

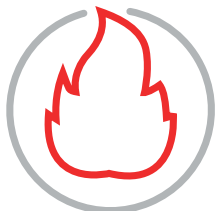


Inelco Hunter Limited
specialist supplier of electronic components & solutions

Amphenol
Energy Technologies

Amphe-Phase Singlepole Power Connector

Hazardous Area

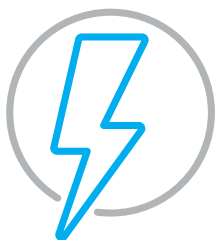


Starline-EX



Amphe-EX

Topside



Neptune

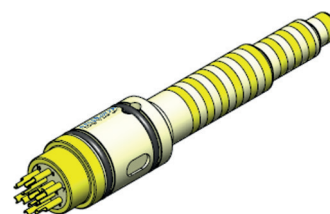


Starline

Down Hole

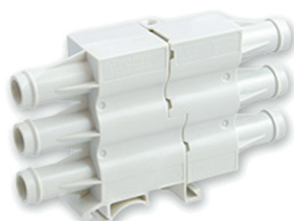


KTK



DHR- Rotatable

Subsea



Zeus



Submariner 5500

PRODUCT 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, Amphe-Phase 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 fingerproofed 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 - 300mm², Amphe-Phase connectors are, at present, amongst the highest rated and safest connectors of their type on the market.

High Current Capacity The Amphe-Phase 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.

Performance Enhancements

- Increased Current Carrying Capacity (500A/800A)
- Increased Short Circuit Ratings (35.5Ka)
- Reduced Insertion Force
- Rubber Hand Grip for ease of coupling
- Cable Strain Relief (25mm-300mm)
- Manufactured to ISO 9001:2015

Safety Improvements

- Waterproof & Dust Protection Rating (IP67)
- Colour Coded Keyed Locking Mechanism
- Finger-Proof Protection against electric shock (IP2X)
- Flame Retardant Materials (UL94-VO)
- Improved Impact Resistance
- Environmental Caps
- UL Certified Product



PRODUCT OVERVIEW

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 - 300mm²

Amphe-Power Range – Key Specification

No of Contacts:	1
Maximum Continuous Current Rating:*	Up to 800A
Surge Current:	75kA
Short Circuit Rating:	Up to 35.5kA
Cables Cross Sectional Area C.S.A:	25mm ² to 300mm ²
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
Ambient Temperature	-30 to +125°C
Contact Plating:	Silver

*Subject to environmental factors and cable choice etc. **In accordance with EN60529.



International Electrical Colour Coding Standards

Region	Earth Key E	Neutral Key N	Line 1 Key 1	Line 2 Key 2	Line 3 Key 3
European & UK (Harmonised)	Green	Blue	Brown	Black	Grey
UK (Traditional)	Green	Black	Red	Yellow	Blue
Australia	Green	Black	Red	White	Blue
USA - LV	Green	White	Black	Red	Blue
USA - HV	Green	White	Brown	Orange	Yellow

APPLICATIONS

Amphe-Phase connectors offer a safe and durable solution for high power applications up to 800Amps. With its touch-safe contact design and IP67 ratings it is the perfect connector for a wide range of harsh environments.

Amphe-Phase connectors are designed to easily mate and have inline and panel mount source and drain styles to enable daisy chain circuit solutions. With set screw contact options you can install these connectors without the need for expensive custom tooling.

Typical applications for Amphe-Phase Single pole connectors include Generators, three phase motors, utilities cabinets, light distribution panels, welding units and load banks.



TOOLS

CRIMP TOOLING

**Crimping Tool
HT 131-C Cordless**



**Hydraulic14.4v Crimping Tool
B131-C**



Cable Size (mm ²)	Inside Diameter	Outside Diameter	Tensile Strength IEC61238-1	Die Set P/N (No. of Crimps)
25	7.0mm	9.4mm	1.500N	ME 5 (2)
35	8.9mm	11.8mm	2.100N	ME 07 (2)
50	10mm	13mm	3.000N	ME 10 (2)
75	11.3mm	14.7mm	4.200N	ME 14 (2)
95	13.5mm	17.6mm	5.700N	ME 19 (2)
120	15.2mm	19.7mm	7.200N	ME 24 (2)
150	16.8mm	21.6mm	9.000N	ME 30 (2)
185	19.2mm	24.5mm	11.100N	ME 37 (2)
250	21.1mm	25.4mm	14.400N	ME 48 (3)
300	24mm	30mm	18.000N	ME 60 (3)



SET SCREW TOOLING

**5mm Torque Driver Bit
TD5-BT**



**Torque Driver
TD5-HX-SKT**



ACCESSORIES

AMPHE-PHASE RELEASE KEY

Part Number

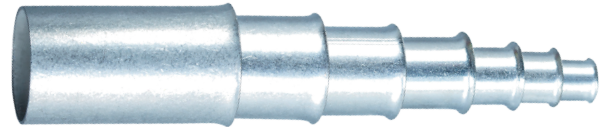
Description

APSLRK

Amphe-Phase Secondary Locking Release Key



REDUCTION SLEEVES



Cable Size (mm2)	Part Number	Set Screw Torque Minimum	Cable Jacket Strip Length
25	RSR25	10.5 Nm	33mm
35	RSR35	10.5 Nm	33mm
50	RSR50	10.5 Nm	33mm
75	RSR70	10.5 Nm	33mm
95	RSR95	10.5 Nm	33mm

