



S56 Series™

Industrial Switchgear



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Life Is On



Providing the strength,
reliability and
durability demanded
of today's industry



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The Power behind today's industry

Designed to satisfy customer needs, precisely engineered and carefully manufactured, Schneider Electric Industrial Switchgear is as versatile as your requirements. The S56 Series is suitable for heavy industrial environments with five different protection capabilities – Hose Proof, Dust Proof, Crash Proof, UV Resistance and Chemical Resistance.

Hose Proof and Dust Proof

The S56 Series has been tested for protection against ingress of water and dust to at least International Protection Rating IP56, and in many instances exceeds this level of protection.

When plugs are removed, the socket flap automatically locks into place, preventing dust or water from entering

Crash Proof

The S56 Series, being one of the most important components of industry, has to be tough, safe, and able to take hard knocks and give reliable performance under many adverse conditions.

UV Resistance and Chemical Resistance

Most products in the S56 Series are available in light grey UV stabilised rigid polycarbonate. The light grey series has excellent strength compared to other compatible plastic products, which are ideal for most applications.

For those environments where harsh chemicals are used Schneider Electric offers an option of chemical resistant orange (RO), which offers resistance to a wide range of chemical types. It is ideal for corrosive and industrial chemicals, animal fats, oils, solvents and lubricants. It is suitable for indoor and outdoor applications, such as chemical plants, timber and paper processing plants and laboratories.

All Schneider Electric S56 Series Enclosures are manufactured from robust UV stabilised PVC and can be solvent bonded to standard electrical PVC conduit accessories.

To make selection of the correct product, we provide the Plastic Comparison Chart (page 4) and Chemical Comparison Chart (page 5) as a guide.



Designed to Mix and Match

What suits one industry might not be the perfect match for another. That's why the S56 Series was specially designed to mix and match. There is an extensive choice of modules available, including switches, sockets, photo electrical cells and residual current devices.

Schneider Electric mounting enclosures range in size from 1 to 4 gangs. This allows assemblies to be customized – from a simple switch station to a large electrical control panel.

The introduction of transparent materials to the S56 Series enables the inspection and checking of the components pin/socket configuration and wiring at a glance, while still providing protection against the elements. The aesthetic appearance of the S56 Series makes it the ideal choice for installation in commercial facilities such as television studios, shopping centers and warehouses. What's more, the S56 Series offers are also used alongside a public or domestic swimming pool.

Standards

Pin configurations for plugs, sockets and switched socket outlets comply with AS/NZS3123 and switches with appropriate parts of AS/NZS3947.3 & AS/NZS3133.



Plastic Comparisons

Plastic Comparison Chart

Applications	Standard Grey & Electric Orange	Resistant Orange & White
Outdoor use - mechanical properties	A	A
Outdoor use - colour properties	B	B
Indoor use	A	A
Saltwater environments	A	A
Thermal properties	A	A
Lightweight	A	A
High rigidity	B	B
Impact resistant	A	B

This table should be used as a guide only. Any end user should test to evaluate the suitability of any chemical with any plastic.

- A - EXCELLENT Recommended; no adverse effects after extended exposure.
- B - GOOD Acceptable, minimal loss of mechanical properties after long periods of exposure.
- C - FAIR Marginal acceptability; loss of mechanical properties after long periods of exposure.
- D - POOR Not recommended for use.

Chemical Comparisons

Chemical Comparison Chart

Product Type (colour)	All Mounting Enclosures (ie Back Box)	Grey Transparent Covers and Plugs	Resistant Orange (RO) Covers and Plugs
Acids			
Weak Solutions			
Hydrochloric 10%	A	A	A
Nitric 10%	A	A	A
Concentrate			
Sulphuric 100%	A	D	D
Alkalis			
Weak Solutions			
Sodium Hydroxide 10% (Caustic Soda)	A	D	B
Concentrate			
Potassium Hydroxide 100%	A-B	D	D
Automotive			
Petroleum	A	D	A
Lubricating Oils		D	A
Hydraulic Oil		D	A
Solvents			
Aliphatic Hydrocarbons (Alkanes)			
Methane	B	A	A
Propane	A	A	A
Alcohols			
Ethylene Glycol	A	A	A
Glycerol (Glycerin)	A	C	B
Methyl Alcohol (Methanol)	A	D	B
Ethyl Alcohol (Ethanol)	A	A	A
Amines			
Aniline	D	D	D
Aromatic Hydrocarbons			
Methyl Benzene	D	D	B
Xylene	D	D	B
Ethers			
Dimethyl Ethyl	A	A	A
Ketones			
Acetone	A	D	C
Acetophenone	D	D	C
Ethyl Methyl Ketone	D	D	C
Miscellaneous			
Detergent	A	A	A
Inorganic Salts			
Magnesium Sulphate	A	A	A
Oxidising Agents			
Weak Solution			
Sodium Hypochlorite 5%	A	A	A
Strong Solution			
Hydrogen Peroxide 30%	A	A	A
Water			
Ambient	A	A	A
Hot >60°C	C	A	B
Steam	D	D	D

This table should be used as a guide only. Any end user should test to evaluate the suitability of any chemical with any plastic.

A - EXCELLENT

Recommended; no adverse effects after extended exposure.

B - GOOD Acceptable, minimal loss

of mechanical properties after long periods of exposure.

C - FAIR

Marginal acceptability; loss of mechanical properties after long periods of exposure.

D - POOR Not recommended for use.

S56 Series Modules

Designed to mix and match and packed with features designed to outperform all other protected accessories

Modular system with 1 to 4 gang arrangements to satisfy your every need.

Captive stainless steel combination head fixings for corrosion resistance and effortless installation.

8mm Padlock ON/OFF facility.

Rotary ON/OFF switch.

Permanent laser engraved ratings and specifications are durable & clearly displayed.

Redesigned transparent socket cover for improved visibility, strength & accessibility.

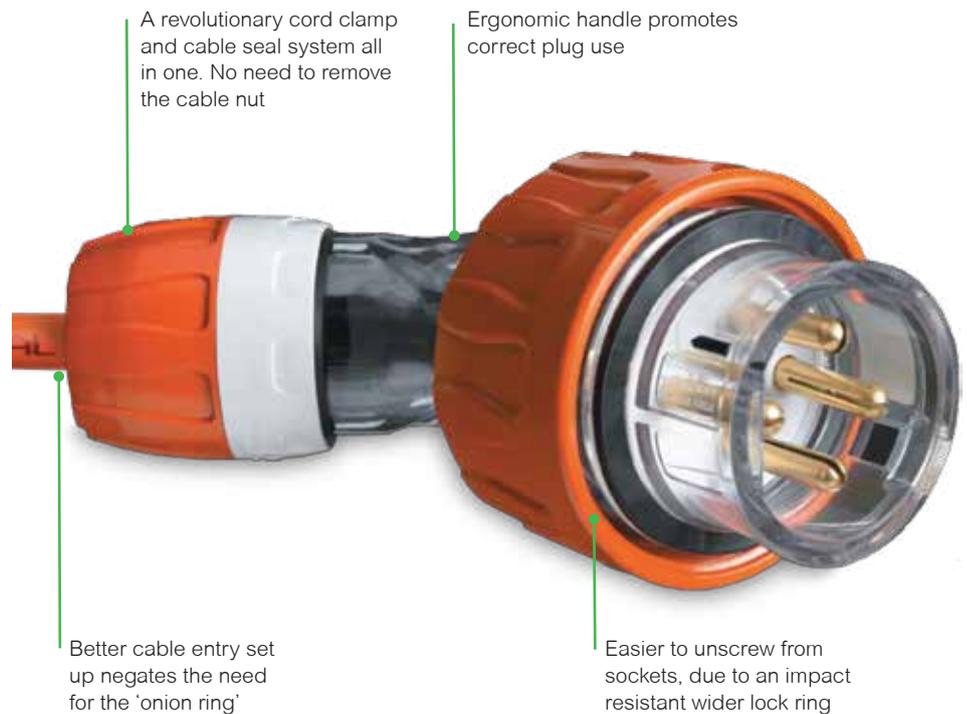
Larger and easy-to-use latch design. Socket cover automatically closes to ensure IP rating is maintained. Padlocking option available.



S56 Series Plugs

Schneider Electric S56 Series Industrial Switchgear has a long standing history as being the toughest, most trusted industrial switchgear on the Asian market.

This legacy has been carried on with new range of industrial plugs and socket connectors.



