
3VA2225-7JQ32-0AA0	3/11	2.410	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2225-7JQ42-0AA0	3/23	3.090	EAR99	N
3VA2225-7KP32-0AA0	3/13	2.314	EAR99	N
3VA2225-7KP42-0AA0	3/25	3.100	EAR99	N
3VA2225-7KQ32-0AA0	3/13	2.420	EAR99	N
3VA2225-7KQ42-0AA0	3/25	3.100	EAR99	N
3VA2225-8HL32-0AA0	3/3	2.262	EAR99	N
3VA2225-8HL42-0AA0	3/15	3.080	EAR99	N
3VA2225-8HM32-0AA0	3/5	2.400	EAR99	N
3VA2225-8HM42-0AA0	3/17	3.080	EAR99	N
3VA2225-8HN32-0AA0	3/9	2.262	EAR99	N
3VA2225-8HN42-0AA0	3/21	3.080	EAR99	N
3VA2225-8JP32-0AA0	3/11	2.410	EAR99	N
3VA2225-8JP42-0AA0	3/23	3.090	EAR99	N
3VA2225-8JQ32-0AA0	3/11	2.410	EAR99	N
3VA2225-8JQ42-0AA0	3/23	3.090	EAR99	N
3VA2225-8KP32-0AA0	3/13	2.420	EAR99	N
3VA2225-8KP42-0AA0	3/25	3.100	EAR99	N
3VA2225-8KQ32-0AA0	3/13	2.420	EAR99	N
3VA2225-8KQ42-0AA0	3/25	3.100	EAR99	N
3VA2325-5HK32-0AA0	3/6	1.000	EAR99	N
3VA2325-5HK42-0AA0	3/18	1.000	EAR99	N
3VA2325-5HL32-0AA0	3/2	4.300	EAR99	N
3VA2325-5HL42-0AA0	3/14	5.700	EAR99	N
3VA2325-5HM32-0AA0	3/4	4.300	EAR99	N
3VA2325-5HM42-0AA0	3/16	5.700	EAR99	N
3VA2325-5HN32-0AA0	3/8	4.300	EAR99	N
3VA2325-5HN42-0AA0	3/20	5.700	EAR99	N
3VA2325-5JP32-0AA0	3/10	4.300	EAR99	N
3VA2325-5JP42-0AA0	3/22	5.700	EAR99	N
3VA2325-5JQ32-0AA0	3/10	4.300	EAR99	N
3VA2325-5JQ42-0AA0	3/22	5.700	EAR99	N
3VA2325-5KP32-0AA0	3/12	4.300	EAR99	N
3VA2325-5KP42-0AA0	3/24	5.700	EAR99	N
3VA2325-5KQ32-0AA0	3/12	4.300	EAR99	N
3VA2325-5KQ42-0AA0	3/24	5.700	EAR99	N
3VA2325-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2325-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2325-6HK32-0AA0	3/7	1.000	EAR99	N
3VA2325-6HK42-0AA0	3/19	1.000	EAR99	N
3VA2325-6HL32-0AA0	3/3	4.300	EAR99	N
3VA2325-6HL42-0AA0	3/15	5.700	EAR99	N
3VA2325-6HM32-0AA0	3/5	4.300	EAR99	N
3VA2325-6HM42-0AA0	3/17	5.700	EAR99	N
3VA2325-6HN32-0AA0	3/9	4.300	EAR99	N
3VA2325-6HN42-0AA0	3/21	5.700	EAR99	N
3VA2325-6JP32-0AA0	3/11	4.300	EAR99	N
3VA2325-6JP42-0AA0	3/23	5.700	EAR99	N
3VA2325-6JQ32-0AA0	3/11	4.300	EAR99	N
3VA2325-6JQ42-0AA0	3/23	5.700	EAR99	N
3VA2325-6KP32-0AA0	3/13	4.300	EAR99	N
3VA2325-6KP42-0AA0	3/25	5.700	EAR99	N
3VA2325-6KQ32-0AA0	3/13	4.300	EAR99	N
3VA2325-6KQ42-0AA0	3/25	5.700	EAR99	N
3VA2325-7HK32-0AA0	3/7	1.000	EAR99	N
3VA2325-7HK42-0AA0	3/19	1.000	EAR99	N
3VA2325-7HL32-0AA0	3/3	4.300	EAR99	N
3VA2325-7HL42-0AA0	3/15	5.700	EAR99	N
3VA2325-7HM32-0AA0	3/5	4.300	EAR99	N
3VA2325-7HM42-0AA0	3/17	5.700	EAR99	N
3VA2325-7HN32-0AA0	3/9	4.300	EAR99	N
3VA2325-7HN42-0AA0	3/21	5.700	EAR99	N
3VA2325-7JP32-0AA0	3/11	4.300	EAR99	N
3VA2325-7JP42-0AA0	3/23	5.700	EAR99	N
3VA2325-7JQ32-0AA0	3/11	4.300	EAR99	N
3VA2325-7JQ42-0AA0	3/23	5.700	EAR99	N
3VA2325-7KP32-0AA0	3/13	4.300	EAR99	N
3VA2325-7KP42-0AA0	3/25	5.700	EAR99	N
3VA2325-7KQ32-0AA0	3/13	4.300	EAR99	N
3VA2325-7KQ42-0AA0	3/25	5.700	EAR99	N
3VA2325-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2325-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2325-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2325-8HK32-0AA0	3/7	1.000	EAR99	N
3VA2325-8HK42-0AA0	3/19	1.000	EAR99	N
3VA2325-8HL32-0AA0	3/3	4.300	EAR99	N
3VA2325-8HL42-0AA0	3/15	4.800	EAR99	N
3VA2325-8HM32-0AA0	3/5	4.300	EAR99	N
3VA2325-8HM42-0AA0	3/17	4.800	EAR99	N
3VA2325-8HN32-0AA0	3/9	4.300	EAR99	N
3VA2325-8HN42-0AA0	3/21	4.800	EAR99	N
3VA2325-8JP32-0AA0	3/11	4.300	EAR99	N
3VA2325-8JP42-0AA0	3/23	4.800	EAR99	N
3VA2325-8JQ32-0AA0	3/11	4.300	EAR99	N
3VA2325-8JQ42-0AA0	3/23	4.800	EAR99	N
3VA2325-8KP32-0AA0	3/13	4.300	EAR99	N
3VA2325-8KP42-0AA0	3/25	4.800	EAR99	N
3VA2325-8KQ32-0AA0	3/13	4.300	EAR99	N
3VA2325-8KQ42-0AA0	3/25	4.800	EAR99	N
3VA2325-8MN32-0AA0	3/27	1.000	EAR99	N
3VA2325-8MQ32-0AA0	3/27	1.000	EAR99	N
3VA2325-8MS32-0AA0	3/27	1.000	EAR99	N
3VA2340-5HL32-0AA0	3/2	4.300	EAR99	N
3VA2340-5HL42-0AA0	3/14	6.068	EAR99	N
3VA2340-5HM32-0AA0	3/4	4.300	EAR99	N
3VA2340-5HM42-0AA0	3/16	5.700	EAR99	N
3VA2340-5HN32-0AA0	3/8	4.300	EAR99	N
3VA2340-5HN42-0AA0	3/20	5.700	EAR99	N
3VA2340-5JP32-0AA0	3/10	4.300	EAR99	N
3VA2340-5JP42-0AA0	3/22	5.700	EAR99	N
3VA2340-5JQ32-0AA0	3/10	4.300	EAR99	N

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		kg	ECCN	AL
3VA2340-5JQ42-0AA0	3/22	5.700	EAR99	N
3VA2340-5KP32-0AA0	3/12	4.780	EAR99	N
3VA2340-5KP42-0AA0	3/24	5.700	EAR99	N
3VA2340-5KQ32-0AA0	3/12	4.300	EAR99	N
3VA2340-5KQ42-0AA0	3/24	5.700	EAR99	N
3VA2340-6HL32-0AA0	3/3	4.300	EAR99	N
