

# **CLIPSAL**<sup>®</sup>

by Schneider Electric

## **56 & 66 Series** Industrial Switchgear

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



[clipsal.com](http://clipsal.com)

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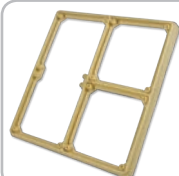
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## The Power behind today's industry

Designed to satisfy customer needs, precisely engineered and carefully manufactured, Clipsal Industrial Switchgear is as versatile as your requirements.

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

The Clipsal 56 and 66 Series satisfies these challenges with the use of durable engineering plastics.

The 56 Series has been tested for protection against ingress of water and dust to International Protection Rating IP56, and in many instances exceeds this level of protection.

It is testimony to the excellence in both manufacture and performance of 56 and 66 Series Industrial Switchgear.

### Dust Resistant, Hoseproof and UV Resistant

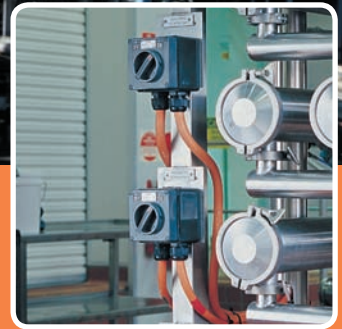
Because its tough enclosure casing is dust resistant, hoseproof and UV resistant, the 56 Series is suitable for heavy industrial environments.

The aesthetic appearance of the 56 Series makes it the ideal choice for installation in commercial facilities such as television studios, shopping centres and warehouses. What's more, 56 Series products are just as acceptable alongside a public or domestic swimming pool.

### Safety in Operation

For safety's sake all of the switches in the range have been equipped with facilities for double pad-locking. When plugs are removed, the socket flap automatically locks into place, preventing dust or water from entering.





### 56 Series Colour Range

For over a decade the Clipsal 56 Series has enjoyed a reputation for excellent performance in harsh industrial environments.

All 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.

There is, however, no economical plastic material available that provides maximum impact strength as well as a high degree of chemical resistance.

Clipsal has chosen not to compromise on either count and instead offers two high performance chemical resistant ranges for environmentally aggressive locations.

The UV and chemical resistant orange and white version is suitable for indoor and outdoor applications, such as chemical plants, timber and paper processing plants and laboratories.

The chemical resistant grey range of sockets, switched socket outlets and covers has been specifically designed for indoor food environments where aggressive alkali cleaners are used, such as dairies, abattoirs and food processing plants.

### 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.

### PVC Solvent Bonding Compatibility

All Clipsal 56 Series Enclosures are manufactured from robust UV stabilised PVC and can be solvent bonded to standard electrical PVC conduit accessories.

### Transparent Plastic Materials

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

### Designed to Mix and Match

What suits one industry might not be the perfect match for another. That's why the 56 Series was specifically designed to mix and match. There is an extensive choice of modules available, including switches, sockets, photo electrical cells and residual current devices.

Clipsal mounting enclosures range in size from 1 to 16 gang. This allows assemblies to be customised - from a simple switch station to a large electrical control panel.

Accessories can be ordered Less Enclosure (back box) by simply specifying LE after the Catalogue Number.

# 56 Series Modules

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

Modular system with 1 to 16 gang arrangements to satisfy your every need. Available in high impact Grey (GY), Chemically Resistant Orange (RO), Chemically Resistant White (RW) or Chemically Resistant Grey (CG) finishes.

Screw caps eliminate dirt.

Raised lettering for long life of markings.

Clear indication of switch position.

Contoured profile reduces dust build-up.

Visible gasket - your guarantee of sealing.

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

LED indicator option in switches.

8mm Padlock ON/OFF facility.

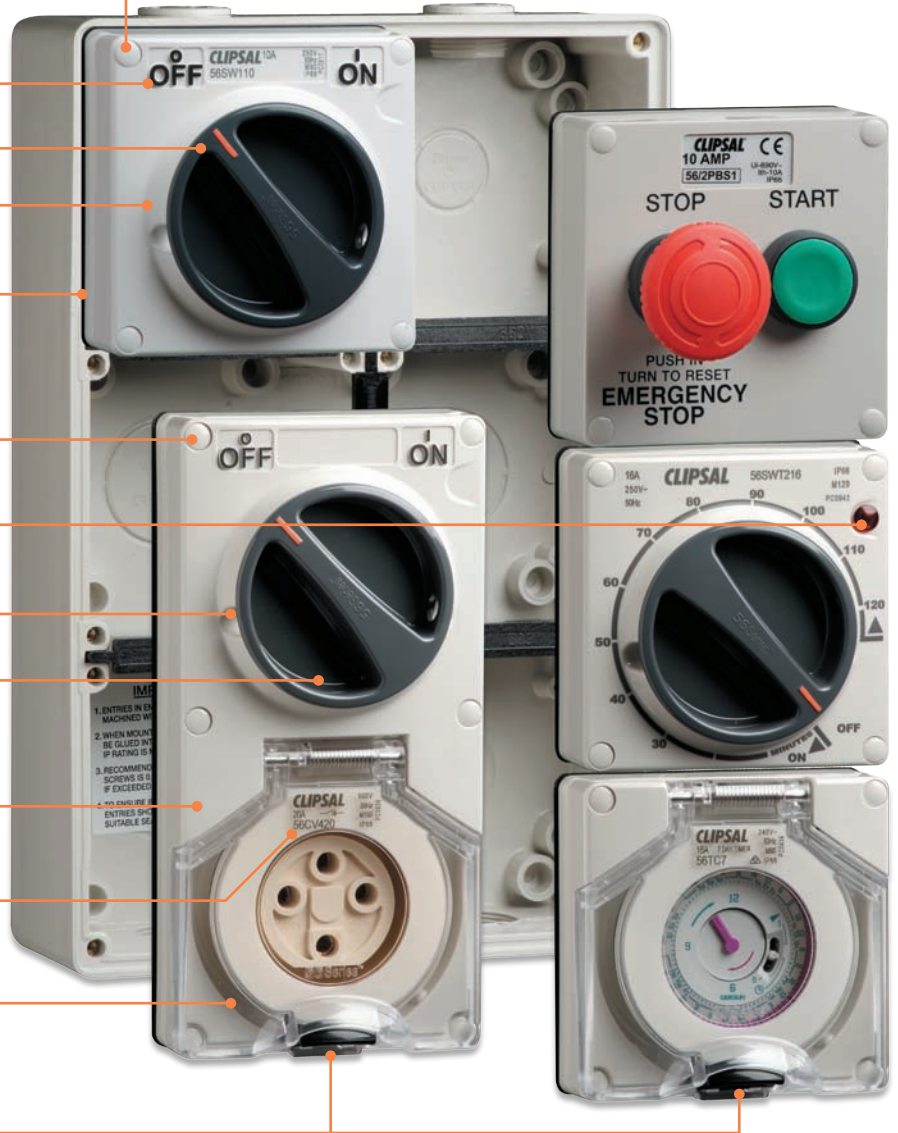
Rotary ON/OFF switch.

Mechanical interlock optional to ensure power disconnection before insertion or removal of the plug.

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

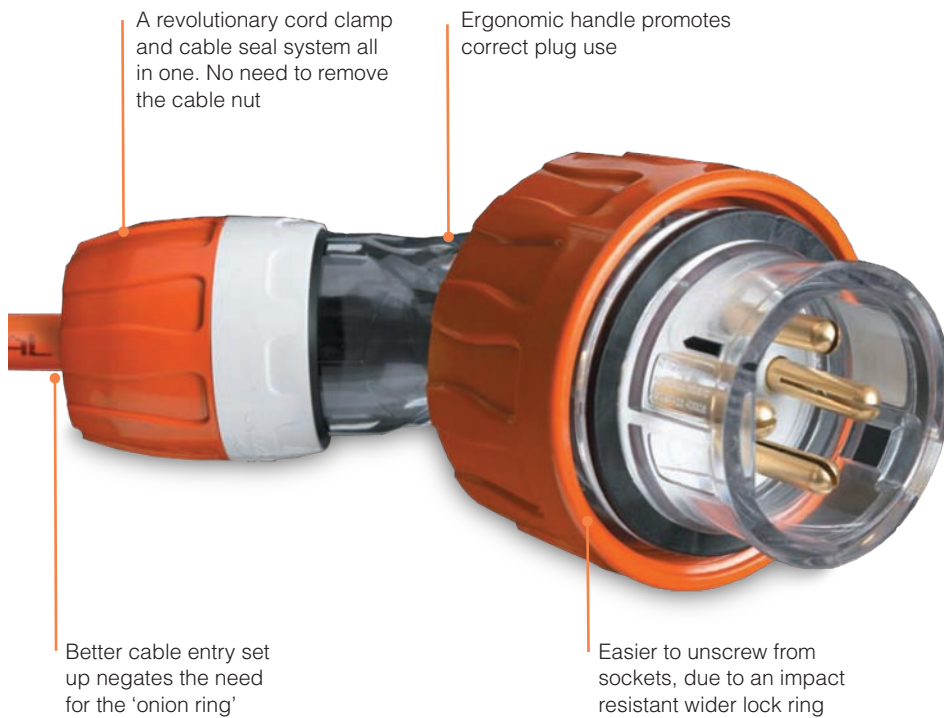
Redesigned transparent socket cover for improved visibility, strength & accessibility.

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



# 56 Series Plugs

Clipsal's 56 Series Industrial Switchgear has a long standing history as being the toughest, most trusted industrial switchgear on the Australian market. This legacy has been carried on with Clipsal's new range of industrial plugs and socket connectors.



A revolutionary cord clamp and cable seal system all in one. No need to remove the cable nut

Ergonomic handle promotes correct plug use

Better cable entry set up negates the need for the 'onion ring'

Easier to unscrew from sockets, due to an impact resistant wider lock ring

## 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



## Quick Connect Terminal Options

Clipsal's new Quick Connect terminals are 50% faster because they are designed to secure terminated wires under spring tension. Compared with traditional screw-in terminals, the Quick Connect design secures cables far more reliably.

The innovative new 56 Series plugs not only perform better but will save you valuable time and in turn increase your business profit.

Add QC to part number when ordering.



### Terminate

1. Push driver into slot to open terminal.
2. Insert stripped, untwisted cable into terminal.
3. Release driver from slot.

### Release

1. Push driver into slot to open terminal.
2. Pull out cable.

## Colour Options

The plastics used to manufacture the 56 Series range are superior quality industrial grade resins with outstanding high impact strength and UV protection.

### Colours available:

- Chemical Resistant Orange (RO)
- Electric Orange (EO),
- Chemical Resistant White (RW)
- Grey (GY).

# 66 Series Modules

## Make light work of installations with 66 Series Combination Switched Socket Outlets

Clipsal design, engineering and precision brings you the revolutionary 66 Series of Combination Switched Socket Outlets and Plugs for 50 and 63 amp., 4, 5 or 7 pin heavy-duty appliances, such as welders, pumps, and mobile conveyors.

Until recently 50 and 63 amp. socket outlets and plugs were constructed with metal clad housings, which, in many situations, encounter drawbacks with their heavyweight, time consuming installation and susceptibility to corrosion.

66 Series Switched Socket Outlets and Plugs solve these problems and offer many other additional benefits.

Major features of the 66CV Switched Socket Outlets are their robust PVC back box and polyester cover that provide excellent chemical and high impact resistance as well as UV stability, in a neat, compact unit that's quicker and easier to install. 66P Plugs are manufactured from fully moulded, transparent polycarbonate or resistant orange polyester to offer the same degree of strength and resistance to chemicals and UV rays.

For convenience and safety, both the switched socket outlets and plugs can be easily used with gloved hands.

An internal interlock is fitted to the outlet to prevent insertion or withdrawal of the plug (provided the plug is fitted with an interlock facility) while the switch is in the 'on' position.

66CV Series Combination Switched Socket Outlets also incorporate a padlock facility in the 'off' position for added safety and security.



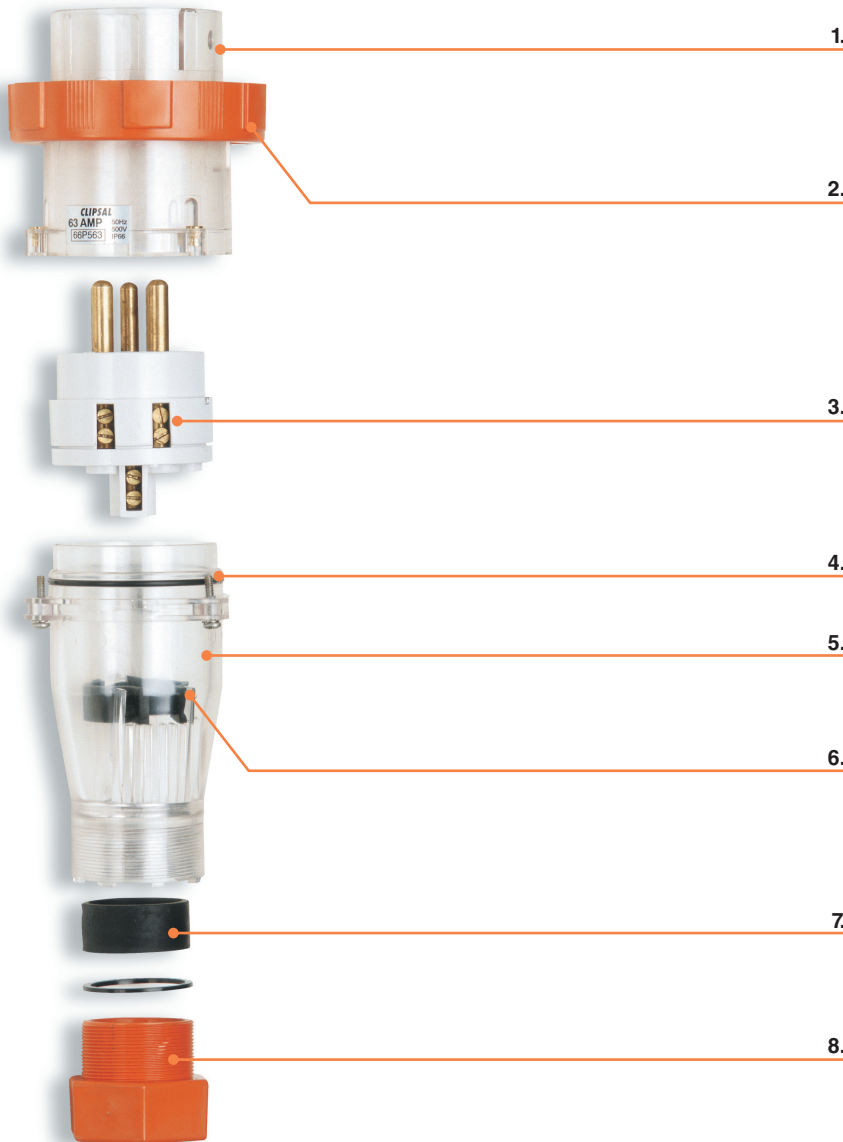
### Features

- IP66 protection in accordance with AS 1939 for the Combination Switched Socket Outlet and also when engaged with a plug.
- Separate back box with rear wiring facility for easy installation of large diameter cables.
- 1 x M40 entry (top) and 2 x M32 entries (bottom) to assist cable termination.
- Large switch knob and socket outlet flap for easy operation even with gloved hand.
- Socket outlet flap includes a heavy spring assembly to ensure IP66 integrity.
- Configurations of sockets and keyways in accordance with AS/NZS 3123.
- Stainless steel, combination head, captive cover screws for corrosion resistance and easy installation.
- Switch rated for motor duty, AC23 in accordance with AS/NZS 3947.3.
- Standard colour - Grey. Resistant Orange optional. Double insulated for operator safety.
- Interior assembly is completely removable to assist with cable entry and termination of the large conductors required for the unit.



# 66 Series Plugs

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

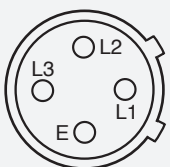


## Features

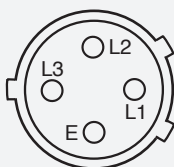
1. Clear pin surround provides quick and sure location of plug in socket and protection of pins
2. Wide Lock Ring can be tightened and unscrewed with ease, even with a gloved hand. Provides positive sealing with an inbuilt sponge-type gasket.
3. Sturdy Terminal Housing for durability and years of reliable service.
4. Stainless Steel Combination Head Screws for corrosion resistance and easy installation
5. Transparent Polycarbonate Body allows instant inspection of connections.
6. Internal Cable Clamp is fast fixing and grips two ways, preventing cable from twisting
7. Cable Gland is extremely flexible with positive grip to ensure dependable sealing.
8. Gland Nut with 50mm threaded cable entry for alternative facility termination.

Note - IP Ratings only apply to cable terminations as per wiring instructions.

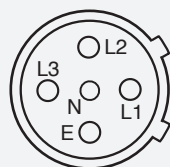
## Plug Configurations



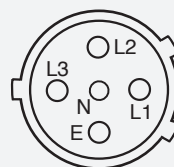
66P450



66P550



66P463



66P563

# Chemical Comparisons

## Chemical Resistance

It is well documented that Clipsal's standard grey products are ideal for most applications. For those environments where harsh chemicals are used that require special chemical resistant properties, Clipsal offers as an option of two product ranges:

- 1) Chemical Resistant Orange (RO)/  
Chemical Resistant White (RW) and
- 2) Chemical Resistant Grey (CG)

These two ranges have been developed by leading plastic material manufacturers and offer greater resistance to chemical attack than common plastic materials with minimal reduction in impact strength.

To make selection of the correct product easy, we provide the following information and table as a guide on page 11.

Chemical Resistant Orange (RO)/Chemical Resistant White (RW) offers resistance to a wide range of chemical types. It is ideal for corrosive and industrial chemicals, animal fats, oils, solvents and lubricants.

This material has excellent UV resistance for use outside.

Chemical Resistant Grey (CG) is ideal in food processing and medical areas exposed to strong cleaning Alkalis (Sodium Hydroxide or Caustic Soda) are used. It should be noted that the material used in this product is not recommended for outside use due to low UV resistance.



## Temperature Resistance

The temperature range of the 56 Series products are limited by two aspects;

- 1) the material used in mouldings and
- 2) the operating temperature of the electrical components.

The material type limits the use of the standard product to -25°C to +75°C.

For temperatures outside of these limits, and for information on the heat generated by the electrical components, please contact your Clipsal rep.



56C310,RW



56C310,CG

## Plastic Comparison Chart

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

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.



56C432,RO

# Chemical Comparisons

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

B - GOOD Acceptable, minimal loss of mechanical properties after long periods of exposure.  
D - POOR Not recommended for use.

# Combination Switched Socket Outlets



**56C310,GY**

The Clipsal range of three phase combinations includes two module units and one-piece cover models. All internal phase connections between switches and sockets are factory wired.

The 4 and 5 pin, 10 and 20A one-piece cover models have integral wiring between the switch and socket outlet. Installation time is reduced by not having to check factory wire terminations. There is also no likelihood of wires falling out during installation.



**56CV315,RO**

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. 250V, 110V and extra low voltage two module combinations are also available.

Earth and neutral connectors accommodating 3 x 6mm<sup>2</sup> cables are supplied with 500V models.

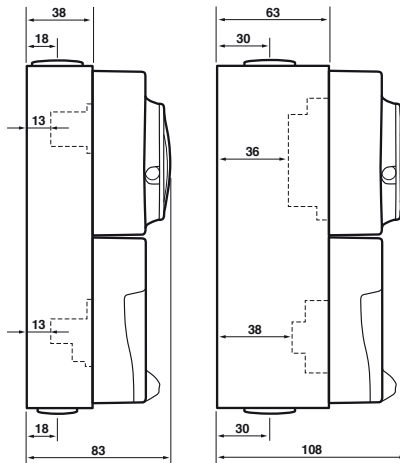
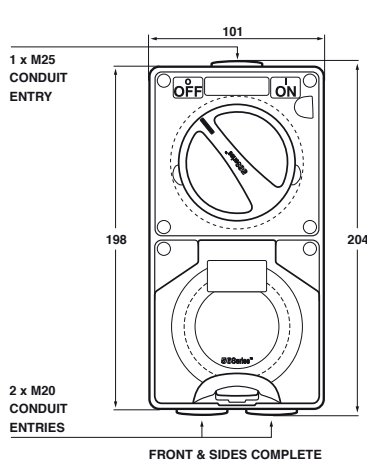
## Options available

- Less Enclosure - add LE to Catalogue Number e.g. 56C410 becomes 56C410LE.
- Versions with key operated switches available to special order.

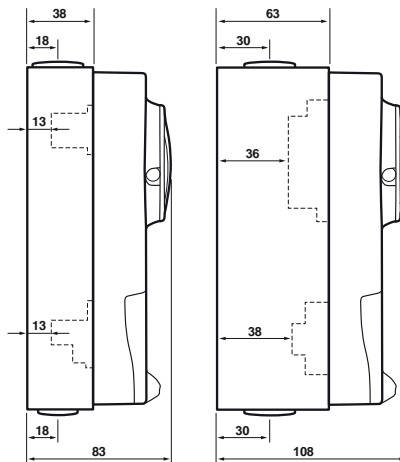
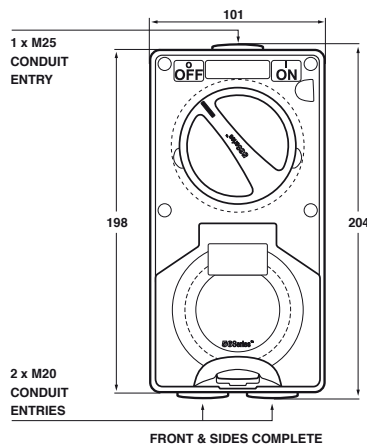
Catalogue Number	No. of switch poles	I <sub>the</sub> (Amp)	U <sub>i</sub> / U <sub>e</sub> (Volt)
56C210	1 Pole	10A	110V
56C215/32	1 Pole	15A	32V
56C3/110	1 Pole	10A	110V
56C310RP	1 Pole	10A	250V
56C310	1 Pole	10A	250V
56C310HD	1 Pole	10A	250V
56C310L	1 Pole	10A	250V
56C315	1 Pole	15A	250V
56C315HD	1 Pole	15A	250V
56C320	1 Pole	20A	250V
56C320F	1 Pole	20A	250V
56C332	1 Pole	32A	250V
56C310D	2 Pole	10A	250V
56C315D	2 Pole	15A	250V
56C410	3 Pole	10A	500V
56C416K	3 Pole	16A	500V
56C420	3 Pole	20A	500V
56C432	3 Pole	32A	500V
56C440	3 Pole	40A	500V
56C450	3 Pole	50A	500V
56C510	3 Pole	10A	500V
56C520	3 Pole	20A	500V
56C532	3 Pole	32A	500V
56C540	3 Pole	40A	500V
56C550	3 Pole	50A	500V
56C610	3 Pole	10A	500V
56C710	3 Pole	10A	500V
56C720	3 Pole	20A	500V

## Dimensional Drawings

56C210  
56C215/32  
56C3/110  
56C310  
56C310HD  
56C315  
56C315HD  
56C320  
56C332  
56C310D  
56C315D  
56C410  
56C416K  
56C420  
56C432  
56C440  
56C450  
56C510  
56C520  
56C532  
56C540  
56C550  
56C610  
56C710  
56C720



56CV310  
56CV310HD  
56CV315  
56CV315HD  
56CV320  
56CV332  
56CV410  
56CV416K  
56CV420  
56CV432  
56CV440  
56CV450  
56CV510  
56CV520  
56CV532  
56CV540  
56CV550  
56CV610  
56CV710  
56CV720



Catalogue Number	No. of switch poles	I <sub>the</sub> (Amp)	U <sub>i</sub> / U <sub>e</sub> (Volt)
56CV310	1 Pole	10A	250V
56CV310HD	1 Pole	10A	250V
56CV315	1 Pole	15A	250V
56CV315HD	1 Pole	15A	250V
56CV320	1 Pole	20A	250V
56CV332	1 Pole	32A	250V
56CV410	3 Pole	10A	500V
56CV416K	3 Pole	16A	500V
56CV420	3 Pole	20A	500V
56CV432	3 Pole	32A	500V
56CV440	3 Pole	40A	500V
56CV450	3 Pole	50A	500V
56CV510	3 Pole	10A	500V
56CV520	3 Pole	20A	500V
56CV532	3 Pole	32A	500V
56CV540	3 Pole	40A	500V
56CV550	3 Pole	50A	500V
56CV610	3 Pole	10A	500V
56CV710	3 Pole	10A	500V
56CV720	3 Pole	20A	500V

# Combination Switched Socket Outlets

- Internal interlock facility available on three phase, one piece cover combinations - add I to Catalogue Number e.g. 56CV410 becomes 56CVI410.
- Resistant Orange - add RO to Catalogue Number e.g. 56CV410 becomes 56CV410,RO.
- Resistant White - add RW to Catalogue Number e.g. 56C410 becomes 56C410,RW.
- Two piece versions available in Chemical Grey. Chemical Grey - add CG to Catalogue Number e.g. 56C410 becomes 56C410,CG.

