

# Powerline

## Electricity Network Devices

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# Introduction

To complement our Powerline connectors, we offer several accessories and devices to allow for various connection requirements onto LV Busbars and Circuits. Our range includes **Short, Long, Jumbo and 90° G-Clamps, Rotary Clamps, Overhead Line Clamps** and **JSU/JPU Fuse Carriers** with a built in Powerline Generator Connection.

Where appropriate, the devices have been independently tested and approved in accordance with: "Testing of Insulated Tools and Assemblies for Live Working and use up to 1000V A.C. and 1500V. D.C. to IEC 60900".

Also available are **Replacement Kits** for damaged insulators that require dowel pins without changing the electrical contact.

We are currently manufacturing other Powerline devices and we welcome the opportunity to discuss any individual requirements you may have.



# Fuse Carrier Generator Connection

**Fuse Carriers with Powerline Generator Input** to connect into distribution boards. This allows for a generator cable to be connected to either the LV busbar or feeder circuit. Available with Line 1, Line 2 or Line 3 Powerline connectors for either JPU 82mm or JSU 92mm pitch. JPU are rated to 400 Amps and JSU are rated to 630 Amps.



Item	Part Number
JPU 82mm Line 1	FC82-1-BR
JPU 82mm Line 2	FC82-2-BK
JPU 82mm Line 3	FC82-3-GY
JPU 82mm Dummy Fuse	PDF-82
JSU 92mm Line 1	FC92-1-BR
JSU 92mm Line 2	FC92-2-BK
JSU 92mm Line 3	FC92-3-GY
JSU 92mm Dummy Fuse	PDF-92

# 90° Fuse Carriers with Generator Connection

For applications where space is restricted, for example within Cabinets that require to close and lock the door whilst Generator Connectors are attached.

Available with Line 1, Line 2 or Line 3 Powerline connectors for either JPU 82mm or JSU 92mm pitch.

Different cable sizes and lengths can be supplied as required.



Pitch Style	JPR82	JSR92
JP 90° Fuse carrier	JPR82	JSR92
JS 90° Fuse carrier	JSR92	

Key Position	L1	L2	L3
Line 1	L1		
Line 2		L2	
Line 3			L3

Insulator Colour	BRN	BLK	GRY
Brown	BRN		
Black		BLK	
Grey			GRY

Cable Length	1.75	Other lengths are available on request
Standard length 1.75 meters	1.75	
Other lengths are available on request		

Cable Conductor Size	120	240
120mm <sup>2</sup>	120	
240mm <sup>2</sup>		240
Other sizes are available on request		

JPR82	L1	BRN	1.75	120
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# Insulated Narrow G-Clamps

**Insulated clamps**, tool and 28mm wide 400 Amp G-Clamp heads and Powerline Generator connector for connection to LV busbars.

Available with source or drain style cable connectors and Short Arm, Long Arm and 90° versions with Earth, Neutral, Line 1, Line 2 or Line 3 positions.

Short Arm Line 2 | NGCS400-2-BK



## Source 400 Amp Cable Connector

Item	Part Number
Short Arm Earth	NGCS400-E-GN
Short Arm Neutral	NGCS400-N-BU
Short Arm Line 1	NGCS400-1-BR
Short Arm Line 2	NGCS400-2-BK
Short Arm Line 3	NGCS400-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	NGCL400-E-GN
Long Arm Neutral	NGCL400-N-BU
Long Arm Line 1	NGCL400-1-BR
Long Arm Line 2	NGCL400-2-BK
Long Arm Line 3	NGCL400-3-GY

Item	Part Number
90° Earth	NGCR400-E-GN
90° Neutral	NGCR400-N-BU
90° Line 1	NGCR400-1-BR
90° Line 2	NGCR400-2-BK
90° Line 3	NGCR400-3-GY

## Drain 400 Amp Cable Plug

Item	Part Number
Short Arm Earth	NGCSP400-E-GN
Short Arm Neutral	NGCSP400-N-BU
Short Arm Line 1	NGCSP400-1-BR
Short Arm Line 2	NGCSP400-2-BK
Short Arm Line 3	NGCSP400-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	NGCLP400-E-GN
Long Arm Neutral	NGCLP400-N-BU
Long Arm Line 1	NGCLP400-1-BR
Long Arm Line 2	NGCLP400-2-BK
Long Arm Line 3	NGCLP400-3-GY

Item	Part Number
90° Earth	NGCRP400-E-GN
90° Neutral	NGCRP400-N-BU
90° Line 1	NGCRP400-1-BR
90° Line 2	NGCRP400-2-BK
90° Line 3	NGCRP400-3-GY



# Insulated Standard G-Clamps

**Insulated clamps**, tool and 45mm wide 750 Amp G-Clamp heads and Powerline Generator connector for connection to LV busbars.

Available with source or drain style cable connectors and Short Arm, Long Arm and 90° versions with Earth, Neutral, Line 1, Line 2 or Line 3 positions.