3VA2340-6HL42-0AA0	3/15	6.062	EAR99	N
3VA2340-6HM32-0AA0	3/5	4.300	EAR99	N
3VA2340-6HM42-0AA0	3/17	5.700	EAR99	N
3VA2340-6HN32-0AA0	3/9	4.300	EAR99	N
3VA2340-6HN42-0AA0	3/21	5.700	EAR99	N
3VA2340-6JP32-0AA0	3/11	4.300	EAR99	N
3VA2340-6JP42-0AA0	3/23	5.700	EAR99	N
3VA2340-6JQ32-0AA0	3/11	4.300	EAR99	N
3VA2340-6JQ42-0AA0	3/23	5.700	EAR99	N
3VA2340-6KP32-0AA0	3/13	4.300	EAR99	N
3VA2340-6KP42-0AA0	3/25	5.700	EAR99	N
3VA2340-6KQ32-0AA0	3/13	4.300	EAR99	N
3VA2340-6KQ42-0AA0	3/25	5.700	EAR99	N
3VA2340-7HL32-0AA0	3/3	4.694	EAR99	N
3VA2340-7HL42-0AA0	3/15	5.700	EAR99	N
3VA2340-7HM32-0AA0	3/5	4.300	EAR99	N
3VA2340-7HM42-0AA0	3/17	5.700	EAR99	N
3VA2340-7HN32-0AA0	3/9	4.300	EAR99	N
3VA2340-7HN42-0AA0	3/21	5.700	EAR99	N
3VA2340-7JP32-0AA0	3/11	4.300	EAR99	N
3VA2340-7JP42-0AA0	3/23	5.700	EAR99	N
3VA2340-7JQ32-0AA0	3/11	4.300	EAR99	N
3VA2340-7JQ42-0AA0	3/23	5.700	EAR99	N
3VA2340-7KP32-0AA0	3/13	4.300	EAR99	N
3VA2340-7KP42-0AA0	3/25	5.700	EAR99	N
3VA2340-7KQ32-0AA0	3/13	4.300	EAR99	N
3VA2340-7KQ42-0AA0	3/25	5.700	EAR99	N
3VA2340-8HL32-0AA0	3/3	4.300	EAR99	N
3VA2340-8HL42-0AA0	3/15	4.800	EAR99	N
3VA2340-8HM32-0AA0	3/5	4.300	EAR99	N
3VA2340-8HM42-0AA0	3/17	4.800	EAR99	N
3VA2340-8HN32-0AA0	3/9	4.300	EAR99	N
3VA2340-8HN42-0AA0	3/21	4.800	EAR99	N
3VA2340-8JP32-0AA0	3/11	4.300	EAR99	N
3VA2340-8JP42-0AA0	3/23	4.800	EAR99	N
3VA2340-8JQ32-0AA0	3/11	4.300	EAR99	N
3VA2340-8JQ42-0AA0	3/23	4.800	EAR99	N
3VA2340-8KP32-0AA0	3/13	4.300	EAR99	N
3VA2340-8KP42-0AA0	3/25	4.800	EAR99	N
3VA2340-8KQ32-0AA0	3/13	4.300	EAR99	N
3VA2340-8KQ42-0AA0	3/25	4.800	EAR99	N
3VA2440-5HK32-0AA0	3/6	1.000	EAR99	N
3VA2440-5HK42-0AA0	3/18	1.000	EAR99	N
3VA2440-5HL32-0AA0	3/2	4.300	EAR99	N
3VA2440-5HL42-0AA0	3/14	5.700	EAR99	N
3VA2440-5HM32-0AA0	3/4	4.300	EAR99	N
3VA2440-5HM42-0AA0	3/16	5.700	EAR99	N
3VA2440-5HN32-0AA0	3/8	4.300	EAR99	N
3VA2440-5HN42-0AA0	3/20	5.700	EAR99	N
3VA2440-5JP32-0AA0	3/10	4.300	EAR99	N
3VA2440-5JP42-0AA0	3/22	5.700	EAR99	N
3VA2440-5JQ32-0AA0	3/10	4.300	EAR99	N
3VA2440-5JQ42-0AA0	3/22	5.700	EAR99	N
3VA2440-5KP32-0AA0	3/12	4.300	EAR99	N
3VA2440-5KP42-0AA0	3/24	5.700	EAR99	N
3VA2440-5KQ32-0AA0	3/12	4.300	EAR99	N
3VA2440-5KQ42-0AA0	3/24	5.700	EAR99	N
3VA2440-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2440-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2440-6HK32-0AA0	3/7	1.000	EAR99	N
3VA2440-6HK42-0AA0	3/19	1.000	EAR99	N
3VA2440-6HL32-0AA0	3/3	4.300	EAR99	N
3VA2440-6HL42-0AA0	3/15	5.700	EAR99	N
3VA2440-6HM32-0AA0	3/5	4.300	EAR99	N
3VA2440-6HM42-0AA0	3/17	5.700	EAR99	N
3VA2440-6HN32-0AA0	3/9	4.300	EAR99	N
3VA2440-6HN42-0AA0	3/21	5.700	EAR99	N
3VA2440-6JP32-0AA0	3/11	4.300	EAR99	N
3VA2440-6JP42-0AA0	3/23	5.700	EAR99	N
3VA2440-6JQ32-0AA0	3/11	4.300	EAR99	N
3VA2440-6JQ42-0AA0	3/23	5.700	EAR99	N
3VA2440-6KP32-0AA0	3/13	4.300	EAR99	N
3VA2440-6KP42-0AA0	3/25	5.700	EAR99	N
3VA2440-6KQ32-0AA0	3/13	4.300	EAR99	N
3VA2440-6KQ42-0AA0	3/25	5.700	EAR99	N
3VA2440-7HK32-0AA0	3/7	1.000	EAR99	N
3VA2440-7HK42-0AA0	3/19	1.000	EAR99	N
3VA2440-7HL32-0AA0	3/3	4.300	EAR99	N
3VA2440-7HL42-0AA0	3/15	5.700	EAR99	N
3VA2440-7HM32-0AA0	3/5	4.300	EAR99	N
3VA2440-7HM42-0AA0	3/17	5.700	EAR99	N
3VA2440-7HN32-0AA0	3/9	4.300	EAR99	N
3VA2440-7HN42-0AA0	3/21	5.700	EAR99	N
3VA2440-7JP32-0AA0	3/11	4.300	EAR99	N
3VA2440-7JP42-0AA0	3/23	5.700	EAR99	N
3VA2440-7JQ32-0AA0	3/11	4.300	EAR99	N
3VA2440-7JQ42-0AA0	3/23	5.700	EAR99	N
3VA2440-7KP32-0AA0	3/13	4.300	EAR99	N
3VA2440-7KP42-0AA0	3/25	5.700	EAR99	N
3VA2440-7KQ32-0AA0	3/13	4.300	EAR99	N
3VA2440-7KQ42-0AA0	3/25	5.700	EAR99	N
3VA2440-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2440-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2440-7MS32-0AA0	3/27	1.000	EAR99	N

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		kg	ECCN	AL
3VA2440-8HK32-0AA0	3/7	1.000	EAR99	N
3VA2440-8HK42-0AA0	3/19	1.000	EAR99	N
3VA2440-8HL32-0AA0	3/3	4.300	EAR99	N
3VA2440-8HL42-0AA0	3/15	4.800	EAR99	N
3VA2440-8HM32-0AA0	3/5	4.300	EAR99	N
3VA2440-8HM42-0AA0	3/17	4.800	EAR99	N
3VA2440-8HN32-0AA0	3/9	4.300	EAR99	N
3VA2440-8HN42-0AA0	3/21	4.800	EAR99	N
3VA2440-8JP32-0AA0	3/11	4.300	EAR99	N
3VA2440-8JP42-0AA0	3/23	4.800	EAR99	N
3VA2440-8JQ32-0AA0	3/11	4.300	EAR99	N
3VA2440-8JQ42-0AA0	3/23	4.800	EAR99	N
3VA2440-8KP32-0AA0	3/13	4.300	EAR99	N
3VA2440-8KP42-0AA0	3/25	4.800	EAR99	N
3VA2440-8KQ32-0AA0	3/13	4.300	EAR99	N