## TWO PIECE

le (A) Utilisation Category			M Rating	Number of Sockets	Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config
AC21A	AC22A	AC23A			Min.	Max/Cond.					
10	8	8	M80	2 Parallel Flat	1.5	6	66	204x101x83	56P210		D
15	10	8	M80	2 Polarised	1.5	6	66	204x101x83	56P215/32		E
10	8	8	M80	2 Round & Flat Earth	1.5	6	66	204x101x83	56P3/110		J
10	8	8	M80	3 Round	1.5	6	66	204x101x83	56P310RP		G
10	8	8	M80	3 Flat	1.5	6	66	204x101x83	56P310		A
10	10	11	M100	3 Flat w/heavy duty switch	1.5	6	66	204x101x108	56P310		A
10	8	8	M80	2 Flat & Round Earth	1.5	6	66	204x101x83	56P310SL		C
15	10	8	M80	3 Flat	1.5	6	66	204x101x83	56P315		B
15	15	15	M120	3 Flat w/heavy duty switch	1.5	6	66	204x101x108	56P315		B
20	20	21	M150	3 Round	2.5	6	66	204x101x108	56P320	56PA320	H
20	20	20	M150	3 Flat	2.5	6	66	204x101x108	56P320F		F
32	32	28	M180	3 Round	6	16	66	204x101x108	56P332	56PA332	I
10	10	11	M100	3 Flat double pole	1.5	6	66	204x101x108	56P310		A
15	15	15	M120	3 Flat double pole	1.5	6	66	204x101x108	56P315		B
10	10	11	M100	4 Round	1.5	6	66	204x101x108	56P410	56PA410	K
16	16	15	M120	Unique key config.	1.5	6	66	204x101x108	56P416K	56PA416K	M
20	20	21	M150	4 Round	2.5	6	66	204x101x108	56P420	56PA420	L
32	32	28	M180	4 Round	4	16	66	204x101x108	56P432	56PA432	N
40	40	35	M200	4 Round	10	16	66	204x101x108	56P440	56PA440	O
50	50	35	M250	4 Round	10	16	66	204x101x108	56P450	56PA450	P
10	10	11	M100	5 Round	1.5	6	66	204x101x108	56P510	56PA510	Q
20	20	21	M150	5 Round	2.5	6	66	204x101x108	56P520	56PA520	R
32	32	28	M180	5 Round	4	16	66	204x101x108	56P532	56PA532	S
40	40	35	M200	5 Round	10	16	66	204x101x108	56P540	56PA540	T
50	50	35	M250	5 Round	10	16	66	204x101x108	56P550	56PA550	U
10	10	11	M100	6 Round	1.5	6/2.5	66	204x101x108	56P610	56PA610	V
10	10	11	M100	7 Round	1.5	6/2.5	66	204x101x108	56P710	56PA710	W
20	20	21	M150	7 Round	2.5	6/2.5	66	204x101x108	56P720	56PA720	X

## ONE PIECE

le (A) Utilisation Category			M Rating	Number of Sockets	Cond. Term Size in mm		IP Rating	O/A Dims. (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config
AC21A	AC22A	AC23A			Min.	Max/Cond.					
10	8	8	M80	3 Flat	1.5	6	66	204x101x83	56P310		A
10	10	11	M100	3 Flat w/heavy duty switch	1.5	6	66	204x101x83	56P310		A
15	10	8	M80	3 Flat	1.5	6	66	204x101x83	56P315		B
15	15	15	M120	3 Flat w/heavy duty switch	1.5	6	66	204x101x108	56P315		B
20	20	21	M150	3 Round	2.5	6	66	204x101x108	56P320	56PA320	H
32	32	28	M180	3 Round	6	16	66	204x101x108	56P332	56PA332	I
10	10	11	M100	4 Round	1.5	10	66	204x101x108	56P410	56PA410	K
16	16	15	M120	Unique key config.	1.5	6	66	204x101x108	56P416K	56PA416K	M
20	20	21	M150	4 Round	2.5	10	66	204x101x108	56P420	56PA420	L
32	32	28	M180	4 Round	4	16	66	204x101x108	56P432	56PA432	N
40	40	35	M200	4 Round	6	16	66	204x101x108	56P440	56PA440	O
50	50	35	M250	4 Round	10	16	66	204x101x108	56P450	56PA450	P
10	10	11	M100	5 Round	1.5	10	66	204x101x108	56P510	56PA510	Q
20	20	21	M150	5 Round	2.5	10	66	204x101x108	56P520	56PA520	R
32	32	28	M180	5 Round	4	16	66	204x101x108	56P532	56PA532	S
40	40	35	M200	5 Round	6	16	66	204x101x108	56P540	56PA540	T
50	50	35	M250	5 Round	10	16	66	204x101x108	56P550	56PA550	U
10	10	11	M100	6 Round	1.5	6/2.5	66	204x101x108	56P610	56PA610	V
10	10	11	M100	7 Round	1.5	6/2.5	66	204x101x108	56P710	56PA710	W
20	20	21	M150	7 Round	2.5	6/2.5	66	204x101x108	56P720	56PA720	X

Note: AC utilisation categories to AS/NZS3947.3 I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>o</sub> - Operational Voltage

# Surface Socket Outlets



56S0310,GY



56S0520,RO



56S0710,RW

## Extra Low Voltage and 3 Phase sockets

Clipsal Surface Socket Outlets range in size from 32V 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 6mm<sup>2</sup> cable are supplied with all 500V models.

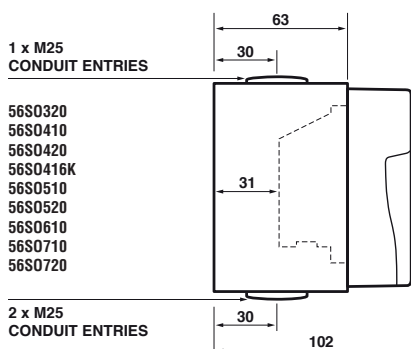
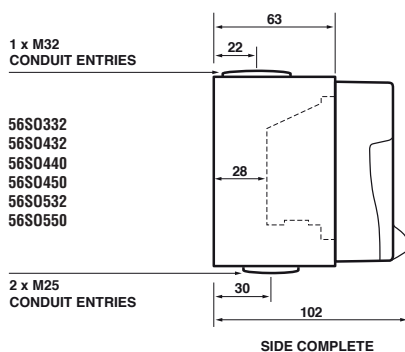
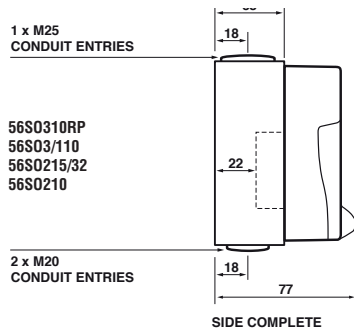
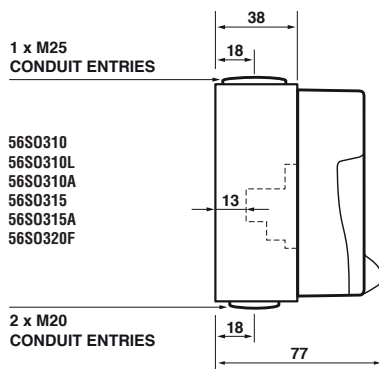
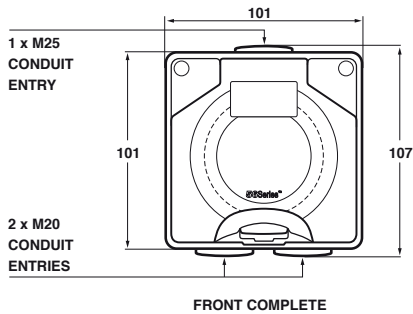
Terminal housings are moulded in tough polyester to minimise damage.

Catalogue Number	I <sub>the</sub> (Amp)	U <sub>i</sub> / U <sub>e</sub> (Volt)	Number of Sockets	Cond. Term Size in mm		IP Rating	O/A Dims. (H) x (W) x (D)	Matching Plug Straight	Matching Plug Straight	Socket Config.
				Min.	Max/Cond.					
56S0210	10A	110V	2 Parallel Flat	1.5	16	66	107x101x77	56P210		D
56S0215/32	15A	32V	2 Pin Polarised	1.5	6	66	107x101x77	56P215/32		E
56S03/110	10A	110V	2 Round Live & Flat Earth	1.5	6	66	107x101x77	56P3/110		J
56S0310RP	10A	250V	3 Round	1.5	6	66	107x101x77	56P310RP		G
56S0310	10A	250V	3 Flat	1.5	6	66	107x101x77	56P310		A
56S0315	15A	250V	3 Flat	1.5	6	66	107x101x77	56P315		B
56S0310A	10A	250V	3 Flat auto-switched D/P	1.5	10	66	107x101x77	56P310		A
56S0315A	15A	250V	3 Flat auto-switched D/P	1.5	10	66	107x101x77	56P315		B
56S0310L	10A	250V	2 Flat & Round Earth	1.5	6	66	107x101x77	56P310SL		C
56S0320	20A	250V	3 Round	2.5	6	66	107x101x102	56P320	56PA320	H
56S0320F	20A	250V	3 Flat Pins	2.5	6	66	107x101x77	56P320F		F
56S0332	32A	250V	3 Round	6	16	66	107x101x102	56P332	56PA332	I
56S0410	10A	500V	4 Round	1.5	6	66	107x101x102	56P410	56PA410	K
56S0416K	16A	500V	Unique key configuration	1.5	6	66	107x101x102	56P416K	56PA416K	M
56S0420	20A	500V	4 Round	2.5	6	66	107x101x102	56P420	56PA420	L
56S0432	32A	500V	4 Round	4	16	66	107x101x102	56P432	56PA432	N
56S0440	40A	500V	4 Round	6	16	66	107x101x102	56P440	56PA440	O
56S0450	50A	500V	4 Round	10	16**	66	107x101x102	56P450	56PA450	P
56S0510	10A	500V	5 Round	1.5	6	66	107x101x102	56P510	56PA510	Q
56S0520	20A	500V	5 Round	2.5	6	66	107x101x102	56P520	56PA520	R
56S0532	32A	500V	5 Round	4	16	66	107x101x102	56P532	56PA532	S
56S0540	40A	500V	5 Round	6	16	66	107x101x102	56P540	56PA540	T
56S0550	50A	500V	5 Round	10	16**	66	107x101x102	56P550	56PA550	U
56S0610	10A	500V	6 Round	1.5	6/2.5	66	107x101x102	56P610	56PA610	V
56S0710	10A	500V	7 Round	1.5	6/2.5	66	107x101x102	56P710	56PA710	W
56S0720	20A	500V	7 Round	2.5	6/2.5	66	107x101x102	56P720	56PA720	X

Note: 56S0320 and 56S0320F come with the facility to fit auxiliary switch 56S0AUX15.

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

## Dimensional Drawings



## Spare Parts Internal Socket Housings

A full range of replacement internal socket housings is available for 3 phase 56SO models. They eliminate the need to replace an entire unit if only the internal socket housing is damaged. Socket terminal housings are moulded in durable polyester.

### Options available

- Less Enclosure - add LE to catalogue number e.g. 56SO410 becomes 56SO410LE.
- Resistant Orange - add RO to catalogue number e.g. 56SO410 becomes 56SO410,RO.
- Resistant White - add RW to catalogue Number e.g. 56SO310 becomes 56SO310RW.



56SO410G Series

Catalogue Number	$I_{the}$ (Amp)	$U_i$ (Volt)	Number of Sockets	Cond. Term Size in mm <sup>2</sup>		Socket Configuration
				Min.	Max/Cond.	
56SO320G	20A	250V	3 Round	2.5	6	H
56SO332G	32A	250V	3 Round	6	16	I
56SO410G	10A	500V	4 Round	1.5	6	K
56SO416KG	16A	500V	Unique key configuration	1.5	6	M
56SO420G	20A	500V	4 Round	2.5	6	L
56SO432G	32A	500V	4 Round	6	16	N
56SO440G	40A	500V	4 Round	10	16	O
56SO450G	50A	500V	4 Round	10	16	P
56SO510G	10A	500V	5 Round	1.5	6	Q
56SO520G	20A	500V	5 Round	2.5	6	R
56SO532G	32A	500V	5 Round	6	16	S
56SO540G	40A	500V	5 Round	10	16	T
56SO550G	50A	500V	5 Round	10	16	U
56SO610G	10A	500V	6 Round	1.5	6/2.5	V
56SO710G	10A	500V	7 Round	1.5	6/2.5	W
56SO720G	20A	500V	7 Round	2.5	6/2.5	X

$I_{the}$  - Conventional Enclosed Thermal Current  $U_i$  - Insulation Voltage

# Appliance Inlets



56AI310,RW



56AI520,GY

## 56 Series Appliance Inlets

56 Series Appliance Inlets feature a downward facing, angled pin housing which enables extension socket plugs to be neatly connected without bulky right angle entry.

A screwed lock ring is standard on all models to secure extension sockets and appliance connectors, and ensure IP integrity.

All mouldings are impact resistant and UV stabilised.

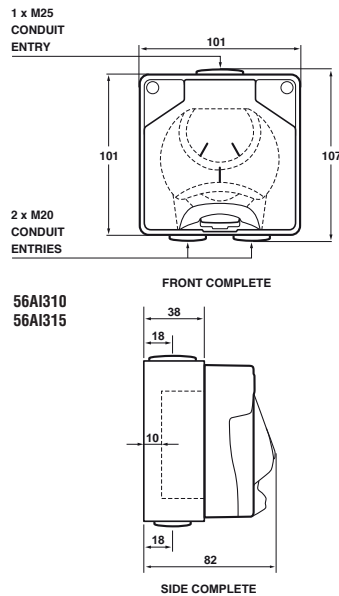
Note: The IP rating is only achieved on 500V appliance inlets if the screw-on cap (56PC Series) provided is fitted when not in use.

All 56AI Series Appliance Inlets are compatible with 56CSC Extension Sockets and there is no need for special reverse pin plugs.

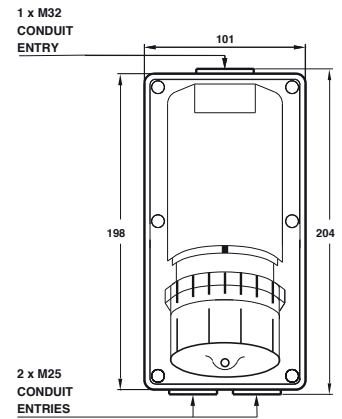
### Options available

- All appliance inlets are available Less Enclosure - add LE to Catalogue Number e.g. 56AI420 becomes 56AI420LE.
- 56AI310 and 56AI315 versions available in Chemical Resistant Orange e.g. 56AI310 becomes 56AI310,RO.

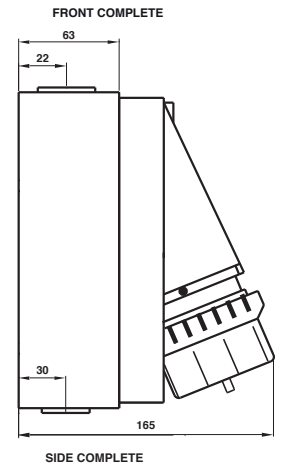
### Dimensional Drawings



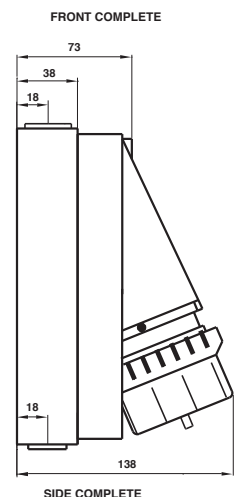
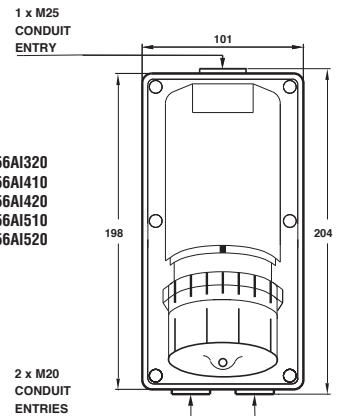
### Dimensional Drawings



56AI432  
56AI440  
56AI450  
56AI332  
56AI532  
56AI540  
56AI550



56AI320  
56AI410  
56AI420  
56AI510  
56AI520



Catalogue Number	I <sub>the</sub> (Amp)	U <sub>i</sub> (Volt)	Number of Pins	Cond. Term Size in mm		IP Rating	Matching Extension Socket	Socket Config. socket	O/A Dims. (H) x (W) x (D)
				Min.	Max				
56AI310	10A	250V	3 Flat	1.5	6	66	56CSC310	A	107x101x82
56AI315	15A	250V	3 Flat	2.5	6	66	56CSC315	B	107x101x82
56AI320	20A	250V	3 Round	2.5	6	66	56CSC320	H	204x101x138
56AI332	32A	250V	3 Round	6	16	66	56CSC332	I	204x101x165
56AI410	10A	500V	4 Round	1.5	6	66	56CSC410	K	204x101x138
56AI420	20A	500V	4 Round	2.5	6	66	56CSC420	L	204x101x138
56AI432	32A	500V	4 Round	6	16	66	56CSC432	N	204x101x165
56AI440	40A	500V	4 Round	10	16	66	56CSC440	O	204x101x165
56AI450	50A	500V	4 Round	10	16	66	56CSC450	P	204x101x165
56AI510	10A	500V	5 Round	1.5	6	66	56CSC510	Q	204x101x138
56AI520	20A	500V	5 Round	2.5	6	66	56CSC520	R	204x101x138
56AI532	32A	500V	5 Round	6	16	66	56CSC532	S	204x101x165
56AI540	40A	500V	5 Round	10	16	66	56CSC540	T	204x101x165
56AI550	50A	500V	5 Round	10	16	66	56CSC550	U	204x101x165

U<sub>the</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage



# Surface Switches



56SW110,GY



56SW320,RO

## Options available

- Less Enclosure - add LE to Catalogue Number e.g. 56SW320 becomes 56SW320LE.
- Resistant Orange - add RO to Catalogue Number e.g. 56SW320 becomes 56SW320,RO
- Resistant White - add RW to Catalogue Number e.g. 56SW320 becomes 56SW320,RW
- Chemical Grey - add CG to Catalogue Number e.g. 56SW320 becomes 56SW320,CG.
- 56SW320CX - replaces 56SW320C control switch

## 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.

To provide easier wiring of our 56 Series Three Pole 63A Switch, a deeper two gang enclosure and centrally mounted option (Cat. No. 56SW363/2), allows additional room for wiring associated with this application.

Earth and neutral connectors accommodating 3 x 6mm<sup>2</sup> cables are supplied with all products above 20A.

All 63A switches come with the facility to fit auxiliary micro switch 56SWAUX15.

Catalogue Number	No. of Switched Poles	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category			M Rating	Conductor Terminal size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
				AC21A	AC22A	AC23A		Min.	Max/Cond.		
56SW110	1 Pole	10A	250V	10	8	8	M80	1.5	6	66	107x101x83
56SW110HD*	1 Pole	10A	250V	10	10	10	M100	6	16	66	107x101x108
56SW110/2*	1 Pole	10A	250V	10	8	8	M80	1.5	6	66	107x101x83
56SW110/I*	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
56SW115HD*	1 Pole	15A	250V	15	15	15	M100	6	16	66	107x101x108
56SW115/2*	1 Pole	15A	250V	15	8	8	M80	1.5	6	66	107x101x83
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*	2 Pole	10A	250V				M40			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
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
56SW363/2*	3 Pole	63A	500V	63	63	25	M300	16	25	66	204x101x108
56SW420*	4 Pole	20A	440V	20	20	20	-	2.5	6	66	107x101x108
56SW432*	4 Pole	32A	440V	20	20	20	-	2.5	6	66	107x101x108

### \*Further Information

56SW110HD - Single Pole Heavy Duty

56SW110/2 - 2 way 4 terminal

56SW110/I - Intermediate switch mechanism

56SW115 - 1 way 2 terminal

56SW115HD - Single Pole Heavy Duty

56SW115/2 - 2 way 4 terminal

56SW210/2 - 2 way 6 terminal

56SW363/2 - 2 gang enclosure

56SW420 - with 7 Series switch mechanism

56SW432 - with 7 Series switch mechanism

Note: AC utilisation categories to AS/NZS3947.3 I<sub>the</sub> - Conventional Enclosed Thermal Current I<sub>e</sub> - Operational Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage. For Fluorescent Loads use 56SW110HD or 56SW115HD instead of 56SW110 or 56SW115

# Surface Switches



56SW120,RY

## Safety Surface Switches

Clipsal's safety range of switches ensures isolators are highly visible by using a brightly coloured red switch knob and yellow plate.

The high visibility naturally reduces an individual's response time in the event of an emergency.

Range consists of the following catalogue numbers at standard switch prices.

Nominate colour "RY": e.g. 56SW120 becomes 56SW120,RY.

- 56SW120,RY
- 56SW132,RY
- 56SW320,RY
- 56SW332,RY
- 56SW350,RY
- 56SW363,RY

Refer to previous page for technical information.

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



56 Series Single and Twin Sliding Switches are available in 10A and 15A ratings. A single intermediate switch is also available.

### Options available

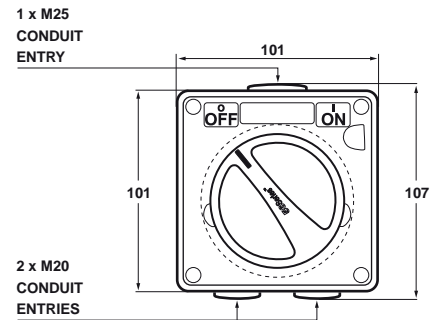
- Less enclosure - add LE to Catalogue Number e.g. 56SSW10 becomes 56SSW10,LE.
- Resistant Orange - add RO to Catalogue Number e.g. 56SSW10 becomes 56SSW10,RO.

