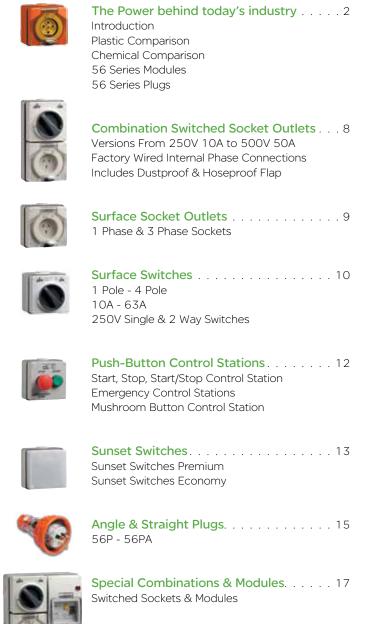


Providing the strength, reliability and durability demanded of today's industry

## Contents





Mounting Enclosures (Back Boxes) . . . . 18
Back Boxes
Bridges



Mounting Enclosure Lids (Covers) . . . . 20 Lids Pre-Drilled Mounting Enclosure Lids



Switchgear Cover Assemblies . . . . . . . . 21
DIN Rail Accessory Mounting Cover Kits



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Designed to satisfy customer needs, precisely engineered and carefully manufactured, Schneider Electric Industrial Switchgear is as versatile as your requirements. The 56 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 56 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 56 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 56 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 56 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 56 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 56 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 56 Series makes it the ideal choice for installation in commercial facilities such as television studios, shopping centers and warehouses. What's more, the 56 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	А
Outdoor use - colour properties	В	В
Indoor use	A	А
Saltwater environments	A	А
Thermal properties	A	А
Lightweight	A	А
High rigidity	В	В
Impact resistant	А	В

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.

Not recommended for use.

## **Chemical Comparisons**

**Chemical Comparison Chart** 

roduct 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	А	A
Nitric 10%	A	A	А
Concentrate			
Sulphuric 100%	A	D	D
Alkalis			
Weak Solutions			
Sodium Hydroxide 10% (Caustic Soda)	A	D	В
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	В	A	A
Propane	A	А	A
Alcohols			
Ethylene Glycol	A	A	A
Glycerol (Glycerin)	A	С	В
Methyl Alcohol (Methanol)	A	D	В
Ethyl Alcohol (Ethanol)	A	A	A
Amines			
Aniline	D	D	D
Aromatic Hydrocarbons			
Methyl Benzene	D	D	В
Xylene	D	D	В
Ethers			
Dimethyl Ethyl	A	A	A
Ketones			
Acetone	A	D	С
Acetophenone	D	D	С
Ethyl Methyl Ketone	D	D	С
Miscellaneous			
Detergent	A	А	А
Inorganic Salts			
Magnesium Sulphate	A	А	А
Oxidising Agents			
Weak Solution			
Sodium Hypochlorite 5%	A	А	А
Strong Solution			
Hydrogen Peroxide 30%	A	А	А
Water			
Ambient	A	А	А
Hot >60°C	С	A	В
Steam	D	D	D

## **56 Series Modules**

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

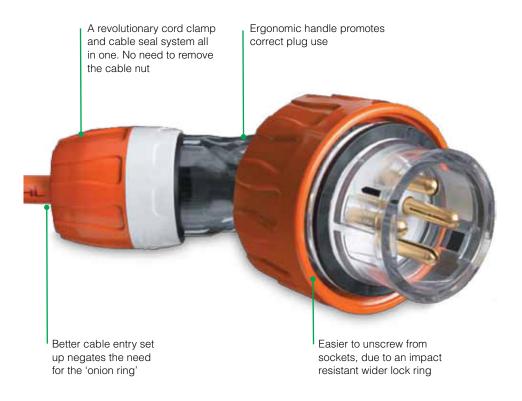
Modular system with 1 to 4 gang arrangements to satisfy your every need.





## 56 Series Plugs

Schneider Electric 56 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.

#### 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



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 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**

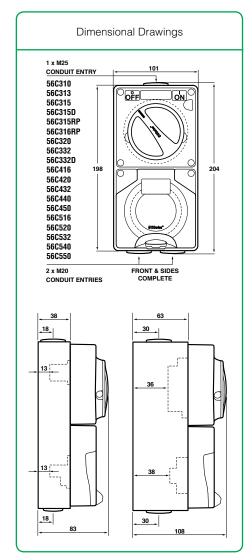


#### 56C310GY

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.

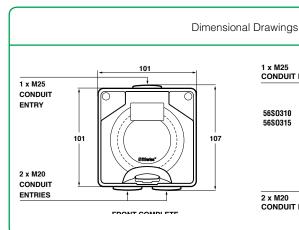
Earth and neutral connectors accommodating  $3 \times 6 \text{mm}^2$  cables are supplied with 500V models.

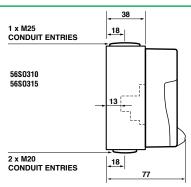


								TW0 F	PIECE						
Catalogue Number	No. of switch poles	I <sub>the</sub> (Amp)	U <sub>i</sub> / U <sub>e</sub> (Volt)	le (A) Ut AC21A	ilisation AC22A	Category AC23A	M Rating	Number of Sockets	Cond. Term Min.	Size in mm² Max/Cond.	IP Rating	0/A Dims. (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config
56C310	1 Pole	10A	250V	10	8	8	M80	3 Flat	1.5	6	66	204x101x83	56P310		А
56C313	1 Pole	13A	250V					3 Flat			66		56P313	56PA313	
56C313/2	1 Pole	13A	250V					3 Flat x 2			66		56P313	56PA313	
56C315	1 Pole	15A	250V	15	10	8	M80	3 Flat	1.5	6	66	204x101x83	56P315		В
56C315D	2 Pole	15A	250V	15	15	15	M120	3 Flat double pole	1.5	6	66	204x101x108	56P315		В
56C315RP	1 Pole	15A	250V					3 Round			66		56P315RP	56PA315RP	
56C316RP	1 Pole	16A	250V					3 Round			66		56P316RP	56PA316RP	
56C320	1 Pole	20A	250V	20	20	21	M150	3 Round	2.5	6	66	204x101x108	56P320	56PA320	Н
56C332	1 Pole	32A	250V	32	32	28	M180	3 Round	6	16	66	204x101x108	56P332	56PA332	I
56C332D	2 Pole	32A	250V					3 Round			66		56P332	56PA332	
56C416	3 Pole	16A	500V					4 Round			66		56P416	56PA416	
56C420	3 Pole	20A	500V	20	20	21	M150	4 Round	2.5	6	66	204x101x108	56P420	56PA420	L
56C432	3 Pole	32A	500V	32	32	28	M180	4 Round	4	16	66	204x101x108	56P432	56PA432	N
56C440	3 Pole	40A	500V	40	40	35	M200	4 Round	10	16	66	204x101x108	56P440	56PA440	0
56C450	3 Pole	50A	500V	50	50	35	M250	4 Round	10	16	66	204x101x108	56P450	56PA450	Р
56C516	3 Pole	16A	500V					4 Round			66		56P516	56PA516	
56C520	3 Pole	20A	500V	20	20	21	M150	5 Round	2.5	6	66	204x101x108	56P520	56PA520	R
56C532	3 Pole	32A	500V	32	32	28	M180	5 Round	4	16	66	204x101x108	56P532	56PA532	S
56C540	3 Pole	40A	500V	40	40	35	M200	5 Round	10	16	66	204x101x108	56P540	56PA540	T
56C550	3 Pole	50A	500V	50	50	35	M250	5 Round	10	16	66	204x101x108	56P550	56PA550	U