3VA2440-8KQ42-0AA0	3/25	4.800	EAR99	N
3VA2440-8MN32-0AA0	3/27	1.000	EAR99	N
3VA2440-8MQ32-0AA0	3/27	1.000	EAR99	N
3VA2440-8MS32-0AA0	3/27	1.000	EAR99	N
3VA2450-5HK32-0AA0	3/6	1.000	EAR99	N
3VA2450-5HK42-0AA0	3/18	1.000	EAR99	N
3VA2450-5JP32-0AA0	3/10	4.300	EAR99	N
3VA2450-5JP42-0AA0	3/22	5.700	EAR99	N
3VA2450-5JQ32-0AA0	3/10	4.300	EAR99	N
3VA2450-5JQ42-0AA0	3/22	5.700	EAR99	N
3VA2450-5KP32-0AA0	3/12	4.300	EAR99	N
3VA2450-5KP42-0AA0	3/24	5.700	EAR99	N
3VA2450-5KQ32-0AA0	3/12	4.300	EAR99	N
3VA2450-5KQ42-0AA0	3/24	5.700	EAR99	N
3VA2450-5MN32-0AA0	3/26	1.000	EAR99	N
3VA2450-5MQ32-0AA0	3/26	1.000	EAR99	N
3VA2450-6HK32-0AA0	3/7	1.000	EAR99	N
3VA2450-6HK42-0AA0	3/19	1.000	EAR99	N
3VA2450-6JP32-0AA0	3/11	4.300	EAR99	N
3VA2450-6JP42-0AA0	3/23	5.700	EAR99	N
3VA2450-6JQ32-0AA0	3/11	4.300	EAR99	N
3VA2450-6JQ42-0AA0	3/23	5.700	EAR99	N
3VA2450-6KP32-0AA0	3/13	4.300	EAR99	N
3VA2450-6KP42-0AA0	3/25	5.700	EAR99	N
3VA2450-6KQ32-0AA0	3/13	4.300	EAR99	N
3VA2450-6KQ42-0AA0	3/25	5.700	EAR99	N
3VA2450-7HK32-0AA0	3/7	1.000	EAR99	N
3VA2450-7HK42-0AA0	3/19	1.000	EAR99	N
3VA2450-7JP32-0AA0	3/11	4.762	EAR99	N
3VA2450-7JP42-0AA0	3/23	5.700	EAR99	N
3VA2450-7JQ32-0AA0	3/11	4.300	EAR99	N
3VA2450-7JQ42-0AA0	3/23	5.700	EAR99	N
3VA2450-7KP32-0AA0	3/13	4.300	EAR99	N
3VA2450-7KP42-0AA0	3/25	5.700	EAR99	N
3VA2450-7KQ32-0AA0	3/13	4.300	EAR99	N
3VA2450-7KQ42-0AA0	3/25	5.700	EAR99	N
3VA2450-7MN32-0AA0	3/27	1.000	EAR99	N
3VA2450-7MQ32-0AA0	3/27	1.000	EAR99	N
3VA2450-7MS32-0AA0	3/27	1.000	EAR99	N
3VA2450-8HK32-0AA0	3/7	1.000	EAR99	N
3VA2450-8HK42-0AA0	3/19	1.000	EAR99	N
3VA2463-5HK32-0AA0	3/6	1.000	EAR99	N
3VA2463-5HK42-0AA0	3/18	1.000	EAR99	N
3VA2463-5HL32-0AA0	3/2	5.175	EAR99	N
3VA2463-5HL42-0AA0	3/14	5.700	EAR99	N
3VA2463-5HM32-0AA0	3/4	4.300	EAR99	N
3VA2463-5HM42-0AA0	3/16	6.708	EAR99	N
3VA2463-5HN32-0AA0	3/8	5.179	EAR99	N
3VA2463-5HN42-0AA0	3/20	5.700	EAR99	N
3VA2463-5JP32-0AA0	3/10	4.300	EAR99	N
3VA2463-5JP42-0AA0	3/22	5.700	EAR99	N
3VA2463-5JQ32-0AA0	3/10	4.300	EAR99	N
3VA2463-5JQ42-0AA0	3/22	5.700	EAR99	N
3VA2463-5KP32-0AA0	3/12	4.300	EAR99	N
3VA2463-5KP42-0AA0	3/24	5.700	EAR99	N
3VA2463-5KQ32-0AA0	3/12	4.300	EAR99	N
3VA2463-5KQ42-0AA0	3/24	5.700	EAR99	N
3VA2463-6HK32-0AA0	3/7	1.000	EAR99	N
3VA2463-6HK42-0AA0	3/19	1.000	EAR99	N
3VA2463-6HL32-0AA0	3/3	4.300	EAR99	N
3VA2463-6HL42-0AA0	3/15	5.700	EAR99	N
3VA2463-6HM32-0AA0	3/5	4.300	EAR99	N
3VA2463-6HM42-0AA0	3/17	5.700	EAR99	N
3VA2463-6HN32-0AA0	3/9	4.300	EAR99	N
3VA2463-6HN42-0AA0	3/21	5.700	EAR99	N
3VA2463-6JP32-0AA0	3/11	4.300	EAR99	N
3VA2463-6JP42-0AA0	3/23	5.700	EAR99	N
3VA2463-6JQ32-0AA0	3/11	4.300	EAR99	N
3VA2463-6JQ42-0AA0	3/23	5.700	EAR99	N
3VA2463-6KP32-0AA0	3/13	4.300	EAR99	N
3VA2463-6KP42-0AA0	3/25	5.700	EAR99	N
3VA2463-6KQ32-0AA0	3/13	4.300	EAR99	N
3VA2463-6KQ42-0AA0	3/25	5.700	EAR99	N
3VA2463-7HK32-0AA0	3/7	1.000	EAR99	N
3VA2463-7HK42-0AA0	3/19	1.000	EAR99	N
3VA2463-7HL32-0AA0	3/3	4.300	EAR99	N
3VA2463-7HL42-0AA0	3/15	5.700	EAR99	N
3VA2463-7HM32-0AA0	3/5	4.300	EAR99	N
3VA2463-7HM42-0AA0	3/17	5.700	EAR99	N
3VA2463-7HN32-0AA0	3/9	4.300	EAR99	N
3VA2463-7HN42-0AA0	3/21	5.700	EAR99	N
3VA2463-7JP32-0AA0	3/11	4.300	EAR99	N
3VA2463-7JP42-0AA0	3/23	5.700	EAR99	N
3VA2463-7JQ32-0AA0	3/11	4.300	EAR99	N
3VA2463-7JQ42-0AA0	3/23	5.700	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA2463-7KP32-0AA0	3/13	4.300	EAR99	N
3VA2463-7KP42-0AA0	3/25	5.700	EAR99	N
3VA2463-7KQ32-0AA0	3/13	4.300	EAR99	N
3VA2463-7KQ42-0AA0	3/25	5.700	EAR99	N
3VA2463-8HK32-0AA0	3/7	1.000	EAR99	N
3VA2463-8HK42-0AA0	3/19	1.000	EAR99	N
3VA2463-8HL32-0AA0	3/3	4.300	EAR99	N
3VA2463-8HL42-0AA0	3/15	4.800	EAR99	N
3VA2463-8HM32-0AA0	3/5	4.300	EAR99	N
3VA2463-8HM42-0AA0	3/17	4.800	EAR99	N
3VA2463-8HN32-0AA0	3/9	4.300	EAR99	N
3VA2463-8HN42-0AA0	3/21	4.800	EAR99	N
3VA2463-8JP32-0AA0	3/11	4.300	EAR99	N
3VA2463-8JP42-0AA0	3/23	4.800	EAR99	N
3VA2463-8JQ32-0AA0	3/11	4.300	EAR99	N
3VA2463-8JQ42-0AA0	3/23	4.800	EAR99	N
3VA2463-8KP32-0AA0	3/13	4.300	EAR99	N
3VA2463-8KP42-0AA0	3/25	4.800	EAR99	N
3VA2463-8KQ32-0AA0	3/13	4.300	EAR99	N
3VA2463-8KQ42-0AA0	3/25	4.800	EAR99	N
3VA9				
3VA9007-0NA10	4/53	0.892	EAR99	N
3VA9053-0SB10	4/60	0.016	EAR99	N
3VA9053-0SB20	4/60	0.022	EAR99	N
3VA9054-0SB10	4/60	0.019	EAR99	N
3VA9054-0SB20	4/60	0.023	EAR99	N
3VA9087-0SX10	4/17, 4/60	0.003	EAR99	N
3VA9088-0LB10	4/58	0.036	EAR99	N