56SSW10,GY

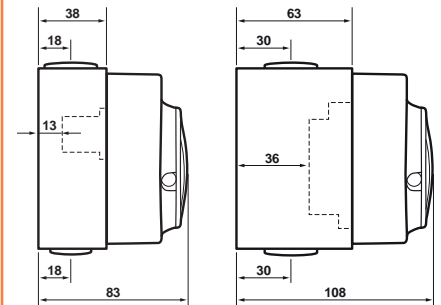
Catalogue Number	Description	No. of switches p/Module	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volts)	M Rating	Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
						Min.	Max		
56SSW10	Single sliding switch	1	10A	250V	M80	1.5	6	56	107x101x65
56SSW15	Single sliding switch	1	15A	250V	M80	1.5	6	56	107x101x65
56SSW10/I	Intermediate sliding	1	10A	250V	M100	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
56SSW2AM	Twin sliding switches marked 'auto / man / on / off'								

Note: AC utilisation categories to AS/NZS3947.3 I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage

## Dimensional Drawings



FRONT COMPLETE

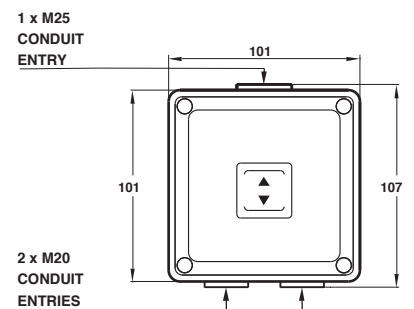


SIDE COMPLETE

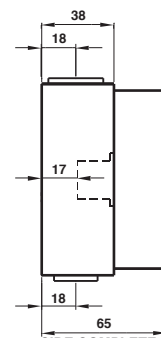
SIDE COMPLETE

56SW110  
56SW115  
56SW110/2  
56SW115/2  
56SW110I

56SW220



FRONT COMPLETE



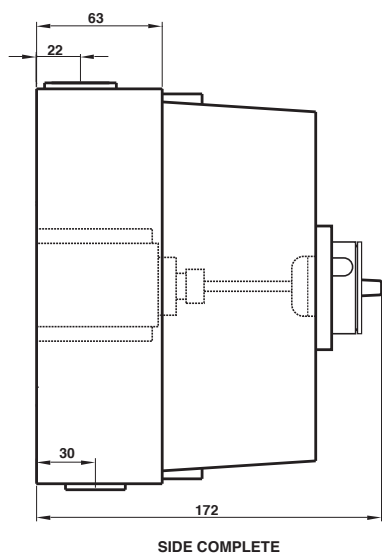
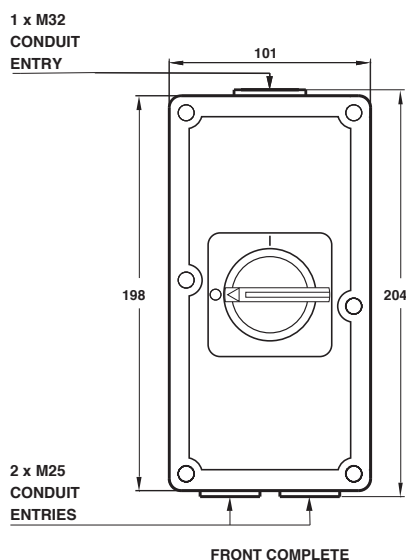
56SSW10

SIDE COMPLETE



56SWH325,GY

## Dimensional Drawings



## Heavy Duty Surface Switches

Clipsal Heavy-Duty Surface Switches come with integral 3 or 4 pole configurations, from 25 to 80A ratings. The switch actuator comes standard in safety red/yellow and has 3 padlocking facilities. Hole diameter is 8mm.

The switch is mounted separate to cover in a DIN mounting drop-in cradle which allows quick removal and installation.

The extra deep enclosure allows ample wiring space for easy installation and the switch is suited to motor rating.

### Options available

- Resistant Orange - add RO to Catalogue Number eg. 56SWH325 becomes 56SWH325,RO
- Auxiliary contact - add C for 1 N/C 10A contact to Catalogue Number e.g. 56SWH325 becomes 56SWH325C. Add CO for 1 N/C and 1 N/O 10A contact to Catalogue Number e.g. 56SWH325 becomes 56SWH325CO

Catalogue Number	No. of switches poles	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)	kW	I <sub>e</sub> (A) Utilisation Cat.			Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
					AC21A	AC22A	AC23A	Min.	Max		
<b>Motor Rated in 56E2 Deep Lid</b>											
56SWH325	3 Pole	25A	690V	7.5	25	25	25	1.5	16	56	204x101x172
56SWH340	3 Pole	25A	690V	11	40	40	25	1.5	16	56	204x101x172
56SWH363	3 Pole	63A	690V	25	63	63	63	1.5	35	56	204x101x172
56SWH380	3 Pole	80A	690V	25	80	80	63	1.5	35	56	204x101x172
56SWH425	4 Pole	25A	690V	7.5	25	25	25	1.5	25	56	204x101x172
56SWH440	4 Pole	40A	690V	11	40	40	25	1.5	25	56	204x101x172
56SWH463	4 Pole	63A	690V	25	63	63	40	1.5	25	56	204x101x172
<b>Motor Rated in Stainless Steel Enclosures</b>											
56SWH325S	3 Pole	25A	690V	7.5	25	25	25	1.5	16	56	204x101x172
56SWH340S	3 Pole	25A	690V	11	40	40	25	1.5	16	56	204x101x172
56SWH363S	3 Pole	63A	690V	25	63	63	63	1.5	35	56	204x101x172
56SWH380S	3 Pole	80A	690V	25	80	80	63	1.5	35	56	204x101x172
56SWH425S	4 Pole	25A	690V	7.5	25	25	25	1.5	25	56	204x101x172
56SWH440S	4 Pole	40A	690V	11	40	40	25	1.5	25	56	204x101x172
56SWH463S	4 Pole	63A	690V	25	63	63	40	1.5	25	56	204x101x172

# Changeover and Reversing Switches



**56SW220CO, GY**

Designed to give full motor control in a unit that is rated IP66. Clipsal's Changeover and Reversing Switches are housed within single modules as part of the overall modular concept of the range.

Earth and neutral connectors accommodating 3 x 6mm<sup>2</sup> cables are provided with all models.



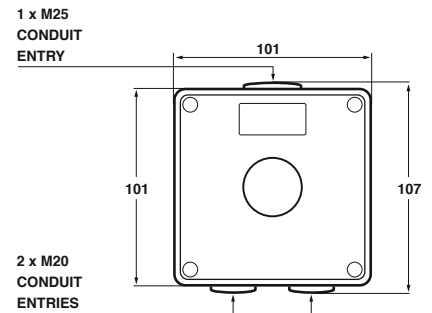
**56SW320R, GY**

### Option available

- Resistant Orange - add RO to Catalogue Number e.g. 56SW220CO becomes 56SW220CO,RO.

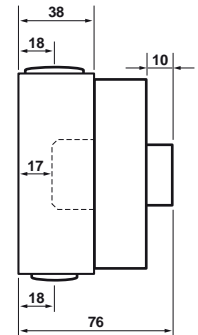
Clipsal 7 Series Cam Type Switch Mechanisms are used and therefore special configurations are available. Contact your Clipsal representative for more information.

## Dimensional Drawings

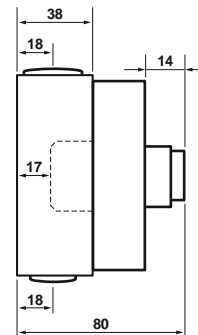


FRONT COMPLETE

56PB & 56PBS



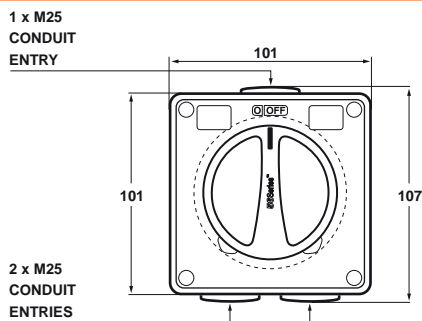
SIDE COMPLETE



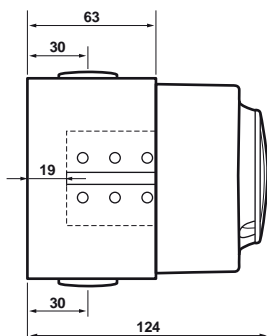
56PBS & 56/2PB

SIDE COMPLETE

## Dimensional Drawings

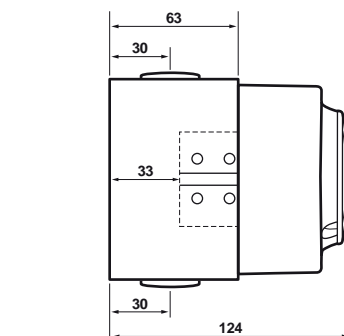


FRONT COMPLETE



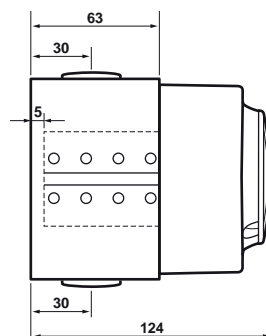
56SW320R

SIDE COMPLETE



56SW220CO

SIDE COMPLETE



56SW420CO

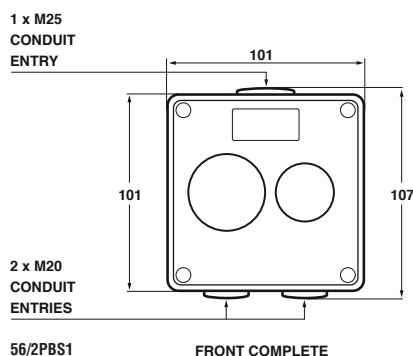
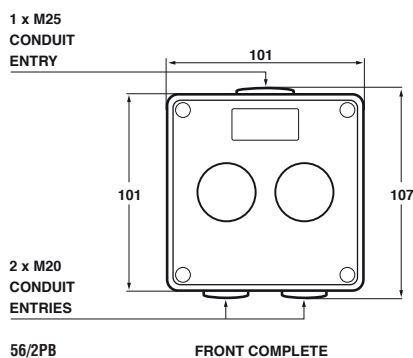
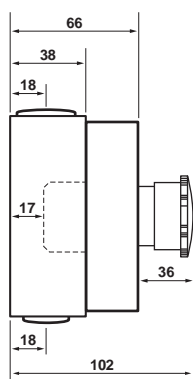
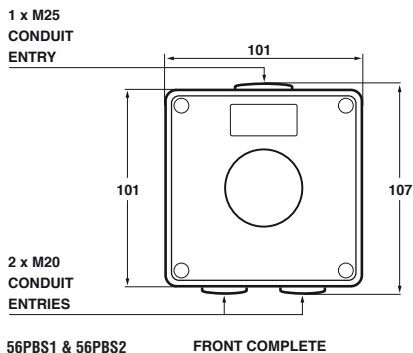
SIDE COMPLETE

Catalogue Number	No. of switched poles	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category			AC15 240V/415V	Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
				AC21A 690V	AC21A	AC23A 690V		Min.	Max		
<b>56SW220CO</b> Changeover Switch	2 Pole	20A	500V	20	-	15	8/6	1.5	2 x 4	66	107x101x124
<b>56SW420CO</b> 3 Phase Changeover Switch	4 Pole	20A	500V	20	-	15	8/6	1.5	2 x 4	66	107x101x124
<b>56SW320R</b> Reversing Switch	3 Pole	20A	500V	20	-	15	8/6	1.5	2 x 4	66	107x101x124

Note: AC utilisation categories to AS/NZS3947.3 I<sub>the</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>e</sub> - Operational Current

# Push Button Control Stations

## Dimensional Drawings



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.

**56PBS2** - Stop station. This station has a mushroom head with twist reset and red push button (labelled stop only).

**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.

### Options available

- Less Enclosure - Add LE to Catalogue Number e.g. 56PB becomes 56PBLE.
- Resistant Orange - Add RO to Catalogue Number e.g. 56PBS1 becomes 56PBS1,RO.
- Resistant White - Add RW to Catalogue Number e.g. 56PBS1 becomes 56PBS1,RW.

Catalogue Number	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category		Button Colour	Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
			AC15 240V	DC13 24V		Min.	Max.		
<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>56PBS2</b> Mushroom button latching 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<sub>the</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>e</sub> - Operational Current

### Contact Block Spares/Buttons

<b>ZB5AZ101</b>	(NO) Normal Open Contact
<b>ZB5AZ102</b>	(NC) Normal Closed Contact
<b>ZB5AA3</b>	Push Button Head Green
<b>ZB5AS54</b>	Emergency Stop Head 40mm Red
<b>ZB5AC4</b>	Push Button Head Raised Red

# Key Operated Switches



56K1SW310,GY

56 Series Key Operated Switches are designed for all key switch applications with the choice of three versions.

Earth and neutral connectors accommodating 3 x 6mm<sup>2</sup> are supplied with all models.

### Standard Security

For general applications. From single phase 20A to three phase 50A. These switches are supplied with individual keys.

### Medium Security

For medium security applications. These switches are fitted with high quality Lock Focus 227 Barrell locks. The key itself is rotated in order to operate the switch mechanism. These switches are supplied with individual keys. The switch cover has smooth edges to resist forced actuation.

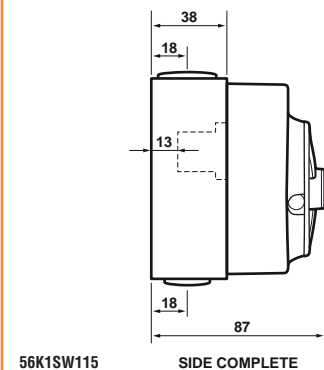
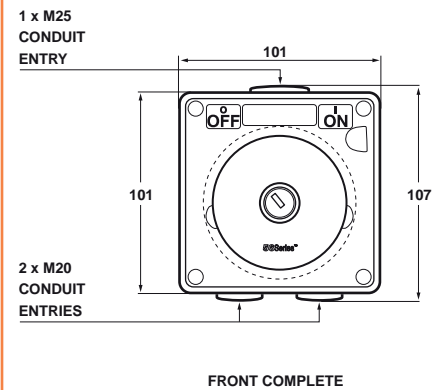
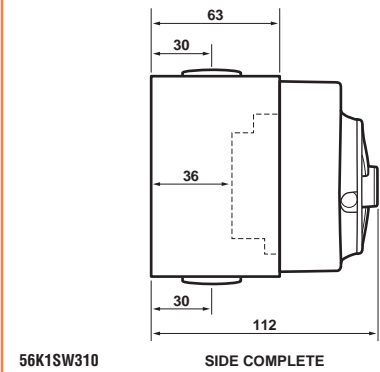
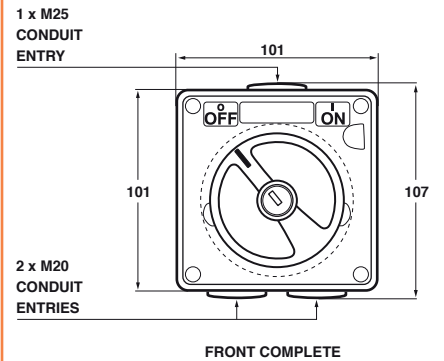


56K1SW310MS,GY

### Options available

- Common keys for a number of switches are available to special order.
- Resistant Orange - add RO to Catalogue Number e.g. 56K1SW120 becomes 56K1SW120,RO.

## Dimensional Drawings



# Key Operated Switches



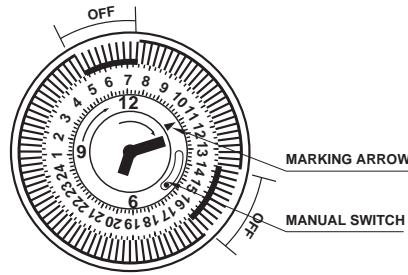
Catalogue Number	No. of Switched Poles	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category			M Rating	Conductor Terminal Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
				AC21A	AC22A	AC23A		Min.	Max/Cond.		
<b>STANDARD SECURITY KSW</b>											
For locking in the 'off' position											
56K1SW115	1 Pole	15A	250V	15	10	8	M80	1.5	6	66	107x101x87
56K1SW120	1 Pole	20A	250V	20	20	20	M250	2.5	25	66	107x101x112
56K1SW132	1 Pole	32A	250V	32	32	25	M250	4	25	66	107x101x112
56K1SW150	1 Pole	50A	250V	50	50	25	M250	10	25	66	107x101x112
56K1SW220	2 Poles	20A	500V	20	20	20	M220	2.5	25	66	107x101x112
56K1SW232	2 Poles	32A	500V	32	32	25	M220	4	25	66	107x101x112
56K1SW250	2 Poles	50A	500V	50	50	25	M220	10	25	66	107x101x112
56K1SW310	3 Poles	10A	500V	10	10	10	M200	1.5	25	66	107x101x112
56K1SW320	3 Poles	20A	500V	20	20	20	M200	2.5	25	66	107x101x112
56K1SW332	3 Poles	32A	500V	32	32	25	M200	4	25	66	107x101x112
56K1SW350	3 Poles	50A	500V	50	50	25	M200	10	25	66	107x101x112
For locking in the 'on' or 'off' position											
56K2SW115	1 Pole	15A	250V	15	10	8	M80	1.5	6	66	107x101x83
56K2SW120	1 Pole	20A	250V	20	20	20	M250	2.5	25	66	107x101x112
56K2SW132	1 Pole	32A	250V	32	32	25	M250	4	25	66	107x101x112
56K2SW150	1 Pole	50A	250V	50	50	25	M220	10	25	66	107x101x112
56K2SW220	2 Poles	20A	500V	20	20	20	M220	2.5	25	66	107x101x112
56K2SW232	2 Poles	32A	500V	32	32	25	M220	4	25	66	107x101x112
56K2SW250	2 Poles	50A	500V	50	50	25	M220	10	25	66	107x101x112
56K2SW310	3 Poles	10A	500V	10	10	10	M200	1.5	25	66	107x101x112
56K2SW320	3 Poles	20A	500V	20	20	20	M200	2.5	25	66	107x101x112
56K2SW332	3 Poles	32A	500V	32	32	25	M200	4	25	66	107x101x112
56K2SW350	3 Poles	50A	500V	50	50	25	M200	10	25	66	107x101x112
<b>MEDIUM SECURITY KSW</b>											
For locking in only the 'off' position											
56K1SW115MS	1 Pole	15A	250V	15	10	8	M80	1.5	6	66	107x101x87
56K1SW132MS	1 Pole	32A	250V	32	32	20	M250	4	25	66	107x101x112
56K1SW310MS	3 Poles	10A	500V	10	10	10	M200	1.5	25	66	107x101x112
<b>MEDIUM SECURITY KSW</b>											
For locking in the 'on' or 'off' position											
56K2SW115MS	1 Pole	15A	250V	20	20	20	M80	2.5	25	66	107x101x112
56K2SW132MS	1 Pole	32A	500V	32	32	25	M250	4	25	66	107x101x112
56K2SW310MS	3 Poles	50A	500V	50	50	25	M200	10	25	66	107x101x112

Note: AC utilisation categories to AS/NZS3947.3 I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>e</sub> - Operational Current

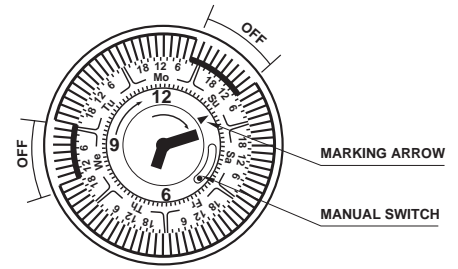
# Timer Switches



56TC7,GY



56TC



56TC7

## Surface Mounting Combinations with Timer - IP66

56 Series TC Synchronised Timers allow time control in IP56 environments. They are available in 24 hour and 7 day configurations with minimum switching times as indicated.

All timers are supplied with sliding tabs for easy setting and are fitted with manual override switches.

Earth and neutral connectors accommodating 3 x 6mm<sup>2</sup> cables are supplied.

This timer has a 150 hour battery running reserve.

Note: The 56TC Timer range is not suitable for fluorescent loads.

### Options available

- Add LE to Catalogue Numbers for models Less Enclosure. LE models are suitable for mounting in 56ES1 shallow type enclosures.

Catalogue Number	Switching	I <sub>the</sub> (Amp)	U <sub>f</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category			M Rating	Battery Running Hrs	Min. Switch Time	Switching Sliding Tab Col.	Conductor Terminal Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
				AC21A	AC22A	AC23A					Min.	Max.		
56TC	1 NO / 1 NC	16A	250V	16	10	8	M90	150	15	Black	2.5	6	66	107x101x102
56TC7	1 NO / 1 NC	16A	250V	16	10	8	M90	150	120	Black	2.5	6	66	107x101x102

Note: AC utilisation categories to AS/NZS3947.3 I<sub>the</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>e</sub> - Operational Current \*\*Nicaid rechargeable battery requires 70 hours for full recharge.



56SWT216(GY)

## Surface Switch with Timer - IP56

Clipsal's 56 Series Two Hour Process Timer is a surface mounting model that features a mechanical timer operated by a rotary switch.

The timer is fully variable with the range of zero to two hours in 10 minute increments which can be reset or overridden at any stage.

A single gang module, the unit is double pole 250V 16A a.c. and is supplied as standard with a power on neon.

The 16A mechanism has pressure plate type terminals. The 56SWT216 is ideally suited to

run pumping or filtering operations or for use with hot water service boosters. Also suitable for fluorescent loads.

Earth and Neutral connectors accommodating 3 x 6mm<sup>2</sup> cables are supplied.

This timer has a 150 hour battery running reserve.

### Option available

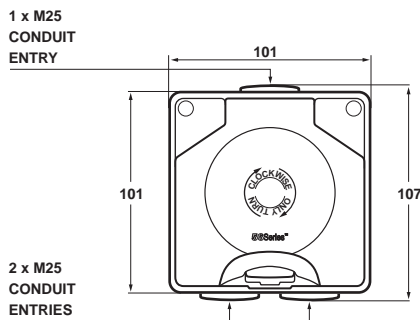
- Less enclosure - Add LE to Catalogue Number e.g. 56SWT216 becomes 56SWT216LE.

Catalogue Number	Switching	I <sub>the</sub> (Amp)	U <sub>f</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category			M Rating	Battery Running Hrs	Switching Time	Conductor Terminal Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
				AC21A	AC22A	AC23A				Min.	Max.		
56SWT216	2 Pole	16A	250V	16	10	8	120	N/A	10 mins. minimum 120 mins. maximum	2.5	4	66	107x101x102

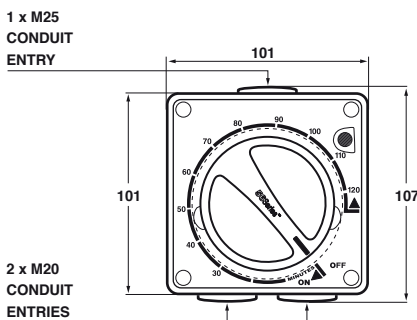
Note: AC utilisation categories to AS/NZS3947.3 I<sub>the</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>e</sub> - Operational Current \*\*Nicaid rechargeable battery requires 70 hours for full recharge.



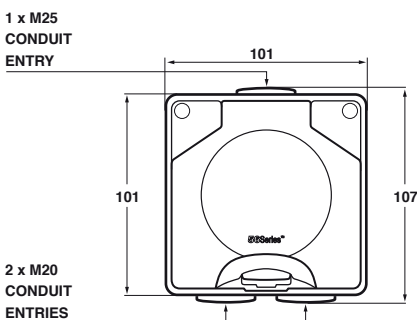
## Dimensional Drawings



56TC FRONT COMPLETE



56SWT216 FRONT COMPLETE



56TCDB FRONT COMPLETE



56TCDB,GY

## Surface Mounting Digital Timer - IP66

When a timer with pin point precision is required in an IP66 environment, the 56TCDB Digital Timer is the answer.

The digital timer features highly accurate timing and multi-function control with fully programmable push button facilities.

Earth and neutral connectors accommodating 3 x 6mm<sup>2</sup> cables are supplied.

The 56TCDB also incorporates a 150 hour battery running reserve that retains information in the event of a loss of mains power.

Note: The 56TCDB Timer is not suitable to switch fluorescent loads. The timer has a stored charge and therefore should not be connected to portable equipment.

Other features are as follows:

### Holiday Programming

Before going away, a simple holiday program can be set for a period of up to 99 days.

This program will have priority over the normal program and can either operate as set or continually without a preset limit. Program start can be immediate or delayed by up to six days.

### Seven Day Fully Programmable 42 Memory Locations

This facility enables up to 21 on/off switching commands to be given at any time during a seven day period. i.e.

- Memory No. 1 (ON) Mon, 8.00a.m.
- Memory No. 2 (OFF) Mon, 8.25a.m.
- Memory No. 3 (ON) Mon, Tue, Wed, 9.00p.m.
- Memory No. 4 (OFF) Mon, Tue, Wed, 9.40p.m.

Settings can continue through to a maximum of 42 locations (21 on / 21 off).

### Daylight Saving Switch

Enables summer/winter time changes at the press of a button.

### 150 Hour Battery Running Reserve

Retains program and setting during power blackout.

### Inbuilt Bypass Switch

This function disengages timing when not required. The Inbuilt Bypass Switch can be set at permanently 'on' or permanently 'off' or 'on' until programmed 'off' or 'off' until programmed 'on'.

*\*For further details refer to operating instructions.*

Catalogue Number	Switching	I <sub>the</sub> (Amp)	U <sub>f</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category			M Rating	Battery Running Reserve Hours	Min. Switch Time	Conductor Terminal Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
				AC21A	AC22A	AC23A				Min.	Max.		
56TCDB	1 NO / 1 NC	10A	240V	10	10	8	100	**150 hours	1 min	2.5	6	66	107x101x102

Note: AC utilisation categories to AS/NZS3947.3 I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>e</sub> - Operational Current \*\*Nicaid rechargeable battery requires 70 hours for full recharge.