## **Surface Socket Outlets**







### 56S0310GY

### 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.

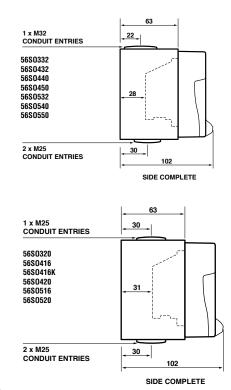
The full range of sockets accommodate both the superseded IP56 plain plugs and the current IP66 retention ring plugs in order to rationalise the number of variations required.

Earth and neutral connectors accommodating  $3 \times 6 \text{mm}^2$  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. 56SO416 becomes 56SO416LE.



Catalogue	I <sub>the</sub>	U,/U	Number of	Cond. Term	Size in mm	IP	O/A Dims.	Matching	Matching	Socket
Number	(Amp)	(Volt)	Sockets	Min.	Max/Cond.	Rating	(H) x (W) x (D)	Plug Straight	Plug Angled	Config.
5680310	10A	250V	3 Flat	1.5	6	66	107x101x77	56P310		А
5680313	13A	250V	3 Flat			66		56P313	56PA313	
5680315	15A	250V	3 Flat	1.5	6	66	107x101x77	56P315		В
56SO315RP	15A	250V	3 Round			66		56P315RP	56PA315RP	
56S0316RP	16A	250V	3 Round			66		56P316RP	56PA316RP	
56\$0320	20A	250V	3 Round	2.5	6	66	107x101x102	56P320	56PA320	Н
56\$0332	32A	250V	3 Round	6	16	66	107x101x102	56P332	56PA332	I
5680416	16A	500V	4 Round			66		56P416	56PA416	K
56SO416K	16A	500V	Unique key configuration	1.5	6	66	107x101x102	56P416K	56PA416K	М
56\$0420	20A	500V	4 Round	2.5	6	66	107x101x102	56P420	56PA420	L
5680432	32A	500V	4 Round	4	16	66	107x101x102	56P432	56PA432	N
5680440	40A	500V	4 Round	6	16	66	107x101x102	56P440	56PA440	0
5680450	50A	500V	4 Round	10	16**	66	107x101x102	56P450	56PA450	Р
5680516	16A	500V	4 Round			66		56P516	56PA516	Q
5680520	20A	500V	5 Round	2.5	6	66	107x101x102	56P520	56PA520	R
5680532	32A	500V	5 Round	4	16	66	107x101x102	56P532	56PA532	S
5680540	40A	500V	5 Round	6	16	66	107x101x102	56P540	56PA540	T
5680550	50A	500V	5 Round	10	16**	66	107x101x102	56P550	56PA550	U

Note: 56S0320 come with the facility to fit auxiliary switch 56S0AUX15.

<sup>\*\* -</sup> L1, L2, L3 Cable size max. 25mm $^2$  I <sub>the</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage

## **Surface Switches**





56SW110GY

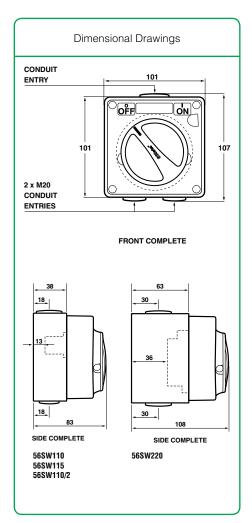
56SW320R0

### **56 Series Surface Switches**

56 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 6mm<sup>2</sup> cables are supplied with all products above 20A.



Catalogue	No. of Switched	l the	U <sub>i</sub> /U <sub>e</sub>	I <sub>e</sub> (A) U	tilisation (	Category	М	Conductor Term	inal size in mm²	IP	O/A Dims.
Number	Poles	(Amp)	(Volt)	AC21A	AC22A	AC23A	Rating	Min.	Max/Cond.	Rating	(H) x (W) x (D)
56SW110	1 Pole	10A	250V	10	8	8	M80	1.5	6	66	107x101x83
56SW110/2*	1 Pole	10A	250V	10	8	8	M80	1.5	6	66	107x101x83
56SW115*	1 Pole	15A	250V	15	8	8	M80	1.5	6	66	107x101x83
56SW116	1 Pole	16A	250V	-	-	-	-	-	-	66	-
56SW120	1 Pole	20A	250V	20	20	20	M150	2.5	16	66	107x101x108
56SW132	1 Pole	32A	250V	32	32	28	M180	4	16	66	107x101x108
56SW150	1 Pole	50A	250V	50	50	25	M250	10	25	66	107x101x108
56SW163	1 Pole	63A	250V	63	63	25	M300	16	25	66	107x101x108
56SW210	2 Pole	10A	500V	-	-	-	-	-	-	66	-
56SW216	2 Pole	16A	500V	-	-	-	-	-	-	66	-
56SW220	2 Pole	20A	500V	20	20	20	M150	2.5	16	66	107x101x108
56SW232	2 Pole	32A	500V	32	32	28	M180	4	16	66	107x101x108
56SW250	2 Pole	50A	500V	50	50	25	M250	10	25	66	107x101x108
56SW263	2 Pole	63A	500V	63	63	25	M300	16	25	66	107x101x108
56SW310	3 Pole	10A	500V	10	10	10	M100	1.5	16	66	107x101x108
56SW316	3 Pole	16A	500V	-	-	-	-	-	-	66	-
56SW320	3 Pole	20A	500V	20	20	20	M150	2.5	16	66	107x101x108
56SW332	3 Pole	32A	500V	32	32	28	M180	4	16	66	107x101x108
56SW350	3 Pole	50A	500V	50	50	25	M250	10	25	66	107x101x108
56SW363	3 Pole	63A	500V	63	63	25	M300	16	25	66	107x101x108
56SW420*	4 Pole	20A	440V	20	20	20	-	2.5	6	66	107x101x108

\*Further Information

56SW110/2 - 2 way 4 terminal 56SW115 - 1 way 2 terminal 56SW420 - with 7 Series switch mechanism

Note: AC utilisation categories to AS/NZS3947.3 | \_ - Conventional Enclosed Thermal Current | I - Operational Current | U - Insulation Voltage | U - Operational Voltage

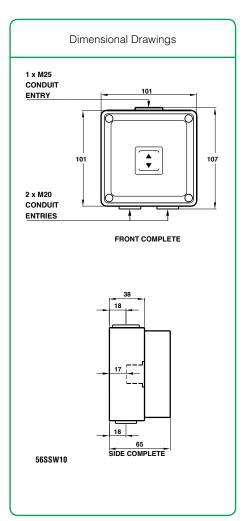
## **Surface Switches**



### 56SSW10GY

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

Schneider Electric 56 Series Single and Twin Sliding Switches are available in 10A and 15A ratings.



