



PHASE 3  
CONNECTORS

# POWERSAFE POWER CONNECTORS



## ULTIMATE PROVIDER OF SAFE POWER MANAGEMENT.

Designed to connect single & three phase high current power circuits, Powersafe single pole connectors are at the forefront of both safety and technical capability.



[www.p3connectors.com](http://www.p3connectors.com)

# Overview

With increased demand for temporary high-power systems in entertainment & industrial applications, the choice of high current connectors is critical to ensure safety and reliability for every use. Designed to connect single & three phase high current power circuits, PHASE 3 Powersafe single pole connectors are at the forefront of both safety and technical capability.

These connectors have been tried and tested in some of the harshest environments worldwide; from the oil fields of Canada to data centres in the Arctic Circle. Based on their impressive technical capabilities, added safety features, rugged construction, reliability and quality, they are a popular choice for professional engineers.

Standard safety features include a secondary locking system which requires a key to unlock the connection. This is in addition to finger-proofed electrical contacts on all connectors, which reduces the risk of accidental contact when the connector is live.

Connectors are available in cable and panel-mount formats with either crimp or screw contacts. Rated at 500A and 800A for single core cables from 25 - 300mm<sup>2</sup>, PHASE 3 Powersafe connectors are, at present, amongst the highest rated and safest connectors of their type on the market.



## Features

- ▶ 800A maximum (505A UL Product)
- ▶ Colour coded & mechanically keyed to prevent connection errors
- ▶ Flame retardant (UL94-V0)
- ▶ Locking mechanism to prevent accidental disconnection under load
- ▶ Finger-proof contacts to prevent access to electrical contacts when uncoupled (M & F)
- ▶ IP67 ingress protection
- ▶ Cables from 25mm<sup>2</sup> to 300mm<sup>2</sup> CSA, and a choice of screw & crimp terminals
- ▶ Multipoint, self-wiping contact area
- ▶ High impact bodies & high temperature resistant materials
- ▶ Integral cable strain relief
- ▶ Metric EN compliant cable glands, with increased cable clamping range
- ▶ No special tools required for assembly
- ▶ Daisy chain hook-up system
- ▶ Panel mount connector & mounting plates
- ▶ Rubber hand grip for ease of coupling and added impact protection
- ▶ Protective caps to protect connectors from moisture, dirt and abrasion when uncoupled (optional)

## Key Specifications

No of Contacts	1
Maximum Continuous Rating*	Up to 800A
Surge Current	75kA
Short Circuit Rating	Up to 35.5kA
Cables Cross Sectional Area C.S.A.	25mm <sup>2</sup> to 300mm <sup>2</sup>
Contact Termination	Screw or Crimp
Mating Method	Bayonet Lock
Operating Voltage	1000V AC
Max Rated Voltage to Earth	2kV AC / 3kV DC
Minimum Flashover	9.5kV DC or AC Peak
Insulation Resistance	>5M ohms @ 500V DC
Ingress Protection**	IP67
Protection against Electrical Shock	IP2X
Flammability	UL94-V0
Mating Cycles	>500
Shell Material	High Temperature Thermoplastic
Contact Plating	Silver

\* Subject to environmental factors and cable choice etc.

\*\* In accordance with EN60529

# High Current Capacity

The PHASE 3 Powersafe connector's advanced contact design achieves its 800A continuous rating by utilising an arrangement of 29 transfer bridges. Each transfer bridge is rated at 30A, giving a total of 870A per contact.

