

Easy Series

# EasyPact™ EVS

**Catalog 2021**

Molded-case circuit breakers  
from 16 to 630A



<https://www.se.com>

Life Is On

**Schneider**  
Electric



# Green Premium™

An industry leading portfolio of offers delivering sustainable value



More than 75% of our product sales offer superior transparency on the material content, regulatory information and environmental impact of our products:

- RoHS compliance
- REACH substance information
- Industry leading # of PEP's\*
- Circularity instructions



Discover what we mean by green  
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The Green Premium program stands for our commitment to deliver customer valued sustainable performance. It has been upgraded with recognized environmental claims and extended to cover all offers including Products, Services and Solutions.

#### CO<sub>2</sub> and P&L impact through... Resource Performance

Green Premium brings improved resource efficiency throughout an asset's lifecycle. This includes efficient use of energy and natural resources, along with the minimization of CO<sub>2</sub> emissions.

#### Cost of ownership optimization through... Circular Performance

We're helping our customers optimize the total cost of ownership of their assets. To do this, we provide IoT-enabled solutions, as well as upgrade, repair, retrofit, and remanufacture services.

#### Peace of mind through... Well-being Performance

Green Premium products are RoHS and REACH compliant. We're going beyond regulatory compliance with step-by-step substitution of certain materials and substances from our products.

#### Improved sales through... Differentiation

Green Premium delivers strong value propositions through third-party labels and services. By collaborating with third-party organizations we can support our customers in meeting their sustainability goals such as green building certifications.

\*PEP: Product Environmental Profile (i.e. Environmental Product Declaration)



# Fundamentals of protection...

Inherited from the design and technology of the top-selling EasyPact range of MCCB worldwide, EasyPact EZS is an economical solution that is the best value for money in its class. It is specially designed and dedicated to small-medium sized buildings, factories, OEMs and many simple yet demanding applications.

EasyPact EZS is equipped with a classic Schneider Electric inbuilt TM-D thermal-magnetic trip unit, ranging from 16 to 630A. Accessories are common and compatible with the entire EasyPact range of MCCB.

# The easy choice for affordable price

## Easy to choose

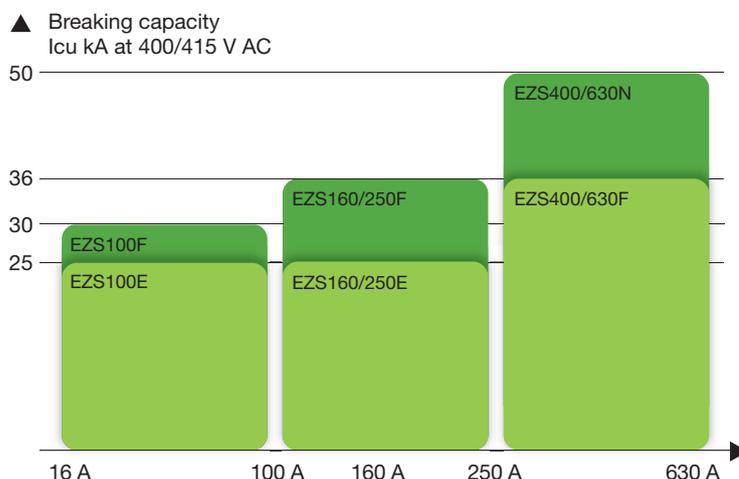
- > From 16 to 630A
- > Up to 50kA at 415V
- > Up to 4 poles
- > Up to 3 frame sizes

## Easy to install

- > Fixed front mounting
- > Front connections
- > Field-installable auxiliaries and accessories
- > Installation video through QR Code

## Easy to use

- > Hassle-free on any setting requirements
- > Small size optimised for tight spaces
- > Positive contact indication for safety and reliability



Timely  
delivery,  
wherever  
you are

Schneider Electric offers a world-renowned logistics network capable of getting EasyPact™ EZS products to you fast, wherever you are.

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Functions and characteristics **A-1**

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Installation recommendations **B-1**

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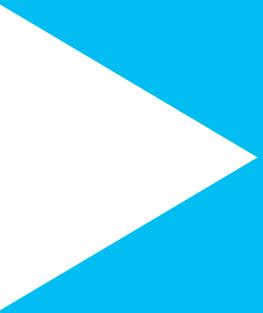
Dimensions and connection **C-1**

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Technical data supplement **D-1**

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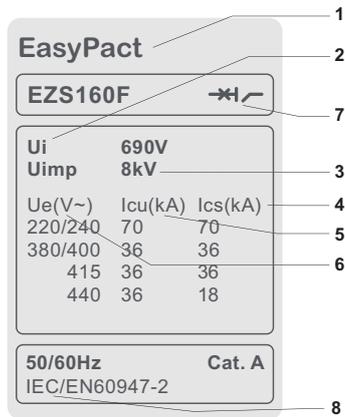
Catalogue numbers **E-1**



# Functions and characteristics

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Standardised characteristics indicated on the rating plate:

- 1 Type of device: frame size and breaking capacity class
- 2 Ui: rated insulation voltage.
- 3 Uimp: rated impulse withstand voltage.
- 4 Ue: operational voltage.
- 5 Icu: ultimate breaking capacity for various values of the rated operational voltage Ue.
- 6 Ics: service breaking capacity.
- 7 Suitable for Isolation symbol.
- 8 Reference standard.

**Note:** when the circuit breaker is equipped with an extended rotary handle, the door must be opened to access the rating plate.

## Compliance with standards

EasyPact EZS circuit breakers and auxiliaries comply with the following international recommendations:

- IEC 60947-1: general rules.
- IEC 60947-2: circuit breakers.

## Pollution degree

EasyPact EZS circuit breakers are certified for operation in pollution-degree III environments as defined by IEC standards 60947-1 and 60664-1 (industrial environments).

## Climatic withstand

EasyPact EZS circuit breakers have successfully passed the tests defined by the following standards for extreme atmospheric conditions:

- IEC 60068-2-1: dry cold (-55°C).
- IEC 60068-2-2: dry heat (+85°C).
- IEC 60068-2-30: damp heat (95 % relative humidity at 55°C).
- IEC 60068-2-52 severity level 2: salt mist.

## Environment

EasyPact EZS respects the European environment directive EC/2002/95 concerning the restriction of hazardous substances (RoHS).

All EasyPact EZS production sites have set up an ISO 14001 certified environmental management system.

## Ambient temperature

- EasyPact EZS circuit breakers can be used between -25°C and +70°C. For temperatures higher than 40°C (65°C for circuit breakers used to protect motor feeders), devices must be derated ([see page B-2](#)).
- Circuit breakers should be put into service under normal ambient, operating-temperature conditions. Exceptionally, the circuit breaker can be put into service when the ambient temperature is between -35°C and -25°C.
- The permissible storage-temperature range for EasyPact EZS circuit breakers in the original packing is -50°C and +85°C.

### Suitable for isolation with positive contact indication

All EasyPact EZS circuit breakers are suitable for isolation as defined in IEC standard 60947-2:

- The isolation position corresponds to the O (OFF) position.
- The operating handle cannot indicate the OFF position unless the contacts are effectively open.
- Padlocks cannot be installed unless the contacts are open.

Installation of a rotary handle does not alter the reliability of the position-indication system.

The isolation function is certified by tests guaranteeing:

- The mechanical reliability of the position-indication system.

- The absence of leakage currents.

- Over voltage withstand capacity between upstream and downstream connections.

The tripped position does not ensure isolation with positive contact indication.

Only the OFF position guarantees isolation.

### Installation in class II switchboards

All EasyPact EZS circuit breakers are class II front face devices. They can be installed through the door of class II switchboards (as per IEC standards 61140 and 60664-1) without downgrading switchboard insulation. Installation requires no special operations, even when the circuit breaker is equipped with a rotary handle.

### Degree of protection

The following indications are in accordance with standards IEC 60529 (IP degree of protection) and IEC 62262 (IK protection against external mechanical impacts).

#### Bare circuit breaker with Escutcheon:

- with toggle: IP40, IK07 front face.
- with extended rotary handle: IP 54, IK08.

#### Circuit breaker installed in a switchboard:

- with toggle: IP40, IK07 front face.
- with extended rotary handle: IP 54, IK08.



EasyPact EZS100E/F



EasyPact EZS160/250



EasyPact EZS400/630

**Common characteristics**

Rated voltage			
Insulation voltage (V)	<b>Ui</b>		690
Impulse withstand voltage (kV)	<b>Uimp</b>		8 <sup>(1)</sup>
Operational voltage (V)	<b>Ue</b>	AC 50/60 Hz	440
Suitability for isolation		IEC/EN 60947-2	■
Utilisation category			A
Pollution degree		IEC 60664-1	3
Control		Manual	Toggle ■
			Direct or extended rotary handle ■

**Circuit breakers**

**Performance**

**Electrical characteristics as per IEC 60947-2**

Rated current (A)	<b>In</b>		40°C
Number of poles			
Breaking capacity levels			
Breaking capacity (kA rms)			
	<b>Icu</b>	AC 50/60 Hz	220/240 V 380/400 V 415V 440 V
Service capacity (kA rms)			
	<b>Ics</b>	AC 50/60 Hz	220/240 V 380/400 V 415V 440 V
Durability (C-O cycles)		Mechanical	
		Electrical	415V      In/2 In

**Protection**

Short-circuit protection	Magnetic only
Overload/short-circuit protection	Thermal magnetic
	Electronic with neutral protection (Off-0.5-1)
Earth-leakage protection	By Vigi module

**Auxiliaries**

Auxiliary contacts	OF
	SD
Voltage releases	MX
	MN

**Installation / connections**

**Dimensions and weights**

Dimensions (mm)	Fixed, front connections	3P
W x H x D		4P
Weight (kg)	Fixed, front connections	3P
		4P

**Connections**

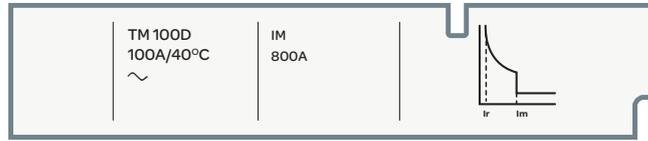
Connection terminals (mm)	Pitch	Without / With spreaders
Large Cu or Al cables	Cross-section	mm <sup>2</sup>
Connection	Fixed	Front connection

(1) Uimp for EZS100 = 6kV



TM-D thermal-magnetic trip units can be used on EasyPact EZS100-630 circuit breakers with performance levels E/F/N.

### TM-D thermal-magnetic trip units



#### Protection



TM-D trip units are used mainly in electrical distribution applications for protection of cables supplied by transformers.

#### Thermal protection (Ir)

Thermal protection operates according to:

- Ir non-adjustable.
- non-adjustable time delay.