DC-PD

Dustcap IP44 for
Panel Drain



IPCP-LD-E-GN

Environmental
Cap IP67 for
Line Drain



IPCP-LS-E-GN

Environmental Cap IP67
for Line Source



DC-PS

Dustcap IP44 for
Panel Source



AMPHENOL RANGE

R49 & R24 POWER



Main Features

- Up to 1490A power
- R24 is the RADSOK option of R49 allowing a smaller packaging and higher power performance
- Basket weave cable retention optional backend
- R24/R49 adaptor flange to retrofit old designs RMP

Markets

Mobile powergen, drilling rigs, petro-chemical, offshore oil drilling, shore to ship/cold ironing, cranes

Application

Single Contact heavy duty circular connectors harsh environments.

R49-CM R24-CM
R49-PM R24-PM
R49-BM R24-BM

Standard Requirements

CSA and EAC certified

Oil, Alkaline, UV and weather resistant
Insulations: synthetic rubber

Coupling Mounting

Snap action retainer with a hasp bracket that has hole to accommodate standard OSHA compliant lock.

Contact Termination

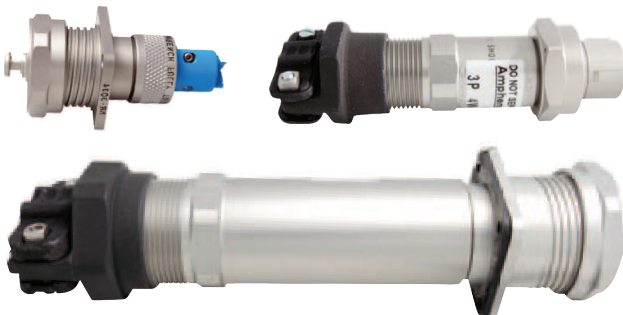
Power contact to accommodate from 4/0AWG (120mm²) up to 777MCM (400mm²)

Performance Environ/Elect

IP67 rating for environmental sealing. Up to high amperage of 1490 amps at 1000V AC or DC rating available.



NEPTUNE CONNECTORS



Main Features

- UL 1682 listed, IEC61984 and EAC certified
- Metal rugged connector for Harsh environments
- Allows use of multi-conductor VFD cables

Markets

Mobile gen set, power generation, lighting, cranes, load banks, events, amusement parks, high powered equipment, welding, convention centres, data centres power temp

Application

2, 3, 4 power contact inserts designed to withstand variable frequency drive if required from 30A up to 200A.

Standard Requirements

Neptune Series is UL, EAC and CE.

Coupling Mounting

Machined metal shell provides a heavy duty packaging in a smaller footprint than other connectors in the market. Cable adapters provide ample wire termination spacing.

Contact Termination

Pressure terminated contacts used to achieve high amperages up to 200A. Crimp style termination available as optional.

Performance Environ/Elect

VFD inserts with RADSOK provide significantly reduced insertion forces vs. standards. Lower temp rise allows for higher current in a smaller package. Inserts are rated to 600 hz at 1000 volts.



AMPHENOL RANGE

GENLOK AMPHE-PHASE



Markets

Mobile gen set, power generation, lighting, cranes, load banks, events, amusement parks, high powered equipment, welding, convention centers, data centers power temp

Application

Single Contact heavy duty circular connectors panel for harsh environments designed for safety operations.

Standard Requirements

UL Certified (E514205)
UL94-VO
Flammability

Coupling Mounting

Bayonet mechanical locking system requiring a key to unlock for additional safety.

Main Features

- Waterproof & Dust Protection Rating (IP67)
- Sequential mating locking system to ensure safety circuits are connected first and disconnected last (FMLB)
- Finger-Proof Protection against electric shock (IP2X)
- Flame Retardant Materials (UL94-VO)
- Improved Impact Resistance
- Environmental Caps
- UL Certified Product (E514205)

Contact Termination

Power contact to accommodate from 4AWG (25mm²) up to 600MCM (300mm²).

Performance Environ/Elect

IP67 rating for environmental sealing. Up to high amperage of 800 amps at 1000V AC.



AMPHE-309 PIN & SLEEVE



Main Features

- Industrial Pin and Sleeve standard connectors
- Mechanical Interlock available
- EX and IECEx version available as optional

Markets

Mobile gen set, power generation, lighting, cranes, load banks, events, amusement parks, high powered equipment, welding, convention centres, data centres power temp

Application

3, 4, 5 power contact inserts designed to withstand variable frequency drive if required from 20A up to 100A.

Standard Requirements

IEC 60309-1 & 2, EN 60309-1 & 2, BS 4343-2 1992 and UL 1682 & 1686.

Coupling Mounting

Standard Pin and Sleeve layout inter mateable with the industry. Made with VALOX to achieve optimal performance in harsh environments.

Contact Termination

Pressure terminated contacts facing all to the termination side to reduce installation time.

Performance Environ/Elect

Waterproof IP67 or splash proof IP44 options. 600VAC/ 250 VDC (minimum creepage and clearances per UL 840).