Catalogue Number	Description	No. of switches p/Module	I <sub>the</sub> (Amp)	U;/U <sub>e</sub> (Volts)	M Rating	Cond. Size ii Min.	Term n mm² Max	IP Rating	0/A Dims. (H) x (W) x (D)
56SSW10	Single sliding switch	1	10A	250V	M80	1.5	6	56	107x101x65
56SSW15	Single sliding switch	1	15A	250V	M80	1.5	6	56	107x101x65
56SSW2/10	Twin sliding switch	2	10A	250V	M80	1.5	6	56	107x101x65
56SSW2/15	Twin sliding switch	2	15A	250V	M80	1.5	6	56	107x101x65

Note: AC utilisation categories to AS/NZS3947.3  $I_{p_0}$  - Conventional Enclosed Thermal Current  $U_i$  - Insulation Voltage  $U_e$  - Operational Voltage

## **Push Button Control Stations**



### Push Button (PB) range L-R: 56/2PB GY, 56PBS1 GY, 56PBS GY, 56/2PBS1 GY.

This rugged range consists of five 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.

56PB - Start control station.

56PBS - Stop control station.

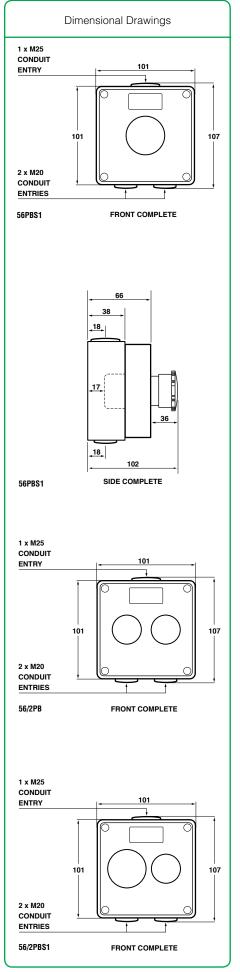
**56PBS1** - Emergency stop station. This station has a mushroom head with twist reset and red push button.

**56/2PB** - Combination stop/start control station with momentary operation push buttons. The red stop button has an extended head and the green start button a flush head.

**56/2PBS1** - Combination stop/start control station with same stop button as the 56PBS1.

Catalogue	l the	U <sub>i</sub> /U <sub>e</sub>	le (A) Utilisation Category		Button	Cond. Term Size in mm²		IP	O/A Dims.	
Number	(Amp)	(Volt)	AC15 240V	DC13 24V	Colour	Min.	Max.	Rating	(H) x (W) x (D)	
<b>56PB</b> Start control station	10A	250V	6	8	Green	1	4	66	107x101x76	
<b>56PBS</b> Stop control station	10A	250V	6	8	Red	1	4	66	107x101x80	
<b>56PBS1</b> Emergency stop control station	10A	250V	6	8	Red	1	4	66	107x101x102	
<b>56/2PB</b> Start/Stop control station	10A	250V	6	8	Red/Green	1	4	66	107x101x80	
<b>56/2PBS1</b> Emergency stop control & start station	10A	250V	6	8	Red/Green	1	4	66	107x101x80	

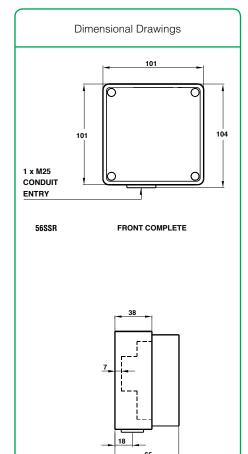
Note: AC utilisation categories to AS/NZS3947.5  $I_{pe}$  - Conventional Enclosed Thermal Current  $U_i$  - Insulation Voltage  $U_e$  - Operational Voltage  $I_e$  - Operational Current



## **Sunset Switches Premium**







SIDE COMPLETE

**56SSR** 

### **Sunset Switches Premium**

Sunset switches automatically switch lights on when the ambient light level falls below a predetermined level.

The 56SSR is surface mounting but can be adapted to flush mounting by using 56FA surrounds and brackets.

The 56SSR allows control of a 10A load current in a two wire configuration, therefore, eliminating the need for separate neutral at the switch. The 56SSR also incorporates a fully configurable timer with a remote-disable option.

When correctly connected to a suitable supply and load, the 56SSR will turn the load on when the ambient light level is below approximately 10 lux. Similarly, the load will be turned off when the light level exceeds approximately 30 lux. Delays of approximately eight seconds on turnoff and 30 seconds on turn-on are incorporated into the circuit to reject the effects of short term changes in the light levels, which may otherwise turn the load on or off.

The 56SSR is also equipped with a timer circuit which, if enabled, will turn the light off after a preset time delay. The time delay can be from 15 minutes to 15 hours and 45 minutes; set in 15 minute increments.

The timer can be disabled by applying neutral potential to the terminal T1, in which case

the status of the load is controlled only by the ambient light level. This feature provides a remote timer override function if required.

**56SSR** 

Since the 56SSR Sunset Switch is a two wire product which does not require any power while the load is turned on, there is one specific aspect of its operation well worth noting. When power is applied to the sunset switch for the first time, it will require up to 3.5 minutes to warm up. This behaviour is caused by the time delay required to charge an energy storage element within the unit.

56SSR Spe	cifications
Operating Voltage Range	192-265V 50 Hz AC
Maximum Load Current	10A
Minimum Load Current	40mA
Incompatible Load Types	Electric Transformers Fluorescent Loads Discharge Lamps Motor Loads
Off-state Leakage Current at 240V AC	8.2mA (capacitive) max
DC Component of Off-state Leakage Current	0mA
Timing Range	15min - 15hrs and 45min
Setting Step	15min
Timer Accuracy	<u>+</u> 15%
Operating Temperature Range	-10 to 45°C
Maximum warm-up time at 240V AC	4 min

56SSR

Catalogue Number	I <sub>the</sub> (Amp)	U ¡/U ॄ (Volt)	I <sub>e</sub> (A) U	tilisation (	Category	M Rating	Temp. Range	Time Adjust	Conductor Terminal Time Adjust Size in mm²		IP Rating	0/A Dims. (H) x (W) x (D)	Operating Voltage
Number	(ruily)	(Voit)	AC21A	AC22A	AC23A	manng	Hango		Min.	Max.	y	(II) X (III) X (D)	voltage
56SSR	10A	250	10	10	8	M80	0° to +40°C	15 Min. to 945 Min.	1.0	2x4.0	66	101x107x65	190-265V 50Hz a.c.