#### Magnetic protection (Im)

Short-circuit protection with a fixed or adjustable pick-up Im that initiates instantaneous tripping if exceeded.

- fixed pick-up.

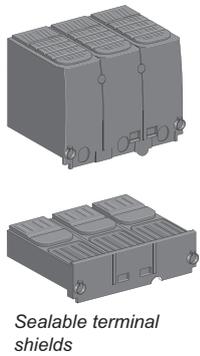
#### Protection versions

- 3-pole:
  - 3P 3D: 3-pole frame (3P) with detection on all 3 poles (3D).
- 4-pole:
  - 4P 3D: 4-pole frame (4P) with detection on 3 poles (3D).

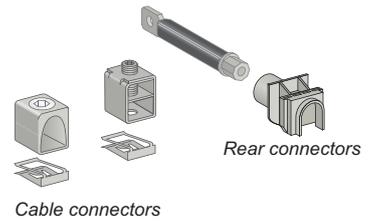
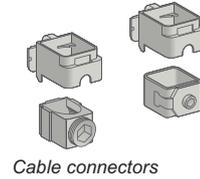
Thermal-magnetic trip units		TM16D to 250D	TM320D to 600D
Ratings (A)	In at 40 °C <sup>(1)</sup>	16 20 25 32 40 50 63 80 100 125 160	200 225 250 315 350 400 500 600
Circuit breaker	EZS100	■	
	EZS160		■
	EZS250		■
	EZS400		■
	EZS630		■
<b>Magnetic protection</b>			
Pick-up (A)	Im	fixed	
accuracy ±20 %	EZS100	300 300 300 300 500 500 750 1000 1000	
	EZS160		800 1250 1250
	EZS250		2000 2500 2500
	EZS400		3200 3500 4000
	EZS630		5000 5000
<b>Thermal protection</b>			
Pick-up (A)	Ir = In	fixed	
<b>Neutral protection</b>			
Unprotected neutral	4P 3D	no detection	

(1) For temperatures not equal to 40 °C, the thermal protection characteristics are modified. See the temperature derating table on page B-2.

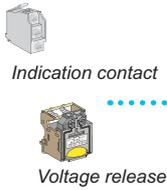
## Insulation accessories ▶ E-3, E-6, E-9



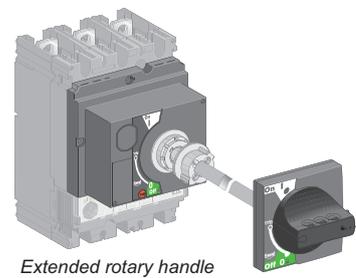
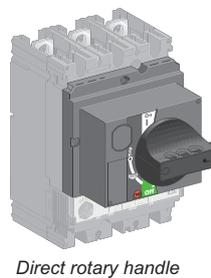
## Connection ▶ B-3



## Electrical auxiliaries ▶ A-11



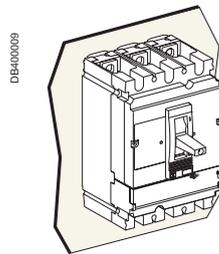
## Control accessories ▶ A-12



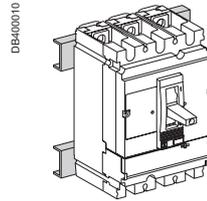
EZS circuit breakers may be installed horizontally, vertically or flat on their back, without derating performance levels.

### Fixed circuit breakers

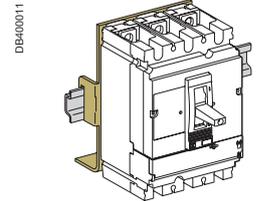
Fixed circuit breakers are designed for standard connection using bars or cables with lugs. Bare-cable connectors are available for connection to bare copper or aluminium cables.



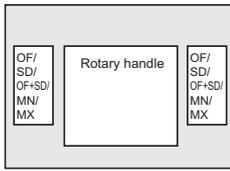
Mounting on a backplate.



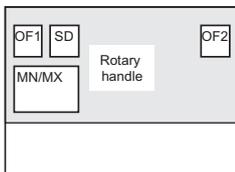
Mounting on rails.



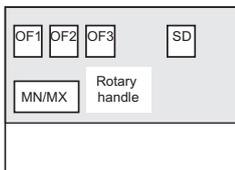
Mounting on DIN rail (with adaptor).



EasyPact EZS100



EasyPact EZS160-250



EasyPact EZS400-630

### EasyPact EZS160/250

#### Standard

All EasyPact EZS160~250 circuit breakers have slots for the electrical auxiliaries listed below.

**3 indication contacts** (see page A-10)

- 2 ON/OFF (OF1 and OF2).
- 1 trip indication (SD).

**1 remote-tripping release** (see page A-11)

- either 1 MN undervoltage release.
- or 1 MX shunt release.

All these auxiliaries can be installed with a rotary handle.

### EasyPact EZS400/630

#### Standard

All EasyPact EZS400/630 circuit breakers have slots for the electrical auxiliaries listed below.

**4 indication contacts** (see page A-10)

- 3 ON/OFF (OF3).
- 1 trip indication (SD).

**1 remote-tripping release** (see page A-11)

- either 1 MN undervoltage release.
- or 1 MX shunt release.

All these auxiliaries can be installed with a rotary handle.

One contact model provides circuit-breaker status indications (OF - SD).



EasyPact EZS100 auxiliary switch



For EasyPact EZS100

These common-point changeover contacts provide remote circuit-breaker status information.

They can be used for indications, electrical locking, relaying, etc. They comply with the IEC 60947-5 international recommendation.

### EasyPact EZS100

#### Indication contacts

Provide remote circuit breaker status information. They can be used for indications, electrical locking, relaying, etc. Common-point changeover contacts.

#### Auxiliary switch (ON/OFF)

AX indicates the position of the circuit breaker contacts.

#### Alarm switch (trip indication)

■ AL indicates that the circuit breaker has tripped due to:

- an overload.
- a short-circuit.
- operation of a voltage release.

They return to de-energised state when the circuit breaker is reset.

### Characteristics

#### Contacts

Rated thermal current (A)	5		
Minimum load	10 mA at 24 V		
Utilisation category (IEC 60947-5-1)	AC12	AC15	
Operational current (A)	24 V	5	5
	48 V	5	5
	125 V	5	3
	250 V	3	2

#### Connections

Connection wire length	450 mm		
Cross-section	EZS100: 1 mm <sup>2</sup>		
	EZS250: 1.5 mm <sup>2</sup>		

### EasyPact EZS160-630

#### Functions

##### Breaker-status indications, during normal operation or after a fault

A single type of contact provides all the different indication functions:

- OF (ON/OFF) indicates the position of the circuit breaker contacts.
- SD (trip indication) indicates that the circuit breaker has tripped due to:
  - an overload.
  - a short-circuit.
  - operation of a voltage release.
  - operation of the “push to trip” button.
  - disconnection when the device is ON.

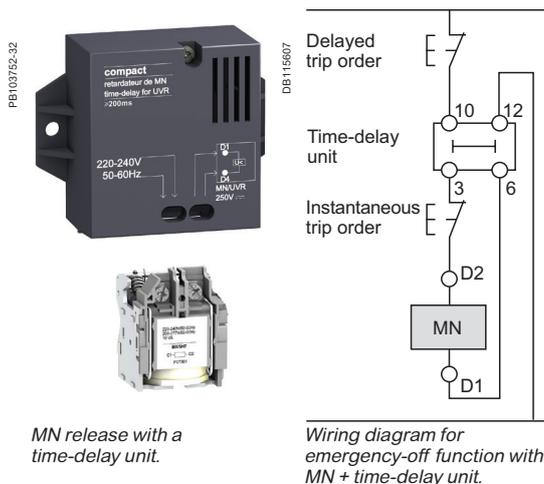
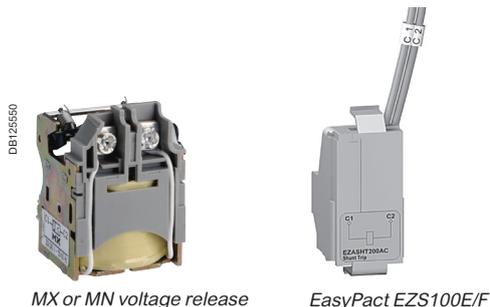
The SD contact returns to de-energised state when the circuit breaker is reset.

#### Installation

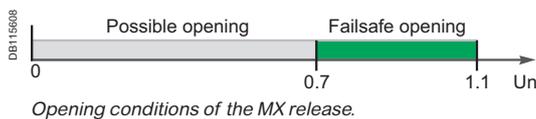
- OF, SD functions: a single type of contact provides all these different indication functions, depending on where it is inserted in the device. The contacts clip into slots behind the front cover of the circuit breaker.

#### Electrical characteristics of auxiliary contacts

Contacts		Standard				Low level			
Types of contacts		All				OF, SD			
Rated thermal current (A)		6				5			
Minimum load		100 mA at 24 V DC				1 mA at 4 V DC			
Utilisation cat. (IEC 60947-5-1)		AC12	AC15	DC12	DC14	AC12	AC15	DC12	DC14
Operational current (A)	24 V AC/DC	6	6	6	1	5	3	5	1
	48 V AC/DC	6	6	2.5	0.2	5	3	2.5	0.2
	110 V AC/DC	6	5	0.6	0.05	5	2.5	0.6	0.05
	220/240 V AC	6	4	-	-	5	2	-	-
	250 V DC	-	-	0.3	0.03	5	-	0.3	0.03
380/440 V AC		6	2	-	-	5	1.5	-	-



MN release with a time-delay unit.



### MN undervoltage release

- This release trips the circuit breaker when the control voltage drops below a tripping threshold.
- The tripping threshold is between 0.35 and 0.7 times the rated voltage.
- Circuit breaker closing is possible only if the voltage exceeds 0.85 times the rated voltage.

#### Characteristics

Power supply	V AC	50/60 Hz: 24 - 48 - 100/130 - 200/240
		50 Hz: 380/415    60 Hz: 208/277
Operating threshold	V DC	12 - 24 - 30 - 48 - 60 - 125 - 250
	Opening	0.35 to 0.7 Un
	Closing	0.85 Un
Operating range		0.85 to 1.1 Un
Consumption (VA or W)		Pick-up: 10 - Hold: 5
Response time (ms)		50

### Time-delay unit for an MN release

A time delay unit for the MN release eliminates the risk of nuisance tripping due to a transient voltage dip lasting  $\leq 200$  ms. For shorter micro-outages, a system of capacitors provides temporary supply to the MN at  $U > 0.7$  to ensure non tripping. The correspondence between MN releases and time-delay units is shown below.