**Long Arm Neutral | GCL750-N-BU**



**Short Arm Earth | GCS750-E-GN**



## Source 750 Amp Cable Connector

Item	Part Number
Short Arm Earth	GCS750-E-GN
Short Arm Neutral	GCS750-N-BU
Short Arm Line 1	GCS750-1-BR
Short Arm Line 2	GCS750-2-BK
Short Arm Line 3	GCS750-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	GCL750-E-GN
Long Arm Neutral	GCL750-N-BU
Long Arm Line 1	GCL750-1-BR
Long Arm Line 2	GCL750-2-BK
Long Arm Line 3	GCL750-3-GY

Item	Part Number
90° Earth	GCR750-E-GN
90° Neutral	GCR750-N-BU
90° Line 1	GCR750-1-BR
90° Line 2	GCR750-2-BK
90° Line 3	GCR750-3-GY

## Drain 750 Amp Cable Plug

Item	Part Number
Short Arm Earth	GCSP750-E-GN
Short Arm Neutral	GCSP750-N-BU
Short Arm Line 1	GCSP750-1-BR
Short Arm Line 2	GCSP750-2-BK
Short Arm Line 3	GCSP750-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	GCLP750-E-GN
Long Arm Neutral	GCLP750-N-BU
Long Arm Line 1	GCLP750-1-BR
Long Arm Line 2	GCLP750-2-BK
Long Arm Line 3	GCLP750-3-GY

Item	Part Number
90° Earth	GCRP750-E-GN
90° Neutral	GCRP750-N-BU
90° Line 1	GCRP750-1-BR
90° Line 2	GCRP750-2-BK
90° Line 3	GCRP750-3-GY

# Insulated G-Clamps Cable Assembly

For connection to busbars where space is restricted. **Cable assembly** comprises of our Insulated G-Clamp Head, 400 Amp Powerline source or drain connector and 2 metres of 120mm<sup>2</sup> single core cable. The cable size and length can be changed to suit individual requirements.

GCC120-2-N-BU



## Narrow G-Clamp with Source 400 Amp Cable Connector

Item	Part Number
Earth Cable Connector Assembly	GCC120-2-E-GN
Neutral Cable Connector Assembly	GCC120-2-N-BU
Line 1 Cable Connector Assembly	GCC120-2-1-BR
Line 2 Cable Connector Assembly	GCC120-2-2-BK
Line 3 Cable Connector Assembly	GCC120-2-3-GY
Insulated T-Bar	GCH750

## Narrow G-Clamp with Drain 400 Amp Cable Plug

Item	Part Number
Earth Cable Plug Assembly	GCP120-2-E-GN
Neutral Cable Plug Assembly	GCP120-2-N-BU
Line 1 Cable Plug Assembly	GCP120-2-1-BR
Line 2 Cable Plug Assembly	GCP120-2-2-BK
Line 3 Cable Plug Assembly	GCP120-2-3-GY
Insulated T-Bar	GCH750



# Insulated Jumbo G-Clamps

**Insulated clamps**, tool with 38.5mm wide 750 Amp Jumbo G-Clamp heads and Powerline Generator connector for connection to LV busbars.

Available with source or drain style cable connectors and Short Arm, Extended Arm and 90° versions with Earth, Neutral, Line 1, Line 2 or Line 3 positions.

Long Arm Line 1 | JGCL750-1-BR



Insulated T-Bar | GCH750



## Source 750 Amp Cable Connector

Item	Part Number
Short Arm Earth	JGCS750-E-GN
Short Arm Neutral	JGCS750-N-BU
Short Arm Line 1	JGCS750-1-BR
Short Arm Line 2	JGCS750-2-BK
Short Arm Line 3	JGCS750-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	JGCL750-E-GN
Long Arm Neutral	JGCL750-N-BU
Long Arm Line 1	JGCL750-1-BR
Long Arm Line 2	JGCL750-2-BK
Long Arm Line 3	JGCL750-3-GY

Item	Part Number
90° Earth	JGCR750-E-GN
90° Neutral	JGCR750-N-BU
90° Line 1	JGCR750-1-BR
90° Line 2	JGCR750-2-BK
90° Line 3	JGCR750-3-GY

## Drain 750 Amp Cable Plug

Item	Part Number
Short Arm Earth	JGCSP750-E-GN
Short Arm Neutral	JGCSP750-N-BU
Short Arm Line 1	JGCSP750-1-BR
Short Arm Line 2	JGCSP750-2-BK
Short Arm Line 3	JGCSP750-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	JGCLP750-E-GN
Long Arm Neutral	JGCLP750-N-BU
Long Arm Line 1	JGCLP750-1-BR
Long Arm Line 2	JGCLP750-2-BK
Long Arm Line 3	JGCLP750-3-GY

Item	Part Number
90° Earth	JGCRP750-E-GN
90° Neutral	JGCRP750-N-BU
90° Line 1	JGCRP750-1-BR
90° Line 2	JGCRP750-2-BK
90° Line 3	JGCRP750-3-GY

# Insulated Double G-Clamps

**1200 Amp Insulated G-Clamp**, Arm, 2 x Powerline “IP2X” connectors and extended T-Bar for connection to live LV busbars. Available with Powerline source or drain style cable connections and Earth, Neutral, Line 1, Line 2 and Line 3 positions.

DGCC750-N-BU



DGCH750



## Source 750 Amp Cable Connector

Item	Part Number
Earth Connector	DGCC750-E-GN
Neutral Connector	DGCC750-N-BU
Line 1 Connector	DGCC750-1-BR
Line 2 Connector	DGCC750-2-BK
Line 3 Connector	DGCC120-3-GY
Earth and Neutral Connector	DGCC750-E-GN-N-BU
Insulated T-Bar	DGCH750

## Drain 750 Amp Cable Plug

Item	Part Number
Earth Plug	DGCP750-E-GN
Neutral Plug	DGCP750-N-BU
Line 1 Plug	DGCP750-1-BR
Line 2 Plug	DGCP750-2-BK
Line 3 Plug	DGCP750-3-GY
Earth and Neutral Plug	DGCP750-E-GN-N-BU
Insulated T-Bar	DGCH750

# Insulated Horizontal Clamps

**Insulated clamp**, tool and 750 Amp Powerline Generator connector for connection to LV busbars.

Available with Powerline source or drain style cable connections with Short, Extended and 90° Arms with Earth, Neutral, Line 1, Line 2 or Line 3 Powerline connectors.

