

PIN & SLEEVE CONNECTORS

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EPIC®

**Pin & Sleeve
Connectors**



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EPIC® Pin & Sleeve Overview

EPIC® Pin & Sleeve connectors are designed to meet the power connectivity needs and requirements of your business. Whether you are designing machinery for that important international customer, specifying mobile power solutions on the factory floor, or planning outdoor power distribution systems, EPIC® Pin & Sleeve connectors and interlocked switched-socket outlets can provide a safe, cost-effective solution for your industrial wiring requirements.

UL-approved North American devices are available for 20, 30, 60, and 100 amps. International-rated devices are available for 16, 32, 63, and 125 amps. Both North American and international devices are available in splash-proof (IP44) and watertight (IP67) configurations.

EPIC® Pin & Sleeve connectors conform to IEC 60309-1 and -2 standards. However, advanced industrial patented design has led to a range of superior products. For example, the MULTIMAX Pin & Sleeve connectors have a unique patented design that can be assembled in less than 20 seconds, saving money through reduced downtime and installation savings. They are also sensible alternatives to twist-lock connectors in many applications.

EPIC® ULYSSE Series Interlocked Socket Outlets


The revolutionary, fully-patented ULYSSE range of interlocked switched-socket outlets offers several unique features:

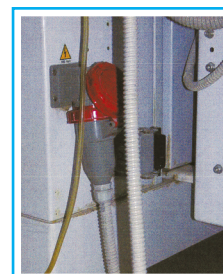
- Outlets come prewired, saving time and money.
- Outlets have been tested and rated to both IP66 and IP67, and provide an environmental seal from high-pressure jets of water and temporary immersion.
- Disconnect-rated Cam switches allow direct switching of induction motor loads.
- Safety interlocks incorporate numerous safety precautions: power is prevented from being turned on unless a plug has been inserted in the outlet, plugs cannot be removed while the power is turned on, and the enclosure interior is prevented from being accessed while the device is energized.
- Double insulation eliminates electrical paths from the inside of the enclosure to the exterior.
- Outlets have a tough, reinforced thermoset plastic enclosure, which passes a 960°C glow wire test and provides outstanding resistance to extremes of heat and chemical agents.

Lapp Quality & Certification

EPIC® Pin & Sleeve connectors serve a variety of industries:

- Automotive
- Building electrical supply
- Outdoor power distribution
- Chemical industry
- Food processing equipment
- Motors
- Portable equipment
- Scientific & photographic labs
- Small workshops
- Steel & heavy industries
- Wine & beer production

As you would expect from a quality-approved vendor (Lapp is ISO 9001-2000 certified), all North American products carry the  mark and are certified for use in the US and Canada in accordance with UL 1682 & UL 1686 standards and CSA standard C22.2 No. 182.1-02. The UL file number for EPIC® Pin & Sleeve connectors is E223777. All products comply with IEC 60309-1, -2, and carry the .



EPIC® Pin & Sleeve Products Overview

EPIC® MULTIMAX Series Plugs



Protected Straight Plugs with Rapid Wiring (IP44)

Characteristics: Patented click-lock housing eliminates screws and speeds up assembly. Patented self-locking cable grip is vibration-proof and eliminates external stress to the cable seal and contact terminals. Available in 20 & 30A North American configurations and 16 & 32A international versions.

Uses: Indoor cable-to-cable connections & cable-to-power outlet connections.

EPIC® CEE Series Plugs



High-Performance Protected Straight Plugs (IP44)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates a non-slip grip, cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, and a very thick self-extinguishing body and grip. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor cable-to-cable connections & cable-to-power outlet connections.



High-Performance Watertight Straight Plugs (IP67)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates a non-slip grip, cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, a very thick self-extinguishing body and grip, and a gasketed locking ring for watertight connections.

Uses: Indoor cable-to-cable connections & cable-to-power outlet connections.



High-Performance 90° Angled Protected Plugs (IP44)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, and a very thick self-extinguishing body and grip. Available in 20A North American and 16A international configurations.

Uses: Indoor cable-to-power outlet connections.



High-Performance 90° Angled Watertight Plugs (IP67)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, a very thick self-extinguishing body and grip, and a gasketed locking ring for watertight connections. Available in 20A North American and 16A international configurations.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor cable-to-power outlet connections.

EPIC® CEE Series Inlets



90° Angled Protected Wall Mounting Appliance Inlets (IP44)

Characteristics: Suitable for both wall mounting and mounting on machines. Incorporates a smooth upper wall for drilling a cable entry hole and a very thick self-extinguishing plug body and case. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor equipment-to-cable connections.



90° Angled Watertight Wall Mounting Appliance Inlets (IP67)

Characteristics: Suitable for both wall mounting and mounting on machines. Incorporates a smooth upper wall for drilling a cable entry hole, a very thick self-extinguishing plug body and case, and a gasketed locking ring for watertight connections. Available in 20 & 30A North American and 16 & 32A International configurations.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor equipment-to-cable connections.



High-Performance Watertight Straight Flush Mounting Appliance Inlets (IP67)

Characteristics: Nickel-plated rounded pins provide easy insertion. Incorporates a thermoset plastic contact holder, a very thick self-extinguishing plug body, and a gasketed locking ring for watertight connections. Available in 60 & 100A North American and 63 & 125A international configurations.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres, outdoor equipment-to-cable connections.

Photographs are not to scale and are not true representations of the products in question.

For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® Pin & Sleeve Products Overview

EPIC® MULTIMAX Series Female Connectors



Protected Straight Connectors with Rapid Wiring (IP44)

Characteristics: Patented click-lock housing eliminates screws and speeds up assembly. Patented self-locking cable grip is vibration-proof and eliminates external stress to the cable seal and contact terminals. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor cable-to-cable connections & cable-to-equipment inlet connections.

EPIC® CEE Series Female Connectors



High-Performance Watertight Straight Connectors (IP67)

Characteristics: Solid brass rounded socket contacts provide easy insertion. Incorporates a very thick self-extinguishing body and non-slip grip, cable entry with a screw-in cable gland, an internal saddle-clamp strain relief, and a gasketed locking ring for watertight connections.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor cable-to-cable connections & cable-to-equipment inlet connections.

EPIC® CEE Series Panel Mount Receptacles



Straight Flush Mounting Protected Socket Outlets (IP44)

Characteristics: Solid brass rounded socket contacts provide easy insertion. Incorporates a very thick self-extinguishing body and cover and non-aging elastomer gaskets. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor fixed power source-to-cable plug connections.



Watertight Angled Flush Mounting Socket Outlets (IP67)

Characteristics: Solid brass rounded socket contacts provide easy insertion. Incorporates a very thick self-extinguishing body and cover, non-aging elastomer gaskets, and a gasketed locking ring for watertight connections.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor fixed power source-to-cable plug connections.



Angled Wall Mounting Protected Socket Outlets (IP44)

Characteristics: Suitable for both wall mounting and mounting on machines. Solid brass rounded socket contacts provide easy insertion. Incorporates outer cable entry through screw-type cable gland and a very thick self-extinguishing body and cover. Available in 20 & 30A North American and 16 & 32A international configurations.