Power supply	Corresponding MN release
<b>Unit with fixed delay 200 ms</b>	
48 V AC	48 V DC
220 / 240 V AC	250 V DC
<b>Unit with adjustable delay (0.5s, 0.9s, 1.5s, 3s)</b>	
48 - 60 V AC/DC	48 V DC
100 - 130 V AC/DC	125 V DC
220 - 250 V AC/DC	250 V DC

### MX shunt release

The MX release opens the circuit breaker via an impulse-type ( $\geq 20$  ms) or maintained order.

#### Opening conditions

When the MX release is supplied, it automatically opens the circuit breaker. Opening is ensured for a voltage  $U \geq 0.7 \times U_n$ .

#### Characteristics

Power supply	V AC	50/60 Hz: 24 - 48 - 100/130 - 200/240
		50 Hz: 380/415    60 Hz: 208/277
Operating range	V DC	12 - 24 - 30 - 48 - 60 - 125 - 250
		0.7 to 1.1 Un
Consumption (VA or W)		Pick-up: 10
Response time (ms)		50

### Circuit breaker control by MN or MX

When the circuit breaker has been tripped by an MN or MX release, it must be reset before it can be reclosed.

MN or MX tripping takes priority over manual closing.

In the presence of a standing trip order, closing of the contacts, even temporary, is not possible.

Connection using wires up to 1.5mm<sup>2</sup> to integrated terminal blocks.

**Note:** circuit breaker opening using an MN or MX release must be reserved for safety functions. This type of tripping increases wear on the opening mechanism. Repeated use reduces the mechanical endurance of the circuit breaker by 50 %.

There are two types of rotary handle:

- direct rotary handle
- extended rotary handle.



EasyPact EZS with a rotary handle.



EasyPact EZS with an extended rotary handle installed at the back of a switchboard, with the keylock option and key.

### Direct rotary handle

#### Standard handle

Degree of protection IP40, IK07.

The direct rotary handle maintains:

- visibility of and access to trip-unit settings.
- suitability for isolation.
- indication of the three positions O (OFF), I (ON) and tripped.
- access to the "push to trip" button.

#### Device locking

The rotary handle facilitates circuit-breaker locking.

##### ■ Padlocking:

- standard situation, in the OFF position, using 1 to 3 padlocks, shackle diameter 5 to 8 mm, not supplied.

### Extended rotary handle

Degree of protection IP54, IK08.

The extended rotary handle makes it possible to operate circuit breakers installed at the back of switchboards, from the switchboard front.

It maintains:

- visibility of and access to trip-unit settings.
- suitability for isolation.
- indication of the three positions O (OFF), I (ON) and tripped.

#### Device and door padlocking

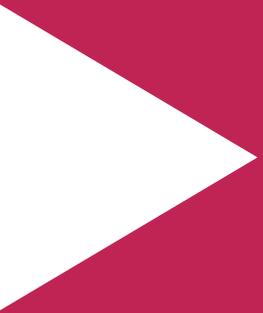
Padlocking locks the circuit-breaker handle and disables door opening:

- standard situation, in the OFF position, using 1 to 3 padlocks, shackle diameter 5 to 8 mm, not supplied.

#### Parts of the extended rotary handle

- A unit that replaces the front cover of the circuit breaker (secured by screws).
- An assembly (handle and front plate) on the door that is always secured in the same position, whether the circuit breaker is installed vertically or horizontally.
- An extension shaft that must be adjusted to the distance. The min/max distance between the back of circuit breaker and door is:
  - 145...530 mm for EasyPact EZS100.
  - 185...600 mm for EasyPact EZS160/250.
  - 209...600 mm for EasyPact EZS 400/630.





# Installation recommendations

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## Ambient temperature

EasyPact EZS devices are equipped with fixed thermal-magnetic trip units.

- EasyPact EZS circuit breakers may be used between -25°C and +70°C.
- EasyPact EZS circuit breakers should be put into service under normal ambient operating temperature conditions. Exceptionally, the circuit breaker may be put into service when the ambient temperature is between -35°C and -25°C.
- the permissible storage-temperature range for EasyPact EZS circuit breakers in the original packing is -35°C to +85°C.

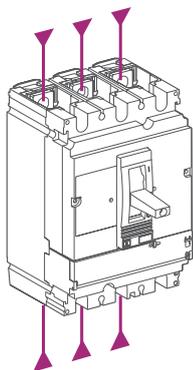
To determine tripping times using time/current curves, use  $I_r$  values corresponding to the thermal setting on the device, corrected as indicated in the tables below.

### EZS100

Rated current (A)	Temperature						
	40°C	45°C	50°C	55°C	60°C	65°C	70°C
16	16.7	16.3	16	15.7	15.6	15.1	14.7
20	20.4	20.2	20	19.7	19.2	18.9	18.5
25	25.7	25.3	25	24.7	24.5	24.3	24.0
32	33.5	32.7	32	31.4	31.0	30.4	29.9
40	40.9	40.4	40	39.5	38.0	37.6	37.1
50	52.1	51.0	50	49.3	48.1	47.3	46.6
63	64.9	63.9	63	62.0	60.4	59.4	58.5
80	82.2	81.1	80	78.6	77.3	76.7	76.1
100	103.0	101.0	100	99.0	94.0	94.0	93.0

### EZS160~630

Rated current (A)	Temperature						
	40°C	45°C	50°C	55°C	60°C	65°C	70°C
100	100	97.0	95.0	92.0	89.0	86.0	83.0
125	125	122.0	119.0	116.0	113.0	109.0	106.0
140	140	135.5	130.9	126.1	121.2	116.0	110.6
160	160	156.0	152.0	148.0	144.0	140.0	136.0
180	180	173.2	166.2	158.8	151.0	142.9	134.2
200	200	195.0	190.0	185.0	180.0	175.0	170.0
225	225	216.9	208.6	199.9	190.7	181.2	171.1
250	250	244.0	238.0	231.0	225.0	219.0	213.0
315	315	307.6	300.0	292.1	284.1	275.9	267.3
350	350	339.5	328.8	317.6	306.1	294.1	281.5
400	400	390.0	379.3	368.5	357.3	345.8	334.0
500	500	489.6	479.0	468.0	457.0	445.4	433.6
600	600	587.0	574.0	560.6	547.0	532.7	518.0



### Power supply from the top or bottom

EZS circuit breakers can be supplied from either the top or the bottom without any reduction in performance. This capability facilitates connection when installed in a switchboard.

All connection and insulation accessories can be used on circuit breakers supplied either from the top or bottom.

### General rules

When installing a circuit breaker, minimum distances (safety clearances) must be maintained between the device and panels, bars and other protection devices installed nearby. These distances, which depend on the ultimate breaking capacity, are defined by tests carried out in accordance with standard IEC 60947-2.

If installation conformity is not checked by type tests, it is also necessary to:

- use insulated bars for circuit-breaker connections
- segregate the busbars using insulating screens.

For EZS100 to 630 devices, terminal shields and interphase barriers are recommended and may be mandatory depending on the operating voltage of the device and type of installation (fixed, withdrawable, etc.).

### Power connections

The table below indicates the rules to be respected for EZS100 to 630 devices to ensure the insulation of live parts for fixed devices.

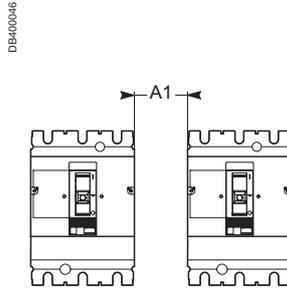
### EZS100 to 630: rules to be respected to ensure the insulation of live parts

Type of connection		Fixed, front connection		Fixed, rear connection		
Possible, recommended or mandatory accessories:		No insulating accessory	Interphase barriers	Long terminal shields <sup>(1)</sup>	Short terminal shields	
With:						
operating voltage	type of conductor					
≤ 440 V	Insulated bars		Possible	Possible	Possible	Recommended
	Extension terminals Cables + crimp lugs		No	Mandatory (supplied)	Possible (instead of ph. barriers)	Recommended
	Bare cables + connectors		Possible for EZS100 to 250	Possible for EZS100 to 250	Possible for EZS100 to 250	Recommended
			No	Mandatory (supplied)	Possible (instead of ph. barriers)	

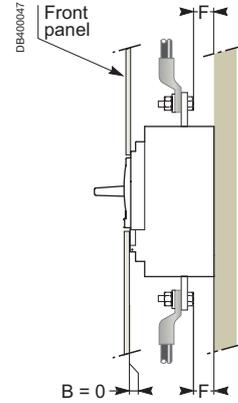
(1) Long terminal shields provide a degree of protection of IP40 (ingress) and IK07 (mechanical impact).

### Safety clearance

Minimum distance between two adjacent circuit breakers



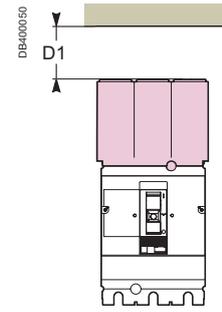
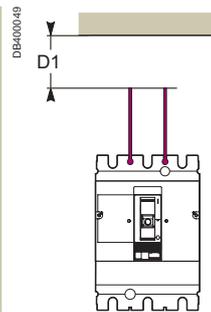
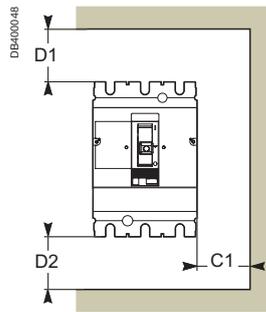
Minimum distance between circuit breaker and front or rear panels



Bare or painted sheet metal

**Note:** if  $F < 8$  mm: an insulating screen or long terminal shield is mandatory.

Minimum distance between circuit breaker and top, bottom or side panels

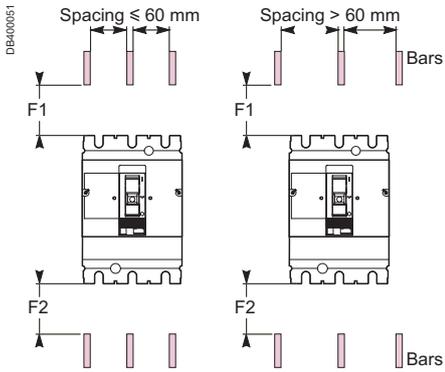


Devices without accessories.

Devices with interphase barriers or long terminal shields.

Minimum safety clearances for EZS100 to 630

Dimensions (mm) circuit breaker	Insulation, insulated bars or painted sheet metal			Bare sheet metal			
	C1	D1	D2	C1	D1	D2	A1
EZS100-250 $U \leq 440V$	0	30	30	5	35	35	0
EZS400-630 $U \leq 440V$	0	30	30	5	60	60	0



Live busbars.