**Short Arm Earth | HCS750-E-GN**



## Source 750 Amp Cable Connector

Item	Part Number
Short Arm Earth	HCS750-E-GN
Short Arm Neutral	HCS750-N-BU
Short Arm Line 1	HCS750-1-BR
Short Arm Line 2	HCS750-2-BK
Short Arm Line 3	HCS750-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	HCL750-E-GN
Long Arm Neutral	HCL750-N-BU
Long Arm Line 1	HCL750-1-BR
Long Arm Line 2	HCL750-2-BK
Long Arm Line 3	HCL750-3-GY

Item	Part Number
90° Earth	HCR750-E-GN
90° Neutral	HCR750-N-BU
90° Line 1	HCR750-1-BR
90° Line 2	HCR750-2-BK
90° Line 3	HCR750-3-GY

## Drain 750 Amp Cable Plug

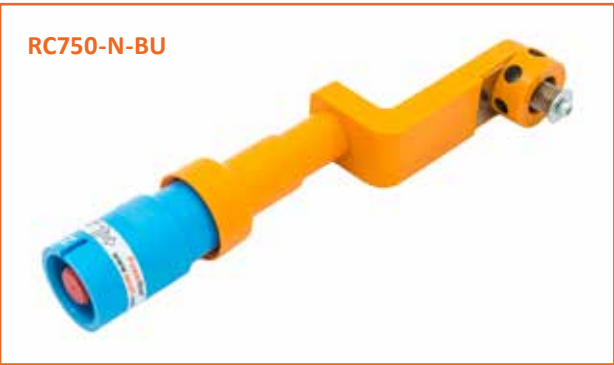
Item	Part Number
Short Arm Earth	HCSP750-E-GN
Short Arm Neutral	HCSP750-N-BU
Short Arm Line 1	HCSP750-1-BR
Short Arm Line 2	HCSP750-2-BK
Short Arm Line 3	HCSP750-3-GY
Insulated T-Bar	GCH750

Item	Part Number
Long Arm Earth	HCL7P50-E-GN
Long Arm Neutral	HCL7P50-N-BU
Long Arm Line 1	HCL7P50-1-BR
Long Arm Line 2	HCL7P50-2-BK
Long Arm Line 3	HCL7P50-3-GY

Item	Part Number
90° Earth	HCRP750-E-GN
90° Neutral	HCRP750-N-BU
90° Line 1	HCRP750-1-BR
90° Line 2	HCRP750-2-BK
90° Line 3	HCRP750-3-GY

# Insulated Rotary Clamps

**Insulated clamp**, tool and 750 Amp Powerline Generator connector for connection to slotted LV busbars.  
Available with Earth, Neutral, Line 1, Line 2 or Line 3 Powerline connectors.



Item	Part Number
Rotary Clamp Earth	RC750-E-GN
Rotary Clamp Neutral	RC750-N-BU
Rotary Clamp Line 1	RC750-1-BR
Rotary Clamp Line 2	RC750-2-BK
Rotary Clamp Line 3	RC750-3-GY
Insulated Handle	RCH750

# Rotary Clamp Wheel to Cable Assembly

Where space may be limited, rather than using the complete **Insulated Rotary Clamp** device, this option may be more suitable.

The most common assemblies consists of an Insulated Rotary Wheel with a copper lug terminal permanently attached and 1metre of either 120mm<sup>2</sup> or 240mm<sup>2</sup> highly flexible single core HO7RN-F cable with a POWERLINE Cable Connector (Line Source) attached. An insulated handle grip on the cable facilitates the connection / disconnection from busbars.

The copper lug terminal and cable size / length can be supplied to individual requirements.  
Available with Earth, Neutral, Line 1, Line 2 or Line 3 connectors.



1 metre x 120mm <sup>2</sup> / 400Amp Cable	Part Number
Earth Green Connector	RCS400-1-E-GN
Neutral Blue Connector	RCS400-1-N-BU
Line 1 Brown Connector	RCS400-1-1-BR
Line 2 Black Connector	RCS400-1-2-BK
Line 3 Grey Connector	RCS400-1-3-GY

1 metre x 240mm <sup>2</sup> / 600Amp Cable	Part Number
Earth Green Connector	RCS600-1-E-GN
Neutral Blue Connector	RCS600-1-N-BU
Line 1 Brown Connector	RCS600-1-1-BR
Line 2 Black Connector	RCS600-1-2-BK
Line 3 Grey Connector	RCS400-1-3-GY

# Insulated Underground Cable Connector

Insulated unit for connecting Generators to Solid or Stranded **Underground** Alloy Cables to accommodate all sizes from 35mm<sup>2</sup> to 300mm<sup>2</sup>. Incorporating a 750 Amp Powerline Generator connector with cable termination via two set screws tightened with the Insulated Ratchet tool.