# Sunset Switches



56SSR,GY



56SSR,GY

## 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.

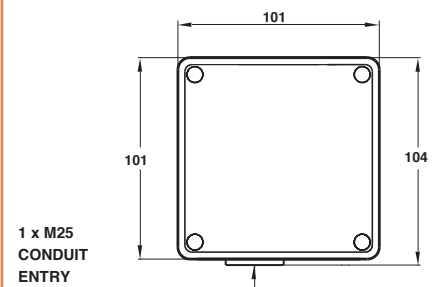
When correctly connected to a suitable supply and load, the 56SSR will turn the load on when the ambient light level is below approximately 10 lux. Similarly, the load will be turned off when the light level exceeds approximately 30 lux. Delays of approximately eight seconds on turn-off and 30 seconds 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.

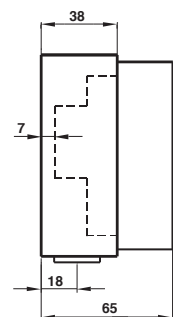
The timer can be disabled by applying neutral potential to the terminal T1, in which case the status of the load is controlled only by the ambient light level. This feature provides a remote timer override function if required.

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.

### Dimensional Drawings



56SSR FRONT COMPLETE



56SSR SIDE COMPLETE

Catalogue Number	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)	I <sub>e</sub> (A) Utilisation Category			M Rating	Temp. Range	Time Adjust	Conductor Terminal Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)	Operating Voltage
			AC21A	AC22A	AC23A				Min.	Max.			
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.
56PEDD3	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.

Note: AC utilisation categories to AS/NZS3947.3. I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>e</sub> - Operational Current  
 Note: Maximum off state leakage current - 8.2 mA 240V a.c. Time accuracy - +/-15%.

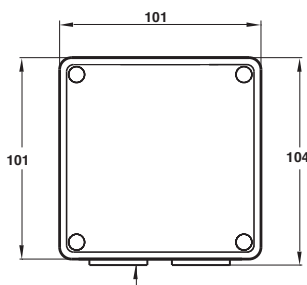


56PEDD3, GY

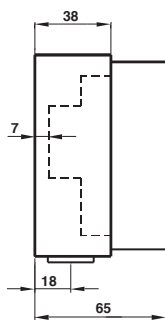


56PEDD3, GY

## Dimensional Drawings



56PEDD3 FRONT COMPLETE



56PEDD3 SIDE COMPLETE

## 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 Clipsal photo 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.

### 56SSR Specifications

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	± 15%
Operating Temperature Range	-10 to 45°C
Maximum warm-up time at 240V AC	4 min

### 56PEDD3 Specifications

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

# Angle and Straight Plugs



## 56P Series Plugs

Clipsal 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.

## Optional Terminators

Catalogue Number	Suits Gland Nut Thread	Description
56T20	20mm	To suit 10-20 Amp Plugs. Suits 20mm Flexible Hose.
56T25	25mm	To suit 32-50 Amp Plugs. Suits 25mm Flexible Hose.
56T32	32mm	To suit 32-50 Amp Plugs. Suits 32mm Flexible Hose.

\* When plugs are not in use, IP66 Rating is maintained by fitting a 56PC Series Plug Cap.

Catalogue # Straight	Catalogue # Angle	I <sub>th</sub> (Amp)	U <sub>i</sub> (Volt)	No. of Pins	Conductor Terminal Size in mm <sup>2</sup>		Cable Nominal Diameter		IP Rating	Pin Config.	Gland Nut Thread			
					Min.	Max/Cond.	Min.	Max.			Straight	Angled		
56P210	-	10A	110V	2 Parallel Flat Pins	0.75	1.5	7	12.5	66	D	20mm			
56P215/32	-	15A	32V	2 Polarised, Extra Low Voltage	1.5	2.5	7	12.5	66	E	20mm			
56P3/110	-	10A	110V	2 Round Live & Flat Earth	0.75	1.5	7	12.5	66	J	20mm			
56P310RP	-	10A	250V	3 Round Pins	0.75	1.5	7	12.5	66	G	20mm			
56P310	-	10A	250V	3 Flat Pins	1.0	2.5	7	12.5	66	A	20mm			
56P310SL	-	10A	250V	2 Flat Pins & Round Earth	1.0	2.5	7	12.5	66	C	20mm			
56P315	-	15A	250V	3 Flat Pins	1.0	2.5	7	12.5	66	A	20mm			
56P320	56PA320	20A	250V	3 Round Pins	1.0	6	7	16	66	H	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	B	20mm	37mm		
56PC2					Plug Cap to Suit Phase Plugs									
56P410	56PA410	10A	500V	4 Round Pins	2.5	4	7	16	66	K	25mm	23mm		
56P416K	56PA416K	16A	500V	Unique Key Configuration	2.5	4	7	16	66	M	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	O	37mm	37mm		
56P450	56PA450	50A	500V	4 Round Pins	2.5	25	9	28	66	P	37mm	37mm		
56P510	56PA510	10A	500V	5 Round Pins	2.5	4	7	16	66	Q	25mm	23mm		
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		
56P610	56PA610	10A	500V	6 Round Pins	2.5	4/2.5	7	16	66	V	23mm	23mm		
56P710	56PA710	10A	500V	7 Round Pins	2.5	4/2.5	7	16	66	W	23mm	23mm		
56P720	56PA720	20A	500V	7 Round Pins	2.5	4/2.5	7	16	66	X	23mm	23mm		
56P320QC	-	20A	250V	3 Round Pins QCT	1.0	4	7	16	66	H	56AM25	56AM25		
56P410QC	-	10A	500V	4 Round Pins QCT	2.5	4	7	16	66	K	56AM25	56AM25		
56P420QC	-	20A	500V	4 Round Pins QCT	2.5	4	7	16	66	K	56AM25	56AM25		
56P510QC	-	10A	500V	5 Round Pins QCT	2.5	4	7	16	66	P	56AM25	56AM25		
56P520QC	-	20A	500V	5 Round Pins QCT	2.5	4	7	16	66	Q	56AM25	56AM25		

NSW Coalfield Certificate of Examination I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage QCT - Quick Connect Terminals

# Angle and Straight Plugs



56P310,GY



56CSC310,EO

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

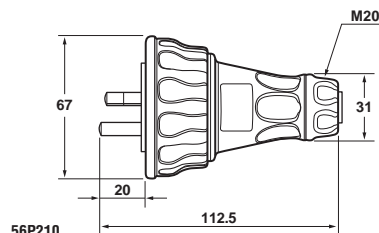
56AM25 adapter suits 25mm cable and conduit glands, and is suitable on 10A and 20A units three phase.

### Options available

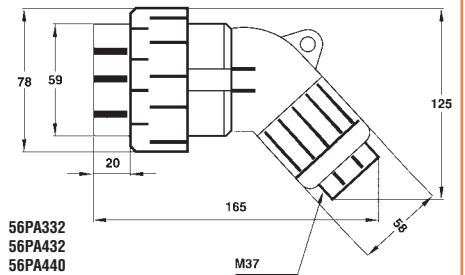
- When plugs are not in use IP66 rating is maintained by fitting a 56PC Plug Cap.
- Resistant Orange - Add RO to Catalogue Number e.g. 56P410 becomes 56P410,RO.
- Colours: EO, GY, RW, RO.

\* Note: Refer 56T Series for terminators to connect hose to non standard thread size.

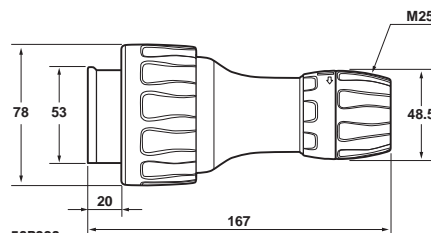
## Dimensional Drawings



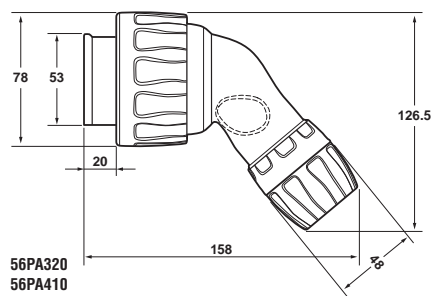
- 56P210
- 56P215/32
- 56P3/110
- 56P310RP
- 56P310
- 56P310SL
- 56P315
- 56P320F



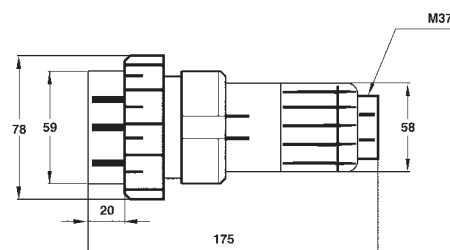
- 56PA332
- 56PA432
- 56PA440
- 56PA450
- 56PA532
- 56PA540
- 56PA550



- 56P320
- 56P410
- 56P420
- 56P510
- 56P520
- 56P416K
- 56P610
- 56P710
- 56P720



- 56PA320
- 56PA410
- 56PA416K
- 56PA420
- 56PA510
- 56PA520
- 56PA610
- 56PA710
- 56PA720



- 56P332
- 56P532
- 56P540
- 56P550
- 56P432
- 56P440
- 56P450

# Angle and Straight Plugs



56PCI, 56PC2



## Plug and Socket Caps

When not in use, Clipsal 56P and 56PA Series Plugs can be additionally protected by utilising our 56PC Series Plug Caps.

When in position, they protect the pins from damage, dirt, grease and water ingress.

The caps are simple to fit and fully enclose the plug face.

Likewise, to plug caps, Clipsal Single Phase CSC Extension Sockets/ Appliance Connectors can be additionally protected by utilising our 56SC2 Socket Cap.



56PAXXXG Series

## Internal Pin Housings

A full range of replacement pin housings is available for the three phase straight and angle plugs.

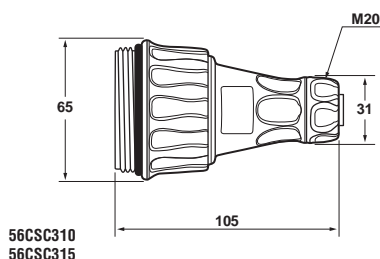
They eliminate the expense of replacing an entire unit if only the pin housing is damaged. Pin housings are moulded in durable polyester.

Catalogue Number	I <sub>m</sub> (Amps)	U <sub>i</sub> (Volts)	No. of Round Pins	Conductor Terminal Size in mm <sup>2</sup>	
				Min.	Max/Cond.
56P410G1	10A	500V	4 Rounded Pins Post 2009 Suits Straight & Angled	2.5	4
56P420G1	20A	500V	4 Rounded Pins Post 2009 Suits Straight & Angled	2.5	4
56P510G1	10A	500V	5 Rounded Pins Post 2009 Suits Straight & Angled	2.5	4
56P520G1	20A	500V	5 Rounded Pins Post 2009 Suits Straight & Angled	2.5	4
56PA432G	32A	500V	4 Round Pins	2.5	16
56PA440G	40A	500V	4 Round Pins	2.5	25
56PA450G	50A	500V	4 Round Pins	2.5	4
56PA510G	10A	500V	5 Round Pins	2.5	4
56PA520G	20A	500V	5 Round Pins	2.5	16
56PA532G	32A	500V	5 Round Pins	2.5	16
56PA540G	40A	500V	5 Round Pins	2.5	16
56PA550G	50A	500V	5 Round Pins	2.5	25
56PA610G	10A	500V	6 Round Pins	2.5	4/2.5
56PA710G	10A	500V	7 Round Pins	2.5	4/2.5
56PA720G	20A	500V	7 Round Pins	2.5	4/2.5
56PC	10-20A		Protective Pin Cap to suit Three Phase Plugs		
56PCI	32-50A		Protective Pin Cap to suit Three Phase Plugs		

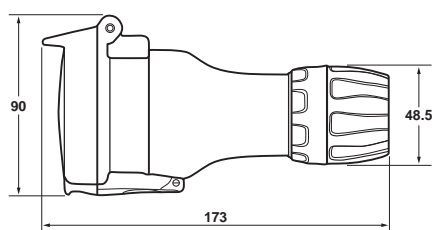
U<sub>i</sub> - Insulation Voltage I<sub>m</sub> - Conventional Enclosed Thermal Current

# Extension Sockets and Appliance Connectors

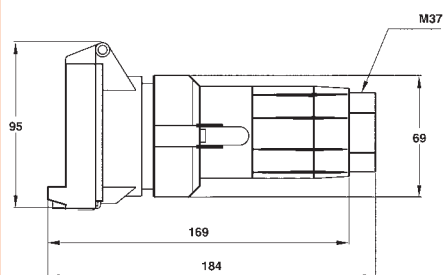
## Dimensional Drawings



56CSC310  
56CSC315



56CSC320  
56CSC410  
56CSC420  
56CSC510  
56CSC520



56CSC332  
56CSC432  
56CSC440  
56CSC450  
56CSC532  
56CSC540  
56CSC550



56CSC532,EO



56CSC410,EO

## Three Phase Extension Socket/Appliance Connector

Clipsal's Three Phase Extension Socket/ Appliance Connector is an important design breakthrough.

Now there is a common unit for both cord extension socket and appliance connector applications.

All connectors have impact resistant, UV stabilised mouldings.

The IP66 rating can be achieved when extension socket/connectors are used in conjunction with compatible accessories such as 56P Plugs, 56PA Plugs and 56AI Appliance Inlets.

IP66 rated units feature a hose proof cap which maintains the International Protection Rating when the accessory is not being used.

Note: Cap not provided as standard with single phase extension sockets.

For 50A rated socket/appliance connectors refer to 56T Series for terminators to connect hose to non standard gland nut thread.

56AM25 adapter suits 25mm cable and conduit glands and is suitable on 10A and 20A units Three phase.

### Options available

- 56SC2 Socket Cap to suit single phase extension sockets.
- 56CSC310 and 56CSC315 available in Resistant Orange - Add RO to Catalogue Number e.g. 56CSC310 becomes 56CSC310,RO.
- Colours: EO, GY, RO.

Catalogue Number	I <sub>th</sub> (Amp)	U <sub>i</sub> (Volt)	No. of Sockets	Conductor Terminal Size in mm <sup>2</sup>		Cable Nominal Diameter		IP Rating	Matching Plug Straight	Matching Plug Angle	Socket Configuration	Gland Nut Thread
				Min.	Max/Cond.	Min.	Max.					
56CSC310	10A	250V	3 Flat Pins	0.75	1.5	7	11	66	56P310		A	31mm
56CSC315	15A	250V	3 Flat Pins	0.75	1.5	7	11	66	56P315		B	31mm
56CSC320	20A	250V	3 Round Pins	1.0	6	7	16	66	56P320	56PA320	H	48.5mm
56CSC332	32A	250V	3 Round Pins	2.5	16	9	28	66		56PA332	I	69mm
56SC2	Socket Cap to suit Single Phase Extension Sockets											
56CSC410	10A	500V	4 Round Pins	1.0	6	7	16	66	56P410	56PA410	K	48.5mm
56CSC420	20A	500V	4 Round Pins	1.0	6	7	16	66	56P420	56PA420	L	48.5mm
56CSC432	32A	500V	4 Round Pins	2.5	16	9	28	66	56P432	56PA432	N	69mm
56CSC440	40A	500V	4 Round Pins	2.5	16	9	28	66	56P440	56PA440	O	69mm
56CSC450	50A	500V	4 Round Pins	2.5	16	9	28	66	56P450	56PA450	P	69mm
56CSC510	10A	500V	5 Round Pins	1.0	6	7	16	66	56P510	56PA510	Q	48.5mm
56CSC520	20A	500V	5 Round Pins	1.0	6	7	16	66	56P520	56PA520	R	48.5mm
56CSC532	32A	500V	5 Round Pins	2.5	16	9	28	66	56P532	56PA532	S	69mm
56CSC540	40A	500V	5 Round Pins	2.5	16	9	28	66	56P540	56PA540	T	69mm
56CSC550	50A	500V	5 Round Pins	2.5	16	9	28	66	56P550	56PA550	U	69mm

U<sub>i</sub> - Insulation Voltage I<sub>th</sub> - Conventional Free Air Current

# Extension Sockets and Appliance Connectors



**56SPOK (shown in application)**



**56POK, 56SMH**



**56AM25**

## Pendant Conversion Kits

Clipsal 56POK and 56POKI Pendant Outlet Kits enable the three phase 56CSC Series Industrial Connectors to be easily converted to pendant outlets.

There are two models available for connectors; 10A - 20A and 32A - 50A, both of which are

manufactured from quality stainless steel to last and withstand loads of up to 50kg.

The 56SPOK allows easy conversion of the 56C and 56CV Series to pendant outlets.

Catalogue Number	Description
<b>56POK</b>	Pendant Outlet Adaption Kit - Suitable for 10A-20A
<b>56POKI</b>	Pendant Outlet Adaption Kit - Suitable for 32A-50A
<b>56PEK25</b>	Switched Pendant Outlet Kit - Moulded 25mm entry
<b>56PEK32</b>	Switched Pendant Outlet Kit - Moulded 32mm entry
<b>56SPOK</b>	Switched Pendant Outlet Kit (suits 2 x 56C or 56V Series)
<b>56SHM</b>	Suspension Hook (replaces 56POK)
<b>56AM25</b>	25mm Gable Gland Nut

## Suspension Pendant Enclosure Kit

The 56PEK25 and 56PEK32 Suspension Enclosure Kit is a two module angled enclosure with a large eye for attaching a chain. The angle feature allows for greater ease of operation while suspended. The 56PEK25 has one single 25mm entry and the 56PEK32 has one 32mm entry, both are available in Grey (GY), Resistant White (RW) and Resistant Orange (RO).

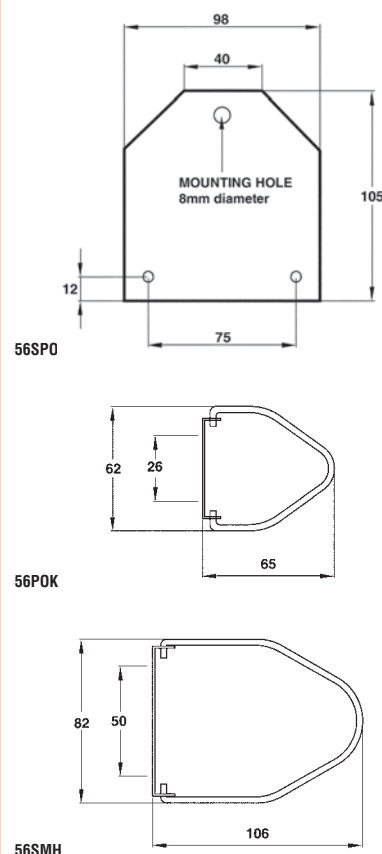
56SPOK is still available and allows two 56C to be mounted back to back.

The suspension enclosure is angled for easier operation in commercial and industrial environments.



**56PEK25, 56PEK32**

## Dimensional Drawings



Catalogue Number	Description
<b>56PEK25</b>	Switched Pendant Outlet Kit, Moulded 25mm Entry
<b>56PEK32</b>	Switched Pendant Outlet Kit, Moulded 32mm Entry



# Extension Sockets and Appliance Connectors

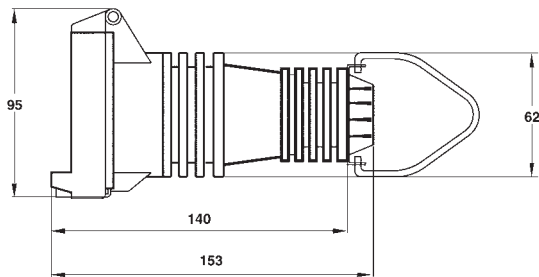


56P0532,EO

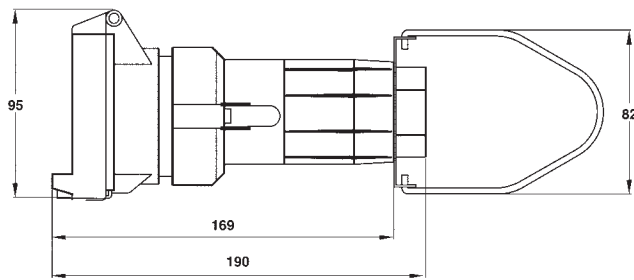


56SP0310,RW

## Dimensional Drawings



56P0410  
56P0420  
56P0510  
56P0520



56P0432  
56P0440  
56P0450  
56P0532  
56P0540  
56P0550

## Pendant Outlets

Clipsal 56PO Three Phase Pendant Outlets are a hanging version of our 56CSC Connectors.

All have impact resistant UV stabilised mouldings.

## Switched Pendant Outlets

A 56 Series Switched Pendant Outlet that combines safety, performance and functionality. An IP66 rated outlet that provides the ability to disconnect the supply without unplugging and from a prominent location.

Catalogue Number	$I_{th}$ (Amp)	$U_i$ (Volt)	No. of Sockets	Conductor Terminal Size in mm <sup>2</sup>		Cable Nominal Diameter		IP Rating	Matching Plug Straight	Matching Plug Angle	Socket Configuration	Gland Nut Thread
				Min.	Max/Cond.	Min.	Max.					
56P0410	10A	500V	4 Round Pins	1.0	6	7	16	66	56P410	56PA410	K	23mm
56P0420	20A	500V	4 Round Pins	1.0	6	7	16	66	56P420	56PA420	L	23mm
56P0432	32A	500V	4 Round Pins	2.5	16	9	28	66	56P432	56PA432	N	37mm
56P0440	40A	500V	4 Round Pins	2.5	16	9	28	66	56P440	56PA440	O	37mm
56P0450	50A	500V	4 Round Pins	2.5	16	9	28	66	56P450	56PA450	P	37mm
56P0510	10A	500V	5 Round Pins	1.0	6	7	16	66	56P510	56PA510	Q	37mm
56P0520	20A	500V	5 Round Pins	1.0	6	7	16	66	56P520	56PA520	R	37mm
56P0532	32A	500V	5 Round Pins	2.5	16	9	28	66	56P532	56PA532	S	37mm
56P0540	40A	500V	5 Round Pins	2.5	16	9	28	66	56P540	56PA540	T	37mm
56P0550	50A	500V	5 Round Pins	2.5	16	9	28	66	56P550	56PA550	U	37mm
56SP0310	10A	250V	3 Flat Pins Double Pole (RW)									
56SP0315	15A	250V	3 Flat Pins Double Pole (RW)									

$U_i$  - Insulation Voltage  $I_{th}$  - Conventional Enclosed Thermal Current

# Special Combinations and Modules



56SC510RC, GY



56C520RC, RO



56RC, GY

## Combined Switched Sockets and Modules

Despite Australia 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, Clipsal 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.

Clipsal 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.

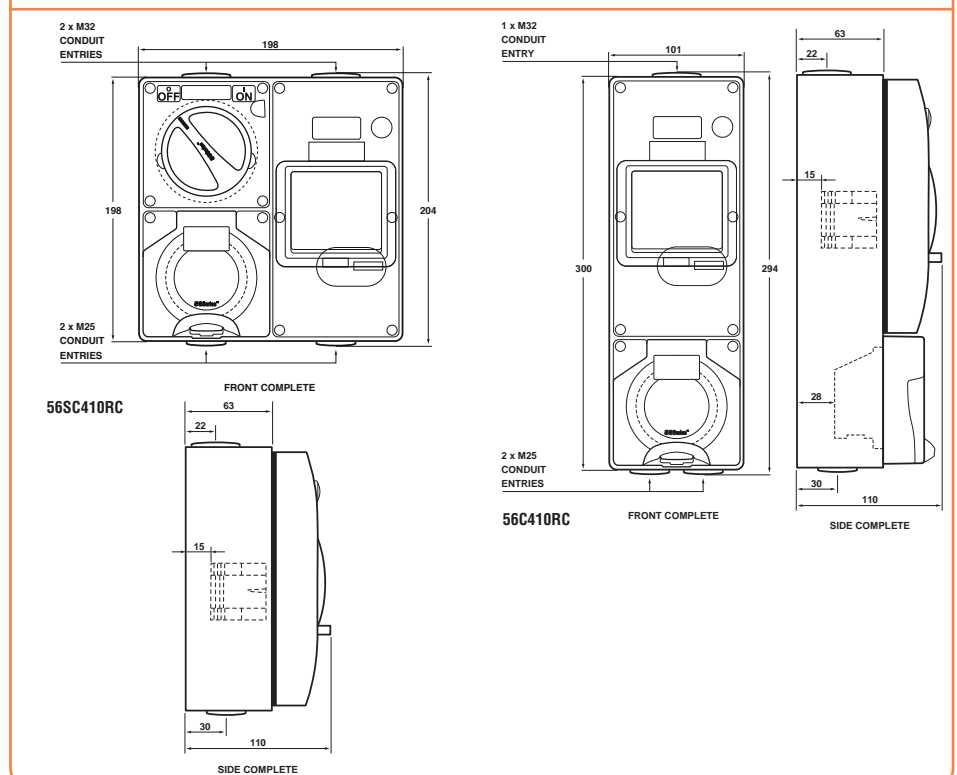
Warning: The RCD used in Clipsal 56 Series Modules only protects against shocks from current passing through the body to Earth; the cause of the majority of electrocutions. Complete protection under all circumstances is not possible from this or any other device.