## Clearances with respect to live bare busbars

Minimum clearances for EZS100 to 630

Operating voltage	Clearances with respect to live bare busbars			
	spacing $\leq 60$ mm		spacing $> 60$ mm	
	F1	F2	F1	F2
U < 440 V	350	350	80	80
U = 440 V	350	350	120	120

*These clearances can be reduced for special installations as long as the configuration is checked by tests.*

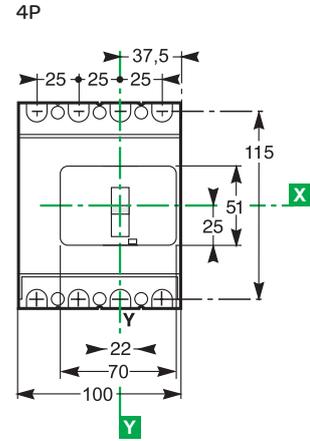
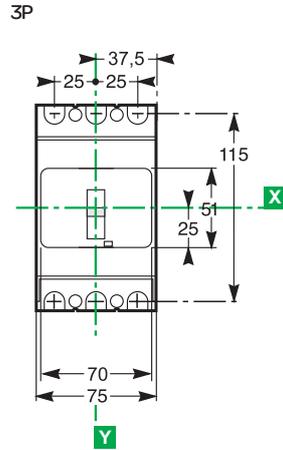
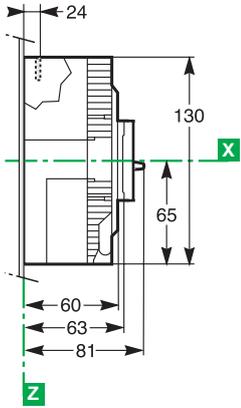


# Dimensions and connection

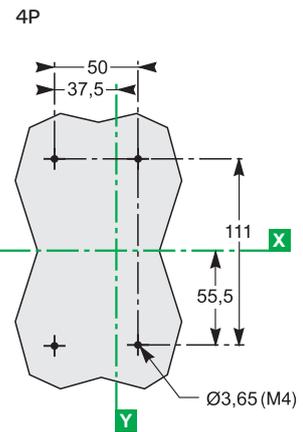
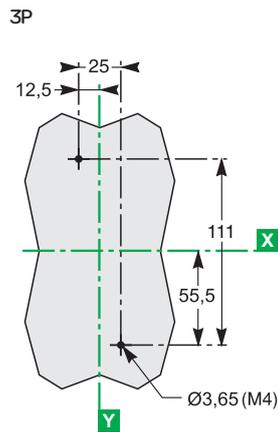
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<i>Presentation</i>	<i>III</i>
<i>Functions and characteristics</i>	<i>A-1</i>
<i>Installation recommendations</i>	<i>B-1</i>
<b>Dimensions and mounting</b>	<b>C-2</b>
EasyPact EZS100	C-2
Rotary handle for EasyPact EZS160 - 630	C-5
EasyPact EZS160 - 630	C-6
Direct rotary handle for EasyPact EZS160 - 630	C-7
Extended rotary handle for EasyPact EZS100 - 630	C-8
<b>Front-panel cutouts</b>	<b>C-9</b>
EasyPact EZS160-630	C-9
<b>Power connections</b>	<b>C-10</b>
EasyPact EZS100	C-10
EasyPact EZS160-630	C-11
Connection of insulated bars or cables with lugs to EasyPact EZS160 - 630	C-13
<i>Technical data supplement</i>	<i>D-1</i>
<i>Catalogue numbers</i>	<i>E-1</i>

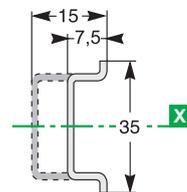
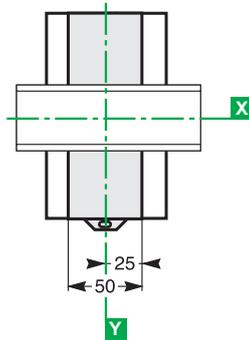
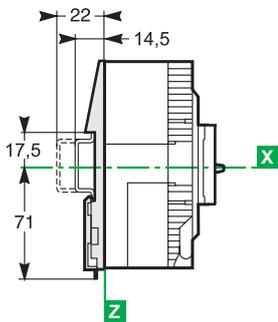
### Dimensions