3VA9088-0VK10	4/59	2.280	EAR99	N
3VA9088-0VM10	4/58	0.357	EAR99	N
3VA9088-0VM30	4/58	0.342	EAR99	N
3VA9103-0JB11	4/25	0.108	EAR99	N
3VA9103-0JG11	4/25	0.095	EAR99	N
3VA9104-0JB11	4/25	0.135	EAR99	N
3VA9104-0JG11	4/25	0.122	EAR99	N
3VA9107-0NA10	4/53	0.870	EAR99	N
3VA9110-0WB00	4/33	0.096	EAR99	N
3VA9110-0WC00	4/33	0.095	EAR99	N
3VA9111-0QE10	4/30	0.063	N	N
3VA9111-0QE20	4/30	0.105	N	N
3VA9111-0QF10	4/30	0.079	N	N
3VA9111-0QF20	4/30	0.120	N	N
3VA9111-0SS10	4/61	0.020	EAR99	N
3VA9111-0WD10	4/31	0.014	N	N
3VA9111-0WD20	4/31	0.020	N	N
3VA9111-0WD30	4/31	0.007	N	N
3VA9111-0WD40	4/31	0.003	N	N
3VA9111-0WF20	4/31	0.048	EAR99	N
3VA9111-0WF30	4/31	0.143	EAR99	N
3VA9111-0WF40	4/31	0.074	EAR99	N
3VA9111-0WG30	4/32	0.143	EAR99	N
3VA9111-0WG40	4/32	0.186	EAR99	N
3VA9111-0WJ20	4/32	0.012	EAR99	N
3VA9111-0WJ30	4/32	0.020	EAR99	N
3VA9111-0WJ40	4/32	0.022	EAR99	N
3VA9111-0WK30	4/32	0.036	EAR99	N
3VA9111-0WK40	4/32	0.037	EAR99	N
3VA9112-0JC12	4/26	0.208	EAR99	N
3VA9112-0JF60	4/27	0.541	N	N
3VA9112-0JJ12	4/25	0.235	EAR99	N
3VA9112-0SG20	4/33	0.027	EAR99	N
3VA9113-0JB11	4/25	0.066	N	N
3VA9113-0JC12	4/26	0.337	EAR99	N
3VA9113-0JF60	4/27	0.241	EAR99	N
3VA9113-0JG11	4/25	0.049	N	N
3VA9113-0JJ12	4/25	0.365	N	N
3VA9113-0KB01	4/37	0.032	EAR99	N
3VA9113-0KP00	4/35	0.966	EAR99	N
3VA9113-0KP10	4/35	0.268	EAR99	N
3VA9113-0QA00	4/28	0.052	EAR99	N
3VA9113-0QE00	4/30	0.197	N	N
3VA9113-0QF00	4/30	0.245	N	N
3VA9113-0QG00	4/29	0.011	EAR99	N
3VA9113-0RL20	4/44	0.778	N	N
3VA9113-0RS20	4/44	0.833	N	N
3VA9113-0SG10	4/33	0.070	EAR99	N
3VA9114-0JB11	4/25	0.079	N	N
3VA9114-0JC12	4/26	0.444	EAR99	N
3VA9114-0JF60	4/27	0.440	EAR99	N
3VA9114-0JG11	4/25	0.061	N	N
3VA9114-0JJ12	4/26	0.486	N	N
3VA9114-0KB01	4/37	0.036	EAR99	N
3VA9114-0KP00	4/35	1.200	EAR99	N
3VA9114-0KP10	4/35	0.329	EAR99	N
3VA9114-0QA00	4/28	0.063	EAR99	N
3VA9114-0QE00	4/30	0.279	N	N
3VA9114-0QF00	4/30	0.342	N	N
3VA9114-0QG00	4/29	0.149	EAR99	N
3VA9114-0RL10	4/44	0.916	N	N
3VA9114-0RL20	4/44	0.919	EAR99	N
3VA9114-0RS10	4/44	0.948	EAR99	N
3VA9114-0RS20	4/44	0.957	EAR99	N
3VA9114-0SG10	4/33	0.090	EAR99	N
3VA9114-0SS10	4/61	0.020	EAR99	N
3VA9116-0SS10	4/61	0.020	EAR99	N
3VA9123-0KB01	4/37	0.047	EAR99	N
3VA9123-0KD00	4/36	3.741	EAR99	N
3VA9123-0KD10	4/36	1.038	EAR99	N
3VA9123-0KP00	4/35	1.838	EAR99	N
3VA9123-0KP10	4/35	0.488	EAR99	N
3VA9123-0RL30	4/45	1.340	EAR99	N

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Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA9124-0KB01	4/37	0.055	EAR99	N
3VA9124-0KD00	4/36	4.362	EAR99	N
3VA9124-0KD10	4/36	1.160	EAR99	N
3VA9124-0KP00	4/35	2.321	EAR99	N
3VA9124-0KP10	4/35	0.590	EAR99	N
3VA9124-0RL30	4/45	1.680	EAR99	N
3VA9124-0SS10	4/61	0.031	EAR99	N
3VA9126-0SS10	4/61	0.018	EAR99	N
3VA9150-0WB00	4/40	0.145	N	N
3VA9150-0WC00	4/40	0.136	N	N
3VA9152-0WA00	4/31	0.033	EAR99	N
3VA9153-0JA11	4/25	0.110	N	N
3VA9153-0JC12	4/39	0.339	EAR99	N
3VA9153-0JF60	4/39	0.333	EAR99	N
3VA9153-0KB03	4/38	0.006	EAR99	N
3VA9153-0KB04	4/38	0.107	N	N
3VA9153-0KB05	4/38	0.145	N	N
3VA9153-0QB00	4/28	0.107	EAR99	N
3VA9153-0QC00	4/28	0.143	EAR99	N
3VA9153-0QD00	4/28	0.124	EAR99	N
3VA9154-0JA11	4/25	0.170	N	N
3VA9154-0JC12	4/39	0.445	EAR99	N
3VA9154-0JF60	4/39	0.435	EAR99	N
3VA9154-0KB03	4/38	0.006	EAR99	N
3VA9154-0KB04	4/38	0.140	N	N
3VA9154-0KB05	4/38	0.185	N	N
3VA9154-0QB00	4/28	0.145	EAR99	N
3VA9154-0QC00	4/28	0.201	EAR99	N
3VA9154-0QD00	4/29	0.175	EAR99	N
3VA9157-0EK11	4/14	0.199	EAR99	N
3VA9157-0EK13	4/14	0.203	N	N
3VA9157-0EK15	4/14	0.197	EAR99	N
3VA9157-0EK17	4/14	0.203	N	N
3VA9157-0EK21	4/14	0.263	EAR99	N
3VA9157-0EK23	4/14	0.263	N	N
3VA9157-0EK25	4/14	0.265	EAR99	N
3VA9157-0EK27	4/14	0.269	N	N
3VA9157-0FK21	4/15	0.548	EAR99	N
3VA9157-0FK23	4/15	0.541	N	N
3VA9157-0FK25	4/15	0.535	EAR99	N
3VA9157-0FK27	4/15	0.541	N	N
3VA9157-0GK00	4/14	0.180	EAR99	N
3VA9157-0HA10	4/18	0.637	EAR99	N
3VA9157-0HA20	4/18	0.648	EAR99	N
3VA9157-0KB02	4/37	0.033	EAR99	N
3VA9157-0LF10	4/58	0.039	EAR99	N
3VA9157-0PK11	4/16	0.599	EAR99	N
3VA9157-0PK13	4/16	0.628	N	N
3VA9157-0PK15	4/16	0.637	EAR99	N
3VA9157-0PK17	4/16	0.620	N	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA9157-0PK51	4/16	1.270	EAR99	N
3VA9157-0PK53	4/16	1.277	N	N
3VA9157-0PK55	4/16	1.275	EAR99	N
3VA9157-0PK57	4/16	1.281	N	N
3VA9157-0VF10	4/58	0.184	EAR99	N
3VA9158-0VF20	4/17, 4/59	On request	On requ.	On requ.