Snap Shut Bodies

Screw-less assembly using a 'latching' spring allows for speed, simplicity, product strength and improved reliability.

The 'latching' spring clip stays down once it is pressed, so it is just a simple 'press and switch'. The spring clip, when shut, does not exert any stress on the housings, resulting in a stronger body and sleeve connection.

To Open

1. Look for padlock and arrow icons
2. Align grey band to locked position
3. Insert driver and push down firmly
4. Align grey band to unlocked position
5. Twist body left only

To Close

1. Look for padlock and arrow icons
2. Align grey band to unlocked position
3. Insert driver and push down firmly
4. Align grey band to locked position
5. Twist body right only



Combination Switched Socket Outlets

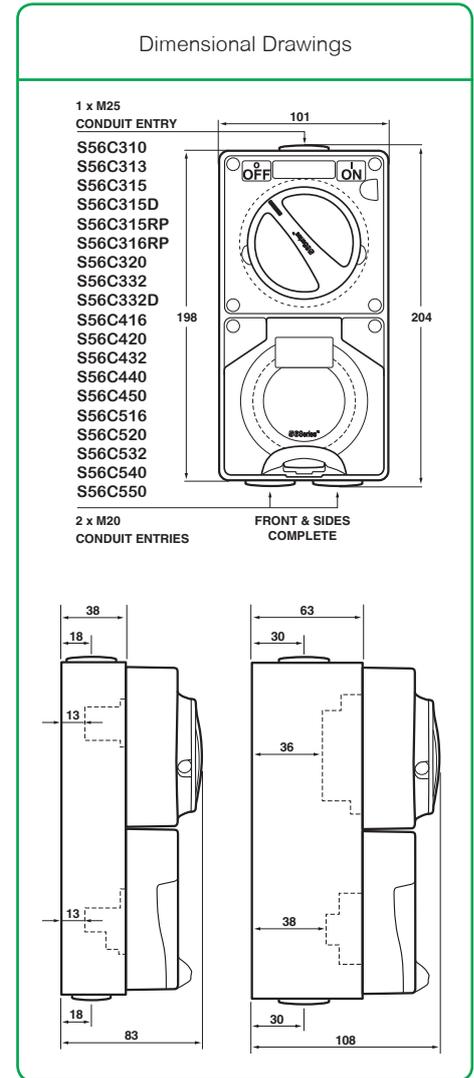


S56C313GY

The Schneider Electric range of three phase combinations includes two module units. All internal phase connections between switches and sockets are factory wired.

Combination sockets feature a clear dustproof and hoseproof flap with a snap catch latch. Both the superseded non IP56 plain plugs and the current IP66 retention ring plugs can be accommodated.

Earth and neutral connectors accommodating 3 x 6mm² cables are supplied with 500V models.



TWO PIECE

Catalogue Number	No. of switch poles	I _{ne} (Amp)	U _i / U _e (Volt)	I _e (A) Utilisation Category			M Rating	Number of Sockets	Cond. Term Size in mm ²		IP Rating	O/A Dims. (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config
				AC21A	AC22A	AC23A			Min.	Max/Cond.					
S56C313GY * ⚡	1 Pole	13A	250V					3 Flat			66		S56P313GY_15	S56PA313GY_G15	
S56C315RPGY	1 Pole	15A	250V					3 Round			66		S56P315RPGY_G15	S56PA315RPGY_G15	
S56C320GY *	1 Pole	20A	250V	20	20	21	M150	3 Round	2.5	6	66	204x101x108		S56PA320EO_G15	H
S56C332GY *	1 Pole	32A	250V	32	32	28	M180	3 Round	6	16	66	204x101x108		S56PA332EO_G15	I
S56C416GY	3 Pole	16A	500V					4 Round			66			S56PA416EO_G15	
S56C420GY *	3 Pole	20A	500V	20	20	21	M150	4 Round	2.5	6	66	204x101x108	S56P420EO_G15	S56PA420EO_G15	L
S56C432GY *	3 Pole	32A	500V	32	32	28	M180	4 Round	4	16	66	204x101x108	S56P432GY_G15	S56PA432EO_G15	N
S56C440GY	3 Pole	40A	500V	40	40	35	M200	4 Round	10	16	66	204x101x108		S56PA440EO_G15	O
S56C450GY	3 Pole	50A	500V	50	50	35	M250	4 Round	10	16	66	204x101x108		S56PA450EO_G15	P
S56C516GY	3 Pole	16A	500V					4 Round			66			S56PA516EO_G15	
S56C520GY *	3 Pole	20A	500V	20	20	21	M150	5 Round	2.5	6	66	204x101x108		S56PA520EO_G15	R
S56C532GY *	3 Pole	32A	500V	32	32	28	M180	5 Round	4	16	66	204x101x108		S56PA532EO_G15	S
S56C540GY	3 Pole	40A	500V	40	40	35	M200	5 Round	10	16	66	204x101x108		S56PA540EO_G15	T
S56C550GY	3 Pole	50A	500V	50	50	35	M250	5 Round	10	16	66	204x101x108		S56PA550EO_G15	U

Note: AC utilisation categories to AS/NZS3947.3

I_{ne} - Conventional Enclosed Thermal Current

U_i - Insulation Voltage

U_e - Operational Voltage

* Colour options available: GY - Grey, (cat no: S56XXXGY), RO - Resistance Orange, (cat no: S56XXRO)

⚡ Less enclosure available: add LE to catalogue no (cat no: S56XXLEGY)

Surface Socket Outlets



S56S0313GY

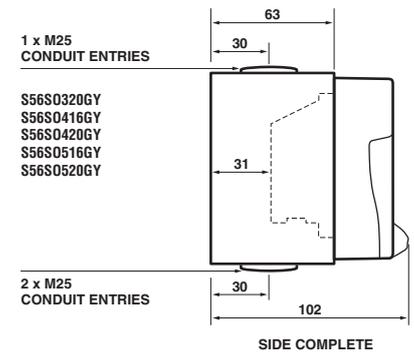
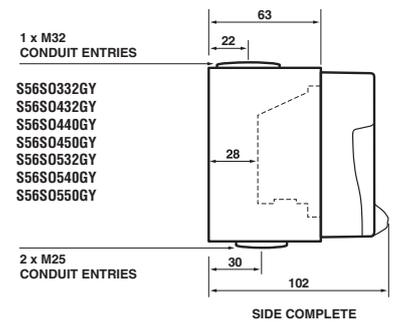
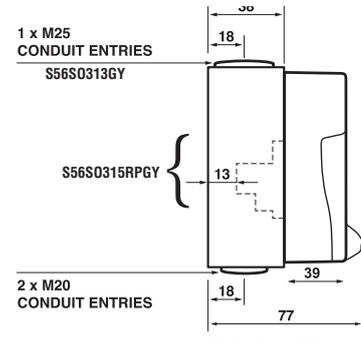
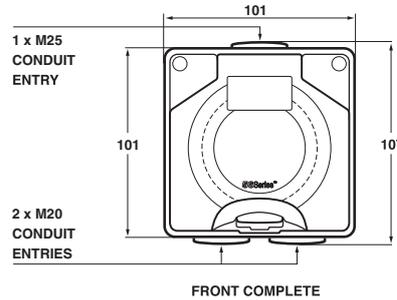
1 Phase and 3 Phase sockets

Schneider Electric Surface Socket Outlets range in size from 250V 10A to 500V 50A. All sockets feature hoseproof and dust resistant flaps with automatic snap catch latches. The transparent flap enables instant visual inspection of socket condition and pin configuration. The full range of sockets accommodate both the superseded IP56 plain plugs and the current IP66 retention ring plugs in order to rationalise the number of variations required. Earth and neutral connectors accommodating 3 x 6mm² cable are supplied with all 500V models. Terminal housings are moulded in tough polyester to minimise damage.

Options available

- Less Enclosure - add LE to catalogue number e.g. S56S0313GY becomes S56S0313LEGY.