### Backplate mounting

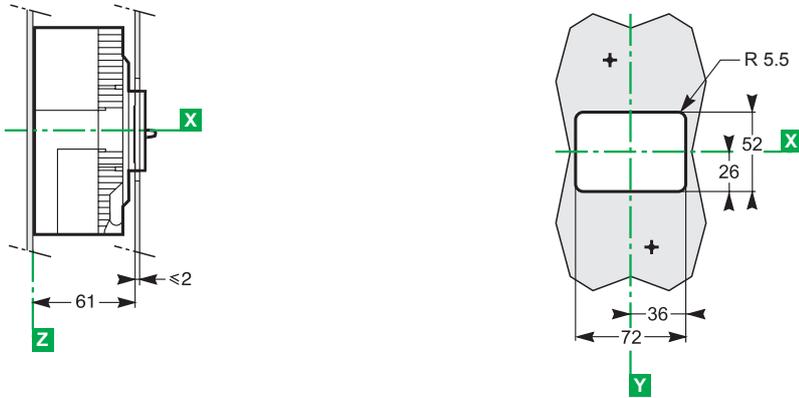


### DIN rail mounting

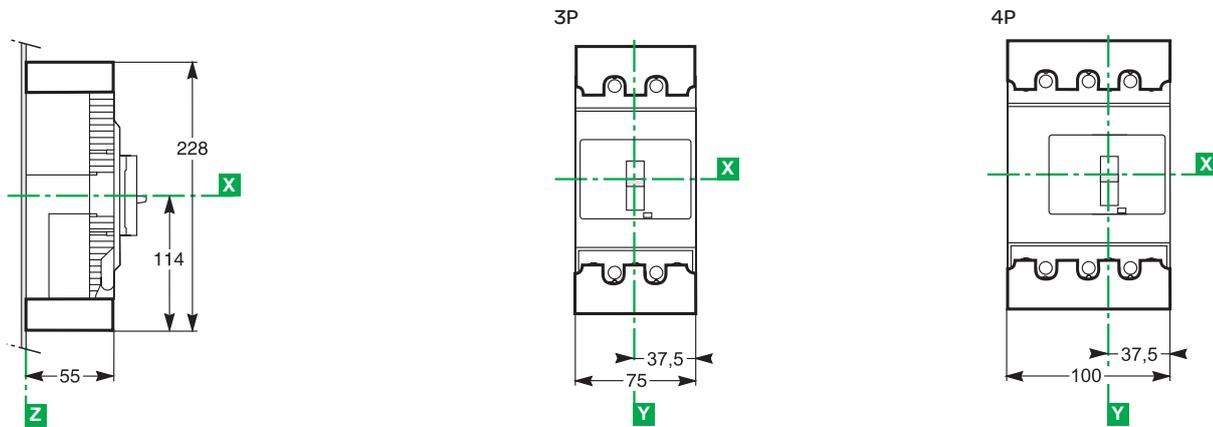


Front panel cutout

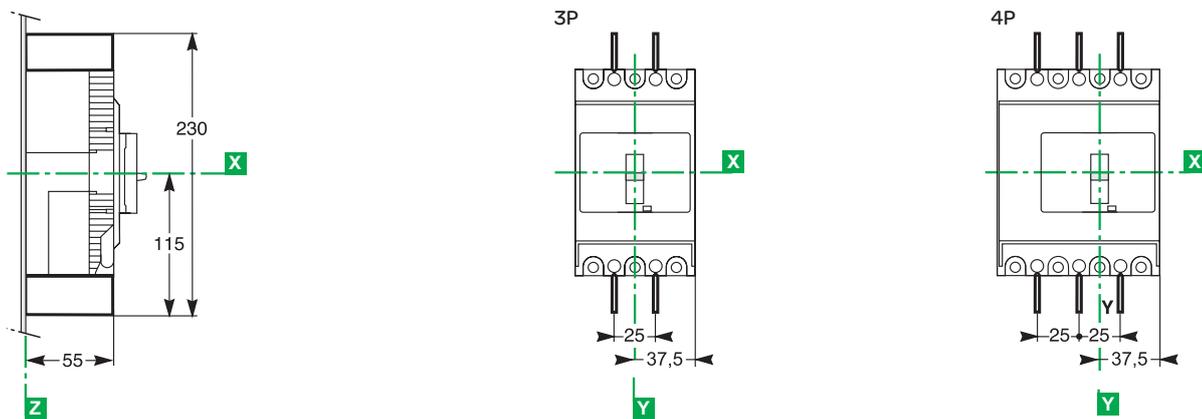
3P / 4P



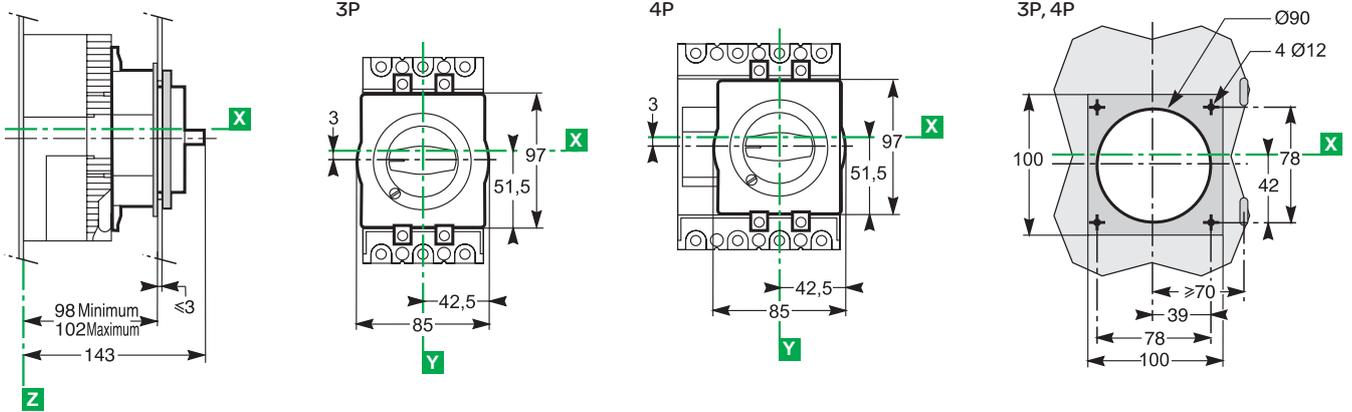
### Terminal shield



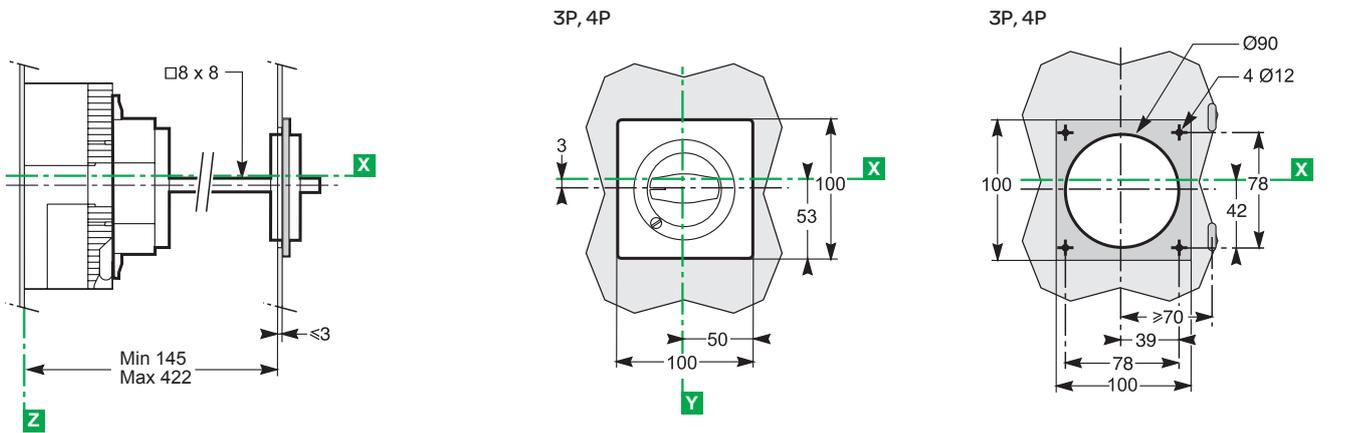
### Interphase barrier



## Direct rotary handle



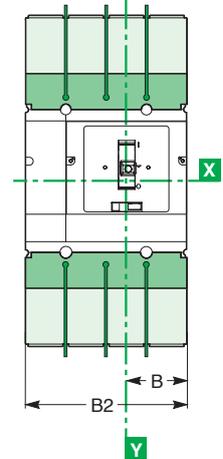
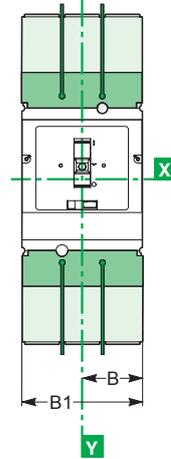
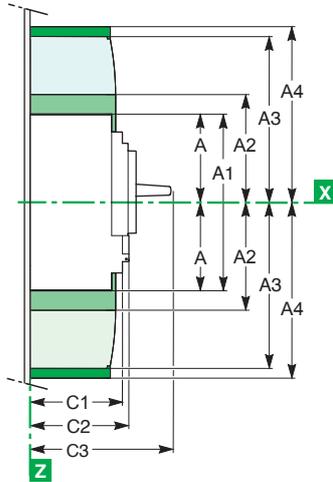
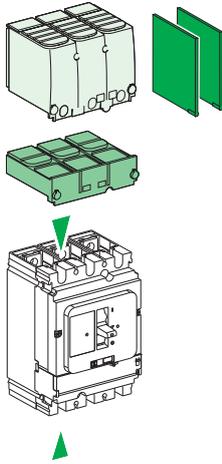
## Extended rotary handle



### Dimensions

3P

4P



Interphase barriers.  
 Short terminal shields.

Long terminal shields (also available for EZS400/630 spreaders with 52.5mm pitch: B1=157.5mm, B2=210mm).

### Mounting

EZS160-250

EZS 400/630

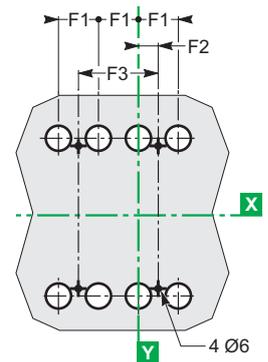
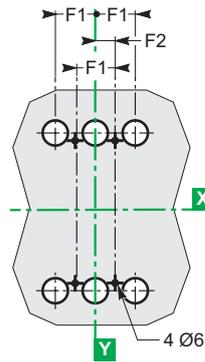
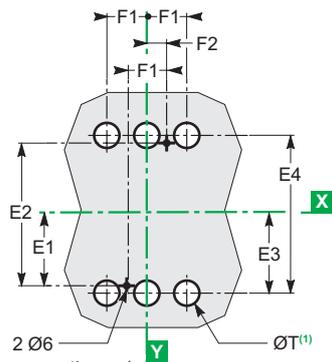
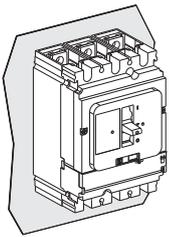
EZS160-630

On backplate

3P

3P

4P



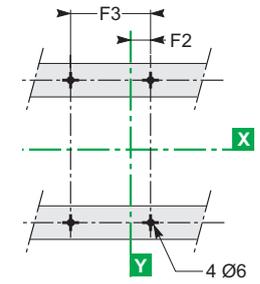
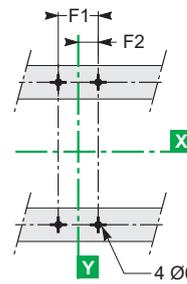
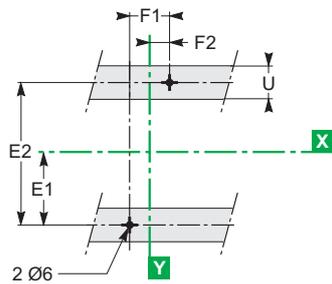
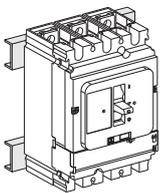
(1) The ØT holes are required for rear connection only.

On rails

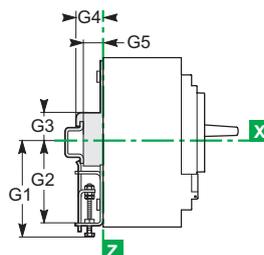
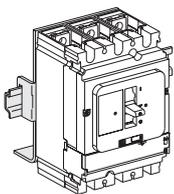
3P

3P

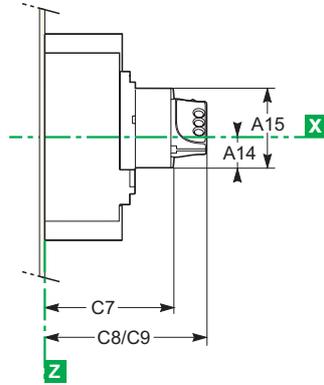
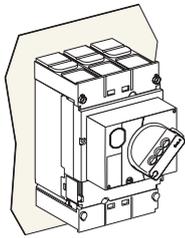
4P



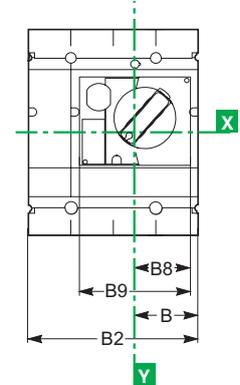
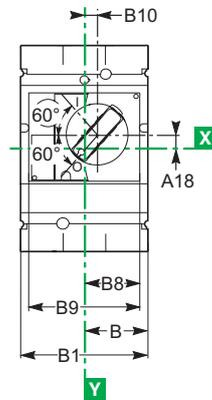
On DIN rail with adaptor plate (EZS160/250)



Dimensions	3P	4P
Fixed circuit breaker		



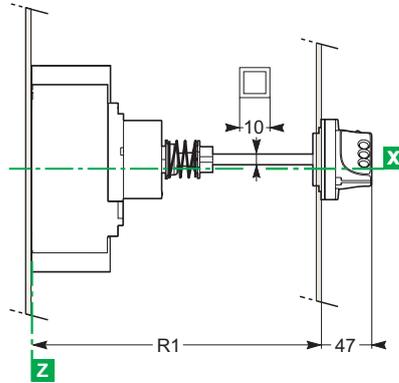
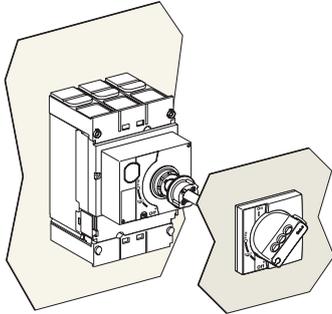
C8: without keylock  
C9: with keylock



Type	A14	A15	A18	B8	B9	B10	C7	C8	C9
EZS160/250	27.5	73	9	45.5	91	9.25	121	155	164
EZS400/630	40	123	24.6	61.5	123	5	145	179	188

### Dimensions

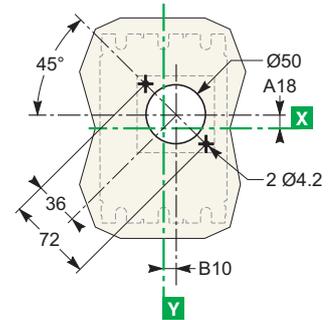
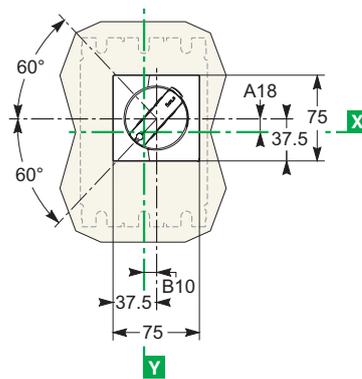
#### Fixed circuit breakers



Cutout for shaft (mm)

Type	R1
EZS160/250	min. 171 max. 600
EZS400/630	min. 195 max. 600

### Dimensions and front-panel cutout



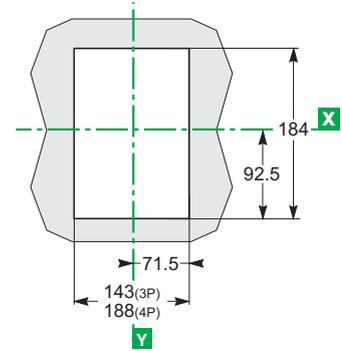
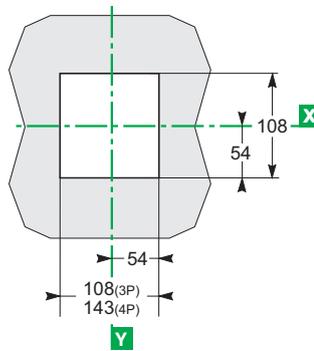
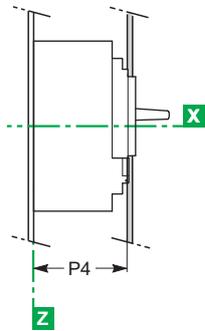
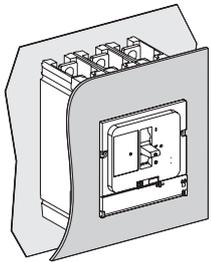
Type	A18	B10
EZS160/250	9	9.25
EZS400/630	24.6	5

Bare sheet metal

EZS160/250

EZS400/630

For toggle with access to trip unit

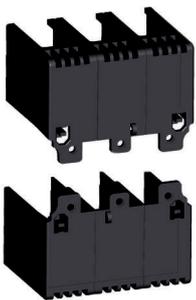




Spreader



Phase barriers for EZS100

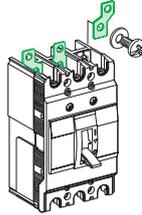


Terminal shield for EZS100

### Spreaders

Increase the pitch of the circuit breaker terminals:

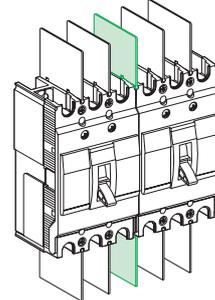
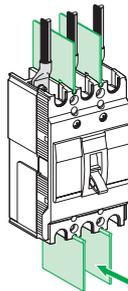
- EZS100 from 25 mm to 35 mm.