3VA9158-0VF30	4/58	0.598	EAR99	N
3VA9158-0VK20	4/59	1.168	EAR99	N
3VA9163-0JA12	4/25	0.156	EAR99	N
3VA9163-0KB03	4/38	0.028	EAR99	N
3VA9163-0KB04	4/38	0.151	EAR99	N
3VA9163-0KB05	4/38	0.275	EAR99	N
3VA9163-0SB10	4/60	0.022	EAR99	N
3VA9163-0SB20	4/60	0.045	EAR99	N
3VA9164-0JA12	4/25	0.204	EAR99	N
3VA9164-0KB03	4/38	0.037	EAR99	N
3VA9164-0KB04	4/38	0.182	EAR99	N
3VA9164-0KB05	4/38	0.404	EAR99	N
3VA9164-0SB10	4/60	0.025	EAR99	N
3VA9164-0SB20	4/60	0.028	EAR99	N
3VA9167-0KB02	4/37	0.025	EAR99	N
3VA9167-0KT00	4/37	0.059	EAR99	N
3VA9167-0LF10	4/58	0.051	EAR99	N
3VA9167-0VF10	4/58	0.192	EAR99	N
3VA9168-0VF30	4/58	1.068	EAR99	N
3VA9181-0SH10	4/61	0.029	EAR99	N
3VA9182-0SH10	4/61	0.048	EAR99	N
3VA9187-0SH10	4/61	0.066	EAR99	N
3VA9187-0SH20	4/61	0.103	EAR99	N
3VA9187-0TB10	4/52	0.109	EAR99	N
3VA9187-0TB50	4/52	0.080	EAR99	N
3VA9200-0WB00	4/33	0.015	EAR99	N
3VA9200-0WC00	4/33	0.141	EAR99	N
3VA9201-0QE10	4/30	0.088	EAR99	N
3VA9201-0QE20	4/30	0.178	EAR99	N
3VA9201-0QF10	4/30	0.114	EAR99	N
3VA9201-0QF20	4/30	0.203	EAR99	N
3VA9203-0QA00	4/28	0.088	EAR99	N
3VA9203-0QE00	4/30	0.353	EAR99	N
3VA9203-0QF00	4/30	0.428	EAR99	N
3VA9204-0QA00	4/28	0.114	EAR99	N
3VA9204-0QE00	4/30	0.530	EAR99	N
3VA9204-0QF00	4/30	0.621	EAR99	N
3VA9211-0QE10	4/30	0.102	EAR99	N
3VA9211-0QE20	4/30	0.193	EAR99	N
3VA9211-0QF10	4/30	0.127	EAR99	N
3VA9211-0QF20	4/30	0.212	EAR99	N
3VA9211-0WD30	4/31	0.025	EAR99	N
3VA9211-0WD40	4/31	0.030	EAR99	N
3VA9211-0WF30	4/31	0.139	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
3VA9211-0WF40	4/31	0.170	EAR99	N
3VA9211-0WG30	4/32	0.289	EAR99	N
3VA9211-0WG40	4/32	0.381	EAR99	N
3VA9211-0WJ30	4/32	0.037	EAR99	N
3VA9211-0WJ40	4/32	0.044	EAR99	N
3VA9211-0WK30	4/32	0.066	EAR99	N
3VA9211-0WK40	4/32	0.086	EAR99	N
3VA9213-0JC13	4/26	0.490	EAR99	N
3VA9213-0JC22	4/27	0.542	EAR99	N
3VA9213-0JF60	4/27	0.432	EAR99	N
3VA9213-0JJ13	4/25	0.485	EAR99	N
3VA9213-0JJ22	4/26	0.535	EAR99	N
3VA9213-0KB01	4/37	0.041	EAR99	N
3VA9213-0KD00	4/36	3.400	EAR99	N
3VA9213-0KD10	4/36	0.876	EAR99	N
3VA9213-0KP00	4/35	1.680	EAR99	N
3VA9213-0KP10	4/35	0.455	EAR99	N
3VA9213-0QA00	4/28	0.092	EAR99	N
3VA9213-0QE00	4/30	0.360	EAR99	N
3VA9213-0QF00	4/30	0.428	EAR99	N
3VA9213-0QG00	4/29	0.243	EAR99	N
3VA9213-0RL20	4/44	1.242	EAR99	N
3VA9213-0RS20	4/44	0.907	EAR99	N
3VA9214-0JC13	4/26	0.644	EAR99	N
3VA9214-0JC22	4/27	0.718	EAR99	N
3VA9214-0JF60	4/27	0.566	EAR99	N
3VA9214-0JJ13	4/26	0.638	EAR99	N
3VA9214-0JJ22	4/26	0.705	EAR99	N
3VA9214-0KB01	4/37	0.048	EAR99	N
3VA9214-0KD00	4/36	3.940	EAR99	N
3VA9214-0KD10	4/36	0.990	EAR99	N
3VA9214-0KP00	4/35	2.170	EAR99	N
3VA9214-0KP10	4/35	0.577	EAR99	N
3VA9214-0QA00	4/28	0.119	EAR99	N
3VA9214-0QE00	4/30	0.534	EAR99	N
3VA9214-0QF00	4/30	0.623	EAR99	N
3VA9214-0QG00	4/29	0.325	EAR99	N
3VA9214-0RL20	4/44	1.550	EAR99	N
3VA9214-0RS20	4/44	1.231	EAR99	N
3VA9221-0WD30	4/31	0.024	EAR99	N
3VA9221-0WD40	4/31	0.030	EAR99	N
3VA9221-0WF30	4/31	0.152	EAR99	N
3VA9221-0WF40	4/31	0.185	EAR99	N
3VA9221-0WG30	4/32	0.263	EAR99	N
3VA9221-0WG40	4/32	0.335	EAR99	N
3VA9221-0WJ30	4/32	0.030	EAR99	N
3VA9221-0WJ40	4/32	0.047	EAR99	N
3VA9221-0WK30	4/32	0.060	EAR99	N
3VA9221-0WK40	4/32	0.078	EAR99	N
3VA9223-0JC13	4/26	0.498	EAR99	N
3VA9223-0JC22	4/27	0.535	EAR99	N
3VA9223-0JF60	4/27	0.431	EAR99	N
3VA9223-0JJ13	4/25	0.460	EAR99	N
3VA9223-0JJ22	4/26	0.530	EAR99	N
3VA9223-0QG00	4/29	0.247	EAR99	N
3VA9223-0RL30	4/45	1.295	EAR99	N
3VA9224-0JC13	4/26	0.649	EAR99	N
3VA9224-0JC22	4/27	0.706	EAR99	N
3VA9224-0JF60	4/27	0.586	EAR99	N
3VA9224-0JJ13	4/26	0.637	EAR99	N
3VA9224-0JJ22	4/26	0.699	EAR99	N
3VA9224-0QG00	4/29	0.334	EAR99	N
3VA9224-0RL30	4/45	1.680	EAR99	N
3VA9252-0WA00	4/31	0.061	EAR99	N
