56 Series™
IP66 Plugs and Connectors
16A – 50A

Tougher Plugs for a
Safer Workplace

MACTRO

Schneider Electric

MACTRO™
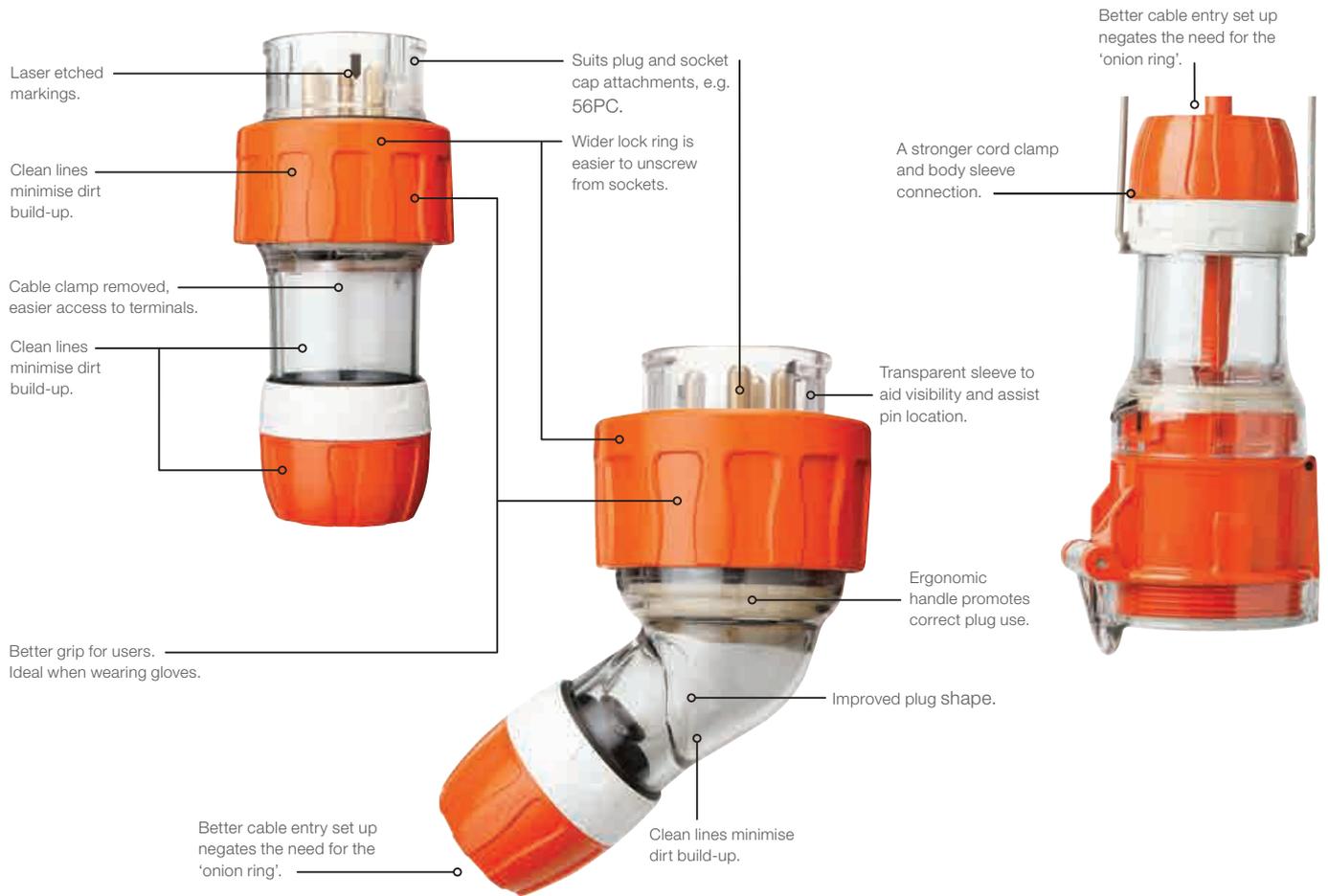
Features & Benefits

When it comes to quality and reliability, 56 Series™ sets the standard for performance and durability.