Designation	Cat. no.
EZS100	
Spreaders for 3-pole breaker (set of 3)	EZASPR3P
Spreaders for 4-pole breaker (set of 4)	EZASPR4P

### Phase barriers

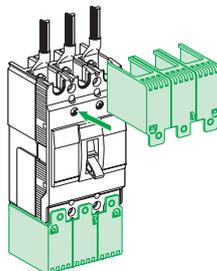
- Safety accessories for maximum insulation at the power connection points.
- Usable with all other connection accessories, except terminal shields.
- Each breaker is delivered with a set of phase barriers (2 for 3 poles and 3 for 4 poles breaker).
- Additional set of phase barriers available for insulation between outgoing or between 2 side by side-mounted breakers.



Designation	Cat. no.
EZS100	
Phase barriers for 60 mm depth (set of 2)	EZAFASB2

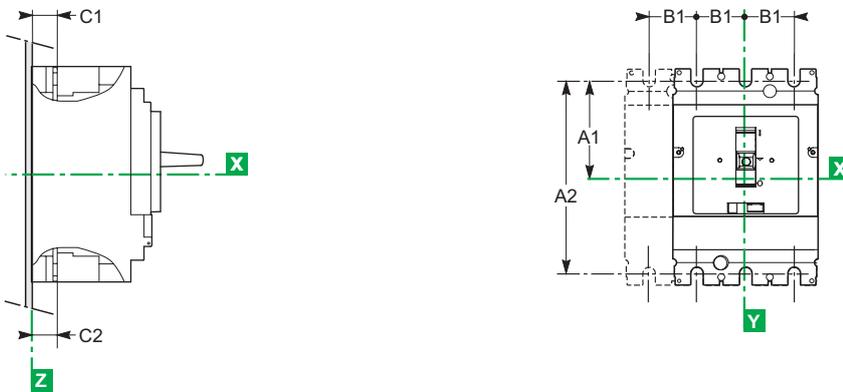
### Terminal shields

- Insulating accessory used for protection against direct contacts with power circuit connections. It provides a degree of protection of IP20 and mechanical resistance of IK07.
- The long terminal shield is used with front cable or isolated busbar connections.
- Designed for 3-pole EZS100.



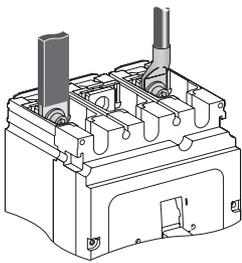
Designation	Cat. no.
EZS100	
Terminal shield 3P, 60 mm depth (set of 2)	EZATSHD3P
Terminal shield 4P, 60 mm depth (set of 2)	EZATSHD4P

## Connection locations

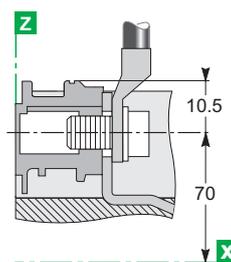


Type	A1	A2	B1	C1	C2
EZS160	70	140	35	19.5	19.5
EZS250	70	140	35	21.5	19.5
EZS400-630	113.5	227	45	26	26

## Front connections without accessories

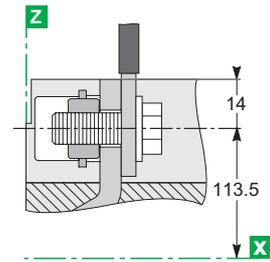


EZS160/250



Cables with lugs/bars

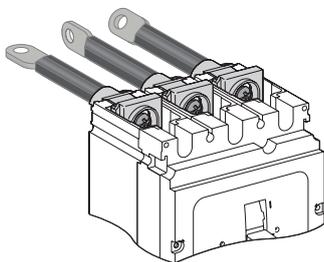
EZS400/630



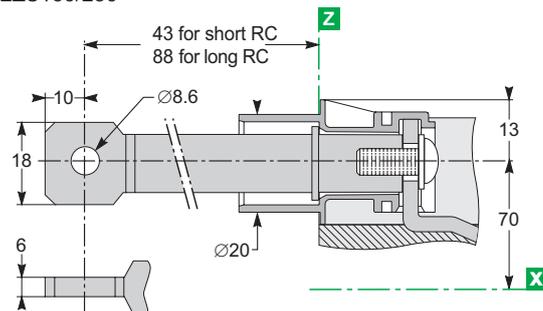
Bars/cables with lugs

## Connection with accessories

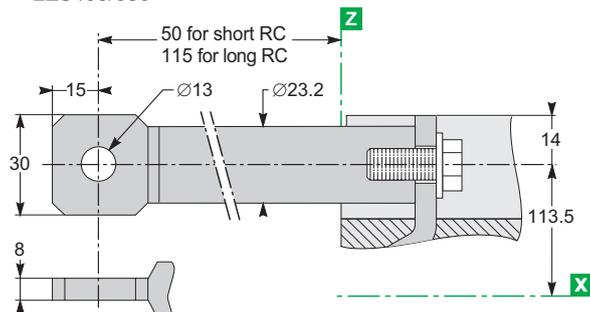
### Long and short rear connectors



EZS160/250



EZS400/630

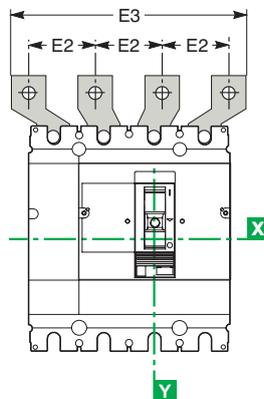
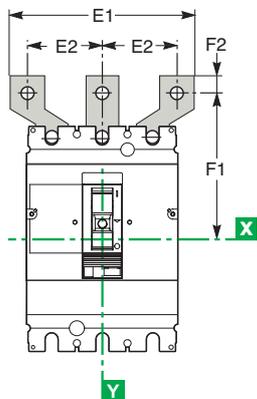
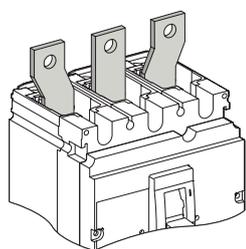


## Connection with accessories (cont.)

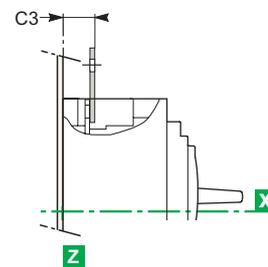
Spreaders

3P

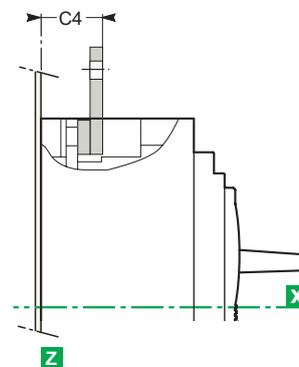
4P



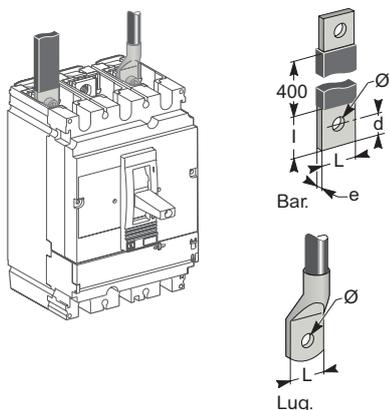
EZS160/250



EZS400/630



Type	C3	C4	E1	E2	E3	F1	F2
EZS160	23.5	-	114	45	159	100	11
EZS250	25.5	-	114	45	159	100	11
EZS400/630	-	44	135 170	52.5 70	187.5 240	152.5 166	15



### Accessories for EZS160/250

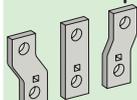
Spreaders:  
separate parts



Tinned copper

### Accessories for EZS400/630

Spreaders made up of separate parts for 52.5 and 70 mm pitch



Tinned copper

### Direct connection to EZS160 - 630

Dimensions		EZS160/ 250	EZS400/630
Bars	L (mm)	≤ 25	≤ 32
	l (mm)	d + 10	d + 15
	d (mm)	≤ 10	≤ 15
	e (mm)	≤ 6	3 ≤ e ≤ 10
	Ø (mm)	8.5	10.5
Lugs	L (mm)	≤ 25	≤ 32
	Ø (mm)	8.5	10.5
Torque (Nm) <sup>(1)</sup>		15	50
Torque (Nm) <sup>(2)</sup>		5/5	20/11

(1) Tightening torque on the circuit breaker for lugs or bars.

(2) Tightening torque on fixed devices for rear connectors.

### Connection with accessories to EZS160/250 (IEC 228)

Pole pitch			
Without spreaders		35 mm	
With spreaders		45 mm	
Dimensions		With spreaders or terminal extensions EZS160 - 250	
Bars	L (mm)	≤ 25	
	l (mm)	20 ≤ l ≤ 25	
	d (mm)	≤ 10	
	e (mm)	≤ 6	
	Ø (mm)	8.5	
Lugs	L (mm)	≤ 25	
	Ø (mm)	8.5	
Torque (Nm) <sup>(1)</sup>		15	

(1) Tightening torque on the circuit breaker for spreaders or terminal extensions.

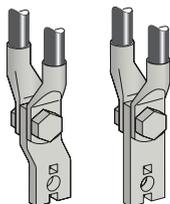
Spreaders are supplied with flexible interphase barriers.

### Connection with accessories to EZS400/630 (IEC 228)

Pole pitch			
Without spreaders		45 mm	
With spreaders		52.5 or 70 mm	
Dimensions		With spreaders	
Bars	L (mm)	≤ 40	
	l (mm)	d + 15	
	d (mm)	≤ 20	
	e (mm)	3 ≤ e ≤ 10	
	Ø (mm)	12.5	
Lugs	L (mm)	≤ 40	
	Ø (mm)	12.5	
Torque (Nm) <sup>(1)</sup>		50	

(1) Tightening torque on the circuit breaker for spreaders or terminal extensions.