Item	Part Number
Underground Cable Connector Earth	UCC35/300-E-GN
Underground Cable Connector Neutral	UCC35/300-N-BU
Underground Cable Connector Line 1	UCC35/300-1-BR
Underground Cable Connector Line 2	UCC35/300-2-BK
Underground Cable Connector Line 3	UCC35/300-3-GY
Insulated Ratchet Tool	UCH750

# Insulated Overhead Line Clamps

Insulated clamp, 500 Amp Powerline Generator connector and 3 metres of 50mm<sup>2</sup> flexible single core cable for connection to **Low Voltage Overhead Lines**. Available with Earth, Neutral, Line 1, Line 2 or Line 3 Powerline connectors.

Other cable lengths and cable sizes are available if required.



Item	Part Number
Overhead Line 3 metre 50mm <sup>2</sup> Cable - Earth Green	OHL3m50-E-GN
Overhead Line 3 metre 50mm <sup>2</sup> Cable - Neutral Blue	OHL3m50-N-BU
Overhead Line 3 metre 50mm <sup>2</sup> Cable - L1 Brown	OHL3m50-L1-BR
Overhead Line 3 metre 50mm <sup>2</sup> Cable - L2 Black	OHL3m50-L2-BK
Overhead Line 3 metre 50mm <sup>2</sup> Cable - L3 Grey	OHL3m50-L3-GY

# Transformer Pole Mounted Fuse

By removing the existing screw in fuse and replacing with the **Powerline Fuse Unit**, it allows for connection of a Generator cable to the Overhead Line.

As the unit incorporates a Dummy Fuse, connection can only be made to the outgoing circuit.



Item	Part Number
Pole Mounted Fuse Unit Neutral	PMF200-N-BU
Pole Mounted Fuse Unit Line 1	PMF200-1-BR
Pole Mounted Fuse Unit Line 2	PMF200-2-BK
Pole Mounted Fuse Unit Line 3	PMF200-3-GY

## Din Fuse Units

**DIN Fuse Carrier Units** are designed to provide safe, reliable and quick connection of connecting a Powerline and Powerlock compatible connectors to DIN Fuse carrier units which can be found on most European power distribution networks.

We offer DIN00 and DIN01 with Full Copper Blade and Half Copper Blade versions as standard. Bespoke versions are also available on request.



Item	Part Number
Din00 Fuse Carrier 160 amps Half Blade	L1 Brown Panel Drain
	L2 Black Panel Drain
	L3 Grey Panel Drain
Din00 Fuse Carrier 160 amps Full Blade	L1 Brown Panel Drain
	L2 Black Panel Drain
	L3 Grey Panel Drain
Din01 Fuse Carrier 400 amps Half Blade	L1 Brown Panel Drain
	L2 Black Panel Drain
	L3 Grey Panel Drain
Din01 Fuse Carrier 400 amps Full Blade	L1 Brown Panel Drain
	L2 Black Panel Drain
	L3 Grey Panel Drain



# Insulated T-Piece Connector

The **Insulated T-piece Connector** allows the user the option to split one phase into two or combine two phases into one by the quickest and safest possible means.

The Input and Output connectors are colour coded and mechanically keyed the same to prevent connection errors.

All connectors are IP2X rated when un-mated and sealed to IP67 when mated.



Source to 2 x Drain



Item	Part Number
Line 1 Source to 2 x Drain	750SP-1-BR-1S-2D
Line 2 Source to 2 x Drain	750SP-2-BK-1S-2D
Line 3 Source to 2 x Drain	750SP-3-GY-1S-2D
Neutral Source to 2 x Drain	750SP-N-BU-1S-2D
Earth Source to 2 x Drain	750SP-E-GN-1S-2D



Drain to 2 x Source



Item	Part Number
Line 1 Drain to 2 x Source	750SP-1-BR-1D-2S
Line 2 Drain to 2 x Source	750SP-2-BK-1D-2S
Line 3 Drain to 2 x Source	750SP-3-GY-1D-2S
Neutral Drain to 2 x Source	750SP-N-BU-1D-2S
Earth Drain to 2 x Source	750SP-E-GN-1D-2S

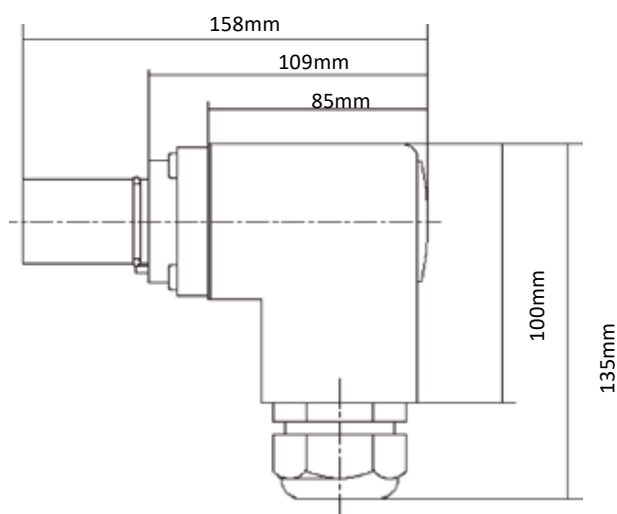
# Right Angled Connectors and Cable Assemblies

For applications where space is restricted, for example within Cabinets that require the door to be closed and locked while Generator Connectors are attached.

The **right angle connectors** can be supplied as either source or drain connectors and cable assemblies supplied to suit individual requirements.

The 90° Connectors can be supplied separately for self-assembly as shown in the following table. All connectors are IP2X Protected when un-mated and provide IP68 Protection when mated.