Uses: Indoor fixed power source-to-cable plug connections.

EPIC® ULYSSE Series Switched-Socket Outlets with Mechanical Interlock



Wall Mounting Interlocked Socket Outlets with Fuse Holder Base (IP66/67)

Characteristics: Heavy duty reinforced thermoset plastic modular enclosure for superior heat & chemical resistance. Incorporates a heavy duty safety interlocked disconnect-rated switch for direct switching of motor loads. Available in 20, 30 & 60A North American and 16, 32 & 63A international configurations.

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor fixed source disconnect-to-cable plug connections.

EPIC® ALUPRES Series Switched-Socket Outlets with Mechanical Interlock



Wall Mounting Interlocked Socket Outlets in Aluminum Alloy (IP55/67)

Characteristics: Heavy duty aluminum alloy modular enclosure for superior strength and heat resistance. Incorporates a heavy duty safety interlocked disconnect-rated switch for direct switching of motor loads. IP67 for 20 & 30A outlets (16 & 32 A international) and IP55 for 60A outlets (63A international).

Uses: Indoor wash-down/corrosive & heavy dust atmospheres; outdoor fixed source disconnect-to-cable plug connections.

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EPIC® Pin & Sleeve Construction

MULTIMAX Connectors

The spring-loaded cover automatically protects against dirt and splashed water when the connector is not engaged. Color-coding identifies voltage.

The patented click-lock housing locks and unlocks in 1/16 turn, eliminating assembly screws and speeding up overall assembly.

The patented self-locking cable grip is vibration-proof and prevents accidental loosening.

The contact carrier protects recessed contacts and orients the ground contact position based on voltage rating, preventing connector mis-mating.

The 4-finger cable grip secures cable, prevents pullout, and eliminates strain on contact terminals.

A patented universal neoprene membrane seal accommodates a wide range of cable diameters and cable surface irregularities. It seals out dirt, splashed water, and contaminants.

High-copper solid brass, self-adjusting contacts provide easy insertion & withdrawal and minimize heat buildup.

A longer ground contact assures a first-make, last-break connection.

All of the contact terminal screws face in the same direction to simplify wiring.

CEE IP44 Plugs

A neoprene onion-skin grommet accommodates a wide range of cable diameters. It seals out dirt and contaminants and is watertight.

A retaining tab engages with the mating connector's cover to prevent unintentional withdrawal.

The high-impact non-conductive thermoplastic housing enhances electrical safety and provides excellent chemical resistance.

Nickel-plated high-copper solid brass contacts provide easy insertion & withdrawal, improved chemical resistance, and minimal heat buildup.

A threaded cable gland protects the cable jacket and accepts a variety of SKINTOP® strain reliefs and cable glands.

The ribbed body provides a secure hand grip.

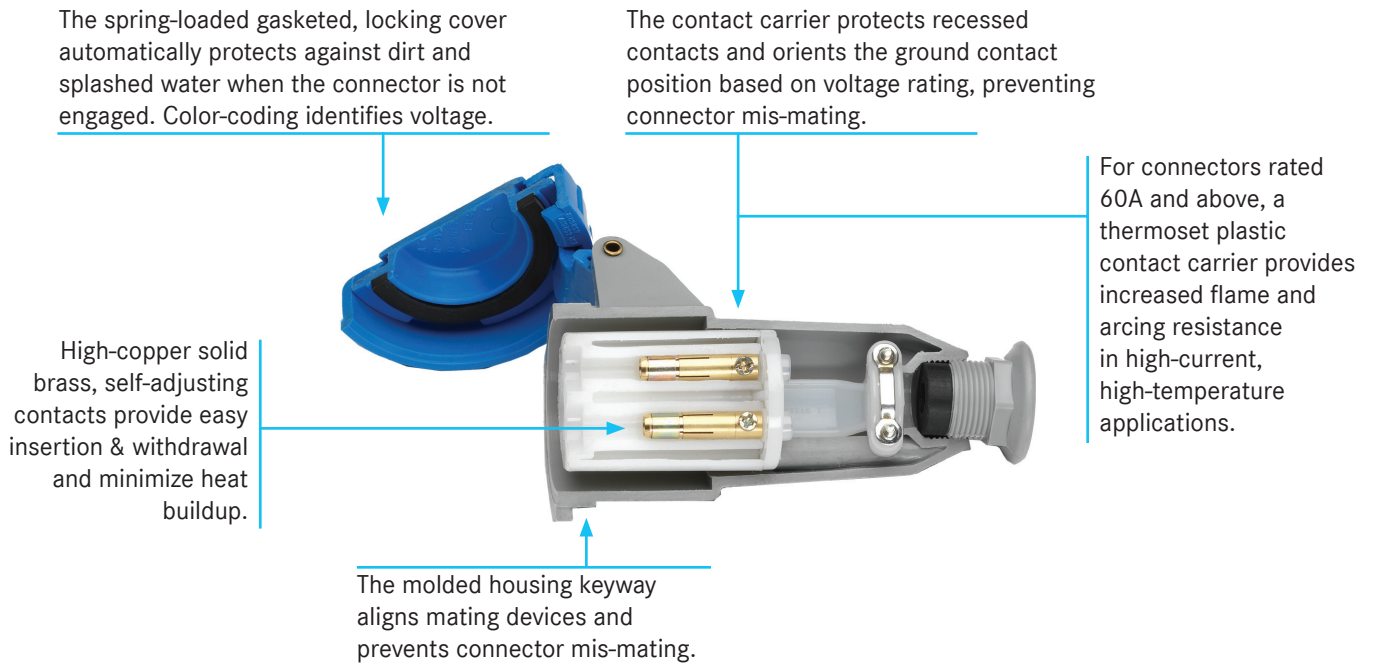
An internal saddle-style cable clamp secures cable, prevents pullout, and eliminates strain on contact terminals.

The molded housing keyway aligns mating devices and prevents connector mis-mating.