### Option available

- Resistant Orange - Add RO to Catalogue Number e.g. 56C410,RO becomes 56C410RC,RO.

Catalogue Number	No. of Switch Poles	I <sub>the</sub> (Amp)	U <sub>i</sub> /U <sub>e</sub> (Volt)														
56SC310RC	1 Pole	10A	250V														
56SC315RC	1 Pole	15A	250V														
56SC410RC	3 Pole	10A	500V														
56SC420RC	3 Pole	20A	500V														
56SC432RC	3 Pole	32A	500V														
56SC440RC	3 Pole </tr <tr> <td>56SC510RC</td> <td>3 Pole</td> <td>10A</td> <td>500V</td> </tr> <tr> <td>56SC520RC</td> <td>3 Pole</td> <td>20A</td> <td>500V</td> </tr> <tr> <td>56SC532RC</td> <td>3 Pole</td> <td>32A</td> <td>500V</td> </tr> <tr> <td>56SC540RC</td> <td>3 Pole</td> <td>40A</td> <td>500V</td> </tr>	56SC510RC	3 Pole	10A	500V	56SC520RC	3 Pole	20A	500V	56SC532RC	3 Pole	32A	500V	56SC540RC	3 Pole	40A	500V
56SC510RC	3 Pole	10A	500V														
56SC520RC	3 Pole	20A	500V														
56SC532RC	3 Pole	32A	500V														
56SC540RC	3 Pole	40A	500V														

## Dimensional Drawings



# Special Combinations and Modules

## SINGLE PHASE RESIDUAL CURRENT DEVICE

Catalogue Number	No. of Switch Poles	I <sub>the</sub> (Amp)	U <sub>f</sub> /U <sub>e</sub> (Volt)	Voltage Parameters		Prospective Short Circuit Current 33kA for 40mS	Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)
				Min. (V)	Max. (V)		Min.	Max.		
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 PROTECTED OUTLETS

Catalogue Number	I <sub>the</sub> (Amp)	U <sub>f</sub> /U <sub>e</sub> (Volt)	Number of Sockets	Protection	Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config.
					Min.	Max.					
56C310RC	10A	250V	3 Flat	30mA RCD	2.5	6	66	204x101x100	56P310		A
56C315RC	15A	250V	3 Flat	30mA RCD	2.5	6	66	204x101x100	56P315		B
56C310/4EL	10A	250V	3 Flat	30mA RCD	1.5	16	66	300x101x135	56P310		A
56C315/4EL	15A	250V	3 Flat	30mA RCD	2.5	6	66	204x101x100	56P315		B
56C410RC	10A	500V	4 Round	30mA RCD	1.5	16	66	300x101x110	56P410	56PA410	K
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
56C440RC	40A	500V	4 Round	30mA RCD	10	16	66	300x101x110	56P440	56PA440	O
56C510RC	10A	500V	5 Round	30mA RCD	1.5	16	66	300x101x110	56P510	56PA510	Q
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
56C540RC	40A	500V	5 Round	30mA RCD	10	16	66	300x101x110	56P540	56PA540	T

## SWITCHED RCD PROTECTED OUTLETS - IP66

Number of Sockets	Protection	I <sub>e</sub> (A) Utilisation Category			M Rating	Cond. Term Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)	Matching Plug Straight	Matching Plug Angle	Socket Config.
		AC21A	AC22A	AC23A		Min.	Max/Cond.					
3 Flat	30mA RCD	10	8	8	M100	2.5	6	66	300x101x100	56P310		A
3 Flat	30mA RCD	15	8	8	M100	2.5	6	66	300x101x100	56P315		B
4 Round	30mA RCD	10	10	10	M100	1.5	16	66	204x198x135	56P410	56PA410	K
4 Round	30mA RCD	20	20	20	M100	1.5	16	66	204x198x135	56P420	56PA420	L
4 Round	30mA RCD	32	32	20	M100	4	16	66	204x198x135	56P432	56PA432	N
4 Round	30mA RCD	40	32	20	M100	10	16	66	204x198x135	56P440	56PA440	O
5 Round	30mA RCD	10	10	10	M100	1.5	6	66	204x198x135	56P510	56PA510	Q
5 Round	30mA RCD	20	20	20	M100	1.5	16	66	204x198x135	56P520	56PA520	R
5 Round	30mA RCD	32	32	20	M100	4	16	66	204x198x135	56P532	56PA532	S
5 Round	30mA RCD	40	40	20	M100	10	16	66	204x198x135	56P540	56PA540	T

Note: AC utilisation categories to AS/NZS3947.3 I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>o</sub> - Operational Current

## Portable Combined Switched Sockets with RCD

Ruggedly constructed, these portable units feature an easy to carry handle, a hanging facility for builders' poles and three metres of heavy-duty flexible cord.



56C420/ELP and 56S04ELP15

## PORTABLE RCD PROTECTED COMBINATIONS AND PROTECTED OUTLETS - IP56

Catalogue Number	No. of Phases	I <sub>the</sub> (Amp)	U <sub>f</sub> /U <sub>e</sub> (Volt)	No. of Sockets	Protection	Catalogue Number Matching Plug	Catalogue Number Angled Plug	O/A Dims. (H) x (W) x (D)	Socket Config.	Plug on End of Flex
56C315ELP	1	15A	250V	Single 3 Flat Pins	30mA RCD	56P315	-	243x195x105	B	56P315
56S04ELP15	1	10A	250V	4 Auto Switching, 3 Flat Pins	30mA RCD	56P310	-	243x294x105	B	56P315

Note: AC utilisation categories to AS/NZS3947.3 I<sub>th</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage U<sub>e</sub> - Operational Voltage I<sub>o</sub> - Operational Current

# Special Combinations and Modules



56CTC, GY



56CTC2SO, GY

## Combination Switched Sockets and 24Hr Timer

Clipsal combinations with a timer have been specially developed for swimming pool applications. Both manual and automatic switching are provided. When manual switching is desired, the time clock is overridden, allowing the unit to be operated as required.

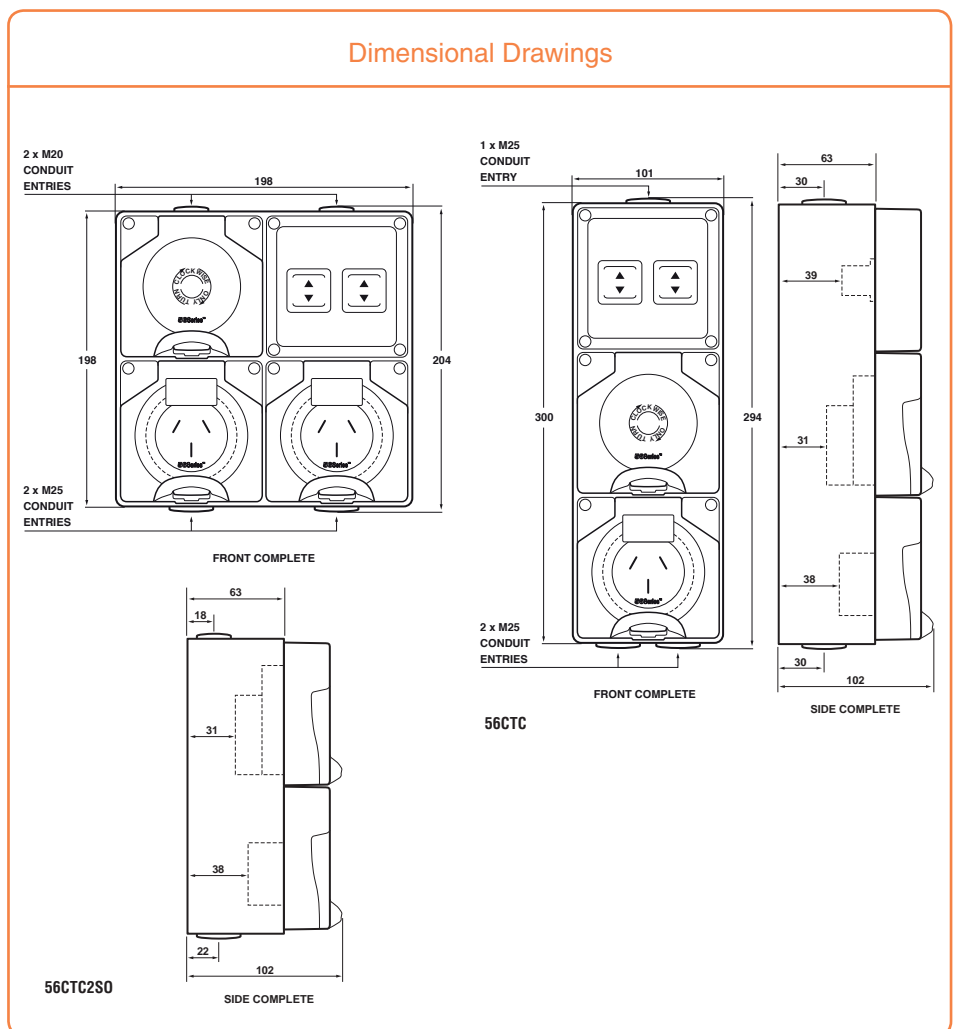
The 24 hour timer has been expressly designed for Australian conditions.

All units are supplied with a Clipsal 439 PVC Plug and Clipsal 437PR Weatherproof Ring for each socket outlet.

### Option available

- 56CTC and 56CTC15 are available less enclosure e.g. 56CTC becomes 56CTCLE.

## Dimensional Drawings



Catalogue Number	$I_{th}$ (Amp)	$U_1/U_e$ (Volt)	Number of Sockets	M Rating	Conductor Terminal Size in mm <sup>2</sup>		Timer Type	$I_e$ (A) Utilisation Category			Timer	Min. Time Switch Duration	IP Rating	O/A Dims. (H) x (W) x (D)
					Min.	Max.		AC21A	AC22A	AC23A				
56CT	10A	250V	3 Flat Pins	80	1.5	6	56TC	10	8	8	24hr	15min.	56	300x101x102
56CTC15	15A	250V	3 Flat Pins	80	1.5	6	56TC	15	8	8	24hr	15min.	56	300x101x102
56CTC2SO	10A	250V	3 Flat Pins	80	1.5	6	56TC	15	8	8	24hr w/ Extra Socket	15min.	56	204x198x102
56CTC2SO15	15A	250V	3 Flat Pins	80	1.5	6	56TC	15	8	8	24hr w/ Extra Socket	15min.	56	204x198x102

$I_{th}$  - Conventional Enclosed Thermal Current  $U_1$  - Insulation Voltage  $U_e$  - Operational Voltage  $I_e$  - Operational Current \*Circuit protection device (HRC Fuse or MCB) to be 16 amp. maximum. Approvals No. S/1/56CTC Series. Please ensure the appropriate 56 Series Plug is used for weatherproof integrity.



WilcoRowco™ range



## Metal Clad Industrial Switchgear

### A Tough Performer In Harsh Conditions

WilcoROWCO™ Metal Clad Industrial Switchgear has built a reputation as a true performer in the harshest conditions. The entire Metal Clad range can really take a beating and withstand extreme temperature without compromising performance or safety.

The Metal Clad range is made from high-grade aluminium, providing a lightweight, corrosion resistant industrial switchgear that will perform in the most demanding industrial applications. WilcoROWCO™ Metal Clad...the tough performer in harsh conditions.

### Durable Design, Built To Last

The WilcoROWCO™ range is manufactured from high-grade diecast aluminium, which offers excellent impact resistance, ensuring long product life in any industrial application. All materials used for the Metal Clad range are tested to operate in extreme temperatures from -20°C to +60°C ambient.

Switch status information (ON/OFF) is cast into the body to ensure visibility at all times, even after years of abuse.

### IP Rating Makes Water No Worries

All WilcoROWCO™ Metal Clad Industrial Switchgear is IP66 rated with synthetic gaskets to provide high performance and protection in any situation. Metal Clad Switchgear provides peace of mind in knowing that the safety hasn't been compromised.

### Safe Power Without Compromise

WilcoROWCO™ Metal Clad Industrial Switchgear is designed for safety and durability, with single phase models featuring multi-pole switching.

Metal Clad Industrial Switchgear can also be padlocked off at two locations. The two padlock positions accept 8mm hasp padlocks or scissor lockout tags and comply with Australian Occupational Health and Safety Requirements.

### Rigorous Testing

The WilcoROWCO™ Metal Clad range is tested to appropriate Australian standards, providing specialist ratings that will ensure accurate matching, specific to the required application.

The superior quality control of the Metal Clad range translates to less equipment downtime and improved safety in the workplace.

### Compatible Modular Design

Based on three frame sizes, the Metal Clad range is designed as a family of products, allowing for interchange compatibility. This means that junction/utility boxes can be mounted, and with a simple cover change can be converted into a switch.

All these superior features of the WilcoROWCO™ Metal Clad range add up to create durable, high performance industrial switchgear that's unbeatable in the harshest of conditions.

### Superior Features Provide Easy Installation

The entire Metal Clad range is designed with installers in mind. They can be mounted using internal or external options, depending on the application requirements. The flexibility even extends to the earthing point, which can be relocated within the enclosure.

All large Metal Clad Switchgear is base mounted, making them suitable for large cables - typical to this kind of application. This feature provides the installer with a simple and fast installation solution.

Metric thread stainless steel screws also come standard with the Metal Clad range. They are treated to prevent chemical reaction with the aluminium body, offering superior corrosion resistant properties.

Note: Refer to separate Metal Clad WilcoROWCO™ brochure for technical and range information.

# Transformers



56T150,GY



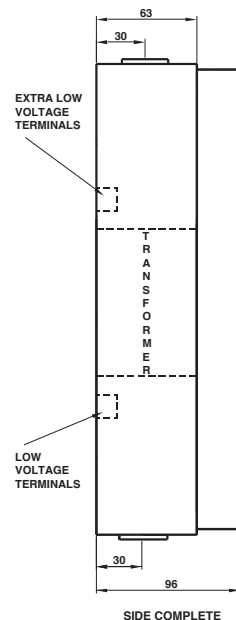
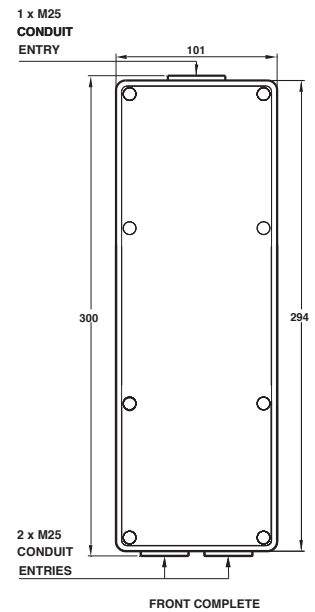
## Hoseproof Transformers - IP56

Clipsal Transformers are ideal for swimming pool lighting applications.

The 56T150 Series is manufactured to AS3126 and features self resetting short circuit protection against thermal overload.

Note: We recommend that the transformer be installed in a position which provides protection against direct sunlight on exceptionally hot days. This will ensure no nuisance activation of the short circuit protection device. Thermally operated, the device is incorporated in the primary side of the transformer, and will cut-out to protect the unit from overheating.

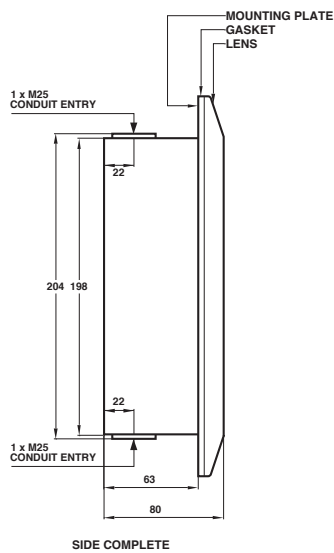
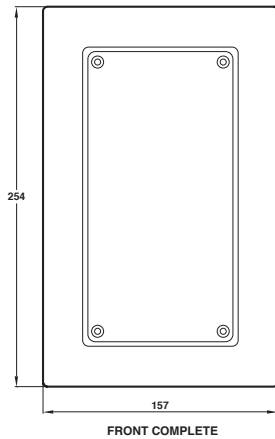
### Dimensional Drawings



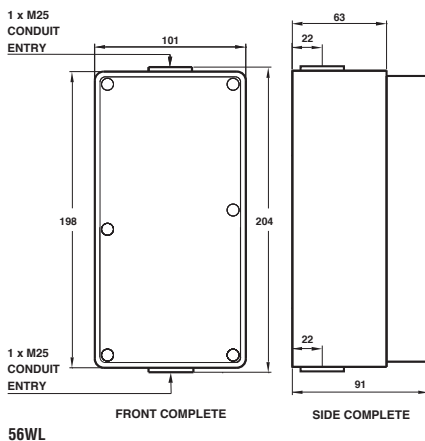
56T150

Catalogue Number	Rated Voltage		Number of Transformers	Conductor Terminal Size in mm <sup>2</sup>		O/A Dims. (H) x (W) x (D)
	Input	Output		Min.	Max.	
56T150	250V	32V (150 max.)	1	1.5	10	300x101x96
56T150/12	250V	12V (150 max.)	1	1.5	10	300x101x96
56T150/24	250V	24V (150 max.)	1	1.5	10	300x101x96

## Dimensional Drawings



56FWL



56WL



56FWL, GY

56WL, GY

Neat and discreet, Clipsal wall lights are the simple way to brighten up all sorts of situations - indoors and out.

Both versions suit single ended fluorescent lamps (Philips PL7 up to PL9), complete with opal polycarbonate diffuser.

They can be either surface mounted or flush mounted, making them ideal for garden areas, paths, walkways, subways, etc; and indoor situations including stairwells and cellars.

### 56WL Surface Mounted Wall Light

- Surface mounting.
- 56E2 Enclosure.
- Lens gasket and sealing screws.
- Lamp assembly (comprising lamp holder ballast, terminal block and bracket) - Lamps purchased separately.
- Accepts Philips PL7 and PL9 Lamps.

### 56FWL Flush Mounted Wall Light

- Flush mounting.
- 56E2 Enclosure.
- Lens.
- Lamp assembly (as for 56WL).
- Flush-mounting bracket with foam gasket and sealing screws.

Note: IP66 rating is ensured when surface mounting, but when flush mounting, IP66 will depend on (1) type/texture of the wall surface and (2) care when mounting to seal all areas where water may enter unit.

Catalogue Number	Type Mounting	IP Rating	O/A Dims. (H) x (W) x (D)
56WL	Surface	66	204x101x91
56FWL	Flush	43	254x157x84

# Mounting Enclosures (Back Boxes)



## 56E Series

All Clipsal Mounting Back Boxes are moulded in UV stabilised rigid PVC to facilitate gluing 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. Moulded dividers are also available for multigang boxes to segregate services and are standard with 4, 6, 8, 9 and 16 gang enclosures.

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.



## 56EV2

Currently used in application throughout major supermarkets nationally.



## 56B, 56DV

### Bridges and Dividers

56 Series Bridges (56B) suits 56E Series Mounting Enclosures and provide a continuous flat surface for socket and switch modules in multigang enclosures, thereby ensuring sealing.

56 Series Dividers (56DV) for segregated services in 56E Enclosures.

### Anti Corrosion Enclosure Screws

These stainless steel screws are 32mm long M3.5 x 0.8 / 6NC to suit 56E Series Enclosures.

### Options Available

- Resistant Orange - Add RO to Catalogue Number e.g. 56E2 becomes 56E2,RO.
- Resistant White - Add RW to Catalogue Number e.g. 56E2 becomes 56E2,RW.
- Chemical Grey - Add CG to Catalogue Number e.g. 56E2 becomes 56E2,CG.

### Mounting Accessories

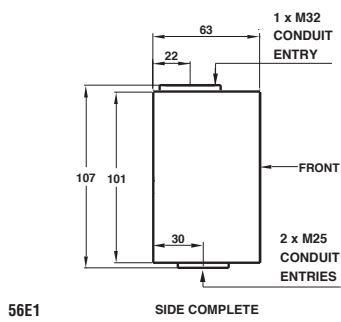
- Stainless steel pole mounting bracket kit to suit 56E2, 56E3 and 56E4VH Modules. Catalogue No. 56PMK.
- Stainless steel mounting feet suit all enclosures. Catalogue Number 56MF.

Catalogue Number	No. of Gangs	O/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
56EV2	2 Vert. Mount	110x101x145		1x25	
56EV2/225	2 Vert. Mount	110x101x145		2x25	
56EV2/32	2 Vert. Mount	110x101x145		1x32	
56E3	3	294x101x63	16	2x25, 1x32	2x25, 1x32
56E4	4	63x198x198	16	2x25, 2x32	2x25, 1x32, 1x40
56E4VH	4 In Line	63x101x391	16	2x25, 1x32	2x25, 1x32, 1x40
56E6	6	63x198x294	24	2x25, 2x32	2x25, 2x32, 2x40
56E8	8	63x198x391	28	2x25, 2x32	4x25, 2x32, 2x40
56E8SB 2 Pillars Removed	8	391x198x63	28	2x25, 2x32	4x25, 2x32, 2x40
56E9	9	391x198x63	28	3x25, 3x32	4x32, 2x32, 2x40
56E9SB 2 Pillars Removed	9	63x294x294	28	3x25, 3x32	4x32, 2x32, 2x40
56E16	16	63x391x391	48	2x25, 2x32	6x25, 6x32, 4x40

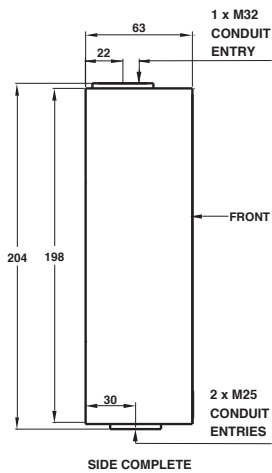
56E2/4EL denotes an E2 Enclosure complete with 56EL4N Cover and DIN Rail to suit 4EL RCDs.