**Consults sales office for part numbers and pricing.**



# Cable Lug to Powerline Conversion

- This device enables the conversion of pre-terminated cables with M12 Lug Terminals to in-line Powerline connectors.
- Cable Lugs can be either Copper or Bi-Metallic (Aluminium Barrels with Copper Palms) Lugs from 35mm<sup>2</sup> to 300mm<sup>2</sup> with a maximum Palm Width of 37mm and Cable Diameters from 19mm to 37mm can be terminated.
- Bolt the Lugged cable onto the Powerline Contact, align within the Insulator and push the cable home until it locks into the Clipped Contact retention system.
- A simple tool can be supplied to remove the contact and lug from the Insulator.
- The product can be supplied for either Source Connector or Drain Connector contacts, both of which provide IP2X protection.
- Four sizes of Cable Gland are available to accommodate a wide range of cable and lug dimensions and provide IP68 Sealing.

## LUG to Source Conversion

Part No: L2LS-\*\_\*\*\_\*\*\*

Example: L2LS E-GN-M

## LUG to Drain Conversion

Part No: L2LD-\*\_\*\*\_\*\*\*

Example: L2LD E-GN-M

Please add codes as shown to complete the part numbers.



## Part Number Codes

\* = E, N, L1, L2 or L3.

\*\* = GN (Green), BU (Blue), BR (Brown), BK (Black), GY (Grey), WH (White), RD (Red) or YL (Yellow).

\*\*\* = M40 = 19mm/28mm cable Ø and 28mm maximum lug palm width and 91mm long backshell.

M40 OS = 22mm/32mm cable Ø and 32mm maximum lug palm width and 91mm long backshell.

M50 = 33mm/37mm cable Ø and 37mm maximum lug palm width and 91mm long backshell.

M50 EXT = 33mm/37mm cable Ø and 37mm maximum lug palm width and 133mm long backshell.



# Panel Mounted Units

Ten 47 can supply **pre-mounted Powerline Sockets or Inlets** in standard 19” format. The units and connectors provide finger protection to IP2X when unmated.

Each connector offers distinct mechanical keyways to ensure the correct mating of Lines/Phase; i.e., the Earth Cable will only mate with the Earth Panel, Neutral to Neutral, Line 1 to Line 1, Line 2 to Line 2 and Line 3 to Line 3.

Incorporating our standard Powerline Panel connectors with M12 Stud or female thread terminations, these units are designed for use and operation by “electrically trained and competent” personnel.

**Panel Cut Out Dimensions:**

Height = 80mm    Width = 483mm



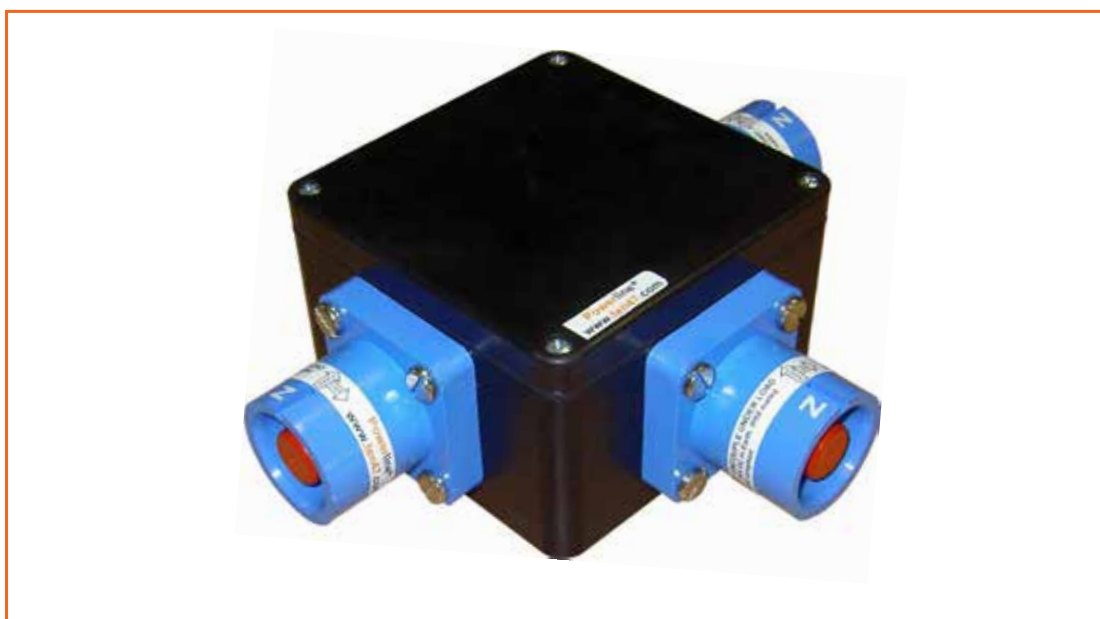
Type	Part Number
5 x PSF-*5	PSP4/1
5 x PIF-*5	PIP4/1
5 x PSF-*7	PSP7/1
5 x PIF-*7	PIP7/1

\* add M for threaded post and F for female thread

# Cable Splitters

Incorporating our Powerline Panel connectors and housed in a tough Rubber enclosure, these units can be configured for several inlet/outlet options utilising either our T4 or T7 Panel connectors.

All Cable and Panel connectors are IP2X rated, once assembled and coupled, the Cable Splitter is sealed to IP65.



T-Piece Description	Inlet A	Inlet B	Inlet C	Part Number
1 Inlet, 2 Outlet	1 x PS	1 x PS	1 x PS	CST1PS2PS-*
	1 x PS	1 x PI	1 x PI	CS1PS2PI-*

- \* = Please add E (Earth), N (Neutral), 1 (Line 1), 2 (Line 2) or 3 (Line 3) as required.
- Other Inlet/Outlet configurations are possible. Please consult our factory to discuss any requirements.