## **Sunset Switches Economy**





56PEDD3

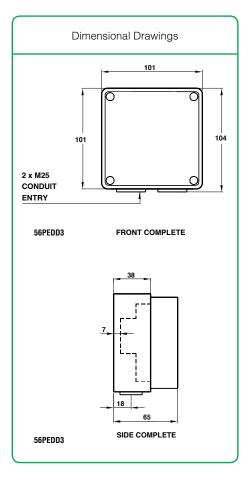
#### 56PEDD3

### **Sunset Switches Economy**

A switch that turns lights on at dusk and off at dawn by itself, how simple is that? For consistent lighting without lifting a finger, choose the photo Schneider Electric electric switch. A 'smart' switch that operates according to the level of sunlight, making it a simple to use, reliable and economical way to save time and energy.

- No capacitor or time programming necessary.
- IP66 rated for extreme environments.
- Factory set dusk to dawn saves set up time.
- 10A fluorescent and resistive loads.
- Three wire device eliminates the need for capacitor on small inductive loads.

56PEDD3 Sp	ecifications
Operating Voltage Range	220-240 V AC 50 Hz
Maximum Load Current	10A
Minimum Load Current	0mA
Compatible Load Types	Incandescent, Fluorescent and 240V Halogen Iron Core and Electric Transformers Shaded Pole Induction Motors (exhaust fans, 5A max) Split Phase Induction Motors (ceiling fans, 5A max) Other Motor Loads (5A max)
Supply Current	15mA
Power Consumption	1W
Operating Temperature Range	0 to 45°C
Turn ON Light Level	Approx. 10 lux
Turn OFF Light Level	Approx. 50 lux



Catalogue Number	I <sub>the</sub> (Amp)	U ¡/U e (Volt)	I <sub>e</sub> (A) U	I <sub>e</sub> (A) Utilisation Category			M Temp. Rating Range	Time Adjust	Conductor Terminal Size in mm²		IP Rating	0/A Dims. (H) x (W) x (D)	Operating Voltage	
Humbor	(/mip)	(1011)	AC21A	AC22A	AC23A	manny	go		Min.	Max.		(11) x (11) x (5)	Tollago	
56PEDD3	10A	250	10	10	8	M80	0° to +40°C		1.0	2x4.0	66	101x107x65	220-240V 50Hz a.c.	

## **Angle and Straight Plugs**



### **56P 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.

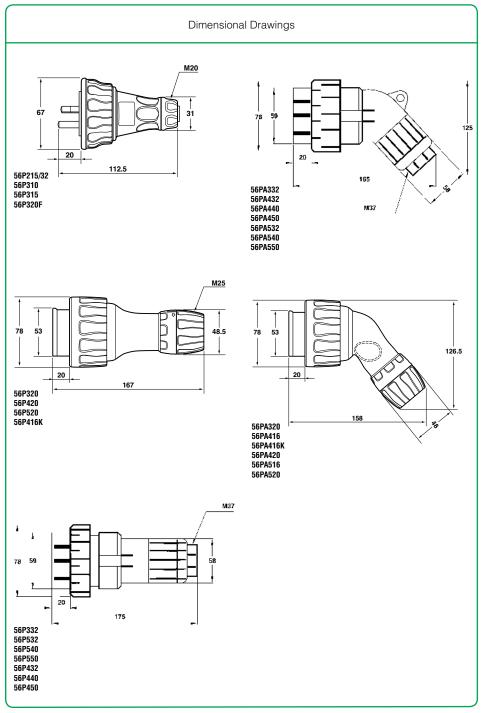
Catalogue # Straight	Catalogue # Angle	I <sub>th</sub>	U ; (Volt)	No. of Pins		r Terminal in mm²		Nominal neter	IP Rating	Pin Config.	Gland N	ut Thread
" Ottalgiit	" Tiligio	(runp)	(1011)		Min.	Max/Cond.	Min.	Max.		• • • • • • • • • • • • • • • • • • •	Straight	Angled
56P215/32	-	15A	32V	2 Polarised, Extra Low Voltage	1.5	2.5	7	12.5	66	E	20mm	
56P310	-	10A	250V	3 Flat Pins	1.0	2.5	7	12.5	66	А	20mm	
56P313	56PA313	13A	250V	3 Pins					66			
56P315	-	15A	250V	3 Flat Pins	1.0	2.5	7	12.5	66	А	20mm	
56P315RP	56PA315RP	15A	250V	3 Round Pins					66			
56P316RP	56PA316RP	16A	250V	3 Round Pins					66			
56P320	56PA320	20A	250V	3 Round Pins	1.0	6	7	16	66	Н	25mm	23mm
56P320F	-	20A	250V	3 Flat Pins	2.5	2.5	7	16	66	F	20mm	
56P332	56PA332	32A	250V	3 Round Pins	1.5	2.5	7	16	66	В	20mm	37mm
56P416	56PA416	16A	500V	4 Round Pins					66			
56P416K	56PA416K	16A	500V	Unique Key Configuration	2.5	4	7	16	66	М	23mm	23mm
56P420	56PA420	20A	500V	4 Round Pins	2.5	4	7	16	66	L	25mm	23mm
56P432	56PA432	32A	500V	4 Round Pins	2.5	16	9	28	66	N	37mm	37mm
56P440	56PA440	40A	500V	4 Round Pins	2.5	16	9	28	66	0	37mm	37mm
56P450	56PA450	50A	500V	4 Round Pins	2.5	25	9	28	66	Р	37mm	37mm
56P516	56PA516	16A	500V	5 Round Pins					66			
56P520	56PA520	20A	500V	5 Round Pins	2.5	4	7	16	66	R	25mm	23mm
56P532	56PA532	32A	500V	5 Round Pins	2.5	16	9	28	66	S	37mm	37mm
56P540	56PA540	40A	500V	5 Round Pins	2.5	16	9	28	66	T	37mm	37mm
56P550	56PA550	50A	500V	5 Round Pins	2.5	25	9	28	66	U	37mm	37mm

## Angle and Straight Plugs



### 56P310GY

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



## **Special Combinations and Modules**



#### **56RCGY**

### **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 56RC provides stand alone protection or multiple protection of socket outlets in a modular IP66 Series Enclosure.