- Available in 16A, 20A, 32A, 40A and 50A options.
- Quick Connect termination available in select 16A & 20A plugs.
- IP66 rating.
- Small and large cable seals provided to suit a wide range of cable dimensions.

- Mactro™ Technology provides a revolutionary cord clamp and cable system all in one, with no need to remove the cable nut.
- Screw-less Snap Shut body assembly utilises latching spring and allows for speed, simplicity, strength and improved reliability.

Laser etched markings.

Clean lines minimise dirt build-up.

Cable clamp removed, easier access to terminals.

Clean lines minimise dirt build-up.

Better grip for users. Ideal when wearing gloves.

Suits plug and socket cap attachments, e.g. 56PC.

Wider lock ring is easier to unscrew from sockets.

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

A stronger cord clamp and body sleeve connection.

Transparent sleeve to aid visibility and assist pin location.

Ergonomic handle promotes correct plug use.

Improved plug shape.

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

Clean lines minimise dirt build-up.

SNAP-SHUT BODIES USING MACTRO TECHNOLOGY

Pin housing.

Lock-ring and sleeve.

Body.

Mactro™ Cable Seal.

Locknut.

32A to 50A.

Small cable seal.

Large cable seal.

trusted brand, built tough to last.

The facts

Performance

☑ Designed and developed in conjunction with practising electrical contractors, as well as dozens of factory visits reviewing usage and user requirements.

☑ Weak areas improved:
- A stronger cord clamp
- A stronger body and sleeve connection
- New connector flap and latch design

☑ Difficult areas improved:
- Easier to unscrew from sockets – a longer lock-ring
- Easier access for maintenance
- Better cable entry set-up (no more onion rings!)
- Fewer parts
- Easier to grip – promoting proper use

☑ 50% Time Reduction* for Installation (approximately).

  * Time studies on independent contractors after learning new assembly technique

Materials

As with the existing 56 Series™ plugs and connectors the same superior quality materials have been retained wi thin these new products as we know they have a proven performance history.

PLASTICS – industrial grade resins with outstanding high-impact strength, and UV protection. Fully orange plugs & connectors are available and use a specially formulated chemical resistant material.

METALS – corrosion resistant stainless steel parts using proven grades of materials. High conductivity brass pins on the plugs and sockets.

Testing

☑ Full Standards and Safety Testing Completed. Compliant with AS/NZS3123, AS/NZS3100, AS60529, and IEC60309

☑ Endurance Testing*:
- QC terminals – withdrawal force approximately 5 times above standards requirements
- Snap-shut bodies – 800+ operations
- MACTRO™ cord clamp and cable seal – operation in extreme heat (+55°C), and in extreme cold (-40°C)

☑ In-house testing* (compared to existing):
- Strength – cord clamp up to 12% stronger
- Strength – snap-shut body clips => 18% stronger
- Chemical resistance – body & sleeve area => withstands where existing fails (cracks)
- Impact test (destructive) => various tests results in equal to or better than the existing

In-field testing:
- Prototypes and production samples have found their way to some of the harshest environments NZ can produce.

*This is only a snap-shot of the full testing programme carried out

Accessories

Adaptor Modules

The 56AM25 and 56AM40 threaded adaptors are suitable for fitments of flexible conduit glands or hose adaptors.

To fit, simply remove existing locknut and replace with adaptor module.

- 56AM25 will suit 16A to 20A (size 1) plugs
- 56AM40 will suit 32A to 50A (size 2) plugs.

56AM25, 56AM40

Pendant Conversion Kits

56SHM and 56SHL Suspension Hooks enable 56CR Series Connectors to be easily converted to pendant outlets.

There are two models available (medium 56SHM and large 56SHL) for connectors; 16A – 20A and 32A – 50A respectively, both of which are manufactured from quality 316 grade stainless steel for long life and to withstand loads of up to 50kg.

56SHM   **56SHL**

Plug cover:

When not in use, 56P and 56PA plugs can be additionally protected by utilising the 56PC Plug Cap. When in position, the cap provides protection for the pins from damage, dirt, grease, chemicals and water ingress.

The caps are simple to fit and fully enclose the plug face to provide IP66 protection.