3VA9253-0JA11	4/25	0.157	EAR99	N
3VA9253-0JA12	4/25	0.191	EAR99	N
3VA9253-0JB12	4/25	0.115	EAR99	N
3VA9253-0JC13	4/39	0.492	EAR99	N
3VA9253-0JC22	4/39	0.549	EAR99	N
3VA9253-0JF60	4/39	0.433	EAR99	N
3VA9253-0JG12	4/25	0.120	EAR99	N
3VA9253-0KB03	4/38	0.031	EAR99	N
3VA9253-0KB04	4/38	0.142	EAR99	N
3VA9253-0KB05	4/38	0.297	EAR99	N
3VA9253-0QB00	4/28	0.249	EAR99	N
3VA9253-0QC00	4/28	0.319	EAR99	N
3VA9253-0QD00	4/28	0.280	EAR99	N
3VA9253-0SB10	4/60	0.019	EAR99	N
3VA9253-0SB20	4/60	0.024	EAR99	N
3VA9254-0JA11	4/25	0.205	EAR99	N
3VA9254-0JA12	4/25	0.250	EAR99	N
3VA9254-0JB12	4/25	0.150	EAR99	N
3VA9254-0JC13	4/39	0.654	EAR99	N
3VA9254-0JC22	4/39	0.722	EAR99	N
3VA9254-0JF60	4/39	0.574	EAR99	N
3VA9254-0JG12	4/25	0.155	EAR99	N
3VA9254-0KB03	4/38	0.039	EAR99	N
3VA9254-0KB04	4/38	0.175	EAR99	N
3VA9254-0KB05	4/38	0.382	EAR99	N
3VA9254-0QB00	4/28	0.337	EAR99	N
3VA9254-0QC00	4/28	0.433	EAR99	N
3VA9254-0QD00	4/29	0.395	EAR99	N
3VA9254-0SB10	4/60	0.022	EAR99	N
3VA9254-0SB20	4/60	0.050	EAR99	N
3VA9257-0EK11	4/14	0.218	EAR99	N
3VA9257-0EK13	4/14	0.218	EAR99	N
3VA9257-0EK15	4/14	0.213	EAR99	N
3VA9257-0EK17	4/14	0.218	EAR99	N
3VA9257-0EK21	4/14	0.270	EAR99	N
3VA9257-0EK23	4/14	0.275	EAR99	N

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		kg	ECCN	AL
3VA9257-0EK25	4/14	0.270	EAR99	N
3VA9257-0EK27	4/14	0.275	EAR99	N
3VA9257-0FK21	4/15	0.567	EAR99	N
3VA9257-0FK23	4/15	0.571	EAR99	N
3VA9257-0FK25	4/15	0.566	EAR99	N
3VA9257-0FK27	4/15	0.574	EAR99	N
3VA9257-0GK00	4/14	0.195	EAR99	N
3VA9257-0HA10	4/18	0.927	EAR99	N
3VA9257-0HA20	4/18	0.933	EAR99	N
3VA9257-0KB02	4/37	0.033	EAR99	N
3VA9257-0KT00	4/37	0.101	EAR99	N
3VA9257-0LF10	4/58	0.051	EAR99	N
3VA9257-0PK11	4/16	0.750	EAR99	N
3VA9257-0PK13	4/16	1.000	EAR99	N
3VA9257-0PK15	4/16	0.750	EAR99	N
3VA9257-0PK17	4/16	1.000	EAR99	N
3VA9257-0PK51	4/16	1.900	EAR99	N
3VA9257-0PK53	4/16	1.000	EAR99	N
3VA9257-0PK55	4/16	1.900	EAR99	N
3VA9257-0PK57	4/16	1.000	EAR99	N
3VA9257-0SB30	4/60	0.019	EAR99	N
3VA9257-0VF10	4/58	0.203	EAR99	N
3VA9258-0VF20	4/17, 4/59	On request	On requ.	On requ.
3VA9258-0VF30	4/58	0.865	EAR99	N
3VA9258-0VK20	4/59	1.106	EAR99	N
3VA9262-0WA00	4/31	0.061	EAR99	N
3VA9263-0JA12	4/25	0.182	EAR99	N
3VA9263-0JB12	4/25	0.126	EAR99	N
3VA9263-0JC13	4/39	0.611	EAR99	N
3VA9263-0JC22	4/39	0.545	EAR99	N
3VA9263-0JF60	4/39	0.449	EAR99	N
3VA9263-0JG12	4/25	0.121	EAR99	N
3VA9263-0QB00	4/28	0.254	EAR99	N
3VA9263-0QC00	4/28	0.325	EAR99	N
3VA9263-0QD00	4/28	0.271	EAR99	N
3VA9264-0JA12	4/25	0.235	EAR99	N
3VA9264-0JB12	4/25	0.159	EAR99	N
3VA9264-0JC13	4/39	0.647	EAR99	N
3VA9264-0JC22	4/39	0.715	EAR99	N
3VA9264-0JF60	4/39	0.589	EAR99	N
3VA9264-0JG12	4/25	0.157	EAR99	N
3VA9264-0QB00	4/28	0.338	EAR99	N
3VA9264-0QC00	4/28	0.438	EAR99	N
3VA9264-0QD00	4/29	0.384	EAR99	N
3VA9267-0EK11	4/14	0.307	EAR99	N
3VA9267-0EK13	4/14	0.299	EAR99	N
3VA9267-0EK15	4/14	0.295	EAR99	N
3VA9267-0EK17	4/14	0.300	EAR99	N
3VA9267-0EK21	4/14	0.400	EAR99	N
3VA9267-0EK23	4/14	0.377	EAR99	N

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		kg	ECCN	AL
3VA9267-0EK25	4/14	0.400	EAR99	N
3VA9267-0EK27	4/14	0.400	EAR99	N
3VA9267-0FK21	4/15	0.641	EAR99	N
3VA9267-0FK23	4/15	0.647	EAR99	N
3VA9267-0FK25	4/15	0.634	EAR99	N
3VA9267-0FK27	4/15	0.641	EAR99	N
3VA9267-0GK00	4/14	0.263	EAR99	N
3VA9267-0HA10	4/18	1.035	EAR99	N
3VA9267-0HA20	4/18	1.045	EAR99	N
3VA9267-0PK11	4/16	0.703	EAR99	N
3VA9267-0PK13	4/16	0.726	EAR99	N
3VA9267-0PK15	4/16	0.723	EAR99	N
3VA9267-0PK17	4/16	0.707	EAR99	N
3VA9267-0PK51	4/16	1.900	EAR99	N
3VA9267-0PK53	4/16	1.884	EAR99	N
3VA9267-0PK55	4/16	1.900	EAR99	N
3VA9267-0PK57	4/16	1.846	EAR99	N
3VA9268-0VF20	4/17, 4/59	On request	On requ.	On requ.