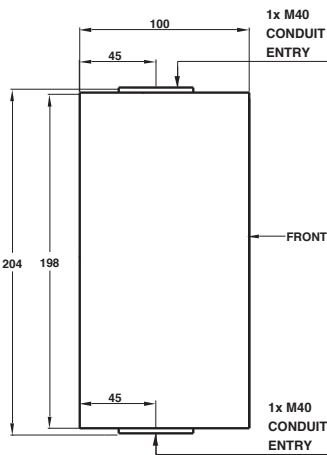
## Dimensional Drawings



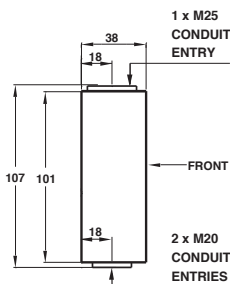
56E1



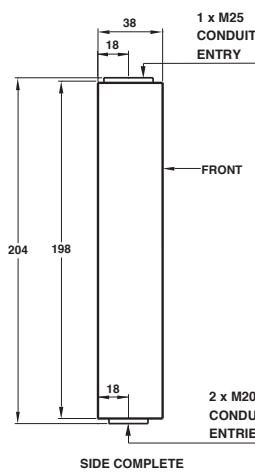
56E2



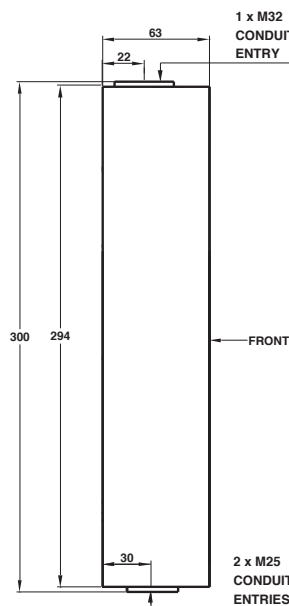
56ED2



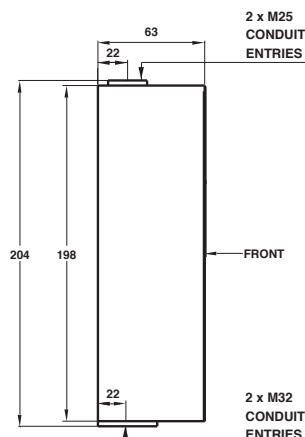
56ES1



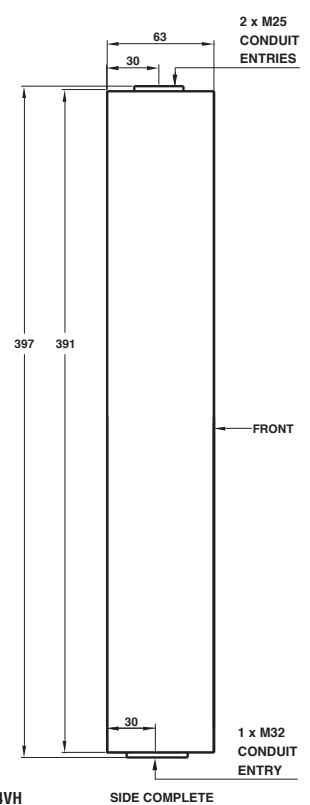
56ES2



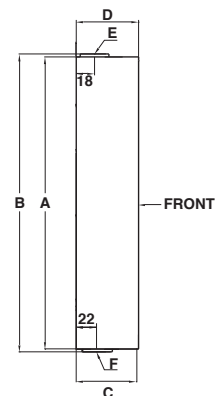
56E3



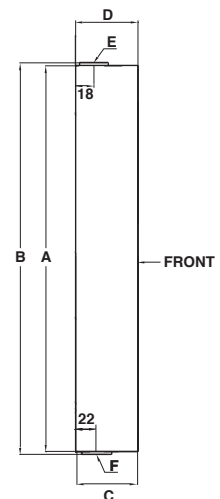
56E4



56E4VH



56E6, 56E9



56E8, 56E16

Catalogue Number	No. Gangs	Dimensions(mm)				Conduit Entries		Cut Out Provisions			56 DV Dividers	56B Bridges	Mounting Points
		A	B	C	D	E	F	G	H	I			
56E6	6	294	300	198	63	2 x M25	2 x M32	25	32	40	4	3	24
56E8	8	392	398	198	63	2 x M25	2 x M32	25	32	40	6	4	28
56E9	9	294	300	294	63	3 x M25	3 x M32	25	32	40	6	6	28
56E16	16	392	398	392	63	2 x M25	2 x M32	25	32	40	12	8	48

# Mounting Enclosure Lids (Covers)



56L4,GY, 56L3,GY, 56L1,GY, 56L2,GY

Mounting enclosure lids are moulded in UV stabilised polycarbonate.

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

### Options available

- Resistant Orange - add RO to Catalogue Number e.g. 56L1 becomes 56L1,RO.
- 56L1 available in Chemical Resistant Grey - add CG to Catalogue Number e.g. 56L1 becomes 56CL1,CG.
- Resistant White - add RW to Catalogue Number e.g. 56L1 becomes 56L1,RW.

Catalogue Number	Number of Gangs	Dimensions (mm)				
		A	B	C	D	E
56L1	1	95	95	28	84	84
56L2	2	192	95	28	84	181
56L3	3	288	95	28	84	277
56L4	4	192	192	28	181	181

## Pre-Drilled Mounting Enclosure Lids



56L1/22,GY

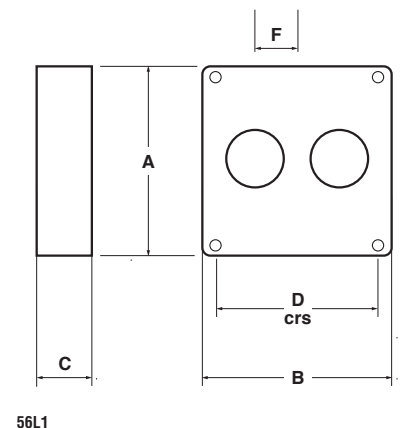
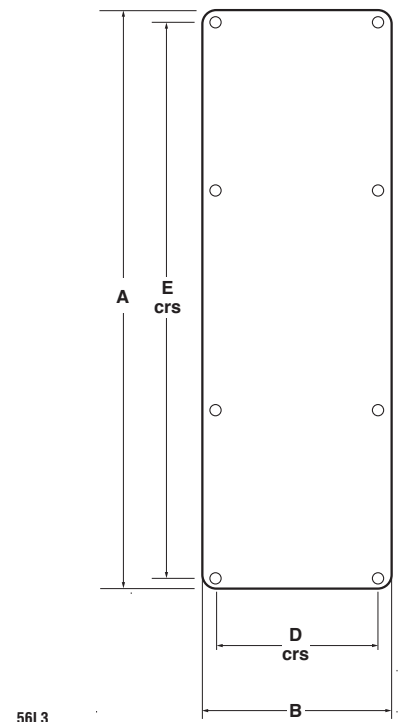
One gang, 28mm high lids are also available pre-drilled to accept 22 or 30.5mm diameter IP56 rated push- buttons or indicating lights. Dimensions are identical to the 56L1.



56L1/22/2,GY

Catalogue Number	Hole Diameter	No. of Holes	F
56L1/22	22mm	1	-
56L1/22/2	22mm	2	20
56L1/30	30mm	1	-
56L1/30/2	30mm	2	20

### Dimensional Drawings



# Switchgear Cover Assemblies



56CB4N, GY

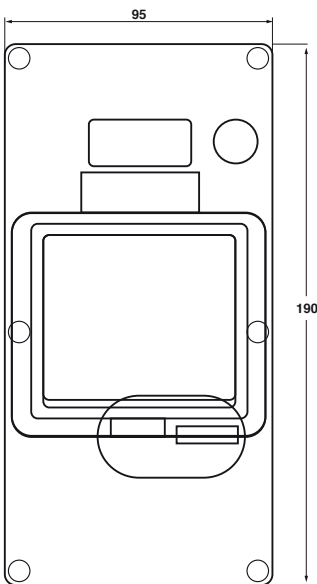


56CB4, GY



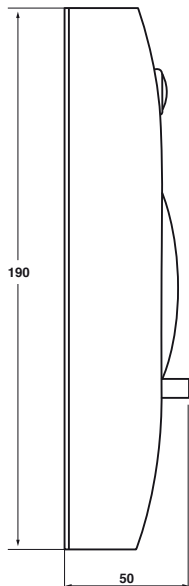
56CB4NM, GY

## Dimensional Drawings



56CB4N

FRONT COMPLETE



56CB4N

SIDE COMPLETE

## 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 Clipsal 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.

The unique protective membrane versions offer the same level of safety even when the flap is opened. A special membrane incorporated into the unit covers MCBs, RCDs and accessories to provide a barrier against dust and water, including wet hands when the flap is opened to reset switches.

All 56CB4 include a padlocking facility on the cover flap.

### Options available

- Resistant Orange - add RO to Catalogue Number e.g. 56CB4N becomes 56CB4N,RO.
- Resistant White - add RW to Catalogue Number e.g. 56CB4N becomes 56CB4N,RW.
- Chemical Grey - add CG to Catalogue Number e.g. 56CB4N becomes 56CB4N,CG.
- Protective membrane - add M to catalogue number e.g. 56CB4N becomes 56CB4NM.

### COVER WITH MOUNTING BRACKET AND NEON (LESS ENCLOSURE)

Catalogue Number	U <sub>n</sub> /U <sub>e</sub> (Volt)	Module Type	No. of Poles	Module Width	Neon Voltage	Protective Membrane
56CB4N	240V / 440V	1, 2, 3 pole MCB	4 RCD	4 max.	240V / 415V	No
56CB4	240V / 440V	1, 2, 3 pole MCB	4 RCD	4 max.	240V / 415V	No
56CB4NM	240V / 440V	1, 2, 3 pole MCB	4 RCD	4 max.	240V / 415V	Yes

# 56 Series High Pressure Gaskets



56HPG series

## High Pressure Water Gaskets

Following extensive field investigations, Clipsal has developed a new high water pressure gasket suited to the rigors of industrial environments.

In industries where hygiene is paramount (dairies, abattoirs), it was found that high-risk areas are most commonly cleaned using a 75°C, 1600psi, 25 l/min, high pressure cleaning gun with chemical cleaner added. The unique 56 Series Clipsal High Pressure Gaskets are specifically designed to cope with exposure to this kind of high water pressure blasting and are suited to 56E1, 56E2, and 56E4 enclosures.

### Features

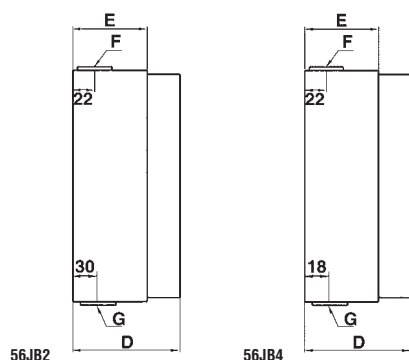
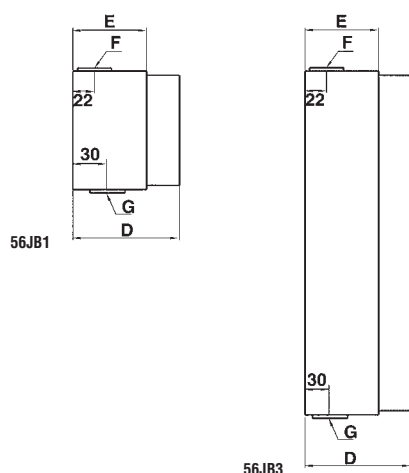
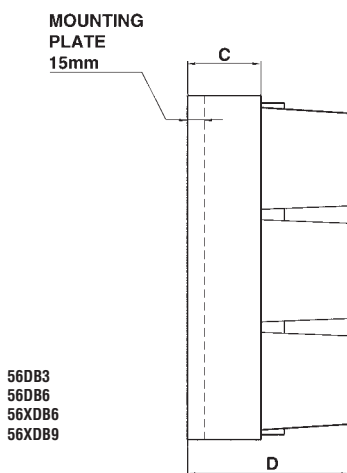
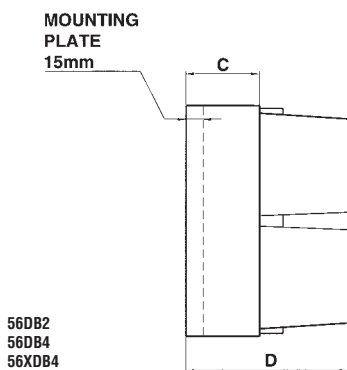
- The ideal solution for high pressure cleaning environments.
- Unique and only available from Clipsal.
- Designed to suit extreme food preparation environments.
- Made to last in our harsh Australian conditions.
- Specially developed from extensive field investigations.
- UV stabilised.
- Chemically resistant.



Catalogue Number	Description
56HPG1	1 Gang suits 56E1 encl. (back box)
56HPG2/1	2 Gang suits 56E2 encl. (back box) and 1x2 gang covers e.g. 56CV series
56HPG2/2	2 Gang suits 56E2 encl. (back box) and 2x1 gang covers e.g. 56C Series
56HPG4/3	4 Gang suits 56E4 encl. (back box) and 1x1 gang covers e.g. 56C Series
56HPG4/4	4 Gang suits 56E4 encl. (back box) and 4x1 gang covers e.g. 2 x 56C Series



## Dimensional Drawings



56DB3, 56DB6



Junction Boxes

## Adaptable Enclosures and Enclosures Covers

Clipsal Adaptable Enclosures are supplied complete with gear tray to mount control equipment, contactors, relays, time switches, transformers, etc.

Transparent deep lids (covers), sealing screws and gasket are standard.

Gear trays have eight mounting points for optimum securing. Impact resistant and UV stabilised, the backbox and gear tray are moulded in PVC and the lid in polycarbonate.

### Options available

- Resistant Orange for 56DB2 only - add RO to Catalogue Number e.g. 56DB2 becomes 56DB2,RO.
- Other resistant versions available to special order.
- COVER ONLY - Add L to catalogue number. e.g. 56XDB1 becomes 56XDB1L.

Catalogue Number	No. of Gangs	O/A Dims (H) x (W) x (D)	No. of mounting points	IP Rating	Cut Outs (mm)
56XDB1	1	165x101x101	4	IP66	1x25, 1x20
56DB2	2 with gear tray	140x101x198	8	IP66	1x25, 1x32
56DB3	3 with gear tray	140x101x294	12	IP66	2x25, 1x32
56DB4	4 with gear tray	198x198x140	16	IP66	2x25, 1x32, 1x40v
56XDB4	4 with gear tray	182x198x198	16	IP66	2x25, 1x32, 1x40
56DB6	6 with gear tray	140x198x294	24	IP66	2x25, 2x32, 2x40
56XDB6	6 with gear tray	184x198x298	24	IP66	2x25, 2x32, 2x40
56DB9	9 with gear tray	180x294x294	28	IP66	4x25, 2x32, 2x40

## Junction Boxes

56 Series Junction Boxes are designed for industrial environments. They are supplied complete with Earth and Neutral connectors for up to 3 x 6mm<sup>2</sup> cables and sealing gasket.

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

### Options available

- Resistant Orange for 56JB1 and 56JB2 only - add RO to Catalogue Number e.g. 56JB1 becomes 56JB1,RO.
- Other resistant versions available to special order.

Catalogue Number	No. of Gangs	O/A Dims (H) x (W) x (D)	IP Rating	Cut Outs (mm)
56JB1	1	91x101x101	IP66	1x25/32
56JB2	2	91x198x101	IP66	1x25, 1x32
56JB3	3	91x294x101	IP66	2x25, 1x32
56JB4	4	91x198x198	IP66	2x25, 1x32, 1x40
56JB1SWA	1 suits SWA cable applications	91x101x101	IP66	3x20

# Adaptable Enclosures



56/32, GY



56/01X, GY

## Two Aperture Enclosure IP66

Apertures suit Clipsal's popular 30 Series Mechanisms.

### Option available

- Other resistant versions available to special order.

Catalogue Number	Description
56/32	107x101x75

## Computer Surface Modules

Connection of computer and other communication equipment in factory environments is now possible with the Clipsal 56/01/1 and 56/01X.

Both units are single gang 56 Series Modules.

The 56/01/1 enables the fitting of one DB25 connector.

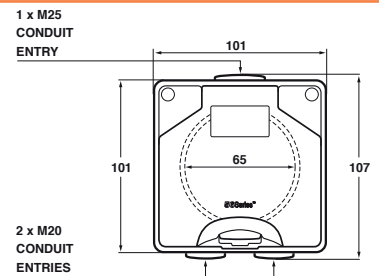
The 56/01X is a blank plate that will enable any specific customer requested configuration socket to be fitted by the installer.

### Option available

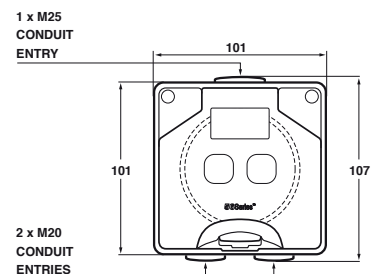
- Less enclosure - add LE to Catalogue Number e.g. 56/01/1 becomes 56/01/1LE.

Catalogue Number	Description	IP Rating	O/A Dims. (H) x (W) x (D)
56/01/1	Suits DB25 connector	66	107x101x77
56/01X	Blank unit	66	107x101x77

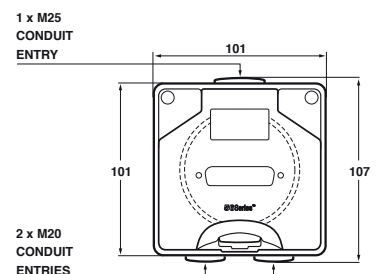
### Dimensional Drawings



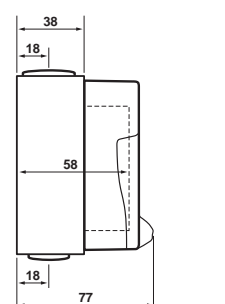
56/01X FRONT COMPLETE



56/32 FRONT COMPLETE

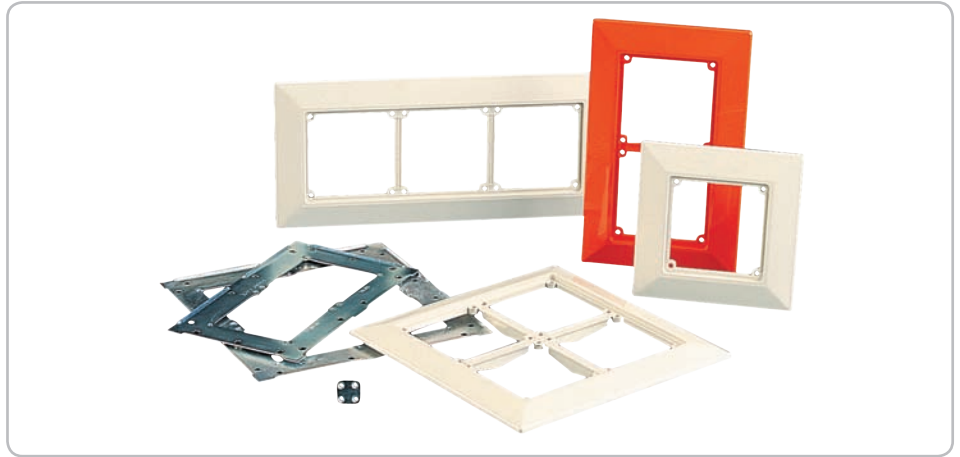


56/01/1 FRONT COMPLETE



SIDE COMPLETE

# 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, 56FA3 and 56FA4 Flush Surrounds contain a moulded flange, foam gasket and stainless steel mounting screws.

56FA1B, 56FA2B, 56FA3B and 56FA4B Flush Surrounds contain a corrosion resistant steel mounting metal bracket.

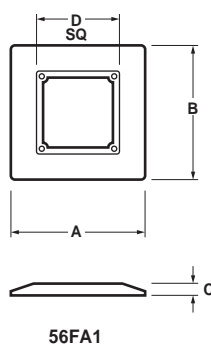
### Option available

- Resistant Orange - add RO to Catalogue Number e.g. 56FA1 becomes 56FA1,RO.
- Resistant White - add RW to Catalogue Number e.g. 56FA1 becomes 56FA1,RW.

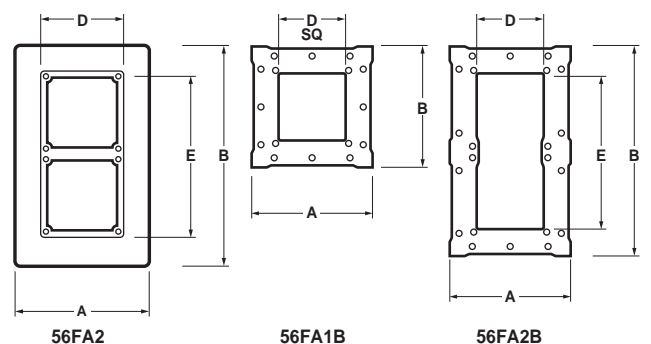
Catalogue Number	Number of Gangs	Description	Dimensions (mm)				
			A	B	C	D	E
56FA1	1	Flush surround suits single gang 56 Series	157	157	13	97	
56FA1B	1	Metal mounting bracket suits 56FA1	141	141		82	
56FA2	2	Flush surround suits two gang 56 Series	157	254	13	97	194
56FA2B	2	Metal mounting bracket suits 56FA2	141	242		82	179
56FA3	3	Flush surround suits three gang 56 Series	157	350	13	97	281
56FA3B	3	Metal mounting bracket suits 56FA3	141	338		82	275
56FA4	4	Flush surround suits four gang 56 Series	254	254	13	184	184
56FA4B	4	Metal mounting bracket suits 56FA4	242	242		179	179

### Dimensional Detail (mm)

**Moulded Surrounds**  
UV Stabilised PVC



**Metal Brackets**  
Corrosion Resistant Steel



# Adaptable Enclosures



56SB4,GY



56SB13,GY

## 56 Series Distribution Board

Available in a fully modular design that lets you mix and match from 2 to 16 gangs. With an IP66 rating they come in High Impact Grey (GY) and Chemical Resistant Orange (RO). You can make your own switchboard by fixing module devices together.

### Features

- 4 and 13 modules wide to suit DIN Rail RCDs, MCBs, MCB/RCD and accessories.
- Deep cover for ample wiring room above and below the DIN rail.
- Solid damage resistant cover.
- Cover latches open for easy maintenance.
- Space above MCBs to accept locking off and padlocking accessories.
- IPA identification drill outs.
- Time saving drop in cradle for easier cable installation on 56SB4.
- 563/10 Earth and neutral terminator accommodating 3 x 6mm<sup>2</sup> cables.

### 56SB4

Features a lockable cover for padlocking up to 7mm diameter clasp. Full size heavy-duty Neutral bar to accept 1 x 35mm<sup>2</sup>, 4 x 16mm<sup>2</sup> and 1 x 35mm<sup>2</sup>. Neutral bar raised above the base for easy termination.

### Options available:

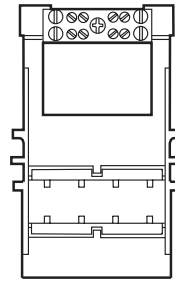
- Special 56E8 and 56E9 Mounting Enclosures (backboxes) available with removable pillar to suit 56SB13 add SB to cat no. e.g. 56E8 becomes 56E8SB.
- Less enclosure - add LE to catalogue number e.g. 56SB13 becomes 56SB13LE.
- Resistant Orange for 56SB4 - add RO to catalogue number e.g. 56SB4 becomes 56SB4,RO.

### 56SB13

Features a lockable cover for padlocking up to 7mm diameter hasp. Full size heavy-duty Neutral Earth bar to accept

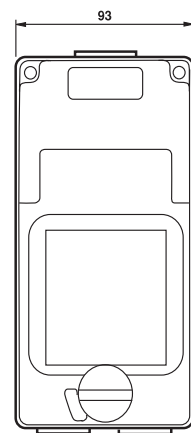
- 2 x 35mm<sup>2</sup>
- 5 x 16mm<sup>2</sup> unprotected / 2 x 35mm<sup>2</sup>, 8 x 16mm<sup>2</sup> protected and 2 x 35mm<sup>2</sup>,
- 12 x 16mm<sup>2</sup> Earth.
- Neutral/Earth bar raised above the base for easy termination.