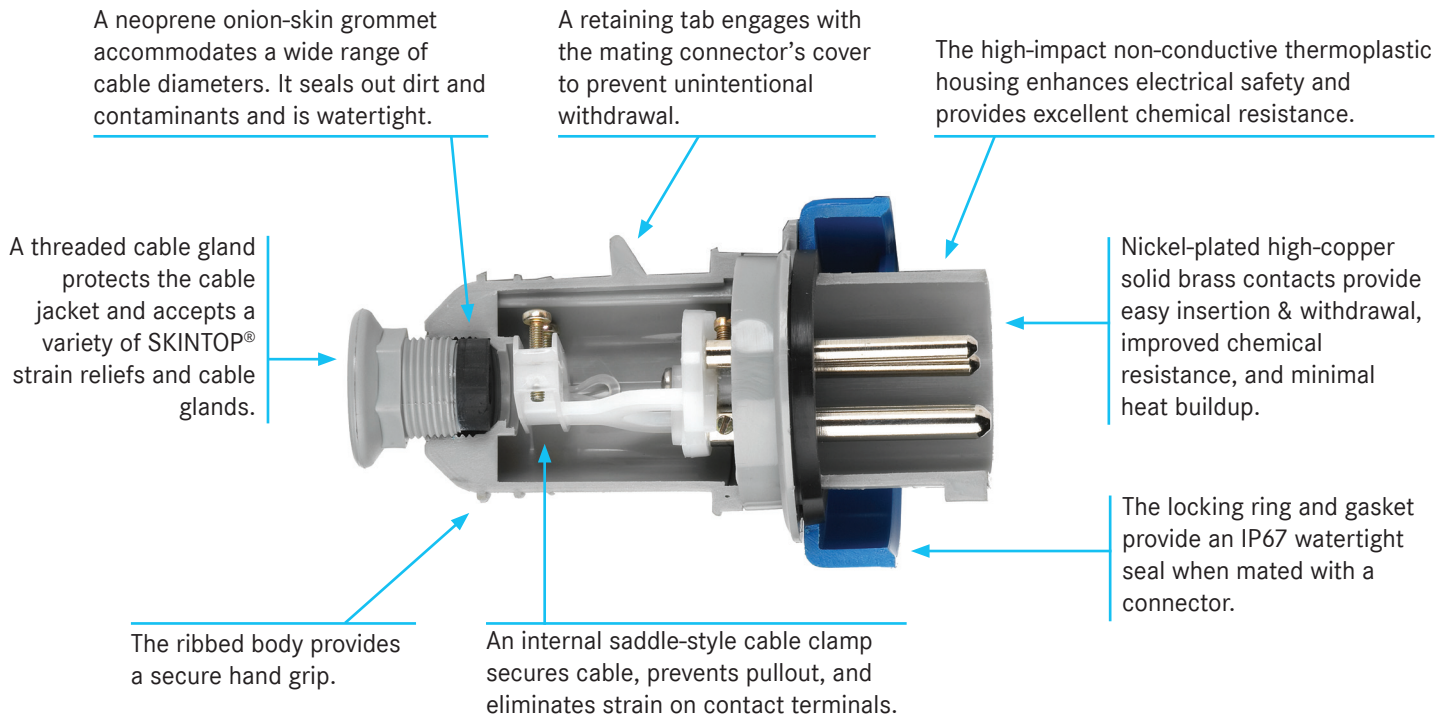
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EPIC® Pin & Sleeve Construction

CEE IP67 Connectors



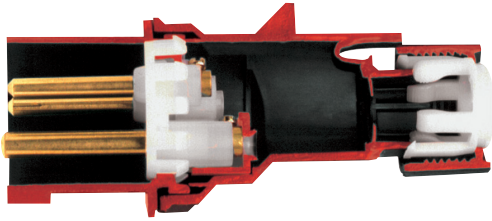
CEE IP67 Plugs



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EPIC® MULTIMAX Installation

MULTIMAX Assembly In 20 Seconds



Snaplock function provides speed in assembling
The grip is assembled without any tools with 1/16 turn.

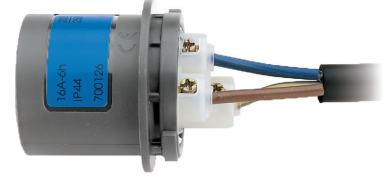
Guaranteed cable clamping over time
The cord grip and shade ring locking device prevent accidental cable loosening.

Protection rating even with the cable stressed
The radial clamping cord grip is located external to the universal membrane seal and does not compromise the seal's environmental rating.

1. Insert the prepared cable into the grip.



2. Tighten the terminal screws, which are unscrewed in advance and positioned on the same side.



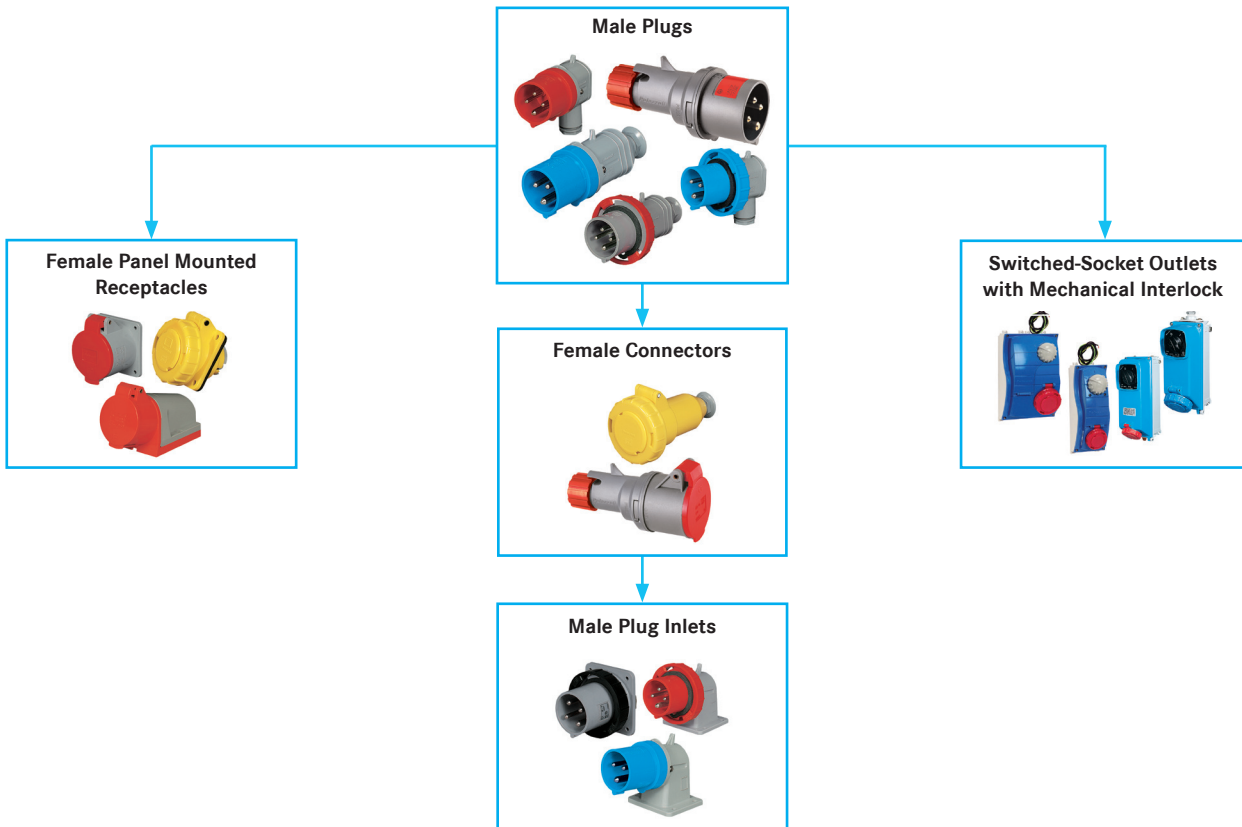
3. Close the grip until it clicks (1/16 turn).