3VA9268-0VK20	4/59	1.105	EAR99	N
3VA9280-0WB00	4/40	0.016	EAR99	N
3VA9280-0WC00	4/40	0.151	EAR99	N
3VA9287-0GA80	4/15	0.026	EAR99	N
3VA9287-0GC01	4/15	0.039	EAR99	N
3VA9287-0GC05	4/15	0.040	EAR99	N
3VA9303-0JF60	4/27	0.628	EAR99	N
3VA9303-0SB40	4/60	0.044	EAR99	N
3VA9304-0JF60	4/27	0.816	EAR99	N
3VA9304-0SB40	4/60	0.027	EAR99	N
3VA9307-0NA10	4/53	0.715	N	N
3VA9323-0KD00	4/36	6.100	EAR99	N
3VA9323-0KD10	4/36	1.760	EAR99	N
3VA9323-0KP00	4/35	3.803	EAR99	N
3VA9323-0KP10	4/35	0.900	EAR99	N
3VA9323-0RL30	4/45	2.813	N	N
3VA9324-0KD00	4/36	7.360	EAR99	N
3VA9324-0KD10	4/36	2.010	EAR99	N
3VA9324-0KP00	4/35	4.964	EAR99	N
3VA9324-0KP10	4/35	1.100	EAR99	N
3VA9324-0RL30	4/45	3.571	N	N
3VA9328-0SS10	4/61	0.061	EAR99	N
3VA9353-0KB01	4/37	0.080	EAR99	N
3VA9353-0KB03	4/38	0.028	N	N
3VA9353-0KB04	4/38	0.171	N	N
3VA9353-0KB05	4/38	0.476	N	N
3VA9353-0SB20	4/60	0.052	EAR99	N
3VA9354-0KB01	4/37	0.104	EAR99	N
3VA9354-0KB03	4/38	0.037	N	N
3VA9354-0KB04	4/38	0.268	N	N
3VA9354-0KB05	4/38	0.607	N	N
3VA9363-0SB20	4/60	0.052	EAR99	N

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		kg	ECCN	AL
3VA9364-0SB20	4/60	0.034	EAR99	N
3VA9367-0KB02	4/37	0.050	EAR99	N
3VA9367-0KT00	4/37	0.138	EAR99	N
3VA9367-0LF10	4/58	0.079	N	N
3VA9367-0VF10	4/58	0.214	EAR99	N
3VA9368-0VF30	4/58	1.210	EAR99	N
3VA9383-0JB13	4/25	0.380	N	N
3VA9383-0JF60	4/39	0.631	EAR99	N
3VA9383-0JG13	4/25	0.387	N	N
3VA9383-0SB10	4/60	0.027	EAR99	N
3VA9384-0JB13	4/25	0.503	N	N
3VA9384-0JF60	4/39	0.815	EAR99	N
3VA9384-0JG13	4/25	0.510	N	N
3VA9384-0SB10	4/60	0.029	EAR99	N
3VA9387-0SB30	4/60	0.025	EAR99	N
3VA9387-0TB10	4/52	0.110	EAR99	N
3VA9387-0TB50	4/52	0.110	EAR99	N
3VA9388-0LB10	4/58	0.070	EAR99	N
3VA9401-0QE10	4/30	0.211	EAR99	N
3VA9401-0QE20	4/30	0.363	EAR99	N
3VA9401-0QF10	4/30	0.297	EAR99	N
3VA9401-0QF20	4/30	0.446	EAR99	N
3VA9401-0WG30	4/32	0.565	EAR99	N
3VA9401-0WG40	4/32	0.737	EAR99	N
3VA9403-0JC23	4/27	0.363	EAR99	N
3VA9403-0JJ23	4/26	0.303	N	N
3VA9403-0QA00	4/28	0.172	EAR99	N
3VA9403-0QE00	4/30	0.780	EAR99	N
3VA9403-0QF00	4/30	0.855	EAR99	N
3VA9403-0QG00	4/29	0.574	EAR99	N
3VA9404-0JC23	4/27	1.343	EAR99	N
3VA9404-0JJ23	4/26	1.342	N	N
3VA9404-0QA00	4/28	0.225	EAR99	N
3VA9404-0QE00	4/30	1.140	EAR99	N
3VA9404-0QF00	4/30	1.203	EAR99	N
3VA9404-0QG00	4/29	0.754	EAR99	N
3VA9423-0RL30	4/45	2.808	N	N
3VA9424-0RL30	4/45	3.589	N	N
3VA9467-0EK11	4/14	0.353	EAR99	N
3VA9467-0EK13	4/14	0.361	N	N
3VA9467-0EK15	4/14	0.354	EAR99	N
3VA9467-0EK17	4/14	0.361	N	N
3VA9467-0EK21	4/14	0.416	EAR99	N
3VA9467-0EK23	4/14	0.423	N	N
3VA9467-0EK25	4/14	0.417	EAR99	N
3VA9467-0EK27	4/14	0.424	N	N
3VA9467-0FK21	4/15	0.706	EAR99	N
3VA9467-0FK23	4/15	0.706	N	N
3VA9467-0FK25	4/15	0.700	EAR99	N
3VA9467-0FK27	4/15	0.706	N	N

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		kg	ECCN	AL
3VA9467-0GK00	4/14	0.310	EAR99	N
3VA9467-0HA10	4/18	1.469	EAR99	N
3VA9467-0HA20	4/18	1.470	EAR99	N
3VA9467-0PK11	4/16	0.802	EAR99	N
3VA9467-0PK13	4/16	0.814	N	N
3VA9467-0PK15	4/16	0.816	EAR99	N
3VA9467-0PK17	4/16	0.810	N	N
3VA9468-0VF20	4/17, 4/59	On request	On requ.	On requ.
3VA9468-0VK20	4/59	1.029	EAR99	N
3VA9480-0WB00	4/33, 4/40	0.021	EAR99	N
3VA9480-0WC00	4/33, 4/40	0.022	EAR99	N
3VA9481-0WD30	4/31	0.042	N	N
3VA9481-0WD40	4/31	0.051	N	N
3VA9481-0WF30	4/31	0.017	EAR99	N
3VA9481-0WF40	4/31	0.268	EAR99	N
3VA9481-0WJ30	4/32	0.043	EAR99	N
3VA9481-0WJ40	4/32	0.055	EAR99	N
3VA9481-0WK30	4/32	0.119	EAR99	N
3VA9481-0WK40	4/32	0.143	EAR99	N
3VA9482-0WA00	4/31	0.085	EAR99	N
3VA9483-0JA13	4/25	0.417	N	N
3VA9483-0JC23	4/39	1.026	EAR99	N
3VA9483-0QB00	4/28	0.777	EAR99	N
3VA9483-0QC00	4/28	1.019	EAR99	N
3VA9483-0QD00	4/28	0.869	EAR99	N
3VA9484-0JA13	4/25	0.550	N	N
3VA9484-0JC23	4/39	1.347	EAR99	N
3VA9484-0QB00	4/28	0.001	EAR99	N
3VA9484-0QC00	4/28	1.373	EAR99	N
3VA9484-0QD00	4/29	1.190	EAR99	N
3VA9487-0GA80	4/15	0.049	EAR99	N
3VA9487-0GB10	4/15	0.105	EAR99	N
3VA9487-0GC01	4/15	0.054	EAR99	N
3VA9487-0GC05	4/15	0.150	EAR99	N
3VA9907-0NB10	4/53	0.130	EAR99	N
3VA9908-0BB10	4/10	0.091	EAR99	N
3VA9908-0BB11	4/10	0.085	EAR99	N
3VA9908-0BB12	4/10	0.084	EAR99	N
3VA9908-0BB13	4/10	0.085	EAR99	N
3VA9908-0BB14	4/10	0.084	EAR99	N
3VA9908-0BB15	4/10	0.083	EAR99	N
3VA9908-0BB16	4/10	0.091	EAR99	N
3VA9908-0BB20	4/10	0.085	EAR99	N
3VA9908-0BB21	4/10	0.091	EAR99	N
3VA9908-0BB22	4/10	0.091	EAR99	N
3VA9908-0BB23	4/10	0.084	EAR99	N
3VA9908-0BB24	4/10	0.091	EAR99	N
3VA9908-0BB25	4/10	0.085	EAR99	N
3VA9908-0BB26	4/10	0.083	EAR99	N
3VA9908-0BB27	4/10	0.091	EAR99	N

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		kg	ECCN	AL
3VA9908-0BC10	4/11	0.091	EAR99	N
3VA9908-0BC11	4/11	0.091	EAR99	N
3VA9908-0BC12	4/11	0.091	EAR99	N
3VA9908-0BC13	4/11	0.091	EAR99	N
3VA9908-0BC14	4/11	0.091	EAR99	N
3VA9908-0BC15	4/11	0.091	EAR99	N
3VA9908-0BC16	4/11	0.091	EAR99	N
3VA9908-0BC20	4/11	0.091	EAR99	N
3VA9908-0BC21	4/11	0.091	EAR99	N
3VA9908-0BC22	4/11	0.091	EAR99	N
3VA9908-0BC23	4/11	0.091	EAR99	N