# Cable Breakouts

As an alternative to the Cable Splitters, customers have used our solution to convert 1 Powerline connector into two tails. The connectors can be configured in any combination of Male and Female to suit individual applications. The standard design uses 2 x 120mm<sup>2</sup> single core cables crimped into one connector and tail lengths defined by your requirements, sealed to IP67 when coupled.



Cable Breakout	Connector A	Tail Ends	Part Number
1 Female and 2 x Male	Female Connector	2 x Male Connectors	CSB1CF2CM-*-**
1 Male and 2 x Female	Male Connector	2 x Female Connectors	CSB1CM2CF-*-**

- \* = Please add E (Earth), N (Neutral), 1 (Line 1), 2 (Line 2) or 3 (Line 3) as required.
- \*\* = Please add cable tail lengths required.
- Other Inlet/Outlet configurations are possible. Please consult our factory to discuss any requirements.



# Phase Convertors

When confronted with requirements to change Phases (Line 1 to Line 2, Line 2 to Line 3, etc) these double ended connectors allow conversion from existing Male or Female contacts.

The converters are supplied with 1 x source style 750 Amp contact and 1 x drain style 750 Amp contact.

All connectors are IP2X when unmated and sealed to IP68 when mated. Available with source and drain style cable connections and Line 1, Line 2 and Line 3 positions.

**PHC-L1-L2-T7**



Item	Part Number
L1 to L2 Phase Converter	PHC-L1-L2-T7
L1 to L3 Phase Converter	PHC-L1-L3-T7
L2 to L1 Phase Converter	PHC-L2-L1-T7
L2 to L3 Phase Converter	PHC-L2-L3-T7
L3 to L1 Phase Converter	PHC-L3-L1-T7
L3 to L2 Phase Converter	PHC-L3-L2-T7

# Gender Convertors

When confronted with unexpected or incorrect hook-up situations, these Double ended connectors allow conversion from Male to Female or Female to Male Powerline connections on existing Chassis or Cable mounts.

The "GEC-MF" unit is supplied with 2 x source style 750 Amp connectors to convert from an existing Male Insulator to the required Female. The "GEC-FM" unit is supplied with 2 x drain style 750 Amp connectors to convert from an existing Female Insulator to the required Male. All connectors are IP2X when unmated and sealed to IP68 when mated. Available in positions Earth, Neutral, Line 1, Line 2 and Line 3.

**GEC-MF style**



Item	Part Number
Male to Female Earth Converter	GEC-MF-E-*T7
Male to Female Neutral Converter	GEC-MF-N-*T7
Male to Female L1 Converter	GEC-MF-L1-*T7
Male to Female L2 Converter	GEC-MF-L2-*T7
Male to Female L3 Converter	GEC-MF-L3-*T7
Female to Male Earth Converter	GEC-FM-E-*T7
Female to Male Neutral Converter	GEC-FM-N-*T7
Female to Male L1 Converter	GEC-FM-L1-*T7
Female to Male L2 Converter	GEC-FM-L2-*T7
Female to Male L3 Converter	GEC-FM-L3-*T7

**GEC-FM style**



\* Add the following codes to identify connector colour:

GN = Green	GY = Grey
BU = Blue	WH = White
BR = Brown	RD = Red
BK = Black	YL = Yellow

# Powerline Screw on Connectors

Where a customer requires a connection onto an existing threaded post, we can supply our 400 Amp **Powerline connectors with various threads** to suit many applications.

By using these designs, a mechanical key positions to prevent connection errors are maintained, the unmated connector provides IP2X Finger Proof protection and sealed to IP68 when mated to our standard Cable Plugs.



Item	Female Thread	Part Number
Earth Connector	M12	PSF-E-GN-T4-NF-M12FT
Neutral Connector	M12	PSF-N-BU-T4-NF-M12FT
Line 1 Connector	M12	PSF-1-BR-T4-NF-M12FT
Line 2 Connector	M12	PSF-2-BK-T4-NF-M12FT
Line 3 Connector	M12	PSF-3-GY-T4-NF-M12FT
Earth Connector	M8	PSF-E-GN-T4-NF-M8FT
Neutral Connector	M8	PSF-N-BU-T4-NF-M8FT
Line 1 Connector	M8	PSF-1-BR-T4-NF-M8FT
Line 2 Connector	M8	PSF-2-BK-T4-NF-M8FT
Line 3 Connector	M8	PSF-3-GY-T4-NF-M8FT

# Powerline Devices and Protective Cases

As well as supplying individual Protective Cases and Powerline Devices, we supply both products as **complete kits** ready for immediate use, storage and reuse.

Some of our more common kit part numbers are shown below. Please contact us for any special requirements.