Warning: The RCD used in the 56 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	No. of Switch	l the	U <sub>i</sub> /U <sub>e</sub>	Voltage Parameters		Voltage Parameters Prospective Short Circuit Current		Cond. Term Size in mm <sup>2</sup>		O/A Dims.
Number	Poles	(Amp)	(Volt)	Min. (V)	Max. (V)	33kA for 40mS	Min.	Max.	Rating	(H) x (W) x (D)
56RC	2 Pole 30mA 1 Phase RCD	20A	250V	190	260	Unit must be protected by 20A max. MCB	1.5	6	66	107x101x101

					RCD PROTEC	TED OUTLETS	;				
Catalogue Number	I the (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)	Number of Sockets	Protection	Cond. Term Min.	Size in mm² Max.	IP Rating	0/A Dims (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config.
56C313RCD30	13A	250V	3 Flat	30mA RCD			66		56P313	56PA313	
56C420RC	20A	500V	4 Round	30mA RCD	1.5	16	66	300x101x110	56P420	56PA420	L
56C432RC	32A	500V	4 Round	30mA RCD	4	16	66	300x101x110	56P432	56PA432	N
56C520RC	20A	500V	5 Round	30mA RCD	1.5	16	66	300x101x110	56P520	56PA520	R
56C532RC	32A	500V	5 Round	30mA RCD	4	16	66	300x101x110	56P532	56PA532	S

## Mounting Enclosures (Back Boxes)





#### 56E

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.

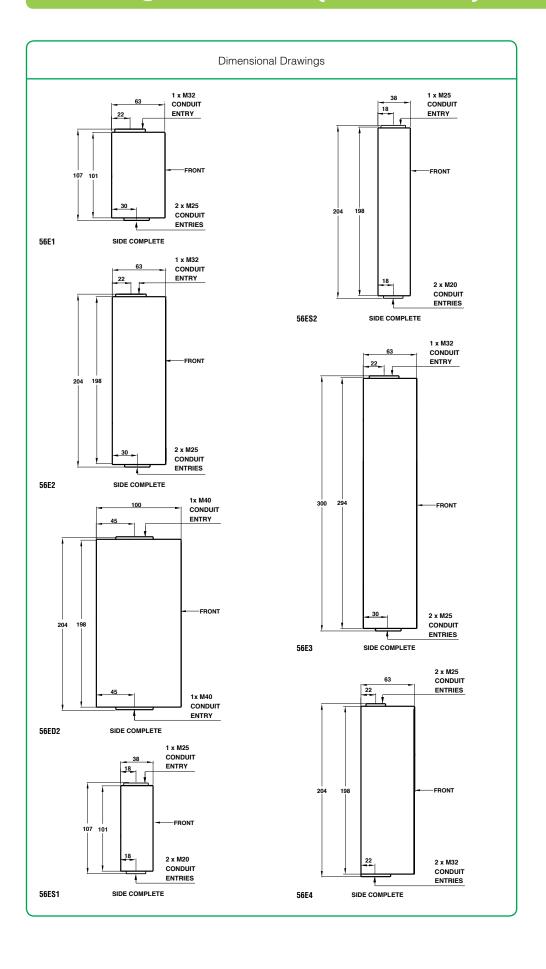
#### 56Bridge

### **Bridges**

56 Series Bridges suits 56E 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	0/A Dims. (H) x (W) x (D)	Mounting Points	No. of Conduit Entries (mm)	Cut-Out Provision (mm)
56E1	1	63x101x101	8	2x25, 1x32	1x25/32
56ES1	1 Shallow	38x101x101	4	1x25, 1x20	1x20/25
56E2	2	63x101x198	8	2x25, 1x32	1x25, 1x32
56ED2	2 Deep	100x101x198	8	2x40	1x25, 1x32
56ES2	2 Shallow	38x101x198	4	1x25, 2x20	2x20/25
56E3	3	294x101x63	16	2x25, 1x32	2x25, 1x32
56E4	4	63x198x198	16	2x25, 2x32	2x25, 1x32, 1x40

## Mounting Enclosures (Back Boxes)



## **Mounting Enclosure Lids (Covers)**



### 56L1LEGY, 56L2LEGY

Mounting enclosure lids are moulded in UV stabilised polycarbonate.

All are 28mm high and supplied complete with sealing gasket.

Catalogue Number	Number of Gangs	Dimensions (mm)					
Galalogue Nullibel	Number of Gangs	A	В	C	D	E	
56L1LE	1	95	95	28	84	84	
56L2LE	2	192	95	28	84	181	

### **Pre-Drilled Mounting Enclosure Lids**



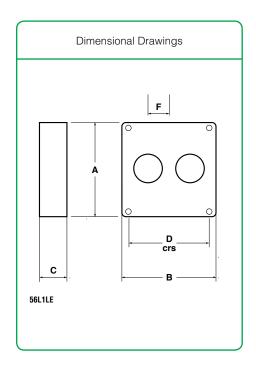
### 56L1/22LEGY

One gang, 28mm high lids are also available pre-drilled to accept 22mm diameter IP56 rated push- buttons or indicating lights. Dimensions are identical to the 56L1.



### 56L1/22/2LEGY

Catalogue Number	Hole Diameter	No. of Holes	F
56L1/22LE	22mm	1	-
56L1/22/2LE	22mm	2	20



## Switchgear Cover Assemblies



**56CB4NLEGY** 

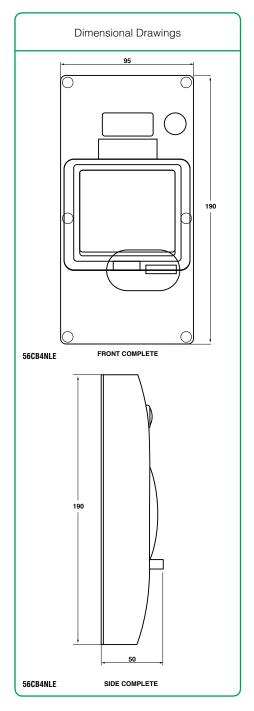
### **DIN Rail Accessory Mounting Cover Kits**

The 56 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 56 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)							
	alogue mber	U <sub>i</sub> /U <sub>e</sub> (Volt)	Module Type	No. of Poles	Module Width	Neon Voltage	Protective Membrane	
56C	B4NLE	240V / 440V	1, 2, 3 pole MCB	4 RCD	4 max.	240V / 415V	No	



## Adaptable Enclosures

### **Junction Boxes**

56 Series Junction Boxes are designed for industrial environments. They are supplied complete with Earth and Neutral connectors for up to  $3 \times 6 \text{mm}^2$  cables and sealing gasket.

25mm and 32mm screwed conduit entries and sealing plugs are provided, as are cable entry cut outs in the back.

Catalogue Number	No. of Gangs	0/A Dims (H) x (W) x (D)	IP Rating	Cut Outs (mm)
56JB1	1	91x101x101	IP66	1x25/32
56JB2	2	91x198x101	IP66	1x25, 1x32



56/32GY

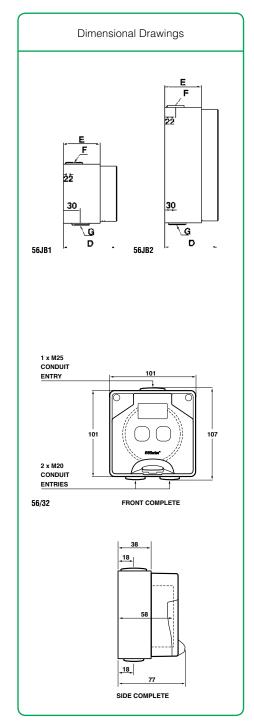
### **Two Aperature Enclosure IP66**

Apertures suit popular 30 Series Mechanisms.