56PC

The Products

Angled and Straight Plugs

Catalogue Number Straight	Cat. No. Angled	Amp	Volt	Number of Pins	Conductor Terminal mm²		Cable Nominal Dia.		IP Rating	Matching Gland Nut Thread
					Min.	Max.	Min.	Max.		
PDL56P320	PDL56PA320	20A	250V	3 Round Pins	1.0	6	7	16	66	56AM25
PDL56P416	PDL56PA416	16A	500V	4 Round Pins	1.0	6	7	16	66	56AM25
PDL56P416K	PDL56PA416K	16A	500V	4 Round Pins Unique Key Configuration	1.0	6	7	16	66	56AM25
PDL56P420	PDL56PA420	20A	500V	4 Round Pins	1.0	6	7	16	66	56AM25
PDL56P516	PDL56PA516	16A	500V	5 Round Pins	1.0	6	7	16	66	56AM25
PDL56P520	PDL56PA520	20A	500V	5 Round Pins	1.0	6	7	16	66	56AM25
PDL56P616	PDL56PA616	16A	500V	6 Round Pins	1.0	6	7	16	66	56AM25
PDL56P716	PDL56PA716	16A	500V	7 Round Pins	1.0	6	7	16	66	56AM25
PDL56P720	PDL56PA720	20A	500V	7 Round Pins	1.0	6	7	16	66	56AM25
PDL56P320QC	PDL56PA320QC	20A	250V	3 Round Pins QCT	1.0	4	7	16	66	56AM25
PDL56P416QC	PDL56PA416QC	16A	500V	4 Round Pins QCT	1.0	4	7	16	66	56AM25
PDL56P420QC	PDL56PA420QC	20A	500V	4 Round Pins QCT	1.0	4	7	16	66	56AM25
PDL56P516QC	PDL56PA516QC	16A	500V	5 Round Pins QCT	1.0	4	7	16	66	56AM25
PDL56P520QC	PDL56PA520QC	20A	500V	5 Round Pins QCT	1.0	4	7	16	66	56AM25
PDL56P332	PDL56PA332	32A	250V	3 Round Pins	2.5	25	9	29	66	56AM40
PDL56P432	PDL56PA432	32A	500V	4 Round Pins	2.5	25	9	29	66	56AM40
PDL56P440	PDL56PA440	40A	500V	4 Round Pins	2.5	25	9	29	66	56AM40
PDL56P450	PDL56PA450	50A	500V	4 Round Pins	2.5	25	9	29	66	56AM40
PDL56P532	PDL56PA532	32A	500V	5 Round Pins	2.5	25	9	29	66	56AM40
PDL56P540	PDL56PA540	40A	500V	5 Round Pins	2.5	25	9	29	66	56AM40
PDL56P550	PDL56PA550	50A	500V	5 Round Pins	2.5	25	9	29	66	56AM40

Connectors

Catalogue Number	Amp	Volt	Number of Sockets	Conductor Terminal mm²		Cable Nominal Dia.		IP Rating	Matching Plug Straight	Matching Plug Angle	Matching Gland Nut Thread
				Min.	Max.	Min.	Max.				
PDL56CR320	20A	250V	3 Round Pins	1.0	6	7	16	66	56P320	56PA320	56AM25
PDL56CR332	32A	250V	3 Round Pins	2.5	25	9	29	66	56P332	56PA332	56AM40
PDL56CR416	16A	500V	4 Round Pins	1.0	6	7	16	66	56P416	56PA416	56AM25
PDL56CR420	20A	500V	4 Round Pins	1.0	6	7	16	66	56P420	56PA420	56AM25
PDL56CR432	32A	500V	4 Round Pins	2.5	25	9	29	66	56P432	56PA432	56AM40
PDL56CR440	40A	500V	4 Round Pins	2.5	25	9	29	66	56P440	56PA440	56AM40
PDL56CR450	50A	500V	4 Round Pins	2.5	25	9	29	66	56P450	56PA450	56AM40
PDL56CR516	16A	500V	5 Round Pins	1.0	6	7	16	66	56P516	56PA516	56AM25
PDL56CR520	20A	500V	5 Round Pins	1.0	6	7	16	66	56P520	56PA520	56AM25
PDL56CR532	32A	500V	5 Round Pins	2.5	25	9	29	66	56P532	56PA532	56AM40
PDL56CR540	40A	500V	5 Round Pins	2.5	25	9	29	66	56P540	56PA540	56AM40
PDL56CR550	50A	500V	5 Round Pins	2.5	25	9	29	66	56P550	56PA550	56AM40