Item	Part Number
G-Clamp Short Arm, 3 Phase, Neutral, Earth and Tool	GCS-3PNET-PC
G-Clamp 90° Arm, 3 Phase, Neutral, Earth and Tool	GCR-3PNET-PC
G-Clamp Long Arm, 3 Phase, Neutral, Earth and Tool	GCL-3PNET-PC
Horizontal Clamp Short Arm, 3 Phase, Neutral, Earth and Tool	HCS-3PNET-PC
Horizontal Clamp 90° Arm, 3 Phase, Neutral, Earth and Tool	HCR-3PNET-PC
Horizontal Clamp Long Arm, 3 Phase, Neutral, Earth and Tool	HCL-3PNET-PC
Rotary Clamp, 3 Phase, Neutral, Earth and Tool	RC-3PNET-PC
Rotary Clamp, 3 Phase, Neutral and Tool	RC-3PNT-PC
Rotary Clamp, 3 Phase and Tool	RC-3PT-PC
Overhead Line Assembly (3m x 50mm <sup>2</sup> cable), 3 Phase, Neutral and Earth	OH3-3PNE-PC
Underground Cable Connector, 3 Phase, Neutral, Earth and Tool	UCC-3PNET-PC
JSU 3 Phase, Neutral and Dummy Fuses	JSU-3PN-DF-PC
JPU 3 Phase, Neutral and Dummy Fuses	JPU-3PN-DF-PC
JSU / JPU 3 Phase	JSU / JPU-3P-PC

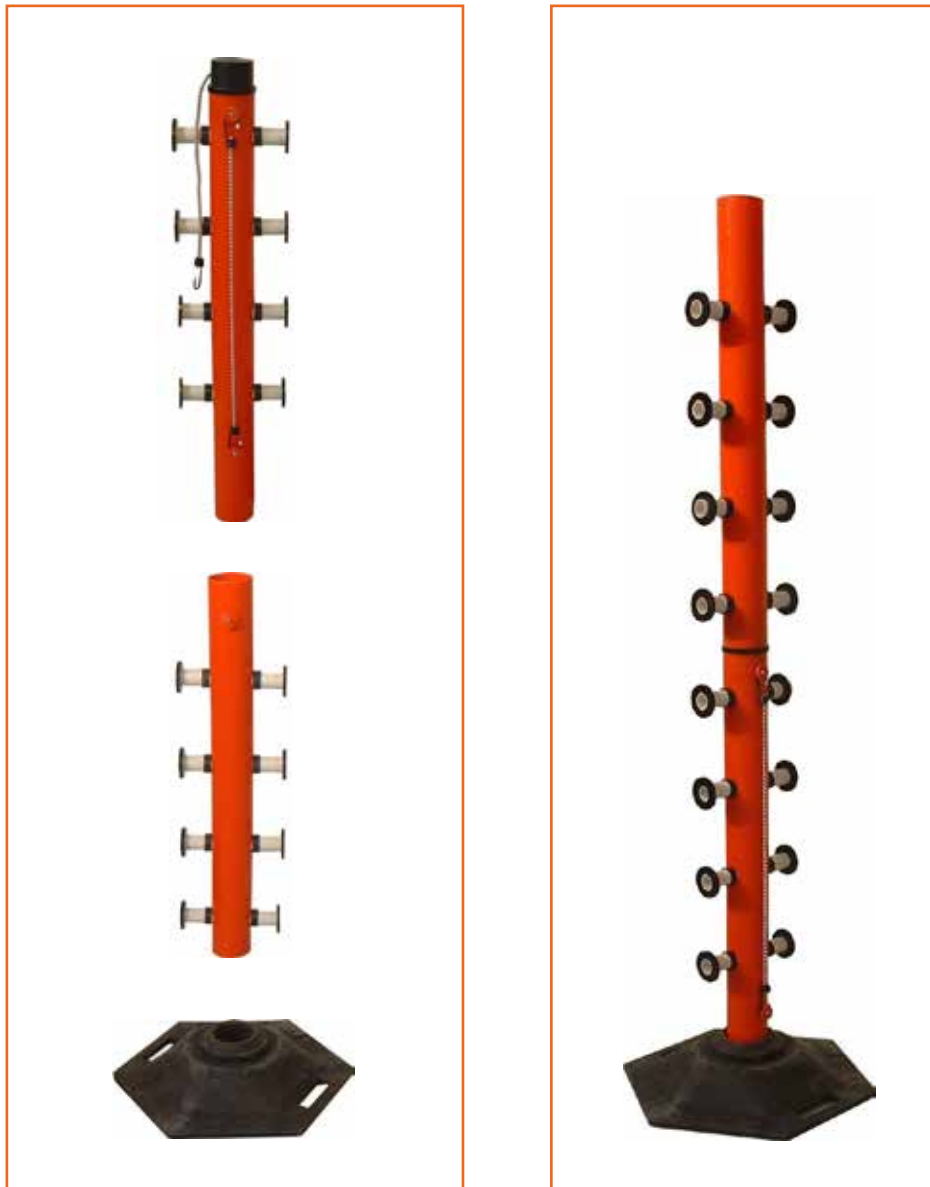
# Power Cable Support Stand

The design of this **cable support stand** helps to reduce stresses that occur on electrical connectors due to the weight of the power cables being connected.

The unit can be assembled without any tools and is portable to allow for connection of cables to various applications including Low Voltage Pillars, Switchgear equipment, Substations etc.

The eight supporting arms are positioned to give support at various connection heights and there are two cable tie ropes to secure the cables in place.

Once assembled, from ground to top measures approximately 2 metres and weighs 9.5kg.



# Powerline Cable Extensions

In addition to our Powerlock compatible Powerline Single Pole connectors, we can supply premade cable drain to source or lugged cable extensions to custom lengths and specifications. Our extensions are built using premium grade TITANEX® heavy duty flexible rubber HO7 RNF cable from 25mm² to 300mm² and can be supplied with colour coded or pre-printed heatshrink for identification. Assemblies with up to 150mm² cable supplied with our Powerline QC Connectors and from 185mm² to 300mm² cable with our original Powerline Single Pole Connectors. With bulk stock to build of connectors and cables we provide a fast turnaround service for quick and reliable delivery.