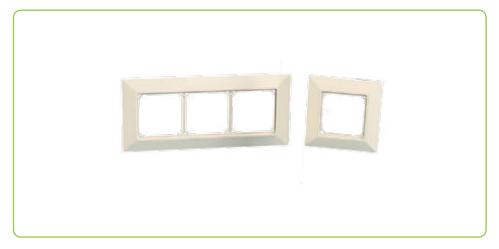
### Option available

Other resistant versions available to special order.

Catalogue Number	Description
56/32	107x101x75



## Adaptable Enclosures



#### **Moulded Surrounds and Metal Brackets**

### **Flush Surrounds**

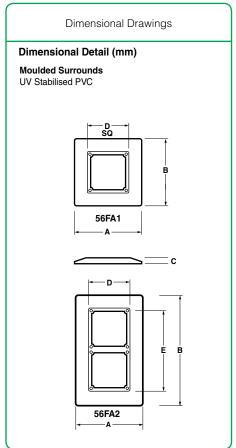
Surface mounted 56 Series Sockets, Switches and Combinations can be transformed into flush mounting equivalents using the 56FA Surrounds and Brackets. The surrounds can be used on various types of walls to ensure a neat installation, such as:

- a mounting enclosure (back box) in poured concrete
- a bracket on brick, brick veneer or panel
   walls

The brackets provide the installer with a practical method of flush mounting 56 Series accessories. Comprehensive installation instructions are supplied with all units.

56FA1, 56FA2 and 56FA3 Flush Surrounds contain a moulded flange, foam gasket and stainless steel mounting screws.

Catalogue	Number	Description		Dim	ensions (	mm)	
Number	of Gangs	Description	Α	В	C	D	E
56FA1	1	Flush surround suits single gang 56 Series	157	157	13	97	
56FA2	2	Flush surround suits two gang 56 Series	157	254	13	97	194
56FA3	3	Flush surround suits three gang 56 Series	157	350	13	97	281



## Lloyd Registered Products for Shipping Approvals

## Lloyd's Register of Shipping Approvals for 56 Series Switchgear

		9 - 1010		
500V Three Phase	250V Two-way	500V Three Phase	250V and Low	250V a.c. and Low
Sockets	Switches (Single	Combination	Voltage Switched	Voltage Plugs
56SO420	and Twin with	Switched Sockets	Sockets	56P215/32
56SO432	Sliding Switch	56C420	(Single and Double	56P310
56SO440	Dollies)	56C432	Pole Combination)	56P313
56SO450	56SSW10	56C440	2 Module	56P320
56SO520	56SSW15	56C450	56C310	56P320F
56SO532	56SSW2/10	56C520	56C313	56P332
56SO540	56SSW2/15	56C532	56C315	56PA320
56SO550		56C540	56C315D	56PA332
250V Sockets		56C550	56C320	
56SO310			56C332	
56SO313				
56SO315			500V Three Phase	
56SO320			Plugs	
56SO332			Angle	
Rotary Switches			56PA420	
(Single, Double and			56PA432	
Triple Pole)			56PA440	
56SW110			56PA450	
56SW110/2			56PA520	
56SW115			56PA532	
56SW120			56PA540	
56SW132			56PA550	
56SW150			Straight	
56SW163			56P420	
56SW220			56P432	
56SW232			56P440	
56SW250			56P450	
56SW263			56P520	
56SW310			56P532	
56SW320			56P540	
56SW332			56P550	
56SW350			30. 000	

### **Department of Industrial Relations Coal Mines Regulation Act 1982**

Rotary Switches (Single, Double and	500V Three Phase Sockets	500V Three Phase Angle Plugs
Triple Pole)	56SO532	56PA520
56SW120	56SO540	56PA532
56SW132	56SO550	56PA540
56SW150		56PA550
56SW220		
56SW250		
56SW320		
56SW332		
56SW350		

56 Series accessories comply with the relevant parts of the following standards:

AS/NZS3123 - Approval and test specifications - plugs, socket outlets and couplers for general industrial application.

 $\ensuremath{\mathsf{AS/NZS3133}}$  - Approval and test specifications - air break switches.

56SW363

## Plug and Socket Configurations

### **Plug Configurations**

#### 2 & 3 Pin



10A 250V

15A 250V

10A 250V

10A 110V

15A 32V

Polarised



16A 500V (unique) М



32A 500V





40A 500V





50A 500V





10A 500V Q



20A 250V



20A 500V R













4 Pin







20A 500V

### **Socket Configurations**

#### 2 & 3 Pin



10A 250V



16A 500V (unique) М



15A 250V



32A 500V



10A 250V С



40A 500V 0



10A 110V D



50A 500V



15A 32V Polarised



10A 500V Q



20A 250V



20A 500V





32A 500V



G

20A 250V

10A 250V



32A 500V





40A 500V



32A 250V



40A 500V





50A 500V



10A 110V



6 Pin

50A 500V

10A 500V





6 Pin

10A 500V

10A 500V

W



10A 500V Κ



10A 500V W





Χ



20A 500V



20A 500V Χ

## International Protection Ratings & Technical Terms

#### **PROTECTION AGAINST SOLIDS**

	TEST	PROTECTION
х	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	0	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
Х	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
Х	No test applied	No specific protection
1	150g 15cm	Resistant to impacts of weight up to 150g falling from 15cm.
3	250g \$ 20cm	Resistant to impacts of weight up to 250g falling from 20cm.
5	500g † 40cm	Resistant to impacts of weight up to 500g falling from 40cm.
7	1.5kg †40cm	Resistant to impacts of weight up to 1.5kg falling from 40cm.
9	5kg † 40cm	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  $1^{1}/_{2}$  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 mm²	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,  $75^{\circ}$ C

Note: For exact dimensions refer to manufacturers' details.

### **Useful 3-Phase Formulae**

kW = <u>Line Amps x Line Volts x 1.732 x P.F.</u> 1000

kVA = <u>Line Amps x Line Volts x 1.732</u> 1000

 $kW = kV.A \times P.F.$ 

### **Electric Motors**

Power Output = Power Input x Efficiency

kW Output = kW Input x Efficiency

kW Output = 1.732 x Line Volts x Line Amps x P.F. x Efficiency

1000

kV.A Input = 1.732 x Line Volts x Line Amps

1000

Line Amperes = 1000 x kW Output

Line Volts x 1.732 x P.F. x Efficiency

Line Amperes =  $\underline{1000 \times kV.A Input}$ 

Line Volts x 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.