Spreaders and right-angle, 45° and edgewise terminal extensions are supplied with flexible interphase barriers.



Mounting detail: 2 cables with lugs.

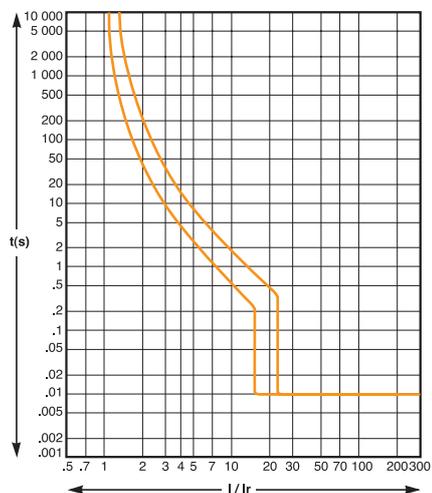


# Technical data supplement

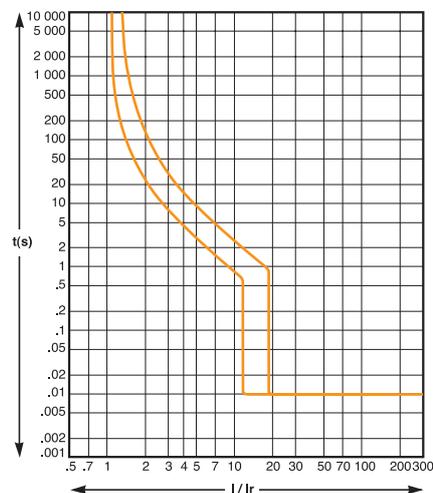
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<i>Presentation</i>	<i>III</i>
<i>Functions and characteristics</i>	<i>A-1</i>
<i>Installation recommendations</i>	<i>B-1</i>
<i>Dimensions and connection</i>	<i>C-1</i>
<b>Tripping Curve</b>	<b>D-2</b>
Protection of distribution systems	D-2
<i>Catalogue numbers</i>	<i>E-1</i>

16A



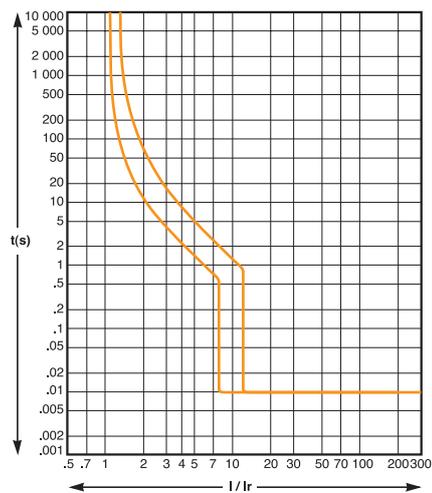
20A



25A



32A



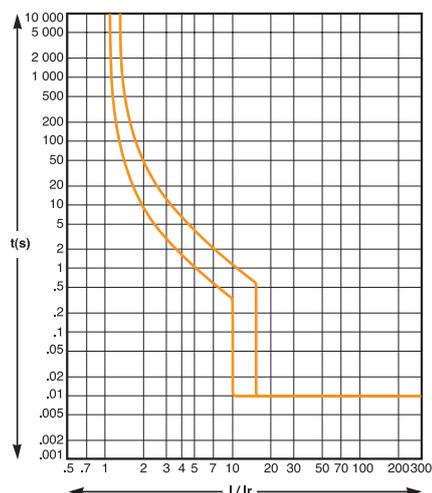
40A



50A



63A



80A

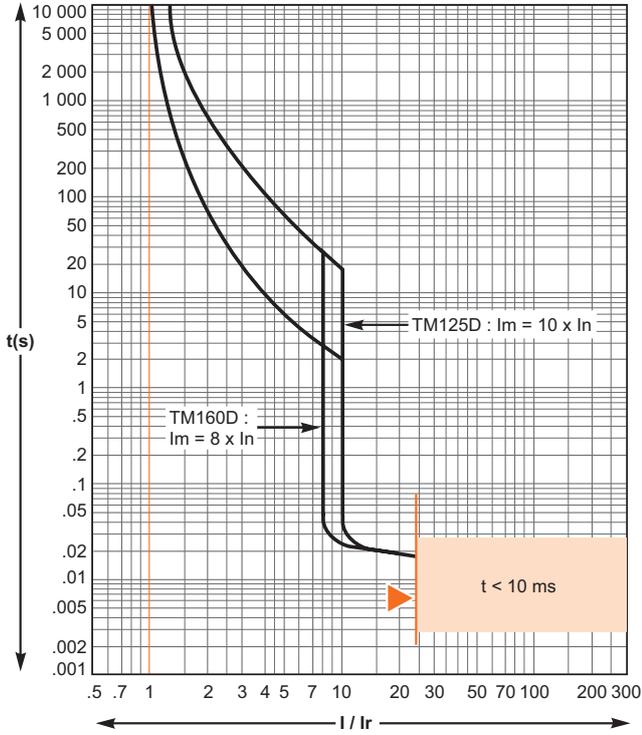


100A

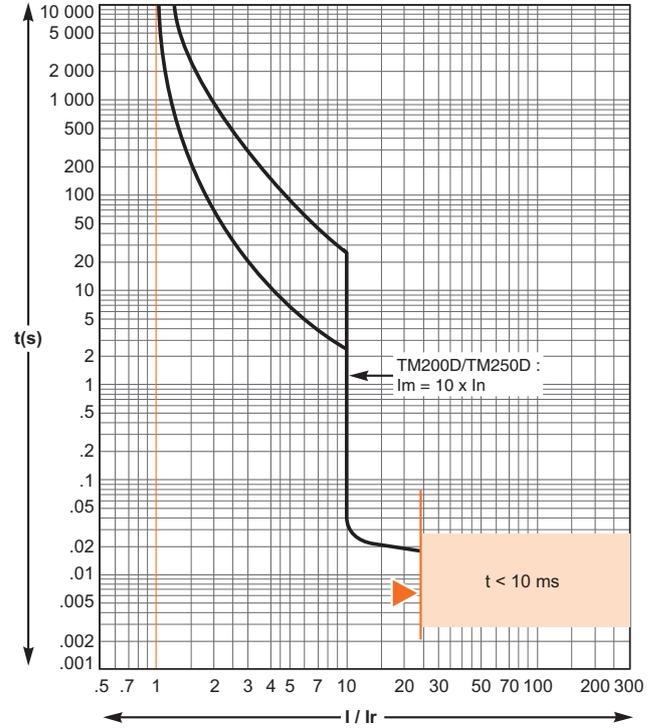


### TM magnetic trip units

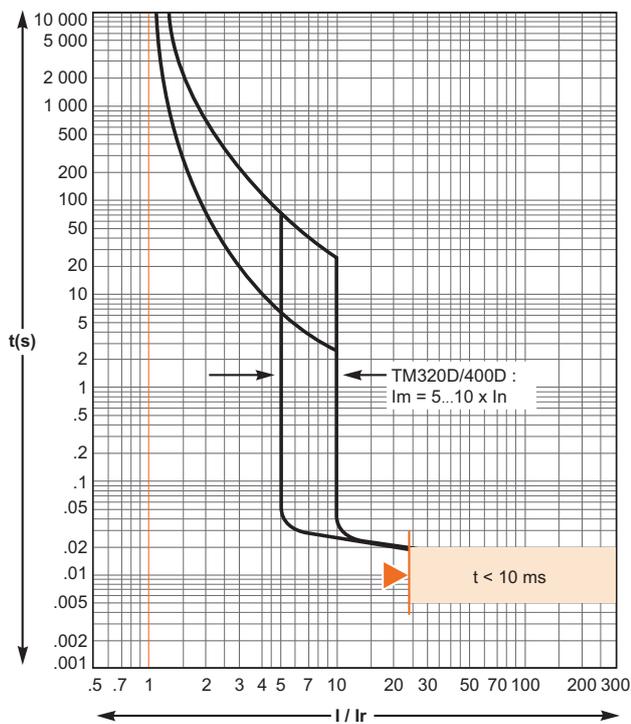
TM125D/160D



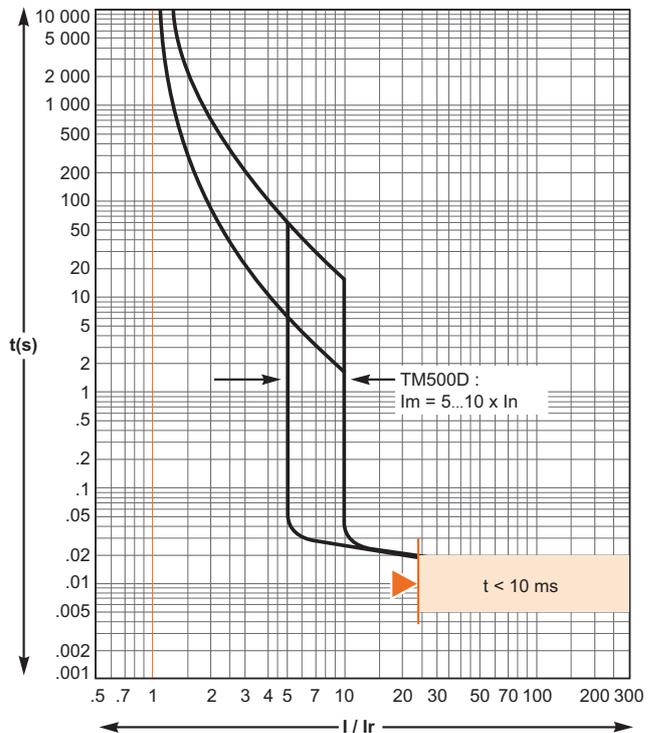
TM200D/250D



TM320D/400D



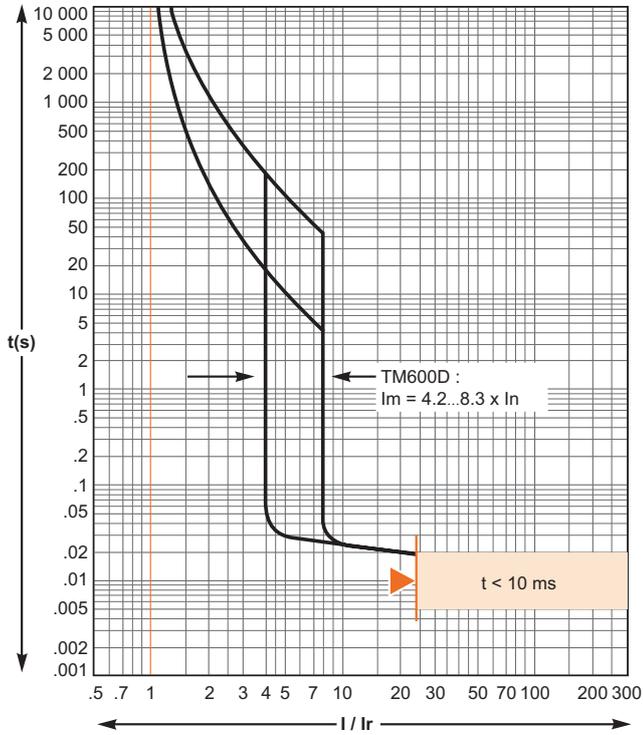
TM500D



Reflex tripping.