Dimensional Drawings



Catalogue Number	I _{the} (Amp)	U _i / U _e (Volt)	Number of Sockets	Cond. Term Size in mm		IP Rating	O/A Dims. (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angled	Socket Config.
				Min.	Max/Cond.					
S56S0313GY * Ø	13A	250V	3 Flat			66		S56P313EQ_G15	S56PA313GY_G15	
S56S0315RPGY	15A	250V	3 Round			66		S56P315RPEQ_G15	S56PA315RPGY_G15	
S56S0320GY Ø	20A	250V	3 Round	2.5	6	66	107x101x102		S56PA320EQ_G15	H
S56S0332GY Ø	32A	250V	3 Round	6	16	66	107x101x102		S56PA332EQ_G15	I
S56S0416GY Ø	16A	500V	4 Round			66			S56PA416EQ_G15	K
S56S0420GY Ø	20A	500V	4 Round	2.5	6	66	107x101x102	S56P420EQ_G15	S56PA420EQ_G15	L
S56S0432GY Ø	32A	500V	4 Round	4	16	66	107x101x102	S56P432GY_G15	S56PA432EQ_G15	N
S56S0440GY Ø	40A	500V	4 Round	6	16	66	107x101x102		S56PA440EQ_G15	O
S56S0450GY Ø	50A	500V	4 Round	10	16**	66	107x101x102		S56PA450EQ_G15	P
S56S0516GY Ø	16A	500V	4 Round			66			S56PA516EQ_G15	Q
S56S0520GY	20A	500V	5 Round	2.5	6	66	107x101x102		S56PA520EQ_G15	R
S56S0532GY Ø	32A	500V	5 Round	4	16	66	107x101x102		S56PA532EQ_G15	S
S56S0540GY Ø	40A	500V	5 Round	6	16	66	107x101x102		S56PA540EQ_G15	T
S56S0550GY Ø	50A	500V	5 Round	10	16**	66	107x101x102		S56PA550EQ_G15	U

** - L1, L2, L3 Cable size max. 25mm² I_{the} - Conventional Enclosed Thermal Current

U_i - Insulation Voltage

* Colour options available : GY - Grey, (cat no: S56XXXGY), RO - Orange, (cat no: S56XXXRO)

Ø Less enclosure available: add LE to catalogue no (cat no: S56XXXLEGY)

S56S0310LEGY and S56S0315LEGY are available

Surface Switches



S56SW110GY



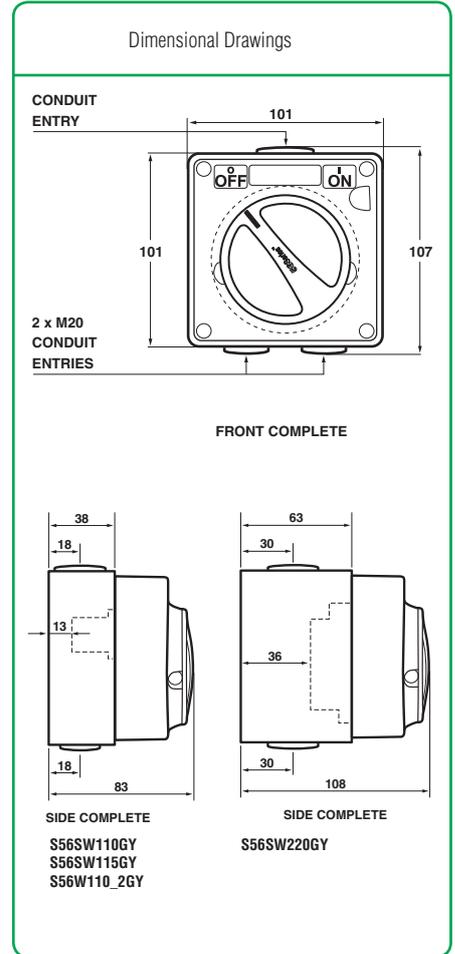
S56SW320RO

S56 Series Surface Switches

S56 Series Surface Switches are available from 250V, 10A to 500V 63A. They incorporate a positive, rotary switch action. 'ON' and 'OFF' positions are clearly marked and there is provision for two padlocks. Hole diameter is 8mm.

If locking is required in the 'ON' position, simply drill a hole where necessary.

Earth and neutral connectors accommodating 3 x 6mm² cables are supplied with all products above 20A.



Catalogue Number	No. of Switched Poles	I _{the} (Amp)	U _i /U _e (Volt)	I _e (A) Utilisation Category			M Rating	Conductor Terminal size in mm ²		IP Rating	O/A Dims. (H) x (W) x (D)
				AC21A	AC22A	AC23A		Min.	Max/Cond.		
S56SW110GY ♂	1 Pole	10A	250V	10	8	8	M80	1.5	6	66	107x101x83
S56SW110_2GY♂	1 Pole	10A	250V	10	8	8	M80	1.5	6	66	107x101x83
S56SW115GY ♂	1 Pole	15A	250V	15	8	8	M80	1.5	6	66	107x101x83
S56SW120GY ♂	1 Pole	20A	250V	20	20	20	M150	2.5	16	66	107x101x108
S56SW132GY ♂	1 Pole	32A	250V	32	32	28	M180	4	16	66	107x101x108
S56SW220GY ♂	2 Pole	20A	500V	20	20	20	M150	2.5	16	66	107x101x108
S56SW232GY ♂	2 Pole	32A	500V	32	32	28	M180	4	16	66	107x101x108
S56SW310GY ♂	3 Pole	10A	500V	10	10	10	M100	1.5	16	66	107x101x108
S56SW320GY ★ ♂	3 Pole	20A	500V	20	20	20	M150	2.5	16	66	107x101x108
S56SW332GY ★ ♂	3 Pole	32A	500V	32	32	28	M180	4	16	66	107x101x108
S56SW350GY	3 Pole	50A	500V	50	50	25	M250	10	25	66	107x101x108
S56SW363GY ♂	3 Pole	63A	500V	63	63	25	M300	16	25	66	107x101x108
S56SW420RO	4 Pole	20A	440V	20	20	20	-	2.5	6	66	107x101x108

** - L1, L2, L3 Cable size max. 25mm² I_{the}- Conventional Enclosed Thermal Current

U_i - Insulation Voltage

* Colour options available : GY - Grey, (cat no: S56XXGY), RO - Orange, (cat no: S56XXRO)

♂ Less enclosure available: add LE to catalogue no (cat no: S56XXLEGY)

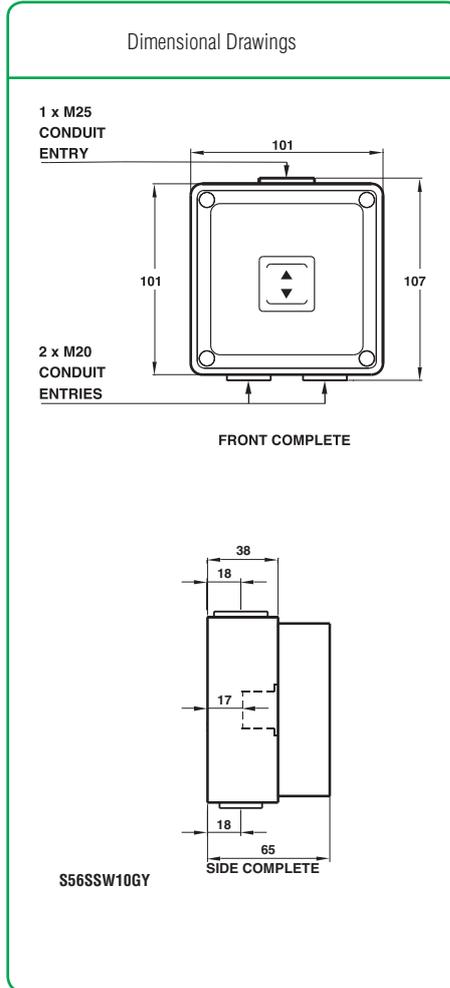
S56S0310LEGY and S56S0315LEGY are available



S56SSW10GY

250V Single and Twin 2 Way Switches with sliding switch dollies

Schneider Electric S56 Series Single and Twin Sliding Switches are available in 10A and 15A ratings.



Catalogue Number	Description	No. of switches p/Module	I _{the} (Amp)	U _i /U _s (Volts)	M Rating	Cond. Term Size in mm ²		IP Rating	O/A Dims. (H) x (W) x (D)
						Min.	Max		
S56SSW10GY	Single sliding switch	1	10A	250V	M80	1.5	6	56	107x101x65
S56SSW15GY	Single sliding switch	1	15A	250V	M80	1.5	6	56	107x101x65
S56SSW2_10GY	Twin sliding switch	2	10A	250V	M80	1.5	6	56	107x101x65
S56SSW2_15GY	Twin sliding switch	2	15A	250V	M80	1.5	6	56	107x101x65

Note: AC utilisation categories to AS/NZS3947.3 I_{th} - Conventional Enclosed Thermal Current U_i - Insulation Voltage U_s - Operational Voltage

Push Button Control Stations



Push Button (PB) range L-R : S56PBS1GY, S56PBSGY, S56_2PBS1GY.