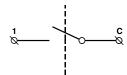
Measure	Symbol	Unit
Length	S	m
Area	A	m²
Volume	V	m³
Weight	m	kg
Density	Р	kg/m³
Time	t	S
Frequency	F	Hz
Rotary Speed	n	S <sup>-1</sup>
Linear Speed	V	ms <sup>-1</sup>
Acceleration	a	ms <sup>-2</sup>
Power	F	N (Newton)
Pressure	Р	Pa (Pascal)
Torque	М	Nm
Work	W	J (Joule)
Power	Р	W (Watt)
Reactive Voltampere		Var
Voltampere		V.A
Current	I	A (Ampere)
Operational Current	lth	А
Conventional Enclosed	Ithe	A
Thermal Current	61/2.85	31.4
Voltage	U	V (Volts)
Insulated Voltage	Ui	V
Operational Voltage	Ue	V
Resistance	R	(Ohm)
Impedance	Z	
Reactance	X	
Reluctance	S	A/Wb
Capacitance	С	F (Farad)
Quantity of Electricity	Q	C (Coulomb)
Magnetic Field Strength	Н	A/m
Magnetic Flux	Ø	Wb (Weber)
Inductance	L	H (Henry)
Magnetic Flux Density	В	T (Tesca)
Temperature	t	°C (Centigrade)
Illuminance	E	l x (Lux)
Luminance	L	cd/m²
Luminous Flux	Ø	lm (Lumen)
Luminous Intensity	I	cd (Candela)

Abbreviations for Multiples and Sub Multiples				
T	tera	10 <sup>12</sup>		
G	giga	10 <sup>9</sup>		
M	mega	10 <sup>6</sup>		
k	kilo	10³		
d	deci	10 <sup>-1</sup>		
С	centi	10 <sup>-2</sup>		
m	milli	10 <sup>-3</sup>		
U	micro	10 <sup>-6</sup>		
n	nano	10 <sup>-9</sup>		
p pico 10 <sup>-12</sup>				

## **Common Conversion Factors**

Quality	Non-SI Unit	Metric	Conversion Factors (approx.) Non-SI to Metric (SI) Units	Metric (SI) to Non-SI Units
	Inch (in)	Millimetre (mm) or Centimetre (cm)	1 in = 25.4mm	1 cm = 0.39 in
Length	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
	Square Inch (in²)	Square Millimetre (mm²)	1 in <sup>2</sup> = 645 mm <sup>2</sup>	1 mm <sup>2</sup> = 0.002 in <sup>2</sup>
	Square Inch (in²)	Square Centimetre (cm²)	1 in <sup>2</sup> = 6.45 cm <sup>2</sup>	1cm <sup>2</sup> = 0.155 in <sup>2</sup>
Area	Square Foot (ft²)	Square Centimetre (cm²) or Square Metre (m²)	1 ft² = 929 cm²	1 m <sup>2</sup> = 10.76 ft <sup>2</sup>
	Square Yard (yd²)	Square Metre (m²)	1 yd² = 0.836m²	1 m <sup>2</sup> = 1.20 yd <sup>2</sup>
	Acre	Hectare (ha)	1 acre = 0.405 ha	1 ha = 2.47 acres
	Square Mile	Square Kilometre (km²)	1 Square Mile = 2.59 km <sup>2</sup>	1 km² = 0.387 sq. mile
	Cubic Inch (in³)	Cubic Centimetre (cm³)	1 in <sup>3</sup> = 16.4 cm <sup>3</sup>	1 cm <sup>3</sup> = 0.06 in <sup>3</sup>
Volume	Cubic Inch (ft³)	Cubic Decimetre (dm³) or	1 ft <sup>3</sup> = 28.3 dm <sup>3</sup>	1 m <sup>3+</sup> = 35.3 ft <sup>3</sup>
	Cubic Yard (yd³)	Cubic Metre (m³)	1 yd³ = 0.765m³	1 m <sup>3</sup> = 1.31 yd <sup>3</sup>
	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 I = 1.76 pint (UK)
Volume	Gallon UK (gal UK)	Litre (I) or Cubic Metre (m³)	1 gal UK = 4.55 l	1 m <sup>3</sup> = 220 gallons (UK)
(Fluids)	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 (I) or Millilitre	1 pint (US) = 473 ml	1 I = 2.11 pint (US)
	Gallon US (gal US)	Litre	1 gallon (US) = 3.79 l	1 I = 0.264 gallon (US)
	Ounce (oz)	Gram (g)	1 oz = 28.3 g	1 g = 0.035 oz
	Pound (Ib)	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
Mass	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
	Pound Force (lbf)	Newton (N)	1 lbf = 4.45 N	1 N = 0.225 lbf
Force	Kilogram Force (kgf)	Newton (N)	1 kgf = 9.81 N	1 N = 0.102 kgf
	Pound Force per square inch (psi)	kilopascal (kPa)	1 psi = 6.86 kPa	1 kPa = 0.145 psi
Pressure	Kilogram force per square centimetre (kgt/cm²)	kilopascal (kpa)	1 kgf/cm <sup>2</sup> = 98 kPa	1 kPa = 0.01 kgf/cm <sup>2</sup>
	Inch of water (in H <sub>2</sub> 0)	Pascal (Pa)	1 in H <sub>2</sub> 0 = 249 Pa	1 Pa = 0.004 in H <sub>2</sub> 0
	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)	°C = 5 (°F - 32)	$^{\circ}\underline{F = (9 \times ^{\circ}C) + 32}$
	Pound per cubic inch (lb/in³)	Gram per cubic centimetre (g/cm²) = tonne per cubic metre (t/m³)	1 lb/in³ = 27.7 t/m³	1 t/m³ = 0.036 lb/in³
Density	Pound per cubic foot (lb/ft <sup>3+)</sup>	Kilogram per cubic metre (kg/m³)	1 lb/ft <sup>3</sup> = 16.02 kg/m <sup>3</sup>	1 kg/m³ = 0.06 lb/ft³
	Ton per cubic yard (ton/yd³)	Tonne per cubic metre (t/m³)	1 ton/yd = 1.33 t/m <sup>3</sup>	1 t/m <sup>3</sup> = 0.752 ton/yd <sup>3</sup>
	British thermal unit (Btu)	Kilojoule (kJ)	1 Btu = 1.06 kJ	1 kJ = 0.948 Btu
Energy	Therm	Megajoule (MJ)	1 Therm =106 MJ	1 MJ = 9.48 x 10 <sup>-3</sup> 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	M91/ /- \	12	(n) x mpg = 2821/100 km	(n) x 1/100 km = 282
Consumption	Mile per gallon (mpg)	Litres per 100 m	n	<u>n</u>

## Switch Wiring Diagram Types



Switch is 30 Series mech.