Accessories

Catalogue Number	Amps	Description
56SHM	-	Suspension hook (replaces 56POK and suits size 1 plugs and connectors)
56SHL	-	Suspension hook (replaces 56POKI and suits size 2 plugs and connectors)
56AM25	-	25mm cable adaptor module, suits size 1 plugs connectors 16A - 20A
56AM40	-	40mm cable adaptor module, suits size 2 plugs connectors 32A - 50A
56PC	-	Plug cover, suits both size 1 and 2 plugs 16A - 50A

Important Notes
1) QC = Quick connection terminals
2) K = Special keyway for high cycle applications
3) All products in Orange/Clear as standard, for chemically resistant orange order with a 'V' in the part number. Eg: 56PAV320 These plugs are fully orange

4) QC plugs are not available in chemically resistant orange or 6 & 7 pin plugs
5) 56CRs not available in QC
6) 56CRs suit Cat 56SHM for suspension – replacing 56POK
7) New products will be differentiated with new carton labels, and installation instructions.

Evolution at its best.

How they work

MACTRO™ Cord Clamp & Seal

OPEN

| PRESS (Spring) & REMOVE (Driver) | UNLOCK – lock tab | UNSCREW – cable nut |

No need to remove the cable nut! It can stay on as you feed the cable.

CLOSE

| SCREW UP – cable nut | LOCK – lock tab |

The clamp grips the cable better than any traditional cord clamp, and is locked in place by a locking tab, preventing users from unscrewing.

Quick Connect Terminals

To Terminate:
1) Push driver into slot to open terminal
2) Insert stripped, untwisted cable into terminal, & release driver from slot. DONE

To Release:
1) Push driver into slot to open terminal – pull out cable. DONE

The terminals act on spring tension and clamp the cable in place. They do this in a more consistent and reliable manner than traditional screwed terminals.

Snap-Shut Bodies

OPEN

PRESS clip
REMOVE driver
TWIST body left to open

The 'latching' spring clip stays down once it is pressed, so it is just a simple PRESS & TWIST.

CLOSE

ALIGN arrows
TWIST body right and
CLICK to close
Note: the click may not be audible so give a light twist in either direction to check

Could not be easier! The spring clip when shut does not exert any stress on the housings, thus resulting in a stronger body and sleeve connection area.

The Legacy Continues

PDL's 56 Series™ range has a proud history for being the toughest and most trusted industrial switchgear available in New Zealand.

Our improved and extended range of plugs and connectors are manufactured with premium quality materials, tested to the highest standards and designed for easier, faster connection.

As New Zealand's leader in industrial switchgear for more than 30 years, you can be confident the 56 Series™ won't let you down when the going gets tough.

The 56 Series™ offers unrivalled flexibility – from modular enclosures, straight and angled plugs, and the ability to multi-gang up to 16 products.

When it comes to quality and reliability, 56 Series™ sets the standard for performance and durability.

New to the Mactro range are the size 2 plugs and connectors.

56 Series™ size 2 plugs and connectors have undergone a design upgrade. Following the successful acceptance of the size 1 plug and connector re-design, size 2 plugs and connectors are now faster and simpler to use. These too have adopted the Snap-Shut body design, and Mactro™ Technology.