This rugged range consists of three different combinations of stop start control stations. The stations are ideal in wet, dusty or dirty conditions for controlling motor starters on pumps, saws, compressors, lathes, processors and processing lines.

S56PBGY - Start control station.

S56PBSGY - Stop control station.

S56PBS1GY - Emergency stop station.

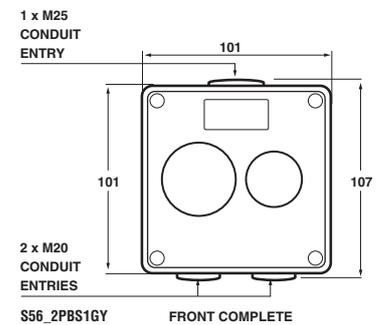
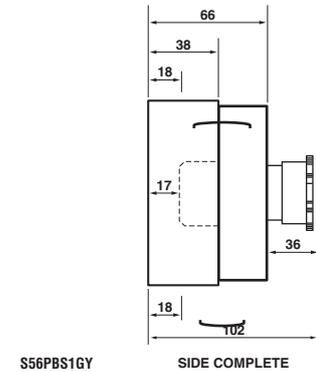
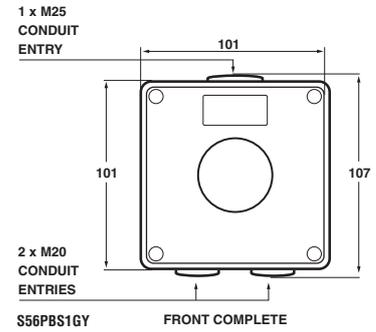
This station has a mushroom head with twist reset and red push button.

S56_2PBS1GY - Combination stop/start control station with same stop button as the S56PBS1GY.

Catalogue Number	I _{the} (Amp)	U _i /U _b (Volt)	I _e (A) Utilisation Category		Button Colour	Cond. Term Size in mm ²		IP Rating	O/A Dims. (H) x (W) x (D)
			AC15 240V	DC13 24V		Min.	Max.		
S56PBGY Start control station	10A	250V	6	8	Green	1	4	66	107x101x76
S56PBSGY Stop control station	10A	250V	6	8	Red	1	4	66	107x101x80
S56PBS1GY Emergency stop control station	10A	250V	6	8	Red	1	4	66	107x101x102
S56_2PBS1GY Emergency stop control & start station	10A	250V	6	8	Red/Green	1	4	66	107x101x80

Note: AC utilisation categories to AS/NZS3947.5 I_{the} - Conventional Enclosed Thermal Current
U_i - Insulation Voltage U_b - Operational Voltage

Dimensional Drawings



Angle and Straight Plugs



S56P Series Plugs

Schneider Electric has a comprehensive range of straight and angle plugs. All are fitted with a screwed ring for securing to socket outlets and to ensure IP66 rating.

Design innovations include a transparent centre body section for instant visual checking of connections and an internal cable clamp which grips two ways to prevent cable twisting.

Catalogue # Straight	Catalogue # Angle	I _{th} (Amp)	U _i (Volt)	No. of Pins	Conductor Terminal Size in mm ²		Cable Nominal Diameter		IP Rating	Pin	Gland Nut Thread	
					Min.	Max./Cond.	Min.	Max.			Straight	Angled
S56P313GY_G15 *	S56PA313GY_G15	13A	250V	3 Pins					66			
S56P315RPGY_G15 *	S56PA315RPGY_G15	15A	250V	3 Round Pins					66			
	S56PA320EO_G15	20A	250V	3 Round Pins	1.0	6	7	16	66	H		23mm
	S56PA332EO_G15	32A	250V	3 Round Pins	1.5	2.5	7	16	66			37mm
	S56PA416EO_G15	16A	500V	4 Round Pins					66			
S56P420EO_G15	S56PA420EO_G15	20A	500V	4 Round Pins	2.5	4	7	16	66	L	25mm	23mm
S56P432GY_G15	S56PA432EO_G15	32A	500V	4 Round Pins	2.5	16	9	28	66	N	37mm	37mm
	S56PA440EO_G15	40A	500V	4 Round Pins	2.5	16	9	28	66	O		37mm
	S56PA450EO_G15	50A	500V	4 Round Pins	2.5	25	9	28	66	P		37mm
	S56PA516EO_G15	16A	500V	5 Round Pins					66			
	S56PA520EO_G15	20A	500V	5 Round Pins	2.5	4	7	16	66	R		23mm
	S56PA532EO_G15	32A	500V	5 Round Pins	2.5	16	9	28	66	S		37mm
	S56PA540EO_G15	40A	500V	5 Round Pins	2.5	16	9	28	66	T		37mm
	S56PA550EO_G15	50A	500V	5 Round Pins	2.5	25	9	28	66	U		37mm

I_{th} - Conventional Enclosed Thermal Current U_i - Insulation Voltage QCT - Quick Connect Terminals
 * Colour options available: GY - Grey, (cat no: S56XXGY_G15), EO - Orange (cat no: S56XXEO_G15)

Angle and Straight Plugs



S56PA313GY

Angled versions ensure a neat cable run when connected to socket outlet.



S56P313GY_G15

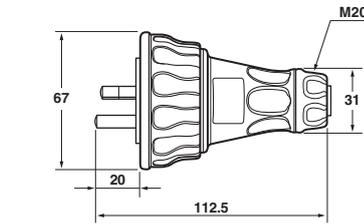


S56P313RO_G15

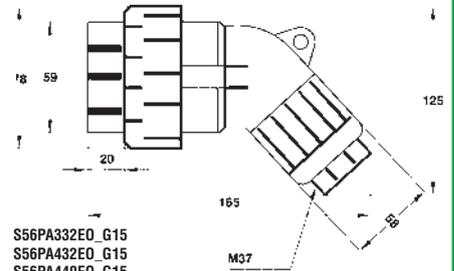


S56P315RPGY_G15

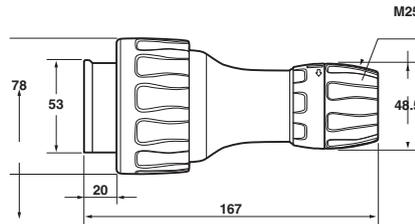
Dimensional Drawings



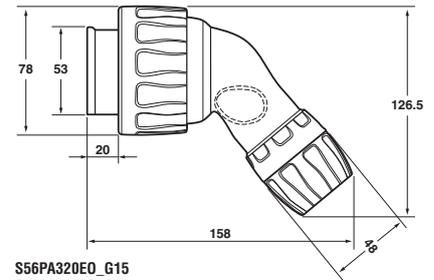
S56P310GY_G15



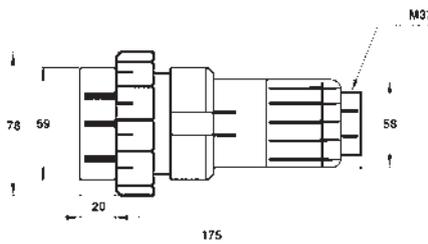
**S56PA332EO_G15
S56PA432EO_G15
S56PA440EO_G15
S56PA450EO_G15
S56PA532EO_G15
S56PA540EO_G15
S56PA550EO_G15**



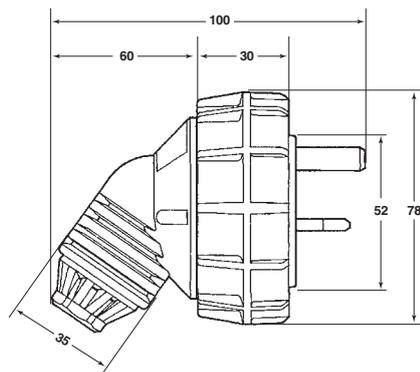
S56P420EO_G15



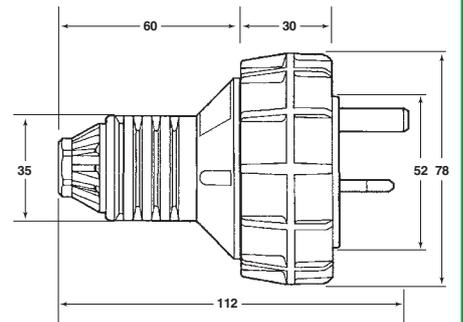
**S56PA320EO_G15
S56PA416EO_G15
S56PA420EO_G15
S56PA516EO_G15
S56PA520EO_G15**



S56P432GY_G15



S56PA313GY_G15



**S56P313RO
S56P315RPGY**

Special Combinations and Modules



S56C313RCD30GY



S56RCGY

Combined Switched Sockets and Modules

Despite Asia having one of the safest electrical systems in the world, accidents can still occur. A faulty or poorly maintained appliance, a frayed cord, wet hands or carelessness with power tools are all situations that can lead to tragedy. To help avoid electrocution in industrial environments, Schneider Electric has a range of combination switched sockets with inbuilt RCD protection. The RCD works by constantly monitoring and comparing the current flow in both the Active and Neutral circuits of an electrical installation.