4. Lock the cable by turning the shade ring until it is locked.



Connector Mating Configurations



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EPIC® ULYSSE Series Overview

High-Performance Switched-Outlet with Mechanical Interlock

The EPIC® ULYSSE series of interlocked switched-socket outlets are ideal for indoor and outdoor power service on/off control. The range consists of North American (20, 30 & 60A) and international (16, 32 & 63A) models. These interlocked outlets can be mounted individually by using the integral mounting feet or as part of a multiple-unit distribution board assembly by utilizing the patented quick-mount support plate and a selection of wire connection junction boxes. The rugged, double-insulated thermoset plastic enclosure, internal fuse holder, and zinc-plated steel interlocking mechanism contribute to long-term operator safety. The rotary switches used in the EPIC® ULYSSE series

socket outlets are AC23A-AC3 category devices suitable for direct-switching of motor and other highly inductive electrical loads. They have a conditional short circuit rating of 10,000 amps. The EPIC® ULYSSE range meets or exceeds compliance with the following standards:

- CEI EN 60309
- CEI EN 60947
- CEI EN 60529
- CEI EN 60742
- IEC 60309
- IEC 947
- IEC 529
- IEC 742
- UL 1682
- UL 1686
- UL 508

■ Features

Quick & easy installation

Used individually, surface mounting is quickly accomplished using the four integral mounting feet. A patented quick-mount support plate (optional) allows multiple units to be assembled into a distribution panel. All socket outlets are provided pre-wired with stripped and numbered cables 70 cm long, eliminating the need to open the enclosure. This reduces installation time by up to 30%.

Thermoset plastic enclosure

The use of low smoke, low toxicity, halogen-free reinforced thermoset plastic ensures the highest possible dimensional stability and resistance to heat, chemical, and mechanical stress. A double-insulated design ensures that no electrical path exists from internal components to the outside of the enclosure.

Double environmental protection (watertight)

All EPIC® ULYSSE switched-socket outlets carry both IP66 and IP67 protection ratings for watertight service against violent water jets as well as accidental immersion.

Mechanical interlock

The zinc-plated steel interlock mechanism guarantees electrical operation only when a plug is inserted into the outlet. Plug removal is blocked while power is turned on, eliminating arc-flash hazards

Ergonomic control with lockout

The unique semi-spherical control knob is easily operated even with a gloved hand. To prevent unauthorized operation, the knob can be padlocked in either the “on” or “off” position.

Direct motor control

Use of AC23A-AC3 category cam switches allows direct switching of motor and other highly inductive electrical loads and have a conditional short circuit rating of 10,000 amps.

■ Safety Features

EPIC® ULYSSE outlets are made of reinforced thermoset plastic. These products are ideal for outdoor applications. Their rugged industrial design ensures high impact resistance (20 joules) at both low and high temperature extremes, electrical insulation, outstanding resistance to extremes of heat and fire (960°C glow wire test; self-extinguishing in acc. with UL 94: V-0), as well as resistance to chemical agents, humidity, prolonged UV exposure, and atmospheric agents. Fuse holders and receptacle contacts are finger safe.

■ Recommended Applications

Manufacturing facilities; food processing; breweries & distilleries; amusement parks; marinas; ski facilities; machine power distribution; boiler room locations



■ ULYSSE Specifications

	North American	International
Number of Contacts	3, 4, 5	3, 4, 5
Contact Configurations	1+N+PE, 2+PE, 3+PE, 3+N+PE	2+PE, 3+PE, 3+N+PE
Rated Voltage (others available)	125V, 250V, 480V, 120/208V	110-130V, 200-250V, 380-415V
Rated Current	20A, 30A, 60A	16A, 32A, 63A
Switched Category	AC23A	AC23A
Wire Gauge		
20/16A:	12 AWG	12 AWG
30/32A:	8 AWG	8 AWG
60/63A:	6 AWG	6 AWG
Cable OD Range	11 - 25 mm	11 - 25 mm
Protection Class	IP66 & IP67	IP66 & IP67
Housing Material	UV-stabilized thermoset plastic	UV-stabilized thermoset plastic
Flammability	Self-extinguishing: V-0 per UL 94	Self-extinguishing: V-0 per UL 94
Standards of Conformity	UL 508, UL 1682, UL 1686	IEC 60309-1 and -2, IEC 60529, IEC60947-3
Approvals	CE, cULus, E330239	CE, IMQ

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EPIC® ALUPRES Series Overview

High-Performance Switched-Socket Outlets with Mechanical Interlock

The EPIC® ALUPRES series of interlocked switched-socket outlets are ideal for indoor and outdoor power service on/off control. The range consists of North American (20, 30 & 60A) and international (16, 32 & 63A) models. These interlocked outlets can be mounted individually by using the integral mounting tabs or as a part of a multiple-unit distribution board assembly. The rugged aluminum alloy enclosure and zinc-plated steel interlocking mechanism contribute to long service life and long-term operator safety. The rotary switches used in the EPIC® ALUPRES series socket outlets are AC23A-AC3 category

devices suitable for direct switching of motor and other highly inductive electrical loads. They have a conditional short circuit rating of 10,000 amps. The EPIC® ALUPRES range complies with the following standards:

- CEI EN 60309
- CEI EN 60947
- CEI EN 60529
- CEI EN 60742
- IEC 60309
- IEC 947
- IEC 529
- IEC 742
- UL 1682
- UL 1686
- UL 508



■ Features

Quick & easy installation

Used individually, surface mounting is quickly accomplished using the four integral mounting tabs. An optional support plate allows multiple units to be assembled into a distribution panel.

Rugged aluminum alloy enclosure

The powder-painted aluminum alloy enclosure provides excellent resistance to heat and corrosive agents. Resistance to impact and mechanical stress is over 50% greater than those of typical switched-socket outlets constructed using standard thermoplastics. Made with low smoke, low toxicity, and halogen-free materials.

Environmental protection (watertight)

EPIC® ALUPRES 20/16A & 30/32A outlets are IP67 rated for watertight service against violent water jets. The 60/63A outlets are IP55 rated for watertight service in lower pressure wash-down applications.

Mechanical interlock

The zinc-plated steel interlock mechanism guarantees electrical operation only when a plug is inserted into the outlet. Plug removal is blocked while power is turned on, eliminating arc-flash hazard.

Direct motor control

Use of AC23A-AC3 category cam switches allows direct switching of motor and other highly inductive electrical loads and has a conditional short circuit rating of 10,000 amps.

■ Construction

EPIC® ALUPRES outlets are made of a die-cast aluminum alloy and are powder-painted with polymerized non-scratch paint at 180°C. This makes them ideally suited for abrasive environments. Their rugged industrial design ensures high impact resistance (30 joules) at both low and high temperature extremes, and outstanding resistance to extremes of fire and heat. A special chrome treatment applied prior to painting ensures protection from corrosion.