MACTRO TECHNOLOGY

Mactro™ Technology

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

- Faster
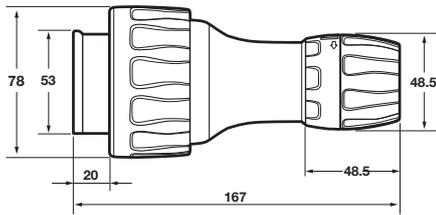- Stronger
- Fewer parts
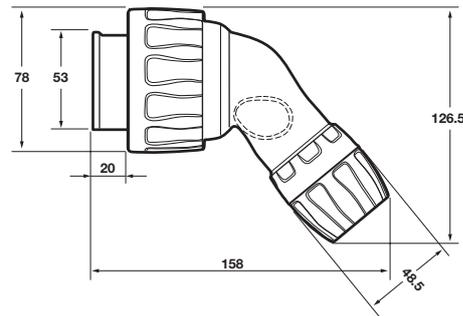- Reliable
- Patented

Secure cable seal.

Dimensions (mm)

SIZE 1 PLUGS

56P320 - 56P720
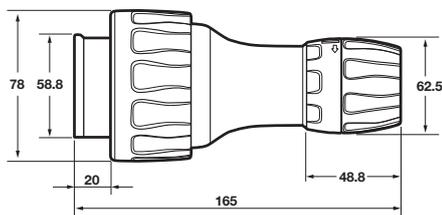
78 | 53 | 48.5 | 20 | 48.5 | 167

56PA320 - 56PA720

78 | 53 | 126.5 | 20 | 158 | 48.5

SIZE 2 PLUGS

56P332 - 56P550

78 | 58.8 | 62.5 | 20 | 48.8 | 165

56PA332 - 56PA550

78 | 58.8 | 130 | 20 | 168 | 62.5
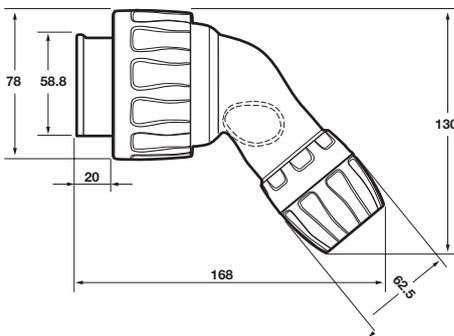
SIZE 1 CONNECTORS

56CR320	56CR516
56CR416	56CR520
56CR420	

89.5 | 48.5 | 48.5 | 173
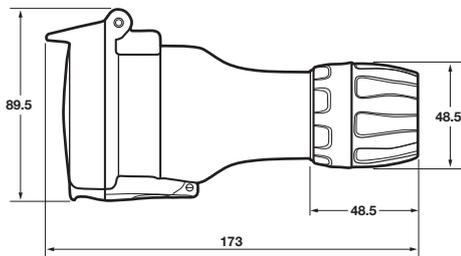
SIZE 2 CONNECTORS

56CR332	56CR532
56CR432	56CR540
56CR440	56CR550
56CR450	

89.5 | 62.5 | 48.8 | 180

89.5 | 77
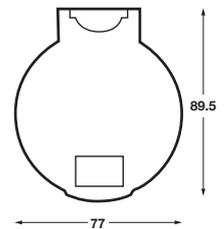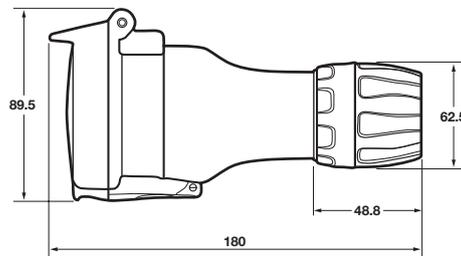
SUSPENSION HOOKS

56SHM

138.2 | 74.8

56SHL

138.2 | 87.8
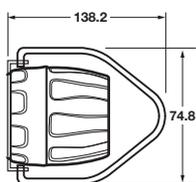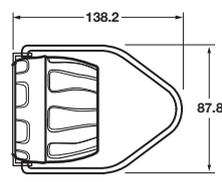
Medium suits size 1 plugs and connectors

Large suits size 2 plugs and connectors

CABLE SIZE GUIDE			
RATING		Cable Entry ø	Terminal Capacity
16A to 20A	Min.	7mm	1mm²
	Max.	16mm	4mm² (QC) 6mm² (screwed)
32A to 50A (small cable seal)	Min.	9mm	2.5mm²
	Max.	18mm	25mm²
32A to 50A (large cable seal)	Min.	18mm	2.5mm²
	Max.	29mm	25mm²