During normal operation, these Active and Neutral currents are in balance. However, should any current flow to Earth, an imbalance is created in these circuits.

If this imbalance is sufficient (30mA), the RCD will cut the electrical supply in less than 40 milliseconds, perhaps the most important fraction of a second in someone's life.

Apart from the protection from electrocution that an RCD offers, it will also cut off power to expensive electrical equipment in the event of an electrical fault to Earth. This protects appliances against costly damage and the installation against fire resulting from faults of this nature.

Schneider Electric Combination Switched Sockets with RCD protection enable quick disconnection of power in the case of an emergency and provide motor rated isolation. A neon is standard on all models to indicate that the RCD is protecting the outlet. If the neon is not illuminated, the RCD has tripped and no power is available from the socket.

The internal phase connections between switches and sockets are factory wired.

The S56RC provides stand alone protection or multiple protection of socket outlets in a modular IP66 Series Enclosure.

Warning: The RCD used in the S56 Series Modules only protects against shocks from current passing through the body to Earth; the cause of the majority of electrocutions. Complete protection under all circumstances is not possible from this or any other device.

SINGLE PHASE RESIDUAL CURRENT DEVICE

Catalogue Number	No. of Switch Poles	I _{tnb} (Amp)	U _f /U _e (Volt)	Voltage Parameters		Prospective Short Circuit Current 33kA for 40mS	Cond. Term Size in mm ²		IP Rating	O/A Dims. (H) x (W) x (D)
				Min. (V)	Max. (V)		Min.	Max.		
S56RCGY	2 Pole 30mA 1 Phase RCD	20A	250V	190	260	Unit must be protected by 20A max. MCB	1.5	6	66	107x101x101

RCD PROTECTED OUTLETS

Catalogue Number	I _{tnb} (Amp)	U _f /U _e (Volt)	Number of Sockets	Protection	Cond. Term Size in mm ²		IP Rating	O/A Dims (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config.
					Min.	Max.					
S56C313RCD30GY Ø	13A	250V	3 Flat	30mA RCD			66		S56P313GY_G15	S56PA313GY_G15	
S56C420RCGY	20A	500V	4 Round	30mA RCD	1.5	16	66	300x101x110	S56P420EO_G15	S56PA420EO_G15	L
S56C432RCGY	32A	500V	4 Round	30mA RCD	4	16	66	300x101x110	S56P432GY_G15	S56PA432EO_G15	N
S56C532RCGY	32A	500V	5 Round	30mA RCD	4	16	66	300x101x110		S56PA532EO_G15	S

Ø Less enclosure available: add LE to catalogue no (cat no: S56XXXLEGY)

Mounting Enclosures (Back Boxes)



S56E

All Schneider Electric Mounting Back Boxes are moulded in UV stabilised rigid PVC to facilitate glueing of fittings for conduit entry. Ample conduit and cable entries are provided and there is plenty of wiring room for easy installation.

All screwed conduit entries are provided with plugs. The multigang enclosures feature moulded bridges between modules to ensure switches and sockets sit flush on a continuous surface.

Each enclosure has a number of mounting points and 220/10 Sealing Plugs are provided to double insulate mounting screw heads and ensure the IP rating.

Moulded gaskets are supplied with switch and socket modules.



S56Bridge

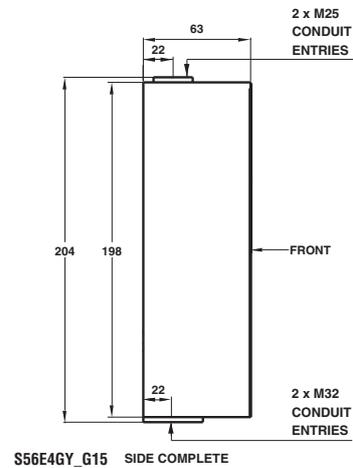
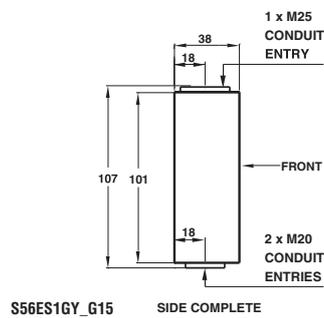
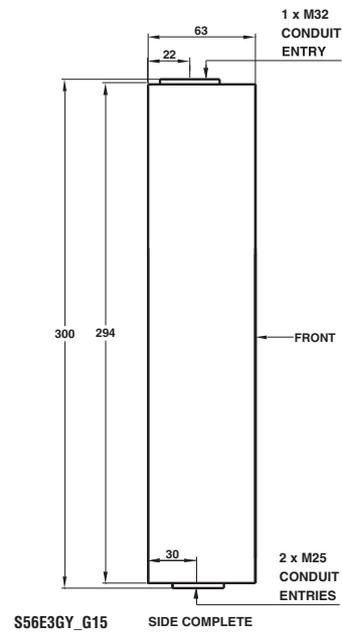
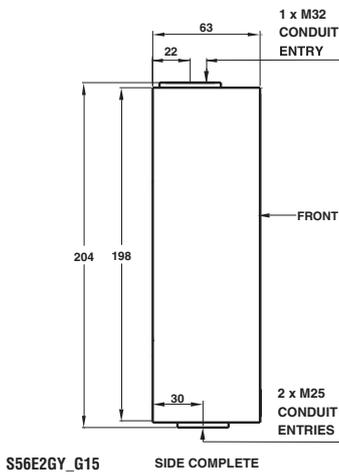
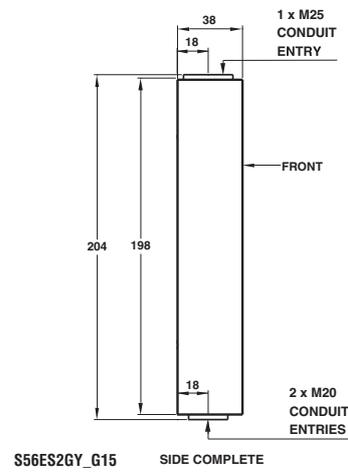
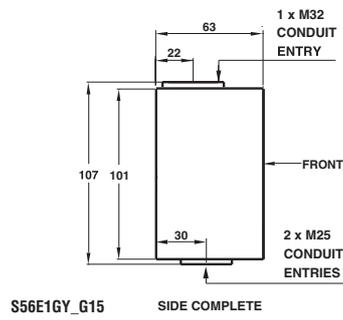
Bridges

S56 Series Bridges suits S56E Series Mounting Enclosures and provide a continuous flat surface for socket and switch modules in multigang enclosures, thereby ensuring sealing.