## Part Number Configuration

Assembly Configuration	
Cable Connector to Cable Connector	CCA
Cable Connector to Cable Plug	CPA
Cable Connector to LUG	CLA
Cable Plug to Cable Plug	PPA
Cable Plug to LUG	PLA
LUG to LUG	LLA

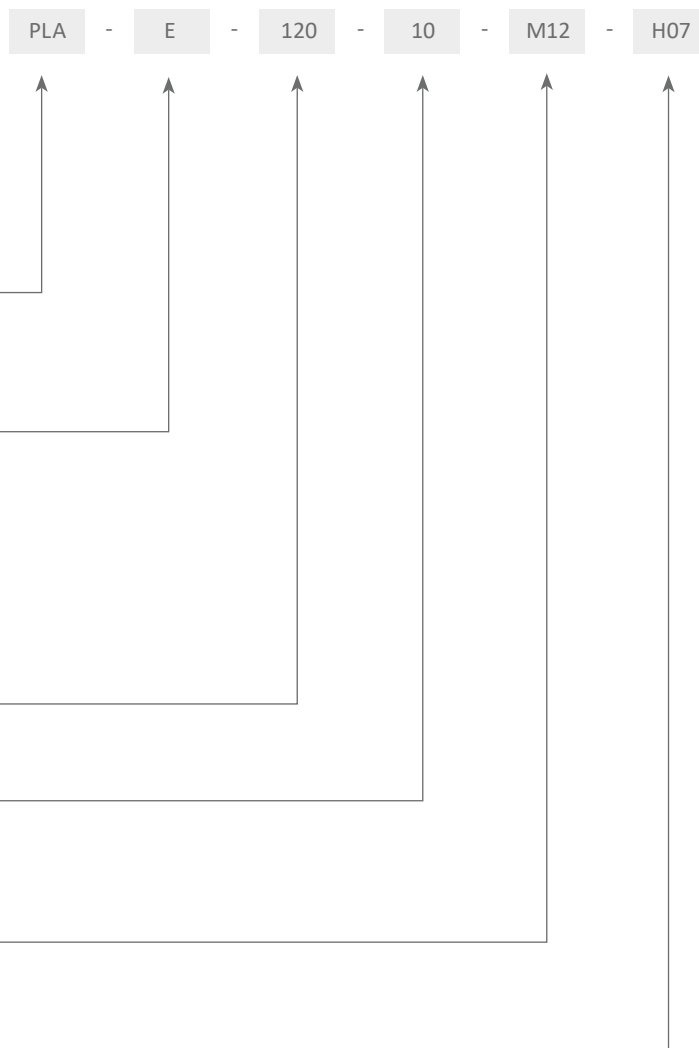
Key Position	
Earth	E
Neutral	N
Line 1	L1
Line 2	L2
Line 3	L3

Cable Size*	as required in mm²
* 25 - 150mm² cable supplied with our Powerline QC connectors	

Assembly Length	as required in metres
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LUG Bolt Size (if applicable)	
Hole Size	M10
Hole Size	M12

Cable Type**	
** Other cable types are available, please consult sales	



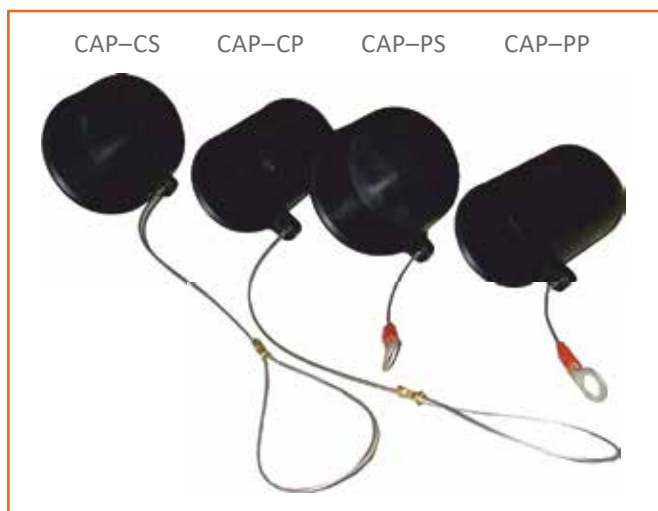
# Accessories

## Environmental Locking Caps

**Environmental caps** offer increased protection and are manufactured in high impact Black Acetal with retention line of 1.5mm thick nylon thread crimped with tinplated copper ferrules. In addition to the features of the standard dust cap, they offer IP68 rated sealing and made to fit into keyway to turn and hold in place.



## Standard Dust Caps



**Plastic Push/Pull caps** are fitted with retention line of 1.5mm thick nylon thread crimped with tinplated copper ferrules.

Ideal for indoor or waterproofed cabinets to protect against dust/particle ingress.



## Also available from Ten 47

### Single Property “Letterbox” Generator Extensions

Ten 47 offer a range of made up 16a/32a moulded plug extensions to crimped solid copper ferrules (20mm in length) to allow DNOs to reconnect temporary power to single properties with minimal disruption via a letterbox when fault repairs are carried out. 63 amp and 125 amp rewirable extensions are also available.

PowerFLEX™ CEE Extensions are manufactured with heavy duty flexible Titanex HO7RN-F cable with durable CEE plugs and sockets. All assemblies are PAT Tested to DIN VDE 0701-0702.

Crimped End Ferrules



32 Amp Single Phase  
240V Moulded Plug



63 Amp Single Phase 240V  
Re-wireable Plug





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