■ Recommended Applications

Steelworks; foundries; rolling mills; tunnels; abrasive areas near metal removal machinery and carpentry machines

■ Motor Horsepower Rating (ULYSSE & ALUPRES)

	Switch Outlet Max Current / Power		
	20A / 10kW	30A / 15kW	60A / 30kW
230V Motor Voltage			
5 hp	15 hp	25 hp	
460V Motor Voltage			
10 hp	20 hp	40 hp	

■ ALUPRES Specifications

	North American	International
Number of Contacts	3, 4, 5	3, 4, 5
Contact Configurations	1+N+PE, 2+PE, 3+PE, 3+N+PE	2+PE, 3+PE, 3+N+PE
Rated Voltage (others available)	125V, 250V, 480V, 120/208V	110-130V, 200-250V, 380-415V
Rated Current	20A, 30A, 60A	16A, 32A, 63A
Switched Category	AC23A	AC23A
Wire Gauge		
20/16A:	12 AWG	12 AWG
30/32A:	8 AWG	8 AWG
60/63A:	6 AWG	6 AWG
Cable OD Range (entry flange w/gland)	depending on entry flange selection: 9 - 20 mm (20/16A), 9 - 26 mm (all others)	depending on entry flange selection: 9 - 20 mm (20/16A), 9 - 26 mm (all others)
Protection Class	IP67 (20/16A & 30/32A), IP55 (60/63A)	IP67 (20/16A & 30/32A), IP55 (60/63A)
Housing Material	Die-cast aluminum alloy	Die-cast aluminum alloy
Flammability	Self-extinguishing: V-0 per UL 94	Self-extinguishing: V-0 per UL 94
Standards of Conformity	UL 508, UL 1682, UL 1686	IEC 60309-1 and -2, IEC 60529, IEC60947-3
Approvals	CE, cULus, E330239	CE, IMQ

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EPIC® Pin & Sleeve Product Selection

North American Standard: 20 Amps

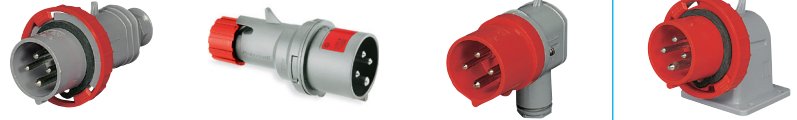
Male plugs mate with female connectors, panel-mounted receptacles, and switched-socket outlets. Male inlets mate with female connectors.
 Dimensional drawings can be found on the indicated pages and are the same for North American and international standards.
 Circuit wiring diagrams can be found on page 496. Additional configurations are available: see www.lappusa.com for a complete listing.

IP44

IP67

Male Plugs & Inlets

for dimensional data, see pages 475 - 476



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP44	IP44	IP67
20 Amps					Male Plugs			Male Inlets
Yellow	125	3	1+N+PE	4	477203FX	700124FX	475202FX	476203FX
Blue	250	3	2+PE	6	477303FX	700126FX	475302FX	476303FX
Light Blue	3Ø 250	4	3+PE	9	477313FX	700139FX	475312FX	476313FX
Red	3Ø 480	4	3+PE	7	477513FX	700137FX	475512FX	476513FX

Female Connectors & Receptacles

for dimensional data, see pages 476 - 477



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP67	IP67	IP44	IP44
20 Amps					Female Connectors			Female Receptacles	
Yellow	125	3	1+N+PE	4	473203FX	720124FX	471263FX	431611FX	471262FX
Blue	250	3	2+PE	6	473303FX	720126FX	471363FX	431622FX	471362FX
Light Blue	3Ø 250	4	3+PE	9	473313FX	720139FX	471373FX	441622FX	471372FX
Red	3Ø 480	4	3+PE	7	473513FX	720137FX	471573FX	441650FX	471572FX

Switched-Socket Outlets

for dimensional data, see page 478



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	With Fuse Holder IP66/67	Direct Connect IP67
20 Amps					EPIC® ULYSSE	EPIC® ALUPRES
Yellow	125	3	1+N+PE	4	400124FX	460124FX
Blue	250	3	2+PE	6	400126FX	460126FX
Light Blue	3Ø 250	4	3+PE	9	400139FX	460139FX
Red	3Ø 480	4	3+PE	7	400137FX	460137FX

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EPIC® Pin & Sleeve Product Selection

North American Standard: 30 Amps

Male plugs mate with female connectors, panel-mounted receptacles, and switched-socket outlets. Male inlets mate with female connectors. Dimensional drawings can be found on the indicated pages and are the same for North American and international standards. Circuit wiring diagrams can be found on page 496. Additional configurations are available: see www.lappusa.com for a complete listing.

IP44

IP67

Male Plugs & Inlets

for dimensional data, see page 479



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP44	IP67
30 Amps					Male Plugs		Male Inlets
Yellow	125	3	1+N+PE	4	477206FX	700224FX	476206FX
Blue	250	3	2+PE	6	477306FX	700226FX	476306FX
Light Blue	3Ø 250	4	3+PE	9	477316FX	700239FX	476316FX
Red	3Ø 480	4	3+PE	7	477516FX	700237FX	476516FX
Dark Blue	3Ø Y 120/208	5	3+N+PE	9	477326FX	700249FX	476326FX

Female Connectors & Receptacles

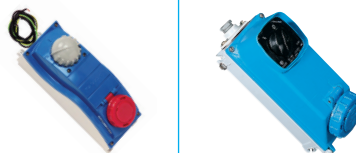
for dimensional data, see pages 480 - 481



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP67	IP67	IP44	IP44
30 Amps					Female Connectors		Female Receptacles		
Yellow	125	3	1+N+PE	4	473206FX	720224FX	471267FX	433211FX	471266FX
Blue	250	3	2+PE	6	473306FX	720226FX	471367FX	433222FX	471366FX
Light Blue	3Ø 250	4	3+PE	9	473316FX	720239FX	471377FX	443222FX	471376FX
Red	3Ø 480	4	3+PE	7	473516FX	720237FX	471577FX	443250FX	471576FX
Dark Blue	3Ø Y 120/208	5	3+N+PE	9	473326FX	720249FX	471387FX	453222FX	471386FX

Switched-Socket Outlets

for dimensional data, see pages 482



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	with Fuse Holder IP66/67	Direct Connect IP67
30 Amps					EPIC® ULYSSE	EPIC® ALUPRES
Yellow	125	3	1+N+PE	4	400224FX	460224FX
Blue	250	3	2+PE	6	400226FX	460226FX
Light Blue	3Ø 250	4	3+PE	9	400239FX	460239FX
Red	3Ø 480	4	3+PE	7	400237FX	460237FX
Dark Blue	3Ø Y 120/208	5	3+N+PE	9	400249FX	460249FX

Photographs are not to scale and are not true representations of the products in question.

For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® Pin & Sleeve Product Selection

North American Standard: 60 & 100 Amps

Male plugs mate with female connectors, panel-mounted receptacles, and switched-socket outlets. Male inlets mate with female connectors. Dimensional drawings can be found on the indicated pages and are the same for North American and international standards. Circuit wiring diagrams can be found on page 496. Additional configurations are available: see www.lappusa.com for a complete listing.