Catalogue Number	No. of Gangs	O/A Dims. (H) x (W) x (D)	Mounting Points	No. of Conduit Entries (mm)	Cut-Out Provision (mm)
S56E1GY_G15	1	63x101x101	8	2x25, 1x32	1x25/32
S56ES1GY_G15	1 Shallow	38x101x101	4	1x25, 1x20	1x20/25
S56E2GY_G15	2	63x101x198	8	2x25, 1x32	1x25, 1x32
S56ES2GY_G15	2 Shallow	38x101x198	4	1x25, 2x20	2x20/25
S56E3GY_G15	3	294x101x63	16	2x25, 1x32	2x25, 1x32
S56E4GY_G15	4	63x198x198	16	2x25, 2x32	2x25, 1x32, 1x40
56B-BLK (S56BRIDGE)					

Mounting Enclosures (Back Boxes)

Dimensional Drawings



Switchgear Cover Assemblies



S56CB4NLEGY_G15

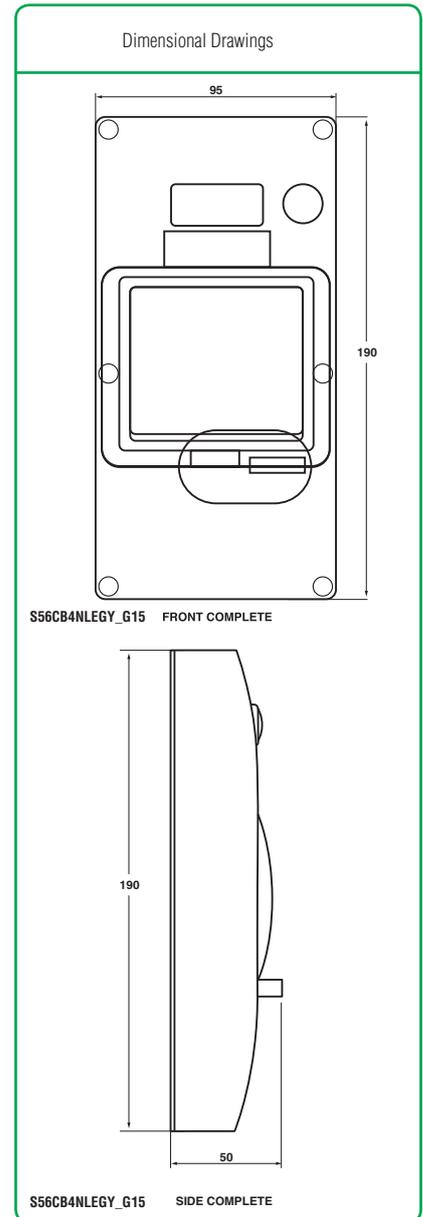
DIN Rail Accessory Mounting Cover Kits

The S56 Series Two Gang Cover Assemblies are moulded in hi-impact polycarbonate and feature a specially designed mounting bracket which will accommodate the full range of circuit breakers, RCDs and combination MCB/RCDs.

Covers suit all S56 Series enclosures (minimum standard depth 63mm) and are supplied with neon indicators, which can be wired from either the line or load side of the switch.

It includes a padlocking facility on the cover flap.

COVER WITH MOUNTING BRACKET AND NEON (LESS ENCLOSURE)						
Catalogue Number	U _i /U _e (Volt)	Module Type	No. of Poles	Module Width	Neon Voltage	Protective Membrane
S56CB4NLEGY_G15	240V / 440V	1, 2, 3 pole MCB	4 RCD	4 max.	240V / 415V	No



Plug and Socket Configurations

Plug Configurations

2 & 3 Pin



10A 250V
A



16A 500V
(unique)
M



15A 250V
B



32A 500V
N



10A 250V
C



40A 500V
O



10A 110V
D



50A 500V
P



15A 32V
Polarised
E

5 Pin



10A 500V
Q



20A 250V
F



20A 500V
R



10A 250V
G



32A 500V
S



20A 250V
H



40A 500V
T



32A 250V
I



50A 500V
U



10A 110V
J

6 Pin



10A 500V
V

4 Pin



10A 500V
K

7 Pin



10A 500V
W



20A 500V
L



20A 500V
X

Socket Configurations

2 & 3 Pin



10A 250V
A



16A 500V
(unique)
M



15A 250V
B



32A 500V
N



10A 250V
C



40A 500V
O



10A 110V
D



50A 500V
P



15A 32V
Polarised
E



10A 500V
Q



20A 250V
F



20A 500V
R



10A 250V
G



32A 500V
S



20A 250V
H



40A 500V
T



32A 250V
I



50A 500V
U



10A 110V
J



10A 500V
V



10A 500V
K



10A 500V
W



20A 500V
L



20A 500V
X

International Protection Ratings & Technical Terms

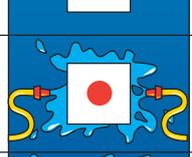
PROTECTION AGAINST SOLIDS

	TEST	PROTECTION
x	No test applied	No specific protection
0	No test applied	Inherent degree of protection
1		Protected against solid objects equal to or greater than 50mm diameter. (eg. accidental contact with hand)
2		Protected against solid objects equal to or greater than 12.5mm diameter. (eg. contact with finger)
3		Protected against solid objects equal to or greater than 2.5mm diameter. (eg. tools and wires)
4		Protected against solid objects equal to or greater than 1mm diameter. (eg. fine tools and wires)
5		Protected against quantities of dust that could interfere with satisfactory operation.
6		Completely protected against dust.

Defined by IEC 60529
DIN 40050 CEI 70-1

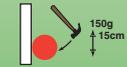
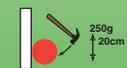
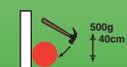
To Australian standards AS 60529-2004
Degrees of protection provided by enclosures.
(IP Code)

PROTECTION AGAINST LIQUIDS

	TEST	PROTECTION
x	No test applied	No specific protection
0	No test applied	Inherent degree of protection
1		Protected against drops of water falling vertically.
2		Protected against drops of water falling at up to 15 degrees from the vertical.
3		Protected against spraying water at up to 60 degrees from the vertical.
4		Protected against splashing water from all directions.
5		Protected against jets of water from all directions.
6		Protected against jets of water of similar force to heavy seas.
7		Protected against the effects of temporary immersion.
8		Protected against the effects of continuous immersion.

Defined by IEC 60529

PROTECTION AGAINST IMPACT

	TEST	PROTECTION
x	No test applied	No specific protection
1		Resistant to impacts of weight up to 150g falling from 15cm.
3		Resistant to impacts of weight up to 250g falling from 20cm.
5		Resistant to impacts of weight up to 500g falling from 40cm.
7		Resistant to impacts of weight up to 1.5kg falling from 40cm.
9		Resistant to impacts of weight up to 5kg falling from 40cm.

Defined by UTE 20010

The following technical terms are brief descriptions indicating the tests involved to attain ratings.
For further information refer to the standards indicated.

M-Rating (Refer AS/NZS3133)

Schneider Electric switches and switched socket outlets are marked with an M-Rating. This indicates that these products have been tested and found suitable for switching locked rotor current.

In part, this test involves 50 operations, make and break of the nominated locked rotor current at 0.5 power factor lagging. The switch will not fail to interrupt the current or fail in any way electrically or mechanically.

AC-15 (refer AS/NZS3947)

Control of electromagnetic loads (>72VA).

AC-23 (refer AS/NZS3947)

Switching of motor loads or highly inductive loads.

In part this involves five make and break operations at:

- 10 times rated current make
- 1.1 times rated voltage make
- 0.35 cos
- 8 times rated current break
- 1.1 times rated voltage break
- 0.35 cos.

Additional mechanical at no load and electrical endurance tests at rated current and voltage at 0.35 cos are conducted.

AC-21 (refer AS/NZS3947)

Switching of resistive loads, including moderate overloads

In part this involves five make and break operations, at 1/2 times rated current and 1.1 times rated voltage at 0.95 cos.

Additional mechanical no load and electrical endurance tests at rated current and voltage at 0.95 cos are conducted.

AC-22 (refer AS/NZS3947)

Switching of mixed resistive and inductive loads, including moderate overloads.

In part this involves five make and break operations at three times rated current and 1.1 times rated voltage at 0.65 cos. Additional mechanical no load and electrical endurance tests at rated current and voltage at 0.65 cos.

Technical Tables

Cable Size - Nominal Area of Conductor mm ²	No. and Diameter of Wires for Standard Conductor No./mm	Overall Diameter of AS/NZS300U Table E7 mm
0.5	1/0.80	2.5
1	1/1.13	2.9
1.5	1/1.38	3.2
	7/0.50	3.3
2.5	1/1.78	3.6
	7/0.67	3.8
4	7/0.85	4.8
6	7/1.04	5.3
10	7/1.35	6.3
16	7/1.70	7.3
25	19/1.35	9.4
35	19/1.53	10.4
50	19/1.78	12.0
70	19/2.14	13.8
95	37/1.78	16
120	37/2.03	17.7
150	37/2.25	19.7
185	37/2.52	22
240	61/2.25	25.1
300	61/2.52	27.9
400	61/2.85	31.4
500	61/3.20	34.9
630	127/2.52	38.9

Dimensions, standard copper and aluminium conductors 1 core 0.6/1kV PVC insulated cable to AS/NZS5000, 75°C

Note: For exact dimensions refer to manufacturers' details.