## Dimensional Drawings



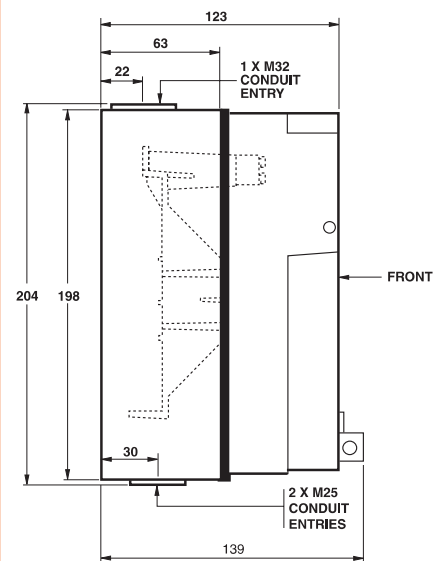
56SB4

MOUNTING CRADLE



56SB4

FRONT COMPLETE



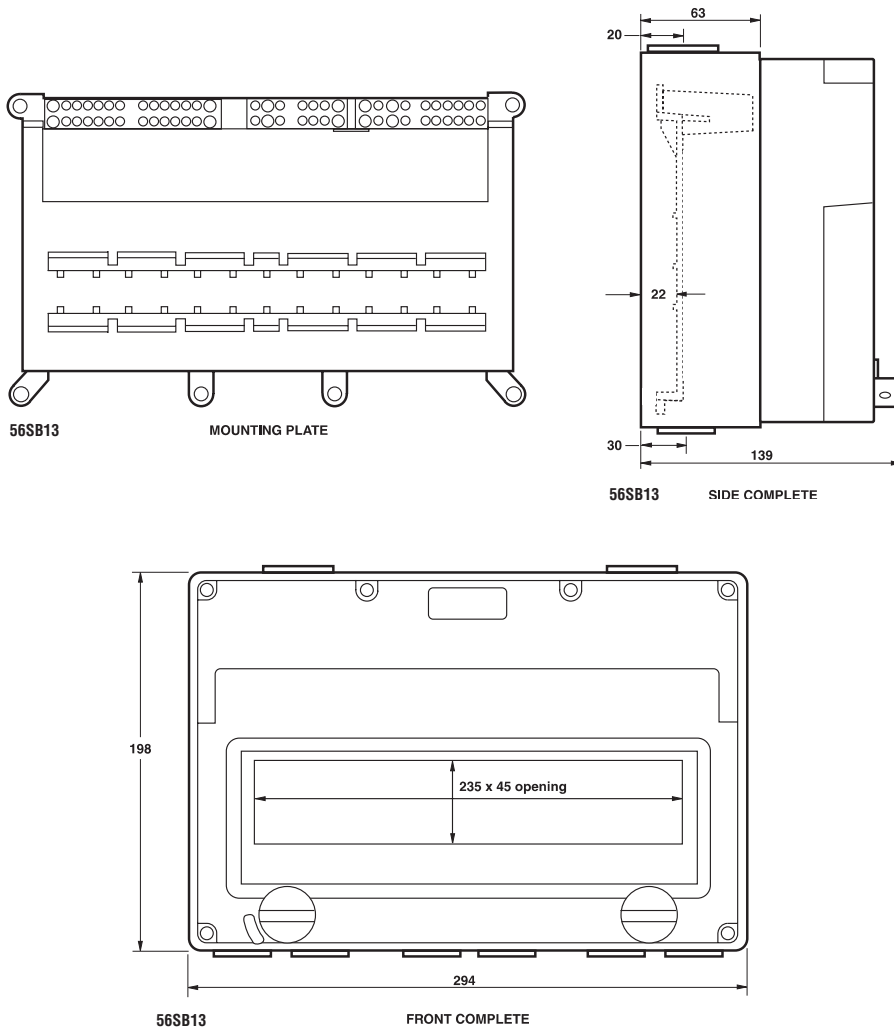
56SB4

SIDE COMPLETE

Catalogue Number	Description
56SB4	Supplied with Neutral bar and Earth Connector - suits 4 modules full DIN (IP66)
56SB13	Supplied with Neutral and Earth bars - 13 module - full DIN rail - 12 pole busbar (IP66)
56SBLK	KG locking kit to suit 56SB4 and 56SB13



## Dimensional Drawings



56JB1SWA, GY

## Armoured Cable Junction Box

Available in High Impact Grey (GY) and Chemical Resistant Orange (RO), this 56 Series Junction Box is ideal for installation where cables tee-off to luminaires.

Steel wire armoured cables are internally Earthed using a special mounting plate to ensure an IP66 rating. The plate is fitted with 70mm wide DIN rail for DIN style terminals. Space from the DIN rail to the lid is 58mm.

Each enclosure comes with loose 5 x 563/10 Active Terminals, Neutral Terminal and Earth Terminal (suitable for 3 x 6mm<sup>2</sup>).

The box also comes with 3 x 20mm screwed conduit entries complete with blanking plugs.

Catalogue Number	No. of Gangs	O/A Dims. (H) x (W) x (D)	IP Rating	Cut Outs (mm)
56JB1SWA	1	107x101x90	IP66	1x25/32

# DOL Motor Starters



56DOL9/15, GY



56DOL9/1R, GY



56ROL9/10, GY

## 56 Series Motor Starters

The rugged reliability and modular construction of Clipsal 56 Series Industrial Switchgear, when combined with the cutting edge technology of the Telemecanique Series range of contactors and overload relays, will give you the most exciting breakthrough in motor control technology.

A range of rugged, dependable DOL Motor Starters for single phase motors up to 2.2kW (3.0hp) and three phase motors up to 11kW (7.5hp).

56 Series Motor Starters offer unequalled levels of design flexibility, together with superior on-the-job performance.

For maximum versatility and flexibility there are four versions in each of the single and three phase options:

- START/STOP RESET
- STOP/RESET only
- START/STOP RESET with isolating switch

### Features

- Modular flexibility. Starters can be coupled with almost any number of 56 Series Modules in one enclosure.
- Ease of wiring.
- UV stabilised for proven outdoor performance.
- Chemical Resistant Orange (RO) enclosures are available for environmentally aggressive locations.
- Hoseproof and dustproof to IP66.
- Heavy-duty impact resistant enclosure.
- Customised units can be ordered to meet individual customer requirements.

### Models available

- Direct-On-Line (DOL) Starters
- Reversing (ROL) Starters
- Enclosed Star-Delta Starters

### Option available:

- Less overload - add LO to catalogue number  
e.g. 56DOL9/1 becomes 56DOL9/1LO  
56DOL12/1 becomes 56DOL12/1LO  
56DOL16/1 becomes 56DOL16/1LO



### 56 DOL range

# DOL Motor Starters



56DOL



56YD16



56YD9

## DOL MOTOR SERIES STARTERS - 56 Series [40008]

2 Push Buttons (Stop / Reset and Start). Complete with overload\*

Catalogue Number	Motor Rating		Supplied / Fitted with	Min. Overload	Max. Overload	
56DOL9/1	4kW	9A AC3	25A AC1	LRD05	0.63	1.0A
56DOL9/1V6	4kW	9A AC3	25A AC1	LRD06	1.0	1.6A
56DOL9/2V5	4kW	9A AC3	25A AC1	LRD07	1.6	2.5A
56DOL9/4	4kW	9A AC3	25A AC1	LRD08	2.5	4.0A
56DOL9/6	4kW	9A AC3	25A AC1	LRD10	4.0	6.0A
56DOL9/8	4kW	9A AC3	25A AC1	LRD12	5.5	8.0A
56DOL9/10	4kW	9A AC3	25A AC1	LRD14	7.0	10.0A
56DOL12/1	5.5kW	12A AC3	25A AC1	LRD16	9.0	13.0A
56DOL16/1	7.5kW	16A AC3	25A AC1	LRD21	12.0	18.0A
56DOL22/1	11kW	25A AC3	40A AC1	LRD22	16.0	24.0A

### Reset Version - Push Button

56DOL9/1R	4kW	9A AC3	25A AC1	LRD05	0.63	1.0A
56DOL9/1V6R	4kW	9A AC3	25A AC1	LRD06	1.0	1.6A
56DOL9/2V5R	4kW	9A AC3	25A AC1	LRD07	1.6	2.5A
56DOL9/4R	4kW	9A AC3	25A AC1	LRD08	2.5	4.0A
56DOL9/6R	4kW	9A AC3	25A AC1	LRD10	4.0	6.0A
56DOL9/8R	4kW	9A AC3	25A AC1	LRD12	5.5	8.0A
56DOL9/10R	4kW	9A AC3	25A AC1	LRD14	7.0	10.0A
56DOL12/1R	5.5kW	12A AC3	25A AC1	LRD16	9.0	13.0A
56DOL16/1R	7.5kW	16A AC3	25A AC1	LRD21	12.0	18.0A
56DOL22/1R	11kW	25A AC3	40A AC1	LRD22	16.0	24.0A

### Switch Version - 2 Push Button (Stop/Reset / and Start) and Isolating Switch\*\*

56DOL9/1S	4kW	9A AC3	25A AC1	LRD05	0.63	1.0A
56DOL9/1V6S	4kW	9A AC3	25A AC1	LRD06	1.0	1.6A
56DOL9/2V5S	4kW	9A AC3	25A AC1	LRD07	1.6	2.5A
56DOL9/4S	4kW	9A AC3	25A AC1	LRD08	2.5	4.0A
56DOL9/6S	4kW	9A AC3	25A AC1	LRD10	4.0	6.0A
56DOL9/8S	4kW	9A AC3	25A AC1	LRD12	5.5	8.0A
56DOL9/10S	4kW	9A AC3	25A AC1	LRD14	7.0	10.0A
56DOL12/1S	5.5kW	12A AC3	25A AC1	LRD16	9.0	13.0A
56DOL16/1S	7.5kW	16A AC3	25A AC1	LRD21	12.0	18.0A
56DOL22/1S	11kW	25A AC3	40A AC1	LRD22	16.0	24.0A

\* Stop / reset button is mushroom head type, 40mm diameter and applies to 56DOL9, 56DOL12 and 56DOL16. Operating Temperature - 20 to +60°. 415V AC rated. 56DOL22 has extended 'stop / reset' and flush 'start' buttons.

\*\* Stop / reset button is mushroom head type, 40mm diameter and applies to 56DOL9S, 56DOL12S and 56DOL16S. Operating Temperature - 20 to +60°. 415V AC rated. 56DOL22S have extended 'stop / reset' and flush 'start' Buttons.

## 56 SERIES DOL STARTERS - SPARE COVERS

To replace the cover over the starter only.  
Available in Grey (GY) or Chemically Resistant Orange (RO)

Catalogue Number	Description
56DOL9CVR/1	To suit 56DOL9, 12 & 16 range, includes cover and cradle

## STAR DELTA MOTOR STARTERS - 56 SERIES [40009]

2 Push Buttons (Stop / Reset and Start). Complete with Overload\*\*\*

Catalogue Number	Motor Rating	Supplied / Fitted with	Min Overload	Max Overload
56YD9/1	7.5kW	LRD14	7.0	10.0A
56YD12/1	11kW	LRD16	9.0	13.0A
56YD16/1	15kW	LRD21	12.0	18.0A

## REVERSING DOL MOTOR STARTERS - 56 SERIES [40010]

Two Contactor Version. 3 Push Buttons (Fwd - Stop / Reset - Rev).  
Complete with Overload in 56 Series Enclosures (IP66)\*\*\*\*

Catalogue Number	Motor Rating	Supplied / Fitted with	Min Overload	Max Overload
56ROL9/10	4kW	9A AC3 25A AC1	LRD14	7.0 10.0A

\*\*\* 415V AC control, 3-30 second adjustable run up delay and 20-300 millisecond adjustable transition delay, 30 starts per hour.

\*\*\*\*Operating temperature - 20 to +60°. 415V AC rated.

Note: All starters are available for 240V AC coil - add "B" to catalogue number. Other coil voltage and overloads are available as a special.

# Industrial Switchgear Accessories



**56D**

## Condensation Drain

### Catalogue Number 56D

Where condensation build up is a problem. The 56D is made from chemically resistant nylon and comes complete with lock nut.

Note: Installation of the 56D will derate the product to IP54.



**56SOAUX15**

## Auxiliary Switch - 56 Series

### Catalogue Number 56SOAUX15

Suits 415V sockets. Used to indicate if plug is connected or not.

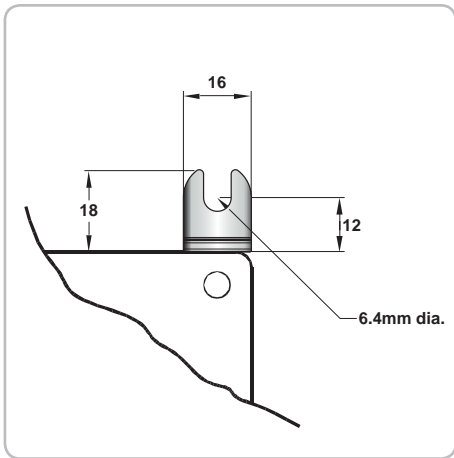


**56G1**

## 56 Series 1 Gang Gasket

### Catalogue Number 56G1

Replacement single gang gasket. Rated IP66.



**56MF**

## Mounting Feet & Pole Mounting Brackets

### Catalogue Number 56MF

Mounting feet and stainless steel mounting screws (1¼" x 10 gauge) are provided to space 56 Series accessories off walls used in food industries.

The 56MF is designed to be used in conjunction with food industry 280MC Mounting Channels and 280 Series 25mm Conduit Clips.

### Catalogue No. 56PMK

A heavy-duty stainless steel pole mounting kit made of 316 Grade stainless steel. Comes complete with 4¾" and 1¼" size stainless steel mounting screws.



**56SWAUX15**

## Auxiliary Switch - 56 Series

### Catalogue Number 56SWAUX15

Suits 63A switches. Used to indicate if switch is 'on' or 'off'.



**56SOLOCK**

## Lock for Socket Flaps - 56 Series

### Catalogue Number 56SOLOCK

Suits all products equipped with flap.

# Industrial Switchgear Accessories



**56G2**

### 56 Series 2 Gang Gasket

**Catalogue Number 56G2**

Replacement double gang gasket.



**56LEDK1**

### Single Phase Red LED

**Catalogue Number 56LEDK1**

Field fit kits includes LED on flying leads, lens, o-ring, drill bit 5.5mm (7/32) and instructions.

LEDs provide more reliability and extended life compared to traditional neons used in 56 Series.



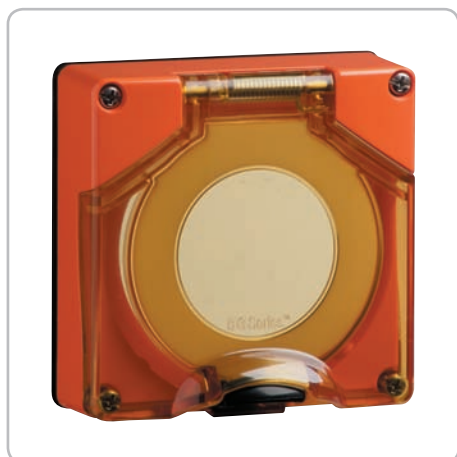
**56LEDK3**

### Three Phase Red, White, Blue LED

**Catalogue Number 56LEDK3**

Field fit kits includes LED on flying leads, lens, o-ring, drill bit 5.5mm (7/32) and instructions.

LEDs provide more reliability and extended life compared to traditional neons used in 56 Series.



**56SOCOVER,RO**

### Replacement Socket Cover - 56 Series

**Catalogue Number 56SOCOVER**

Available in High Impact Grey (GY), Chemically Resistant Orange (RO), Chemically Resistant White (RW) or Chemically Resistant Grey (CG).

Catalogue Number	Description
<b>56D</b>	Condensation Drain with Lock Nut
<b>56SOAUX15</b>	Auxiliary Switch for 56 Series 415V Sockets
<b>56G1</b>	56 Series 1 Gang Gasket
<b>56G2</b>	56 Series 2 Gang Gasket
<b>56LEDK1</b>	Single Phase LED kit 240/415V Red
<b>56LEDK3</b>	Three Phase LED Kit 240/415V Red, White, Blue
<b>56MF / 56PMK</b>	Mounting Feet with Screws / Heavy Duty Pole Mounting Kit
<b>56SWAUX15</b>	Auxiliary Switch for 63A Switches
<b>56SOLOCK</b>	Lock for Socket Flaps
<b>56SOCOVER</b>	Replacement Socket Cover

# 66 Series Switched Socket Outlets



66CV563,RO

## 66CV SWITCHED SOCKET OUTLETS

Major features of the 66CV Series are its robust PVC back box and polyester cover that provide excellent chemical and high impact resistance as well as UV stability, in a neat, compact unit that's quick and easy to install.

An internal interlock is fitted to the outlet to prevent insertion or withdrawal of the plug (provided the plug is fitted with an interlock facility) while the switch is in the 'ON' position.

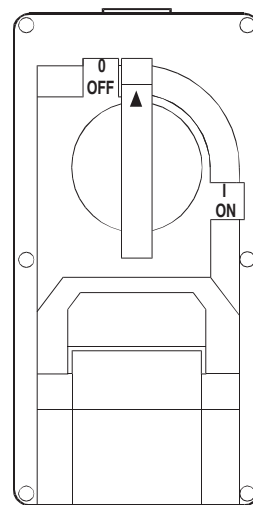
66CV Series Combination Switched Socket Outlets also incorporate a padlock facility in the 'OFF' position for added safety and security.

Hole diameter 7.8mm.

### Option available

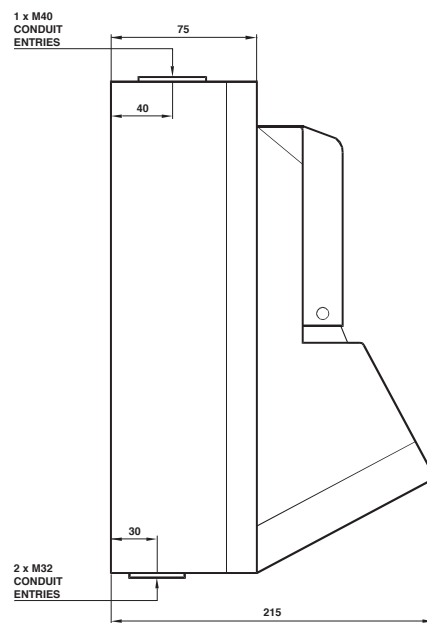
- Resistant Orange - add RO to Catalogue Number e.g. 66CV450 becomes 66CV450,RO.

### Dimensional Drawings



FRONT COMPLETE

66CV450  
66CV463  
66CV550  
66CV563  
66CV750  
66CV763



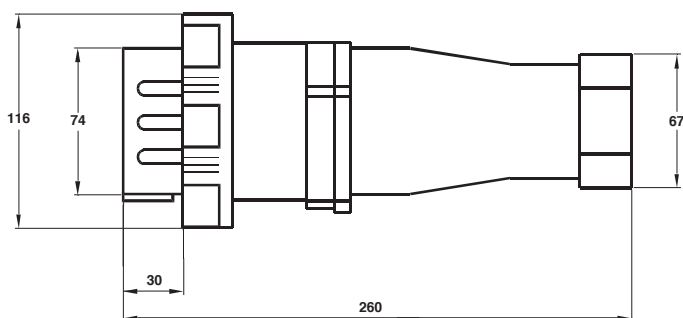
SIDE COMPLETE

Catalogue Number	No. of Switch Poles	I <sub>the</sub> (Amp)	U <sub>i</sub> (Volt)	I <sub>e</sub> (A) Utilisation at U <sub>e</sub> =415V			M Rating	Number of Sockets	Conductor Terminal Size in mm <sup>2</sup>		IP Rating	O/A Dims. (H) x (W) x (D)	Matching Plug Straight
				AC21A	AC22A	AC23A			Min.	Max			
66CV450	3	50A	500V	50	50	40	-	4	10	25	66	320x160x215	66P450
66CV550	4	50A	500V	50	50	40	-	5	10	25	66	320x160x215	66P550
66CV750	4	50A	500V	50	50	40	-	7	10	25/2.5	66	320x160x215	66P750
66CV463	3	63A	500V	63	63	50	-	4	16	35*	66	320x160x215	66P463
66CV563	4	63A	500V	63	63	50	-	5	16	35*	66	320x160x215	66P563
66CV763	4	63A	500V	63	63	50	-	7	16	25/2.5	66	320x160x215	66P763

Note: AC utilisation categories to AS3947.3 Some restrictions may apply if using conduit for 35mm<sup>2</sup> conductors I<sub>e</sub> - Conventional Enclosed Thermal Current U<sub>i</sub> - Insulation Voltage I<sub>o</sub> - Operational Current

# 66 Series Straight Plugs

## Dimensional Drawings

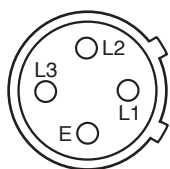


66P450  
66P463  
66P550  
66P563  
66P750  
66P763

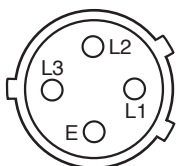


66P563(E0)

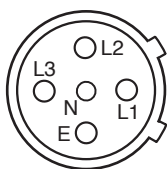
## Dimensional Drawings



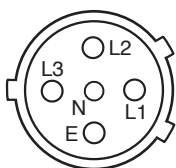
66P450



66P463



66P550



66P563

## 66P Series Straight Plugs

The 66P Series Straight Plug is constructed from fully moulded, transparent polycarbonate. This makes for easy installation and instant visual checking of connections. All models are also insulated for operator safety.

Designed for heavy industrial areas, all 66P models are impact resistant, insulated and contain corrosion proof metal components and UV stabilised mouldings.

For convenience and safety the plug can be used with gloved hands and has a mechanical interlock facility to prevent withdrawal of the socket outlet while the power is still on.

### Options available

- Spare cable clamp Catalogue Number 66PCC.
- Resistant Orange - add RO to Catalogue Number. e.g. 66P450 becomes 66P450,RO.

Catalogue Number	$I_{th}$ (Amp)	$U_i$ (Volt)	No. of Pins	Conductor Terminal Size in (mm <sup>2</sup> )		Cable Nominal Diameter (in mm)		IP Rating	Entry Size (mm)
				Min.	Max/Cond.	Min.	Max.		
66P450	50A	500V	4	6	25	25.5	40	66	50
66P550	50A	500V	5	6	25	25.5	40	66	50
66P750	50A	500V	7	6	25/10	25.5	40	66	50
66P463	63A	500V	4	6	25	25.5	40	66	50
66P563	63A	500V	5	6	25	25.5	40	66	50
66P763	63A	500V	7	6	25/10	25.5	40	66	50

$I_{th}$  - Conventional Free Air Current  $U_i$  - Operational Current

## Internal Socket and Pin Housings

As with the 56 Series, the 66 Series offers a full range of replacement socket and pin housings.

They eliminate the expense of replacing an entire unit if only the housing is damaged.

Catalogue Number	$I_{th}$ (Amp)	$U_i$ (V)	No. of Pins	Conductor Term. Size in mm <sup>2</sup>	
				Min.	Max/Cond.
66S0450G	50A	500V	4	10	25
66S0463G	63A	500V	4	16	25
66S0550G	50A	500V	5	10	25
66S0563G	63A	500V	5	16	25
66S0750G	50A	500V	7	10	25/2.5
66S0763G	63A	500V	7	16	25/2.5
66P450G	50V	500V	4	6	25
66P463G	63V	500V	4	6	25
66P550G	50V	500V	5	6	25
66P563G	63V	500V	5	6	25
66P750G	50V	500V	7	6	25/10
66P763G	63V	500V	7	6	25/10

# Lloyd Registered Products for Shipping Approvals

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

<b>500V Three Phase Sockets</b>	56SW132	<b>500V Three Phase Combination Switched Sockets</b>	<b>250V and Low Voltage Switched Sockets (Single and Double Pole Combination)</b>	56PA440	56P320
56SO410	56SW150	56C410	<b>2 Module</b>	56PA450	56P320F
56SO420	56SW163	56C420	56C210	56PA510	56P332
56SO432	56SW220	56C432	56C215/32	56PA520	56PA320
56SO440	56SW232	56C440	56C3/110	56PA532	56PA332
56SO450	56SW250	56C450	56C310D	56PA540	<b>Appliance Inlets</b>
56SO510	56SW263	56C510	56C310L	56PA550	56AI310
56SO520	56SW310	56C520	56C310RP	56PA610	56AI315
56SO532	56SW320	56C532	56C313	56PA710	56AI410
56SO540	56SW332	56C540	56C315	56PA720	56AI420
56SO550	56SW340	56C550	56C315D	<b>Straight</b>	56AI432
56SO610	56SW350	56C610	56C320	56P410	56AI440
56SO710	56SW363	56C610	56C320	56P420	56AI450
56SO720	<b>250V Two-way Switches (Single and Twin with Sliding Switch Dollies)</b>	56C710	56C332	56P432	56AI510
<b>250V and Extra Low Voltage Sockets</b>	56SSW10	56C720	<b>With Standard One Piece Cover</b>	56P440	56AI520
56SO210	56SSW15	56CV410	56CV310	56P450	56AI532
56SO215/32	56SSW2/10	56CV420	56CV315	56P450	56AI540
56SO3/110	56SSW2/15	56CV432	56CV320	56P510	56AI550
56SO310		56CV440	56CV332	56P520	
56SO310L		56CV450	<b>With Interlock</b>	56P532	<b>500V Three Phase Appliance Connectors</b>
56SO310RP		56CV510	56CVI320	56P540	56CSC410
56SO313		56CV520	56CVI332	56P550	56CSC420
56SO315		56CV532	<b>500V Three Phase Plugs</b>	56P610	56CSC432
56SO320		56CV540	<b>Angle</b>	56P710	56CSC440
56SO320F		56CV550	56PA410	56P720	56CSC450
56SO332		56CV610	56PA420	<b>250V a.c. and Low Voltage Plugs</b>	56CSC510
<b>Rotary Switches (Single, Double and Triple Pole)</b>		56CV710	56PA432	56P210	56CSC520
56SW110		56CV720		56P215/32	56CSC532
56SW110/2				56P3/110	56CSC540
56SW115				56P310	56CSC550
56SW115/2				56P310SL	
56SW120				56P310RP	
				56P313	

## Department of Industrial Relations Coal Mines Regulation Act 1982

<b>Rotary Switches (Single, Double and Triple Pole)</b>	<b>500V Three Phase Sockets</b>	<b>500V Three Phase Angle Plugs</b>
56SW120	56SO532	56PA410
56SW132	56SO550	56PA510
56SW150	56SO540	56PA520
56SW220	56SO610	56PA532
56SW250	56SO710	56PA540
56SW320	56SO720	56PA550
56SW332		56PA610
56SW350		56PA710
		56PA720

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.