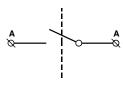
56C310

56C315

56CV315

56SW110

56SW115



Switch terminals are not identified

Switch is backwired

Conductor termination is pressure plate type

56C320

56SW120

56SW132

56SW150

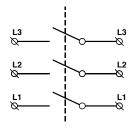
56SW163

Switch terminals are not identified

Switch is backwired

Conductor termination is pressure plate type

56C315D



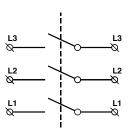
Switch terminals are not identified

Switch is backwired

Conductor termination is pressure plate type

56C420

56C520

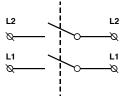


Switch terminals are not identified Switch is backwired

Conductor termination is plain screw type

56SW310 56SW363 56C532 56C540 56SW320 56C432 56SW332 56C440 56C550 56SW350

56C450



Switch is sidewired

Conductor termination is pressure plate type

56SW220

56SW232

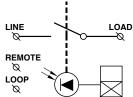
56SW250

56SW263

T2

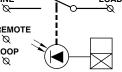
If neutral potential is applied to remote terminal timer function is overridden

56SW420

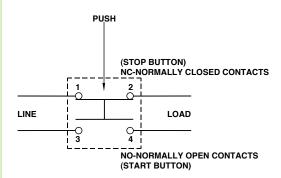


Switch is sidewired

Conductor termination is pressure plate type



56SSR



(No Marking, Colour Green, Non Latching)

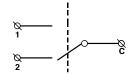
(Stop, Colour Red, Non Latching) 56PBS

56PB

(Emergency Stop, Marked on Switch and Plate, Colour Red Mushroom, Latching 56PBS1

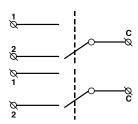
56/2PB (Stop/Start, Colour Red/Green, Non Latching)

56/2PBS1 (Stop, Colour Red Mushroom, Latching)(Start, Colour Green, Non Latching)



Switch is 30 Series mech.

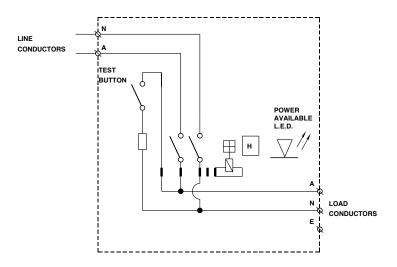
56SW110/2 56SW115/2 56SSW10 56SSW15

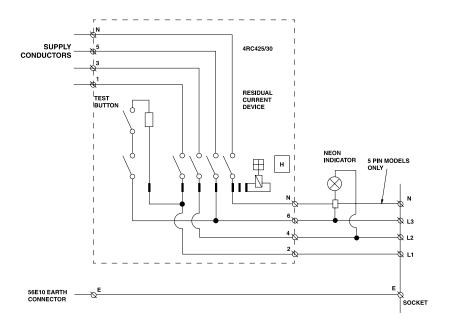


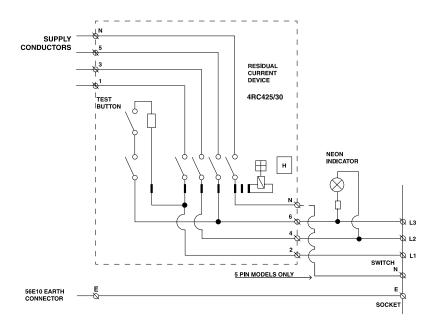
CIrcuit is shown in the 'OFF' position

56SSW2/10 56SSW2/15

## Wiring Diagram Types







## Numerical Index

Catalogue Number	Reference Page	Catalogue Number	Reference Page	Catalogue Number	Reference Page
56/2PB	12	56P416	15	56SSR	13
56/2PBS1	12	56P416K	15	56SW110	10
56/32	22	56P420	15	56SW110/2	10
56Bridge	18	56P432	15	56SW115	10
56C310	8	56P440	15	56SW116	10
56C313	8	56P450	<u></u> 15	56SW120	10
56C313/2	<u> </u>	56P516	15	56SW132	10
56C313RCD30	<u> </u>	56P520	15	56SW150	10
56C315		56P532	<u></u>	56SW163	10
56C315D	<u>8</u>	56P540	<u>15</u>	56SW210	10
56C315RP	8	56P550	<u>15</u> 15	56SW216	10
56C316RP	<u>8</u>	56PA313	<u>15</u> 15	56SW220	10
				56SW232	
56C320	8	56PA315RP	<u>15</u>		10
56C332	8	56PA316RP	<u>15</u>	56SW250	<u>10</u>
56C416	8	56PA320	<u>15</u>	56SW263	<u>10</u>
56C420	8	56PA332	<u>15</u>	56SW310	10
56C420RC	<u>17</u>	56PA416	<u>15</u>	56SW316	10
56C432	8	56PA416K	15	56SW320	10
56C432RC	17	56PA420	15	56SW332	10
56C440	8	56PA432	<u>15</u>	56SW350	10
56C450	8	56PA440	<u>15</u>	56SW363	<u>10</u>
56C516	8	56PA450	15	56SW420	10
56C520	8	56PA516	<u>15</u>		
56C520RC	<u>17</u>	56PA520	15		
56C532	8	56PA532	<u>15</u>		
56C532RC	17	56PA540	15		
56C540	8	56PA550	15		
56C550	8	56PB	12		
56CB4NLE	21	56PBS	12		
56E1	18	56PBS1	12		
56E2	18	56PEDD3	14		
56E3	18	56RC	17		
56E4	18	56SO310	9		
56ED2	18	56SO313	9		
56ES1	18	56SO315	9		
56ES2	18	56SO315RP	9		
56FA1	23	56SO316RP	9		
56FA2	23	56SO320	9		
56FA3	23	56SO332	9		
56JB1	22	56SO416	9		
56JB2	22	56SO416K	9		
56L1LE	20	56SO420	9		
56L1/22LE	20	56SO432	9		
56L1/22/2LE	20	56SO440	9		
			9		
56L2LE 56P215/32	<u>20</u>	56SO450 56SO516			
	<u>15</u>	56SO516	9		
56P310	<u>15</u>	56SO520	9		
56P313	<u>15</u>	56SO532	9		
56P315	<u>15</u>	56SO540	9		
56P315RP	<u>15</u>	56SO550	9		
56P316RP	<u>15</u>	56SSW10	<u>11</u>		
56P320	<u>15</u>	56SSW15	<u>11</u>		
56P320F	15	56SSW2/10	<u>11</u>		
56P332	<u>15</u>	56SSW2/15	<u>11</u>		

## Notes


## Notes


### **About Schneider Electric**

As the global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation, and data centres/networks, as well as a broad presence in residential applications. Focused on making energy safe, reliable, and efficient, the company's 100,000+ employees achieved sales of more than 15.8 billion euros in 2009, through an active commitment to help individuals and organisations "Make the most of their energy".

The Installation Systems & Control Division of Schneider Electric provides solutions that represent the best in lifestyle and innovation for offices, hotels and homes. These solutions include award-winning products in the areas of building and home automation, structured cabling, and designer switches and sockets. They help the finest architectures around the world to achieve more with less.