Useful 3-Phase Formulae

$$kW = \frac{\text{Line Amps} \times \text{Line Volts} \times 1.732 \times \text{P.F.}}{1000}$$

$$kVA = \frac{\text{Line Amps} \times \text{Line Volts} \times 1.732}{1000}$$

$$kW = kVA \times \text{P.F.}$$

Electric Motors

$$\text{Power Output} = \text{Power Input} \times \text{Efficiency}$$

$$kW \text{ Output} = kW \text{ Input} \times \text{Efficiency}$$

$$kW \text{ Output} = \frac{1.732 \times \text{Line Volts} \times \text{Line Amps} \times \text{P.F.} \times \text{Efficiency}}{1000}$$

$$kVA \text{ Input} = \frac{1.732 \times \text{Line Volts} \times \text{Line Amps}}{1000}$$

$$\text{Line Amperes} = \frac{1000 \times kW \text{ Output}}{\text{Line Volts} \times 1.732 \times \text{P.F.} \times \text{Efficiency}}$$

$$\text{Line Amperes} = \frac{1000 \times kVA \text{ Input}}{\text{Line Volts} \times 1.732}$$

The power factor is usually taken as 0.8 (as an all-round figure) but this varies with the speed and size of the motor. The efficiency varies from 85% in small motors to 90% and over for large motors.

Measure	Symbol	Unit
Length	S	m
Area	A	m ²
Volume	V	m ³
Weight	m	kg
Density	P	kg/m ³
Time	t	s
Frequency	F	Hz
Rotary Speed	n	s ⁻¹
Linear Speed	v	ms ⁻¹
Acceleration	a	ms ⁻²
Power	F	N (Newton)
Pressure	P	Pa (Pascal)
Torque	M	Nm
Work	W	J (Joule)
Power	P	W (Watt)
Reactive Voltampere		Var
Voltampere		V.A
Current	I	A (Ampere)
Operational Current	I _{th}	A
Conventional Enclosed	I _{the}	A
Thermal Current	61/2.85	31.4
Voltage	U	V (Volts)
Insulated Voltage	U _i	V
Operational Voltage	U _e	V
Resistance	R	(Ohm)
Impedance	Z	
Reactance	X	
Reluctance	S	A/Wb
Capacitance	C	F (Farad)
Quantity of Electricity	Q	C (Coulomb)
Magnetic Field Strength	H	A/m
Magnetic Flux	Ø	Wb (Weber)
Inductance	L	H (Henry)
Magnetic Flux Density	B	T (Tesla)
Temperature	t	°C (Centigrade)
Illuminance	E	l x (Lux)
Luminance	L	cd/m ²
Luminous Flux	Ø	lm (Lumen)
Luminous Intensity	I	cd (Candela)

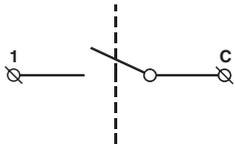
Abbreviations for Multiples and Sub Multiples

T	tera	10 ¹²
G	giga	10 ⁹
M	mega	10 ⁶
k	kilo	10 ³
d	deci	10 ⁻¹
c	centi	10 ⁻²
m	milli	10 ⁻³
u	micro	10 ⁻⁶
n	nano	10 ⁻⁹
p	pico	10 ⁻¹²

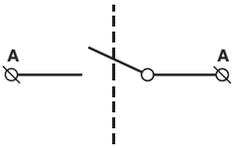
Common Conversion Factors

Quality	Non-SI Unit	Metric	Conversion Factors (approx.) Non-SI to Metric (SI) Units	Metric (SI) to Non-SI Units
Length	Inch (in)	Millimetre (mm) or Centimetre (cm)	1 in = 25.4mm	1 cm = 0.39 in
	Foot (ft)	Centimetre (cm) or Metre (m)	1 ft = 30.5 cm	1 m = 3.28 ft
	Yard (yd)	Metre (m)	1 yd = 0.914 m	1 m = 1.09 yd
	Mile	Kilometre (km)	1 mile = 1.61 km	1 km = 0.62 mile
Area	Square Inch (in ²)	Square Millimetre (mm ²)	1 in ² = 645 mm ²	1 mm ² = 0.002 in ²
	Square Inch (in ²)	Square Centimetre (cm ²)	1 in ² = 6.45 cm ²	1cm ² = 0.155 in ²
	Square Foot (ft ²)	Square Centimetre (cm ²) or Square Metre (m ²)	1 ft ² = 929 cm ²	1 m ² = 10.76 ft ²
	Square Yard (yd ²)	Square Metre (m ²)	1 yd ² = 0.836m ²	1 m ² = 1.20 yd ²
	Acre	Hectare (ha)	1 acre = 0.405 ha	1 ha = 2.47 acres
	Square Mile	Square Kilometre (km ²)	1 Square Mile = 2.59 km ²	1 km ² = 0.387 sq. mile
Volume	Cubic Inch (in ³)	Cubic Centimetre (cm ³)	1 in ³ = 16.4 cm ³	1 cm ³ = 0.06 in ³
	Cubic Inch (ft ³)	Cubic Decimetre (dm ³) or	1 ft ³ = 28.3 dm ³	1 m ³ = 35.3 ft ³
	Cubic Yard (yd ³)	Cubic Metre (m ³)	1 yd ³ = 0.765m ³	1 m ³ = 1.31 yd ³
Volume (Fluids)	Fluid Ounce UK (fl. oz UK)	Millilitre (ml)	1 fl. oz (UK) = 28.4 ml	1 ml = 0.035 fl. oz (UK)
	Pint UK (pt UK)	Millilitre (ml) or Litre (l)	1 pint UK = 568 ml	1 l = 1.76 pint (UK)
	Gallon UK (gal UK)	Litre (l) or Cubic Metre (m ³)	1 gal UK = 4.55 l	1 m ³ = 220 gallons (UK)
	Fluid Ounce US (Fl. oz US)	Millilitre (ml)	1 fl. oz (US) = 29.6 ml	1 ml = 0.034 fl. oz (US)
	Pint US (gal US)	Litre (l) or Millilitre	1 pint (US) = 473 ml	1 l = 2.11 pint (US)
	Gallon US (gal US)	Litre	1 gallon (US) = 3.79 l	1 l = 0.264 gallon (US)
Mass	Ounce (oz)	Gram (g)	1 oz = 28.3 g	1 g = 0.035 oz
	Pound (lb)	Gram (g) or kilogram (kg)	1 lb = 454 g	1 kg = 2.20 lb
	Ton	Tonne (t)	1 ton = 1.02 tonne	1 tonne = 0.984 ton
	tael	Gram (g)	1 tael = 37.8 g	1 g = 0.026 tael
	Catty	Kilogram (kg)	1 catty = 0.605 kg	1 kg = 1.65 cattoes
	Picul	Kilogram (kg)	1 picul = 60.50 kg	1 kg = 0.017 picul
Force	Pound Force (lbf)	Newton (N)	1 lbf = 4.45 N	1 N = 0.225 lbf
	Kilogram Force (kgf)	Newton (N)	1 kgf = 9.81 N	1 N = 0.102 kgf
Pressure	Pound Force per square inch (psi)	kilopascal (kPa)	1 psi = 6.86 kPa	1 kPa = 0.145 psi
	Kilogram force per square centimetre (kgf/cm ²)	kilopascal (kpa)	1 kgf/cm ² = 98 kPa	1 kPa = 0.01 kgf/cm ²
	Inch of water (in H ₂ O)	Pascal (Pa)	1 in H ₂ O = 249 Pa	1 Pa = 0.004 in H ₂ O
	Bar	kilopascal (kPa)	1 Bar = 100 kPa	1 kPa = 0.01 bar
Velocity	Mile per hour (mph)	Kilometre per hour (km/h)	1 mile = 1.61 km/h	1 km/h = 0.62 mph
Temperature	Fahrenheit temp. (F)	Celsius temp. (C)	$^{\circ}\text{C} = 5 \frac{(^{\circ}\text{F} - 32)}{9}$	$^{\circ}\text{F} = \frac{(9 \times ^{\circ}\text{C}) + 32}{5}$
Density	Pound per cubic inch (lb/in ³)	Gram per cubic centimetre (g/cm ³) = tonne per cubic metre (t/m ³)	1 lb/in ³ = 27.7 t/m ³	1 t/m ³ = 0.036 lb/in ³
	Pound per cubic foot (lb/ft ³)	Kilogram per cubic metre (kg/m ³)	1 lb/ft ³ = 16.02 kg/m ³	1 kg/m ³ = 0.06 lb/ft ³
	Ton per cubic yard (ton/yd ³)	Tonne per cubic metre (t/m ³)	1 ton/yd = 1.33 t/m ³	1 t/m ³ = 0.752 ton/yd ³
Energy	British thermal unit (Btu)	Kilojoule (kJ)	1 Btu = 1.06 kJ	1 kJ = 0.948 Btu
	Therm	Megajoule (MJ)	1 Therm = 106 MJ	1 MJ = 9.48 x 10 ⁻³ therm
	Calorie (dietician)	Kilojoule (kJ)	1 Cal (dietician) = 4 kJ	1 kJ = 0.23 Cal (dietician)
Power	Horsepower (hp)	Kilowatt (kW)	1 hp = 0.746 kW	1 kW = 1.34 hp
Fuel Consumption	Mile per gallon (mpg)	Litres per 100 m	$\frac{(n) \times \text{mpg}}{n} = 2821/100 \text{ km}$	$\frac{(n) \times 1/100 \text{ km}}{n} = 282$