**AS/NZS3133** - Approval and test specifications - air break switches.



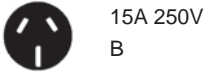
# Plug and Socket Configurations

## Plug Configurations

### 2 & 3 Pin



10A 250V  
A



15A 250V  
B



10A 250V  
C



10A 110V  
D



15A 32V  
Polarised  
E



20A 250V  
F



10A 250V  
G



20A 250V  
H



32A 250V  
I



10A 110V  
J

### 4 Pin



10A 500V  
K



20A 500V  
L



16A 500V  
(unique)  
M



32A 500V  
N

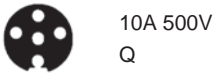


40A 500V  
O



50A 500V  
P

### 5 Pin



10A 500V  
Q



20A 500V  
R



32A 500V  
S



40A 500V  
T



50A 500V  
U

### 6 Pin



10A 500V  
V

### 7 Pin



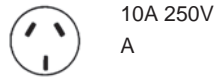
10A 500V  
W



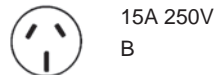
20A 500V  
X

## Socket Configurations

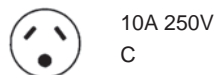
### 2 & 3 Pin



10A 250V  
A



15A 250V  
B



10A 250V  
C



10A 110V  
D



15A 32V  
Polarised  
E



20A 250V  
F



10A 250V  
G



20A 250V  
H



32A 250V  
I



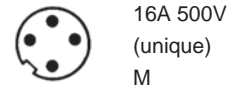
10A 110V  
J



10A 500V  
K



20A 500V  
L



16A 500V  
(unique)  
M



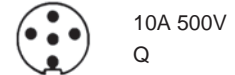
32A 500V  
N



40A 500V  
O



50A 500V  
P



10A 500V  
Q



20A 500V  
R



32A 500V  
S

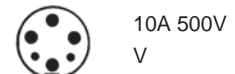


40A 500V  
T



50A 500V  
U

### 6 Pin

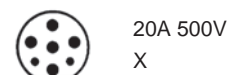


10A 500V  
V

### 7 Pin









10A 500V  
W



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

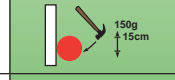
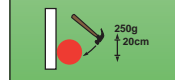



To Australian standards AS 60529-2004  
Degrees of protection provided by enclosures.  
(IP Code)

## 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)

Clipsal 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 1½ 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.

Cable Size - Nominal Area of Conductor mm <sup>2</sup>	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

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

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

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

## Electric Motors

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

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

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

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

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

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

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 <sup>2</sup>
Volume	V	m <sup>3</sup>
Weight	m	kg
Density	P	kg/m <sup>3</sup>
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	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 <sub>th</sub>	A
Conventional Enclosed	I <sub>the</sub>	A
Thermal Current	61/2.85	31.4
Voltage	U	V (Volts)
Insulated Voltage	U <sub>i</sub>	V
Operational Voltage	U <sub>e</sub>	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 (Tesca)
Temperature	t	°C (Centigrade)
Illuminance	E	l x (Lux)
Luminance	L	cd/m <sup>2</sup>
Luminous Flux	Ø	lm (Lumen)
Luminous Intensity	I	cd (Candela)

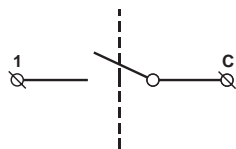
### Abbreviations for Multiples and Sub Multiples

T	tera	10 <sup>12</sup>
G	giga	10 <sup>9</sup>
M	mega	10 <sup>6</sup>
k	kilo	10 <sup>3</sup>
d	deci	10 <sup>-1</sup>
c	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

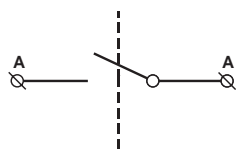
Quality	Non-SI Unit	Metric	Conversion Factors (approx.) Non-SI to Metric (SI) Units	Metric (SI) to Non-SI Units
Length	Inch (in)	Millimetre (mm) or Centimetre (cm)	1 in = 25.4mm	1 cm = 0.39 in
	Foot (ft)	Centimetre (cm) or Metre (m)	1 ft = 30.5 cm	1 m = 3.28 ft
	Yard (yd)	Metre (m)	1 yd = 0.914 m	1 m = 1.09 yd
	Mile	Kilometre (km)	1 mile = 1.61 km	1 km = 0.62 mile
Area	Square Inch (in <sup>2</sup> )	Square Millimetre (mm <sup>2</sup> )	1 in <sup>2</sup> = 645 mm <sup>2</sup>	1 mm <sup>2</sup> = 0.002 in <sup>2</sup>
	Square Inch (in <sup>2</sup> )	Square Centimetre (cm <sup>2</sup> )	1 in <sup>2</sup> = 6.45 cm <sup>2</sup>	1cm <sup>2</sup> = 0.155 in <sup>2</sup>
	Square Foot (ft <sup>2</sup> )	Square Centimetre (cm <sup>2</sup> ) or Square Metre (m <sup>2</sup> )	1 ft <sup>2</sup> = 929 cm <sup>2</sup>	1 m <sup>2</sup> = 10.76 ft <sup>2</sup>
	Square Yard (yd <sup>2</sup> )	Square Metre (m <sup>2</sup> )	1 yd <sup>2</sup> = 0.836m <sup>2</sup>	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 (km <sup>2</sup> )	1 Square Mile = 2.59 km <sup>2</sup>	1 km <sup>2</sup> = 0.387 sq. mile
Volume	Cubic Inch (in <sup>3</sup> )	Cubic Centimetre (cm <sup>3</sup> )	1 in <sup>3</sup> = 16.4 cm <sup>3</sup>	1 cm <sup>3</sup> = 0.06 in <sup>3</sup>
	Cubic Inch (ft <sup>3</sup> )	Cubic Decimetre (dm <sup>3</sup> ) 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 (yd <sup>3</sup> )	Cubic Metre (m <sup>3</sup> )	1 yd <sup>3</sup> = 0.765m <sup>3</sup>	1 m <sup>3</sup> = 1.31 yd <sup>3</sup>
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 <sup>3</sup> )	1 gal UK = 4.55 l	1 m <sup>3</sup> = 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 <sup>2</sup> )	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> O)	Pascal (Pa)	1 in H <sub>2</sub> O = 249 Pa	1 Pa = 0.004 in H <sub>2</sub> 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)	$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$	$^{\circ}\text{F} = \frac{9}{5} (^{\circ}\text{C}) + 32$
Density	Pound per cubic inch (lb/in <sup>3</sup> )	Gram per cubic centimetre (g/cm <sup>3</sup> ) = tonne per cubic metre (t/m <sup>3</sup> )	1 lb/in <sup>3</sup> = 27.7 t/m <sup>3</sup>	1 t/m <sup>3</sup> = 0.036 lb/in <sup>3</sup>
	Pound per cubic foot (lb/ft <sup>3</sup> )	Kilogram per cubic metre (kg/m <sup>3</sup> )	1 lb/ft <sup>3</sup> = 16.02 kg/m <sup>3</sup>	1 kg/m <sup>3</sup> = 0.06 lb/ft <sup>3</sup>
	Ton per cubic yard (ton/yd <sup>3</sup> )	Tonne per cubic metre (t/m <sup>3</sup> )	1 ton/yd = 1.33 t/m <sup>3</sup>	1 t/m <sup>3</sup> = 0.752 ton/yd <sup>3</sup>
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 <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 Consumption	Mile per gallon (mpg)	Litres per 100 m	$\frac{(n) \times \text{mpg}}{n} = \frac{2821}{100} \text{ km}$	$\frac{(n) \times 1/100 \text{ km}}{n} = 282$

# Switch Wiring Diagram Types

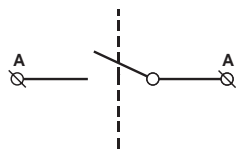


Switch is 30 Series mech.

56C215/32	56C310C	56SW110
56C210	56C3/110	56SW115
56C310	56C310RP	
56C315	56CV310	
	56CV315	

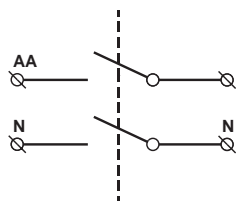


56C310HD  
56C315HD



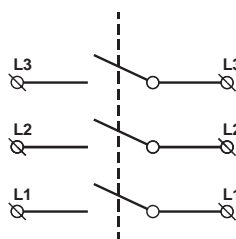
Switch terminals are not identified  
Switch is backwired  
Conductor termination is pressure plate type

56C320	56SW110HD
56CV310HD	56SW115H
56CV310HD	56SW120
	56SW132
	56SW150
	56SW163



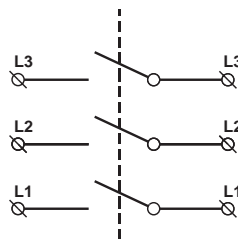
Switch terminals are not identified  
Switch is backwired  
Conductor termination is pressure plate type

56C310D  
56C315D



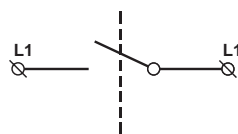
Switch terminals are not identified  
Switch is backwired  
Conductor termination is pressure plate type

56C410	56CV410	56CV710	56K1SW310
56C420	56CV420	56CV720	56K1SW320
56C416K	56CV510	56CV432	56K2SW310
56C510	56CV520	56CV532	56K2SW320
56C520	56CV416K	56CV440	
	56CV610	56CV450	



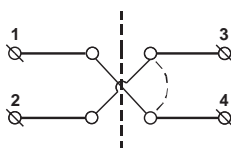
Switch terminals are not identified  
Switch is backwired  
Conductor termination is plain screw type

56SWH	66CV450	56SW363/2	56C610	56C432	56C550
56SWH 325	66CV463	56SW363	56C710	56C532	56CV540
56SWH 363		56SW350	56C720	56C450	56CV550
56SWH 340		56SW332	56C440	56C540	56SW310
56SWH 380					56SW320

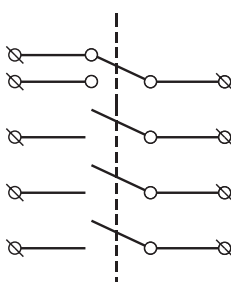


Switch terminals are not identified  
Switch is backwired  
Conductor termination is plain screw type

56K1SW120  
K6K2SW120



56SW110/1  
56SSW10/1



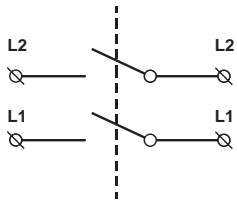
56SW363 with  
56SWAUX15

**MICRO**

Switch terminals are not identified  
Switch is backwired  
Conductor termination is plain screw type

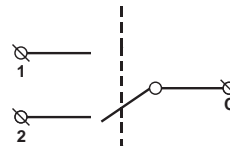
Replaces  
56C320C  
56C332C  
56C350C

# Switch Wiring Diagram Types



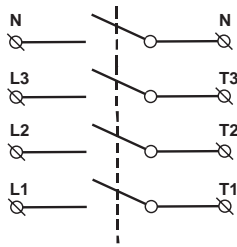
Switch is sidewired  
Conductor termination is pressure plate type

56SW220	56K1SW220
56SW232	56K2SW220
56SW250	
56SW263	



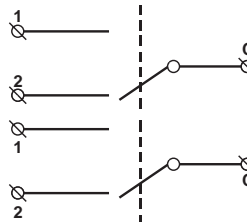
Switch is 30 Series mech.

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



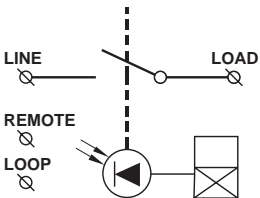
If neutral potential is applied to remote terminal timer function is overridden

56SW420
56SWH425
56SWH440
56SWH463
66CV550
66CV563
66CV750
66CV763



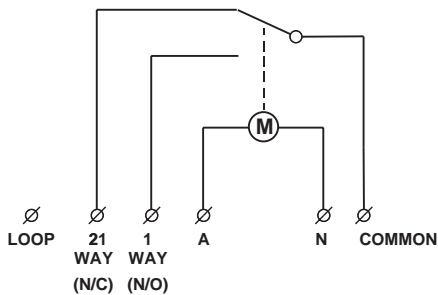
Circuit is shown in the 'OFF' position

56SSW2/10
56SSW2/15



Switch is sidewired  
Conductor termination is pressure plate type

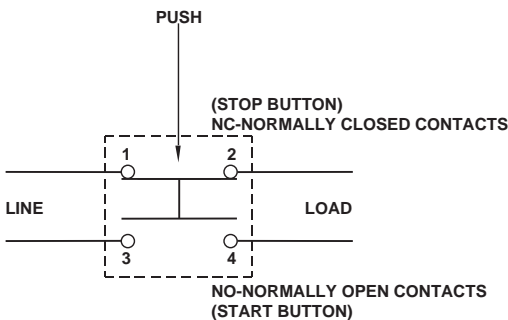
56SSR



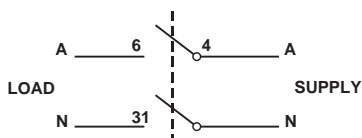
Switch is 30 Series mech.

Conductor termination is pressure plate type

56CTC
56CTC15
56CTC2SO
56CTC2SO15
56TC
56TC7
56TCDB

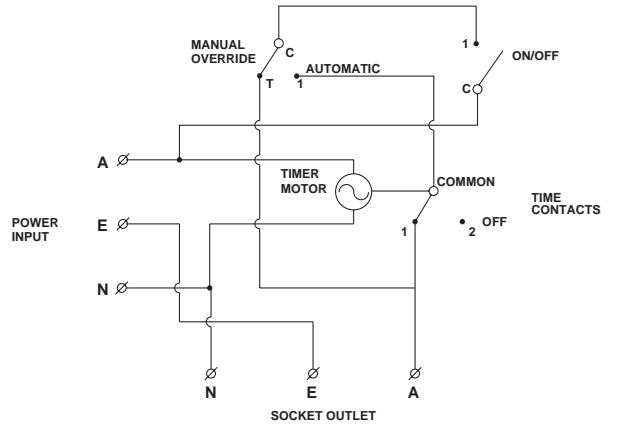
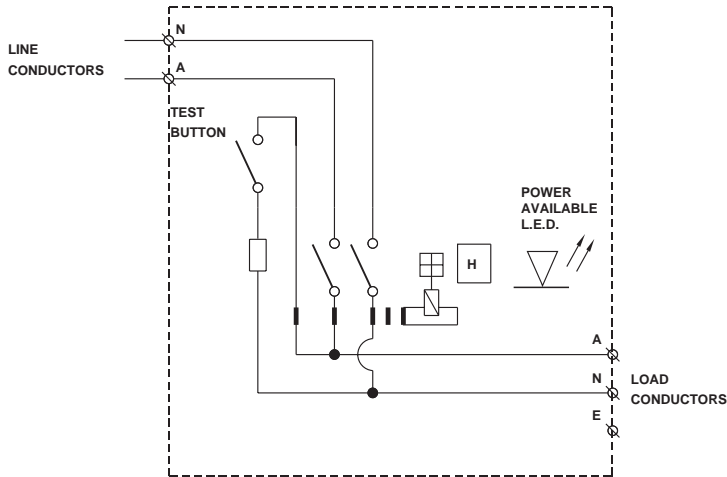


56PB	(No Marking, Colour Green, Non Latching)
56PBS	(Stop, Colour Red, Non Latching)
56PBS1	(Emergency Stop, Marked on Switch and Plate, Colour Red Mushroom, Latching)
56PBS2	(Stop, Colour Red Mushroom, Latching)
56/2PB	(Stop/Start, Colour Red/Green, Non Latching)
56/2PBS1	(Stop, Colour Red Mushroom, Latching)(Start, Colour Green, Non Latching)



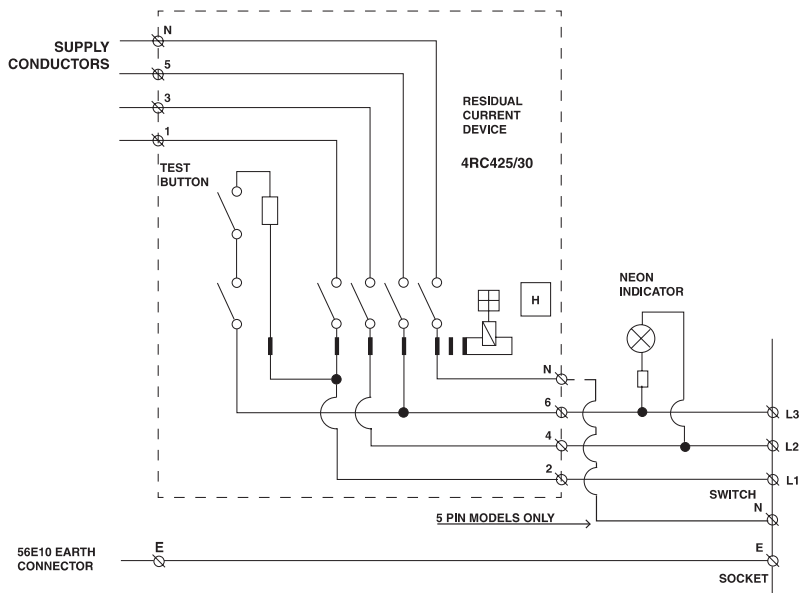
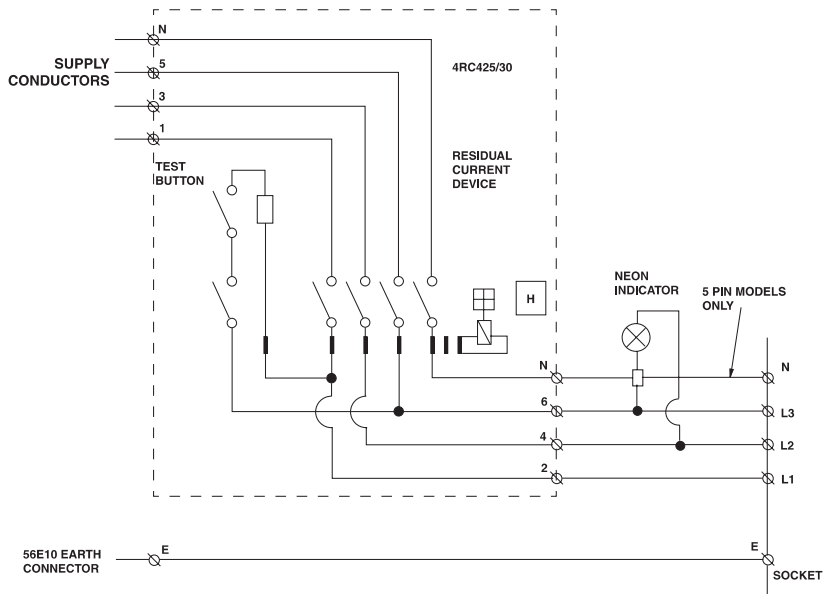
56SWT216

# Wiring Diagram Types



56CTC Series wiring identification

Switches are 30 series mech



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56/2PBS1	21	56C550	13	56DOL9/1R	51
56AI310	16	56C610	13	56DOL9/1RB	51
56AI315	16	56C710	13	56DOL9/1S	51
56AI320	16	56C720	13	56DOL9/1SB	51
56AI332	16	56CB4N	43	56DOL9/1V6	51
56AI410	16	56CB4	43	56DOL9/1V6B	51
56AI420	16	56CB4NM	43	56DOL9/1V6R	51
56AI432	16	56CSC310	31	56DOL9/1V6RB	51
56AI440	16	56CSC315	31	56DOL9/1V6S	51
56AI450	16	56CSC320	31	56DOL9/1V6SB	51
56AI510	16	56CSC332	31	56DOL9/2V5	51
56AI520	16	56SC2	31	56DOL9/2V5B	51
56AI532	16	56CSC410	31	56DOL9/2V5R	51
56AI540	16	56CSC420	31	56DOL9/2V5RB	51
56AI550	16	56CSC432	31	56DOL9/2V5S	51
56AM25	32	56CSC440	31	56DOL9/2V5SB	51
56B	40	56CSC450	31	56DOL9/4	51
56C210	12	56CSC510	31	56DOL9/4B	51
56C215/32	12	56CSC520	31	56DOL9/4R	51
56C3/110	12	56CSC532	31	56DOL9/4RB	51
56C310RP	12	56CSC540	31	56DOL9/4S	51
56C310	12	56CSC550	31	56DOL9/4SB	51
56C315ELP	12	56CTC	36	56DOL9/6	51
56C310EL2P	12	56CTC15	36	56DOL9/6B	51
56C310HD	12	56CTC2SO	36	56DOL9/6R	51
56C310L	12	56CTC2SO15	36	56DOL9/6RB	51
56C310RC	12	56CV310	12	56DOL9/6S	51
56C310/4EL	12	56CV310HD	12	56DOL9/6SB	51
56C315	12	56CV315	12	56DOL9/8	51
56C315HD	12	56CV315HD	12	56DOL9/8B	51
56C315RC	12	56CV320	12	56DOL9/8R	51
56C315/4EL	12	56CV332	12	56DOL9/8RB	51
56C320	12	56CV410	12	56DOL9/8S	51
56C332	12	56CV416K	12	56DOL9/8SB	51
56C310D	12	56CV420	12	56DOL9/10	51
56C315D	13	56CV432	12	56DOL9/10B	51
56C410	13	56CV440	12	56DOL9/10R	51
56C410RC	13	56CV450	12	56DOL9/10RB	51
56C416K	13	56CV510	12	56DOL9/10S	51
56C420	13	56CV520	12	56DOL9/10SB	51
56C420RC	13	56CV532	12	56YD9/1	51
56C432	13	56CV540	12	56ROL9/10	51
56C432RC	13	56CV550	12	56DOL12/1	51
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56C440RC	13	56CV710	12	56DOL12/1R	51
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56EV2	40	56K1SW350	23	56P532	28
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56E3	40	56K2SW132	23	56P610	28
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56E8	40	56K2SW250	23	56PA332	28
56E8SB	40	56K2SW310	23	56PA410	28
56E9	40	56K2SW320	23	56PA416K	28
56E9SB	40	56K2SW332	23	56PA420	28
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56FA2B	47	56L1/22	42	56PA510	28
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56SC310RC	34	56SO520G	15	56SWH363	19
56SC315RC	34	56SO532G	15	56SWH380	19
56SC410RC	34	56SO540G	15	56SWH380S	19
56SC420RC	34	56SO550G	15	56SWH425	19
56SC432RC	34	56SO610G	15	56SWH425S	19
56SC440RC	34	56SO710G	15	56SWH440	19
56SC510RC	34	56SO720G	15	56SWH440S	19
56SC520RC	34	56SPOK	32	56SWH463	19
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56SO320F	14	56SW115/2	17	56XDB6	45
56SO332	14	56SW120	17	56XDB1L	45
56SO4ELP15	14	56SW120,RY	18	56XDB4L	45
56SO410	14	56SW132	17	56XDB6L	45
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56SO432	14	56SW163	17		
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