IP44

IP67

Male Plugs & Inlets

for dimensional data, see pages 483 & 486



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP67
60 Amps					Male Plugs	Male Inlets
	3Ø 250	4	3+PE	9	477317FX	476317FX
	3Ø 480	4	3+PE	7	477517FX	476517FX
	3Ø 120/208	5	3+N+PE	9	477327FX	476327FX
100 Amps						
	3Ø 250	4	3+PE	9	477318FX	476318FX
	3Ø 480	4	3+PE	7	249550FX	749550FX
	3Ø 120/208	5	3+N+PE	9	477328FX	476328FX

Female Connectors & Receptacles

for dimensional data, see pages 484 & 486



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP67	IP67
60 Amps					Female Connectors	Female Receptacles	
	3Ø 250	4	3+PE	9	473317FX	546322FX	446322FX
	3Ø 480	4	3+PE	7	346350FX	546350FX	446350FX
	3Ø 120/208	5	3+N+PE	9	473327FX	556322FX	456322FX
100 Amps							
	3Ø 250	4	3+PE	9	473318FX	549322FX	449322FX
	3Ø 480	4	3+PE	7	349550FX	549550FX	449550FX
	3Ø 120/208	5	3+N+PE	9	473328FX	559322FX	459322FX

Switched-Socket Outlets

for dimensional data, see page 485



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	Direct Connect IP66/67	Direct Connect IP55
60 Amps					EPIC® ULYSSE	EPIC® ALUPRES
	3Ø 250	4	3+PE	9	408339FX	460339FX
	3Ø 480	4	3+PE	7	408337FX	460337FX
	3Ø Y 120/208	5	3+N+PE	9	408349FX	460349FX

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® Pin & Sleeve Product Selection

International Standard: 16 Amps

Male plugs mate with female connectors, panel-mounted receptacles, and switched-socket outlets. Male inlets mate with female connectors.

Dimensional drawings can be found on the indicated pages and are the same for North American and international standards.

Circuit wiring diagrams can be found on page 496. Additional configurations are available: see www.lappusa.com for a complete listing.

IP44

IP67

Male Plugs & Inlets

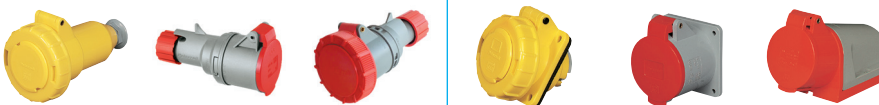
for dimensional data, see pages 475 - 476



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP44	IP67	IP44	IP67	
16 Amps					Male Plugs			Male Inlets		
Yellow	110 - 130	3	2+PE	4	477203	700124	710124	477202	476203	
Blue	200 - 250	3	2+PE	6	477303	700126	710126	477302	476303	
Light Blue	200 - 250	4	3+PE	9	477313	700139	—	477312	476313	
Dark Blue	200 - 250	5	3+N+PE	9	477323	700149	—	477322	476323	
Red	380 - 415	4	3+PE	6	477413	700136	710136	477412	476413	
Dark Red	380 - 415	5	3+N+PE	6	477423	700146	710146	477422	476423	

Female Connectors & Receptacles

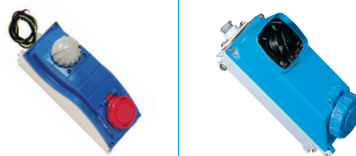
for dimensional data, see pages 476 - 477



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP44	IP67	IP67	IP44	IP44
16 Amps					Female Connectors			Female Receptacles		
Yellow	110 - 130	3	2+PE	4	473203	720124	730124	471263	431611	471262
Blue	200 - 250	3	2+PE	6	473303	720126	730126	471363	431622	471362
Light Blue	200 - 250	4	3+PE	9	473313	720139	—	471373	441622	471372
Dark Blue	200 - 250	5	3+N+PE	9	473323	720149	—	471333	451622	471332
Red	380 - 415	4	3+PE	6	473413	720136	730136	471473	441638	471472
Dark Red	380 - 415	5	3+N+PE	6	473423	720146	730146	471483	451638	471482

Switched-Socket Outlets

for dimensional data, see pages 478



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	With Fuse Holder IP66/67	Direct Connect IP67
16 Amps					EPIC® ULYSSE	EPIC® ALUPRES
Yellow	110 - 130	3	2+PE	4	400124	460124
Blue	200 - 250	3	2+PE	6	400126	460126
Light Blue	200 - 250	4	3+PE	9	400139	460139
Dark Blue	200 - 250	5	3+N+PE	9	400149	—
Red	380 - 415	4	3+PE	6	400136	460136
Dark Red	380 - 415	5	3+N+PE	6	400146	460146

Photographs are not to scale and are not true representations of the products in question.

For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® Pin & Sleeve Product Selection

International Standard: 32 Amps

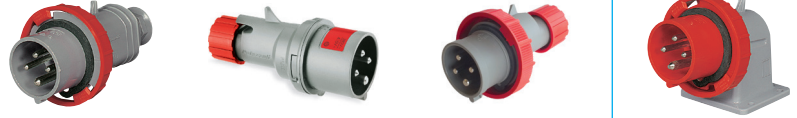
Male plugs mate with female connectors, panel-mounted receptacles, and switched-socket outlets. Male inlets mate with female connectors. Dimensional drawings can be found on the indicated pages and are the same for North American and international standards. Circuit wiring diagrams can be found on page 496. Additional configurations are available: see www.lappusa.com for a complete listing.

IP44

IP67

Male Plugs & Inlets

for dimensional data, see page 479



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP44	IP67	IP67
32 Amps					Male Plugs			Male Inlets
Yellow	110 - 130	3	2+PE	4	477206	700224	710224	476206
Blue	200 - 250	3	2+PE	6	477306	700226	710226	476306
Light Blue	200 - 250	4	3+PE	9	477316	700239	—	476316
Dark Blue	200 - 250	5	3+N+PE	9	477326	700249	—	476326
Red	380 - 415	4	3+PE	6	477416	700236	710236	476416
Dark Red	380 - 415	5	3+N+PE	6	477426	700246	710246	476426

Female Connectors & Receptacles

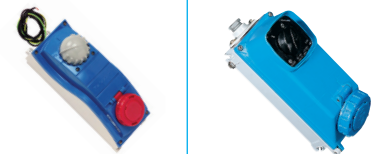
for dimensional data, see pages 480 - 481



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP44	IP67	IP67	IP44	IP44
32 Amps					Female Connectors			Female Receptacles		
Yellow	110 - 130	3	2+PE	4	473206	720224	730224	471267	433211	471266
Blue	200 - 250	3	2+PE	6	473306	720226	730226	471367	433222	471366
Light Blue	200 - 250	4	3+PE	9	473316	720239	—	471377	443222	471376
Dark Blue	200 - 250	5	3+N+PE	9	473326	720249	—	471387	453222	471386
Red	380 - 415	4	3+PE	6	473416	720236	730236	471477	443238	471476
Dark Red	380 - 415	5	3+N+PE	6	473426	720246	730246	471487	453238	471486

Switched-Socket Outlets

for dimensional data, see pages 482



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	With Fuse Holder IP66/67	Direct Connect IP65
32 Amps						
Yellow	110 - 130	3	2+PE	4	EPIC® ULYSSE 400224	EPIC® ALUPRES 460224
Blue	200 - 250	3	2+PE	6	400226	460226
Light Blue	200 - 250	4	3+PE	9	400239	460239
Dark Blue	200 - 250	5	3+N+PE	9	400249	460249
Red	380 - 415	4	3+PE	6	400236	460236
Dark Red	380 - 415	5	3+N+PE	6	400246	460246

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® Pin & Sleeve Product Selection

International Standard: 63 & 125 Amps

Male plugs mate with female connectors, panel-mounted receptacles, and switched-socket outlets. Male inlets mate with female connectors. Dimensional drawings can be found on the indicated pages and are the same for North American and international standards. Circuit wiring diagrams can be found on page 496. Additional configurations are available: see www.lappusa.com for a complete listing.