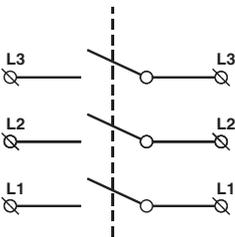
Switch Wiring Diagram Types



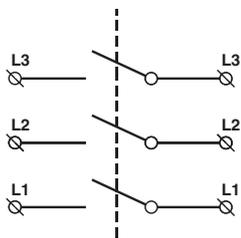
Switch is 30 Series mech.
S56SW110GY
S56SW115GY



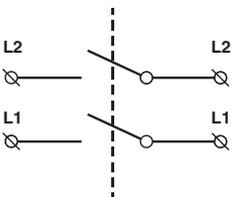
Switch terminals are not identified
Switch is backwired
Conductor termination is pressure plate type
S56C320GY
S56SW120GY
S56SW132GY



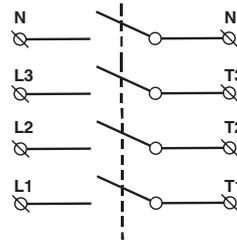
Switch terminals are not identified
Switch is backwired
Conductor termination is pressure plate type
S56C420GY / S56C420RO
S56C520GY / S56C520RO



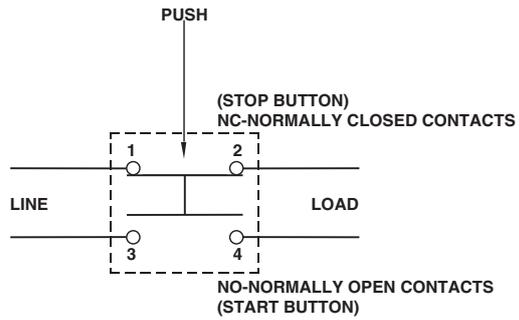
Switch terminals are not identified
Switch is backwired
Conductor termination is plain screw type
S56SW320RO S56C432RO S56C532RO
S56SW320GY S56C432GY S56C540GY
S56SW332GY S56C440GY S56C550GY
S56SW332RO S56C450GY
S56SW350GY



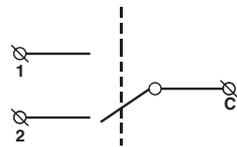
Switch is sidewired
Conductor termination is pressure plate type
S56SW220GY
S56SW232GY



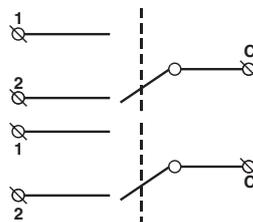
If neutral potential is applied to remote terminal timer function is overridden
S56SW420RO



S56PBGY (No Marking, Colour Green, Non Latching)
S56PBSGY (Stop, Colour Red, Non Latching)
S56PBS1GY (Emergency Stop, Marked on Switch and Plate, Colour Red Mushroom, Latching)

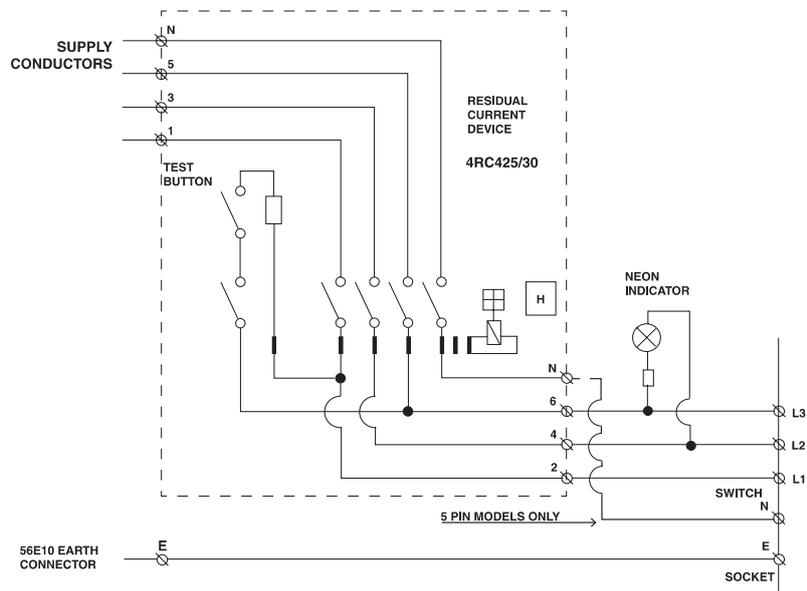
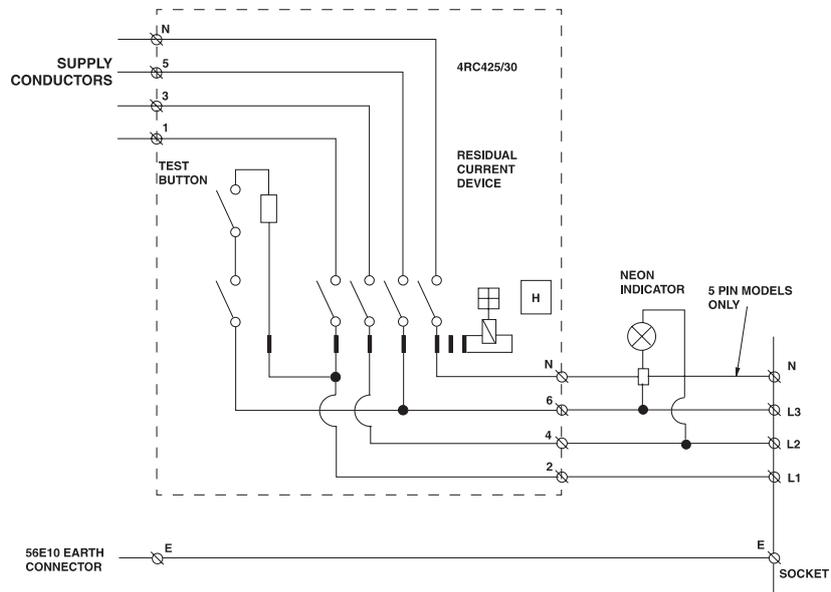
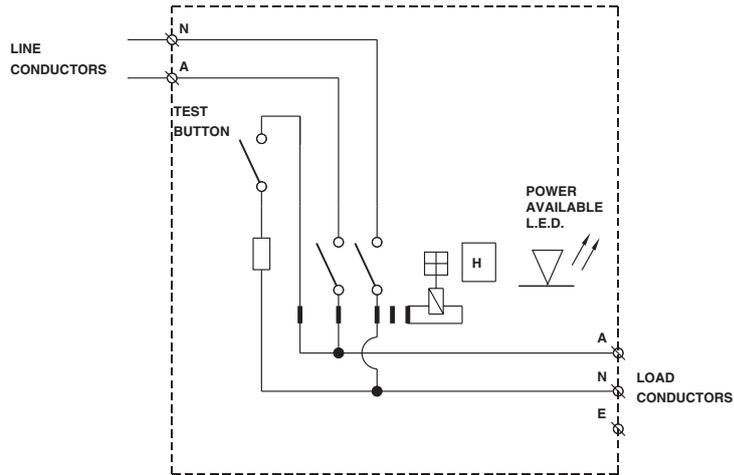


Switch is 30 Series mech.
S56SW110_2GY
S56SSW10GY
S56SSW15GY



Circuit is shown in the 'OFF' position
S56SSW2_10GY
S56SSW2_15GY

Wiring Diagram Types



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