## Connection Types



Line Drain



Panel Drain



Line Source with Rotalock



Line Source



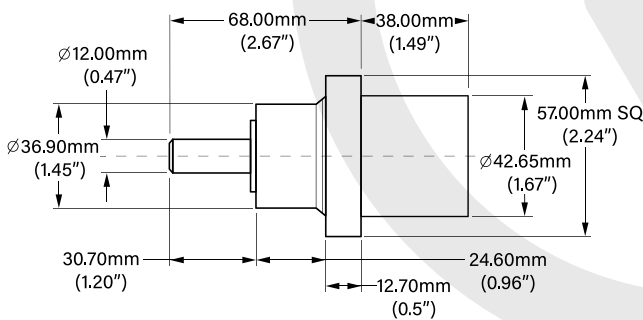
Panel Source



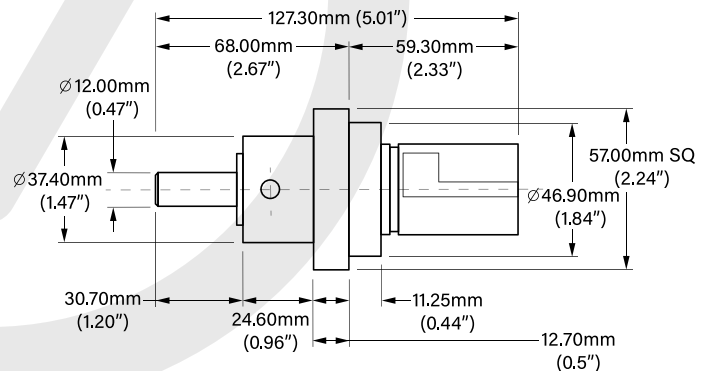
Panel Source with Rotalock

## Technical Diagrams

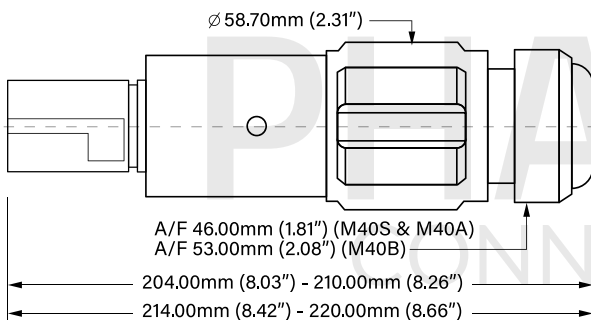
Panel Source



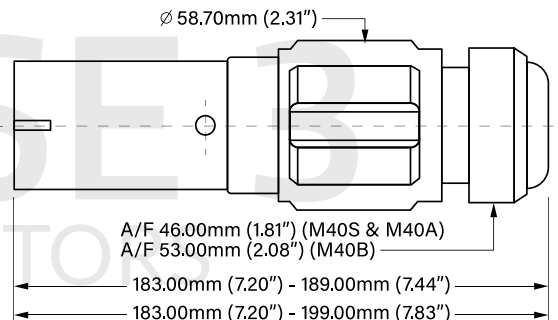
Panel Drain



Line Drain

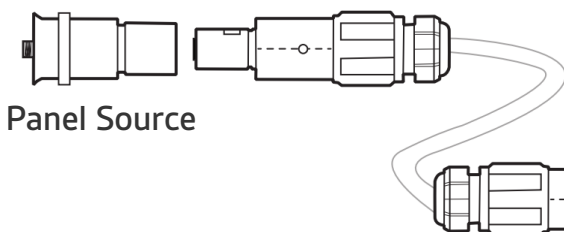


Line Source

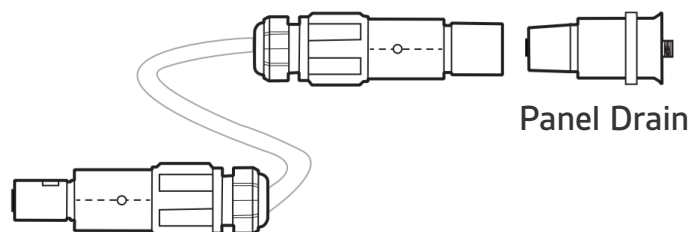


Line Drain

Line Source



Panel Source



Panel Drain

Line Source

Line Drain

# International Electrical Colour Coding Standards

REGION	GROUND	NEUTRAL (N)	LINE 1 (L1)	LINE 2 (L2)	LINE 3 (L3)
EUROPE & UK	GREEN	BLUE	BROWN	BLACK	GREY
UK (OLD)	GREEN	BLACK	RED	YELLOW	BLUE
USA (LV)*	GREEN	WHITE	BLACK	RED	BLUE
USA (HV)*	GREEN	GREY	BROWN	ORANGE	YELLOW
AUSTRALIA	GREEN	BLACK	RED	WHITE	BLUE
CANADA	GREEN	WHITE	RED	BLACK	BLUE

\*(HV) High Voltage > 1000VAC or 1500VDC

\*(LV) Low Voltage 50 to 1000VAC or 120-1500VDC

## Powersafe Range Order Codes

TYPE	KEY POSITION	COLOUR	CONTACT TYPE	CABLE SIZE	CABLE GRIP CLAMPING RANGE
LS = Line Source	E = Earth	GN = Green	S = Set screw	120 = 120mm <sup>2</sup>	M40S = 15 - 23mm
LD = Line Drain	N = Neutral	BL = Blue	C = Crimp	150 = 150mm <sup>2</sup>	M40A = 19 - 28mm
PS = Panel Source	1 = Line 1	BN = Brown	T5 = 500A Panel mount	185 = 185mm <sup>2</sup>	M40B = 22 - 32mm
PD = Panel Drain	2 = Line 2	BK = Black	T8 = 800A Panel mount	240 = 240mm <sup>2</sup>	M50 = 30 - 38mm
	3 = Line 3	GY = Grey		300 = 300mm <sup>2</sup>	
		R = Red			
		Y = Yellow			
		W = White			

\*Set screw version available up to 150mm<sup>2</sup>, reduction sleeves available for cables sizes 25, 35, 50, 70 & 95mm<sup>2</sup>. Caps and accessories also available, please ask for details. \*\*Larger cable glands upon request.

# POWERSAFE



ONE COMPLETE SOURCE

AU: 1800 525 251

NZ: 07 552 5251

hello@SHOWTECHNIX.com

To the best of our knowledge, the information is correct at the time of printing. However, we cannot be held responsible for any errors made, or changes to the specification as part of ongoing refinements to our product range. E&OE. The rights and ownership of all trademarks are recognised.