TM magnetic trip units

TM600D



Reflex tripping.





# Catalogue numbers

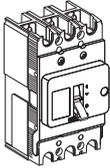
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<i>Presentation</i>	<i>III</i>
<i>Functions and characteristics</i>	<i>A-1</i>
<i>Installation recommendations</i>	<i>B-1</i>
<i>Dimensions and connection</i>	<i>C-1</i>
<i>Technical data supplement</i>	<i>D-1</i>
<b>EZS100E/F</b>	<b>E-2</b>
Circuit breaker	E-2
Accessories	E-3
<b>EZS160/250E/F</b>	<b>E-5</b>
Circuit breaker	E-5
Accessories	E-6
<b>EZS400/630F/N</b>	<b>E-8</b>
Circuit breaker	E-8
Accessories	E-9

**Commercial references**

**EasyPact EZS100**

**With TM-D thermal-magnetic trip unit**



**EasyPact EZS100E (25 kA at 380/415 V)**

Rating	3P3d	4P3d
TM16D	EZS100E3016	EZS100E4016
TM20D	EZS100E3020	EZS100E4020
TM25D	EZS100E3025	EZS100E4025
TM32D	EZS100E3032	EZS100E4032
TM40D	EZS100E3040	EZS100E4040
TM50D	EZS100E3050	EZS100E4050
TM63D	EZS100E3063	EZS100E4063
TM80D	EZS100E3080	EZS100E4080
TM100D	EZS100E3100	EZS100E4100

**EasyPact EZS100F (30 kA at 380/415 V)**

Rating	3P3d	4P3d
TM16D	EZS100F3016	EZS100F4016
TM20D	EZS100F3020	EZS100F4020
TM25D	EZS100F3025	EZS100F4025
TM32D	EZS100F3032	EZS100F4032
TM40D	EZS100F3040	EZS100F4040
TM50D	EZS100F3050	EZS100F4050
TM63D	EZS100F3063	EZS100F4063
TM80D	EZS100F3080	EZS100F4080
TM100D	EZS100F3100	EZS100F4100

**Connection accessories**

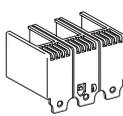
**Cable lugs**

	≤ 50A	Cables from 2.5 to 16 mm <sup>2</sup>	Set of 2	EZALUG0502
			Set of 3	EZALUG0503
	> 50A	Cables from 10 to 50 mm <sup>2</sup>	Set of 2	EZALUG1002
			Set of 3	EZALUG1003

**Spreaders**

	Spreaders for 3P breaker		Set of 2	EZASPDR3P
	Spreaders for 4P breaker		Set of 3	EZASPDR4P

**Terminal shields**

	Spreaders for 3P breaker		Set of 2	EZATSHD3P
	Spreaders for 4P breaker		Set of 3	EZATSHD4P
				

**Phase barriers**

	Phase barriers		Set of 2	EZAFASB2
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**Electrical auxiliaries**

**Indication contacts**

	Auxiliary switch (AX)			EZAUX10
	Alarm switch (AL)			EZAUX01
	Auxiliary switch + alarm switch (AX + AL)			EZAUX11

**Electrical auxiliaries (cont.)**

**Voltage releases**



Shunt trip (SHT)

	Voltage	MX/SHT
AC	100 - 130V	EZASHT100AC
	200 - 277V	EZASHT200AC



Undervoltage release (UVR)

	Voltage	MN/UVR
AC	200 - 240V	EZAUVR200AC

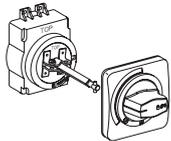
**Rotary handles**

**Direct rotary handle (for 3/4P breaker)**



Direct rotary handle (black)	EZAROTDS
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**Extended rotary handle (for 3/4P breaker)**

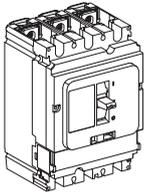


Extended rotary handle (black)	EZAROTE
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**Commercial references**

**EasyPact EZS160**

**With TM-D thermal-magnetic trip unit**



**EasyPact EZS160E (25 kA at 380/415 V)**

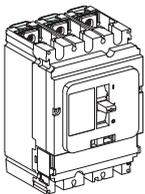
Rating	3P3d	4P3d
TM100D	EZS160E3100	EZS160E4100
TM125D	EZS160E3125	EZS160E4125
TM160D	EZS160E3160	EZS160E4160

**EasyPact EZS160F (36 kA at 380/415 V)**

Rating	3P3d	4P3d
TM100D	EZS160F3100	EZS160F4100
TM125D	EZS160F3125	EZS160F4125
TM160D	EZS160F3160	EZS160F4160

**EasyPact EZS250**

**With TM-D thermal-magnetic trip unit**



**EasyPact EZS250E (25 kA at 380/415 V)**

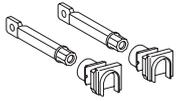
Rating	3P3d	4P3d
TM200D	EZS250E3200	EZS250E4200
TM225D	EZS250E3225	EZS250E4225
TM250D	EZS250E3250	EZS250E4250

**EasyPact EZS250F (36 kA at 380/415 V)**

Rating	3P3d	4P3d
TM200D	EZS250F3200	EZS250F4200
TM225D	EZS250F3225	EZS250F4225
TM250D	EZS250F3250	EZS250F4250

Connection accessories (Cu or Al)

Rear connections



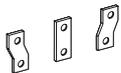
2 short		LV429235
2 long		LV429236

Bare cable connectors



Steel connectors	1 x (1.5 to 95 mm <sup>2</sup> ) ; ≤ 160 A	Set of 3	LV429242
		Set of 4	LV429243

Terminal extensions

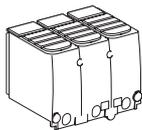


Spreaders from 35 to 45 mm pitch <sup>(1)</sup>	Set of 3	LV431563
	Set of 4	LV431564

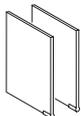
Insulation accessories



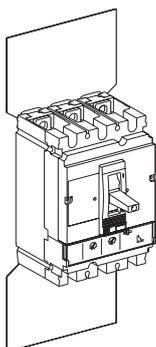
1 short terminal shield for breaker	3 P	LV429515
	4 P	LV429516



1 long terminal shield for breaker	3 P	LV429517
	4 P	LV429518



Interphase barriers for breaker	Set of 6	LV429329
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2 insulating screens for breaker (45 mm pitch)	3P	LV429330
	4P	LV429331

<sup>(1)</sup> Supplied with 2 or 3 interphase barriers.

**Electrical auxiliaries**

**Auxiliary contacts (changeover)**



OF or SD	29450
OF or SD low level	29452

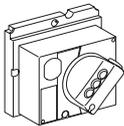
**Voltage releases**



	Voltage	MX	MN
AC	110-130 V 50/60 Hz	LV429386	LV429406
	220-240 V 50/60 Hz and 208-277 V 60 Hz	LV429387	LV429407
DC	24 V	LV429390	LV429410

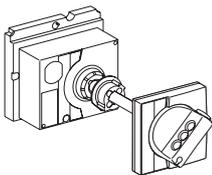
**Rotary handles**

**Direct rotary handle**



With black handle	LV429337
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**Extended rotary handle**

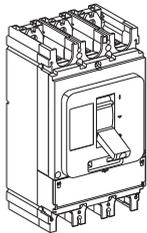


With black handle	LV429338
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**Commercial references**

**EasyPact EZS400**

**With TM-D thermal-magnetic trip unit**



**EasyPact EZS400F (36 kA at 380/415 V)**

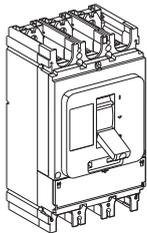
Rating	3P3d	4P3d
TM315D	EZS400F3315	EZS400F4315
TM350D	EZS400F3350	EZS400F4350
TM400D	EZS400F3400	EZS400F4400

**EasyPact EZS400N (50 kA at 380/415 V)**

Rating	3P3d	4P3d
TM315D	EZS400N3315	EZS400N4315
TM350D	EZS400N3350	EZS400N4350
TM400D	EZS400N3400	EZS400N4400

**EasyPact EZS630**

**With TM-D thermal-magnetic trip unit**



**EasyPact EZS630F (36 kA at 380/415 V)**

Rating	3P3d	4P3d
TM500D	EZS630F3500	EZS630F4500
TM600D	EZS630F3600	EZS630F4600

**EasyPact EZS630N (50 kA at 380/415 V)**

Rating	3P3d	4P3d
TM500D	EZS630N3500	EZS630N4500
TM600D	EZS630N3600	EZS630N4600

Connection accessories (Cu or Al)

Rear connections



2 short	LV432475
2 long	LV432476

Cable connectors <sup>(1)</sup>



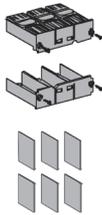
Aluminium connector 1x (35 to 300 mm <sup>2</sup> )	Set of 3	LV432479
	Set of 4	LV432480

Terminal extension <sup>(1)</sup>



Spreaders	70 mm	3P	LV432492
		4P	LV432493

Insulation accessories



Short terminal shield, 45 mm (1 piece)	3P	LV432591
	4P	LV432592
Long terminal shield, 45 mm (1 piece)	3P	LV432593
	4P	LV432594
Interphase barriers	Set of 6	LV432570

<sup>(1)</sup> supplied with 2 or 3 interphase barriers.

Electrical auxiliaries

Auxiliary contacts (changeover)



OF or SD	29450
OF or SD low level	29452

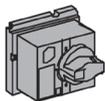
Voltage releases



	Voltage	MX	MN
AC	110-130 V 50/60 Hz	LV429386	LV429406
	220-240 V 50/60 Hz and 208-277 V 60 Hz	LV429387	LV429407
DC	24 V	LV429390	LV429410

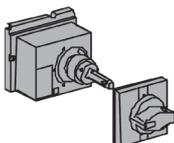
Rotary handle

Direct rotary handle



Standard black handle	LV432597
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Extended rotary handle



Standard extended rotary handle	LV432598
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