IP44

IP67

Male Plugs & Inlets

for dimensional data, see page 483 & 486



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP67	IP67
63 Amps					Male Plugs		Male Inlets
Blue	200 - 250	4	3+PE	9	477317	—	476317
Light Blue	200 - 250	5	3+N+PE	9	477327	—	476327
Red	380 - 415	4	3+PE	6	477417	710336	746338
Dark Red	380 - 415	5	3+N+PE	6	477427	710346	756338
125 Amps							
Blue	200 - 250	4	3+PE	9	477318	—	476318
Light Blue	200 - 250	5	3+N+PE	9	477328	—	476328
Red	380 - 415	4	3+PE	6	249538	—	749538
Dark Red	380 - 415	5	3+N+PE	6	259538	—	759538

Female Connectors & Receptacles

for dimensional data, see page 484 & 486



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	IP67	IP67	IP67	IP67
63 Amps					Female Connectors		Female Receptacles	
Blue	200 - 250	4	3+PE	9	473317	—	546322	446322
Light Blue	200 - 250	5	3+N+PE	9	473327	—	556322	456322
Red	380 - 415	4	3+PE	6	346338	730336	546338	446338
Dark Red	380 - 415	5	3+N+PE	6	356338	730346	556338	456338
125 Amps								
Blue	200 - 250	4	3+PE	9	473318	—	549322	449322
Light Blue	200 - 250	5	3+N+PE	9	473328	—	559322	459322
Red	380 - 415	4	3+PE	6	349538	—	549538	449538
Dark Red	380 - 415	5	3+N+PE	6	359538	—	559538	459538

Switched-Socket Outlets

for dimensional data, see pages 485



Color Code	Voltage / Current Rating	Number of Wires	Number of Poles	Ground-Clock Position	with Fuse Holder IP66/67	Direct Connect IP55
63 Amps					EPIC® ULYSSE	EPIC® ALUPRES
Blue	200 - 250	4	3+PE	9	400339	460339
Light Blue	200 - 250	5	3+N+PE	9	400349	460349
Red	380 - 415	4	3+PE	6	400336	—
Dark Red	380 - 415	5	3+N+PE	6	400346	—

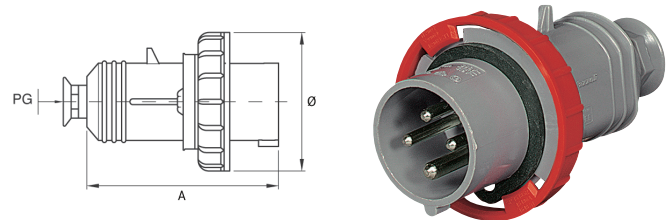
Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® CEE & MULTIMAX Plugs

North American Standard: 20 Amps; International Standard: 16 Amps

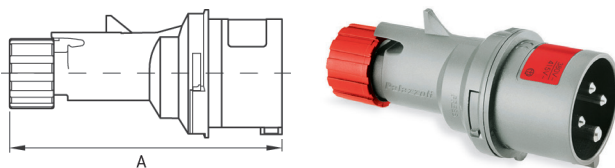
Technical Data	
Impact Resistance:	8 J
Ambient Temperature:	-25°C to +50°C
Flame Resistance:	
- Glow wire test:	
- Enclosure:	850°C
- Contact carrier:	850°C
- Self-extinguishing:	
- Enclosure:	V-2 per UL 94
- Contact carrier:	V-2 per UL 94

EPIC® CEE Straight Plug with Cable Gland (IP67)



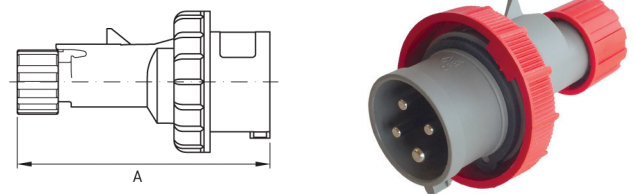
Number of Wires	A		Ø		Cable Entry
	(inches)	(mm)	(inches)	(mm)	
20 Amps / 16 Amps					
3	4.41	112	2.87	73	PG 13
4	4.61	117	3.15	80	PG 16
5	4.88	124	3.46	88	PG 16

EPIC® MULTIMAX Plug with Cable Sleeve (IP44)



Number of Wires	A	
	(inches)	(mm)
20 Amps / 16 Amps		
3	5.00	127
4	5.28	134
5	5.59	142

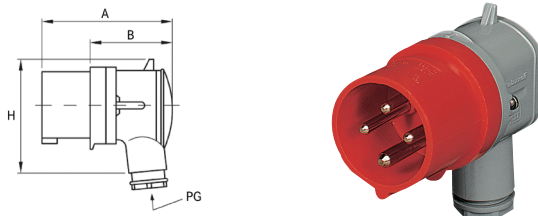
EPIC® MULTIMAX Plug with Cable Gland (IP67)



16A International standard only.

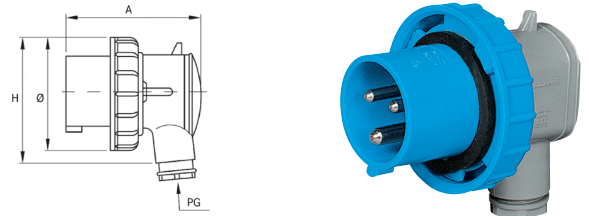
Number of Wires	A	
	(inches)	(mm)
16 Amps		
3	5.31	135
4	5.52	140
5	5.91	150

EPIC® CEE 90° Plug with Cable Gland (IP44)



Number of Wires	A		B		H		Cable Entry
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
20 Amps / 16 Amps							
3	3.50	89	2.05	52	2.87	73	PG 13
4	3.82	97	2.36	60	3.31	84	PG 16
5	4.02	102	2.56	65	3.66	93	PG 16

EPIC® CEE 90° Plug with Cable Gland (IP67)



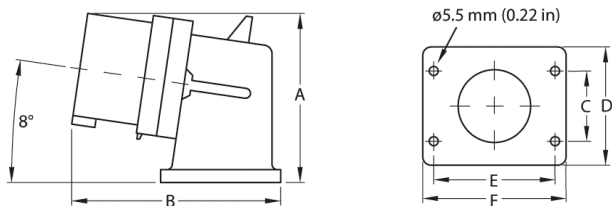
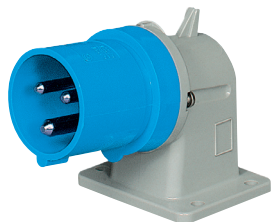
Number of Wires	A		H		Ø		Cable Entry
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
20 Amps / 16 Amps							
3	3.82	97	3.11	79	2.87	73	PG 13
4	3.82	97	3.54	90	3.15	80	PG 16
5	4.02	102	3.94	100	3.46	88	PG 16