3VA9908-0BC24	4/11	0.091	EAR99	N
3VA9908-0BC25	4/11	0.091	EAR99	N
3VA9908-0BC26	4/11	0.091	EAR99	N
3VA9908-0BC27	4/11	0.091	EAR99	N
3VA9908-0BD11	4/11	0.091	EAR99	N
3VA9908-0BD12	4/11	0.091	EAR99	N
3VA9908-0BD13	4/11	0.091	EAR99	N
3VA9980-0LF20	4/17	0.022	EAR99	N
3VA9980-0LF40	4/41	0.005	EAR99	N
3VA9980-0VC10	4/59	0.037	EAR99	N
3VA9980-0VC20	4/59	0.052	EAR99	N
3VA9980-0VC30	4/59	0.071	EAR99	N
3VA9980-0VL10	4/17, 4/41, 4/58	0.027	EAR99	N
3VA9980-0VL20	4/17, 4/41, 4/58	0.023	EAR99	N
3VA9980-0VL30	4/17, 4/41, 4/58	0.023	EAR99	N
3VA9980-0VL40	4/17, 4/41, 4/58	0.023	EAR99	N
3VA9987-0GL30	4/16	0.020	EAR99	N
3VA9987-0KB00	4/40	0.033	EAR99	N
3VA9987-0KC00	4/40	0.050	EAR99	N
3VA9987-0KC10	4/40	0.011	EAR99	N
3VA9987-0KD80	4/40	0.073	EAR99	N
3VA9987-0KD81	4/40	0.592	EAR99	N
3VA9987-0KP80	4/40	0.073	EAR99	N
3VA9987-0MA10	4/54	0.228	EAR99	N
3VA9987-0MB10	4/54	1.013	EAR99	N
3VA9987-0MX10	4/54	0.213	EAR99	N
3VA9987-0MY10	4/54	0.202	EAR99	N
3VA9987-0TA10	4/52	0.194	EAR99	N
3VA9987-0TA20	4/52	0.100	N	N
3VA9987-0TC10	4/53	0.023	EAR99	N
3VA9987-0TC20	4/53	0.048	EAR99	N
3VA9987-0TC30	4/53	0.087	EAR99	N
3VA9987-0TC40	4/53	0.303	EAR99	N
3VA9987-0TD10	4/53	0.184	EAR99	N
3VA9987-0TE10	4/53	0.015	EAR99	N
3VA9987-0TF10	4/53	0.052	N	N
3VA9987-0TF20	4/53	0.037	N	N
3VA9987-0TG10	4/53	0.020	EAR99	N
3VA9987-0UA10	4/53	0.259	EAR99	N
3VA9987-0UB10	4/53	0.050	EAR99	N
3VA9987-0UB20	4/53	0.090	EAR99	N
3VA9987-0UB30	4/53	0.076	N	N
3VA9987-0UC10	4/53	0.032	EAR99	N
3VA9988-0AA11	4/10	0.040	EAR99	N
3VA9988-0AA12	4/10	0.026	EAR99	N
3VA9988-0AA13	4/10	0.030	EAR99	N
3VA9988-0AA21	4/10	0.040	EAR99	N
3VA9988-0AA22	4/10	0.030	EAR99	N
3VA9988-0AA23	4/10	0.030	EAR99	N
3VA9988-0AB11	4/10	0.033	EAR99	N
3VA9988-0AB12	4/10	0.024	EAR99	N
3VA9988-0AB13	4/10	0.030	EAR99	N
3VA9988-0AB22	4/10	0.030	EAR99	N
3VA9988-0AB23	4/10	0.030	EAR99	N
3VA9988-0AB32	4/10	0.029	EAR99	N
3VA9988-0AB33	4/10	0.030	EAR99	N
3VA9988-0AB34	4/10	0.025	EAR99	N
3VA9988-0AB35	4/10	0.030	EAR99	N
3VA9988-0BA20	4/11	0.091	EAR99	N
3VA9988-0BA21	4/11	0.080	EAR99	N
3VA9988-0BA22	4/11	0.081	EAR99	N
3VA9988-0BA23	4/11	0.081	EAR99	N
3VA9988-0BA24	4/11	0.091	EAR99	N
3VA9988-0BA25	4/11	0.091	EAR99	N
3VA9988-0BF21	4/11	0.117	EAR99	N
3VA9988-0BF22	4/11	0.117	EAR99	N
3VA9988-0BF23	4/11	0.117	EAR99	N
3VA9988-0BL10	4/11	0.080	EAR99	N
3VA9988-0BL20	4/11	0.081	EAR99	N
3VA9988-0BL30	4/11	0.080	EAR99	N
3VA9988-0BL31	4/11	0.080	EAR99	N
3VA9988-0BL32	4/11	0.081	EAR99	N
3VA9988-0BL33	4/11	0.079	EAR99	N
3VA9988-0BM10	4/11	0.091	EAR99	N
5SV8				
5SV8101-6KK	4/45	0.253	N	N
5SV8702-0KK	4/46	0.163	N	N
5SV8703-0KK	4/46	0.285	N	N
5SV8704-0KK	4/46	0.474	N	N
5SV8705-0KK	4/46	1.065	N	N
5SV8706-0KK	4/46	1.800	N	N
5SV8900-1KK	4/46	0.005	N	N
7KM9				
7KM9300-0AB01-0AA0	4/52	0.075	EAR99	N
7KM9300-0AE01-0AA0	4/52	0.070	EAR99	N
7KM9300-0AM00-0AA0	4/52	0.074	EAR99	N
8UD1				
8UD1721-0AB11	4/16	0.164	EAR99	N
8UD1721-0AB15	4/16	0.164	EAR99	N

Article No.	Page	Weight	Export markings	
		kg	ECCN	AL
8UD1721-0AB21	4/16	0.217	EAR99	N
8UD1721-0AB25	4/16	0.216	EAR99	N
8UD1731-0AB11	4/16	0.170	N	N
8UD1731-0AB15	4/16	0.170	N	N
8UD1731-0AB21	4/16	0.222	N	N
8UD1731-0AB25	4/16	0.220	N	N
8UD1900-0KA10	4/17	0.023	N	N
8UD1900-0KA20	4/17	0.023	EAR99	N
8UD1900-0MB01	4/17	0.029	EAR99	N
8UD1900-0MB05	4/17	0.030	EAR99	N
8UD1900-0NB01	4/17	0.030	EAR99	N
8UD1900-0NB05	4/17	0.030	EAR99	N
8UD1900-0PB01	4/17	0.030	EAR99	N
8UD1900-0PB05	4/17	0.030	EAR99	N
8UD1900-0QB01	4/17	0.030	EAR99	N
8UD1900-0QB05	4/17	0.030	EAR99	N
8UD1900-2DA00	4/15	0.025	EAR99	N
8UD1900-2GA00	4/15	0.061	EAR99	N
8UD1900-2HA00	4/15	0.015	EAR99	N
8UD1900-2WA00	4/15	0.129	EAR99	N
8UD1900-2WB00	4/15	0.280	EAR99	N
8US1				
8US1213-4AP03	4/61	1.020	N	N
8US1213-4AU01	4/61	0.569	N	N

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GAMMA Building Control	ET G1

Drive Systems	
SINAMICS G130 Drive Converter Chassis Units SINAMICS G150 Drive Converter Cabinet Units	D 11
SINAMICS GM150, SINAMICS SM150 Medium-Voltage Converters	D 12
SINAMICS PERFECT HARMONY GH180 Medium-Voltage Air-Cooled Drives Germany Edition	D 15.1
SINAMICS G180 Converters – Compact Units, Cabinet Systems, Cabinet Units Air-Cooled and Liquid-Cooled	D 18.1
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SINAMICS G120P and SINAMICS G120P Cabinet pump, fan, compressor converters	D 35
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Synchronous Motors with Permanent-Magnet Technology, HT-direct	D 86.2
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Digital: SIMOREG DC MASTER 6RM70 Digital Converter Cabinet Units	*DA 22*
SIMOVERT PM Modular Converter Systems	DA 45
SIEMOSYN Motors	DA 48
MICROMASTER 420/430/440 Inverters	DA 51.2
MICROMASTER 411/COMBIMASTER 411	DA 51.3
SIMODRIVE 611 universal and POSMO	DA 65.4
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SINUMERIK 840D sl Type 1B Equipment for Machine Tools	NC 62
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