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® CEE Inlets

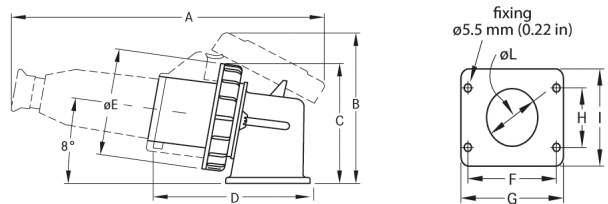
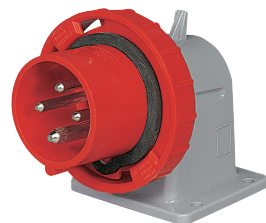
North American Standard: 20 Amps; International Standard: 16 Amps

EPIC® CEE Angled Inlet (IP44)



Number of Wires	A		B		C		D		E		F	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
20 Amps / 16 Amps												
3	3.03	77	3.82	97	1.18	30	2.05	52	2.16	55	2.56	65
4	3.35	85	4.17	106	1.38	35	2.36	60	2.36	60	2.76	70
5	3.66	93	4.61	117	1.57	40	2.60	66	2.68	68	3.15	80

EPIC® CEE Angled Inlet (IP67)

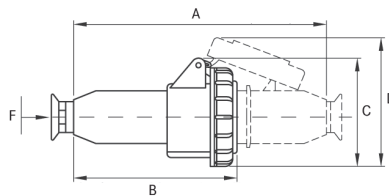


Number of Wires	A		B		C		D		øE		F		G		H		I		øL	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
20 Amps / 16 Amps																				
3	4.68	195	4.33	110	3.39	86	3.82	97	2.97	73	2.16	55	2.56	65	1.118	30	2.05	52	1.18	30
4	8.07	205	4.72	120	3.74	95	4.17	106	3.15	80	2.36	60	2.76	70	1.38	35	2.24	60	1.30	33
5	8.46	215	5.12	130	4.13	105	4.61	117	3.46	88	2.69	68	3.15	80	1.57	40	2.60	66	1.57	40

EPIC® CEE Connectors

North American Standard: 20 Amps; International Standard: 16 Amps

EPIC® CEE Straight Connector with Cable Gland (IP67)



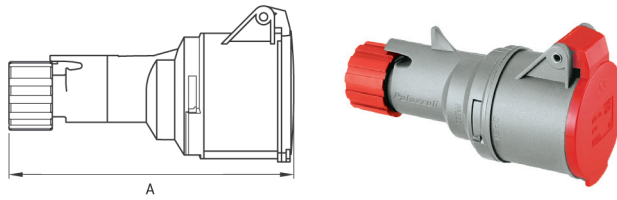
Number of Wires	A		B		C		D		F
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
20 Amps / 16 Amps									
3	7.28	185	4.72	120	3.23	82	3.93	100	PG 13
4	7.68	195	4.88	124	3.54	90	4.21	107	PG 16
5	7.87	200	4.88	124	3.93	100	4.61	117	PG 16

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® MULTIMAX Connectors

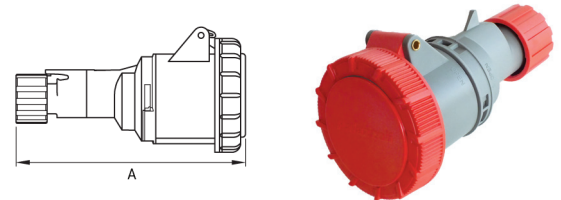
North American Standard: 20 Amps; International Standard: 16 Amps

EPIC® MULTIMAX Connector with Cable Sleeve (IP44)



Number of Wires	A	
	(inches)	(mm)
20 Amps / 16 Amps		
3	5.28	134
4	5.63	143
5	5.94	151

EPIC® MULTIMAX Connector with Cable Gland (IP67)



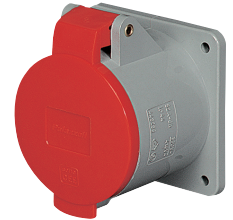
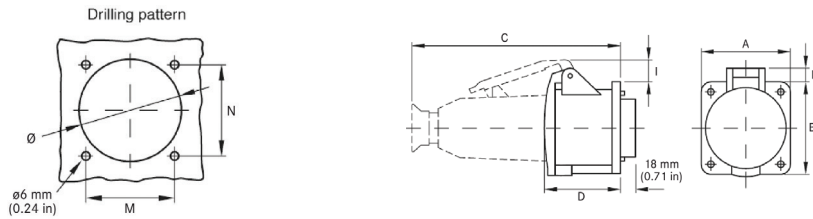
16A International standard only.

Number of Wires	A	
	(inches)	(mm)
16 Amps		
3	5.71	145
4	5.91	150
5	6.50	165

EPIC® CEE Panel Mount Receptacles

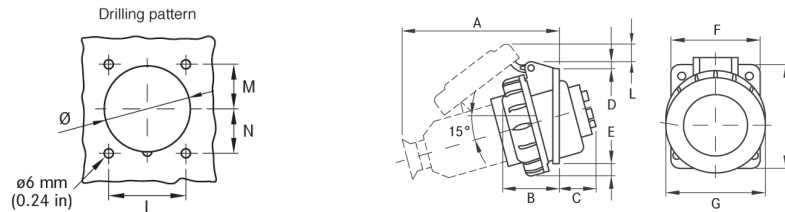
North American Standard: 20 Amps / International Standard: 16 Amps

EPIC® CEE Straight Panel Mount Receptacle (IP44)



Number of Wires	A		B		C		D		H		I		M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
20 Amps / 16 Amps																		
3	2.44	62	2.44	62	5.12	130	1.85	47	0.31	8	0.71	18	1.85	47	1.85	47	1.97	50
4	2.95	75	2.95	75	5.12	130	1.85	47	0.31	8	0.71	18	2.36	60	2.36	60	2.48	63
5	2.95	75	2.95	75	5.51	140	1.85	47	0.39	10	0.79	20	2.36	60	2.36	60	2.48	63

EPIC® CEE Angled Panel Mount Receptacle (IP67)



Number of Wires	A		B		C		D		E		F		G		H		L	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
20 Amps / 16 Amps																		
3	4.84	123	1.81	46	1.22	31	0.28	7	0.35	9	2.44	62	3.03	73	2.76	70	0.59	15
4	5.24	133	1.89	48	1.18	30	0.24	6	0.39	10	2.76	70	3.15	80	3.03	77	0.59	15
5	5.51	140	2.01	51	0.94	24	0.30	7.5	0.35	9	3.03	77	3.46	88	3.35	85	0.59	15

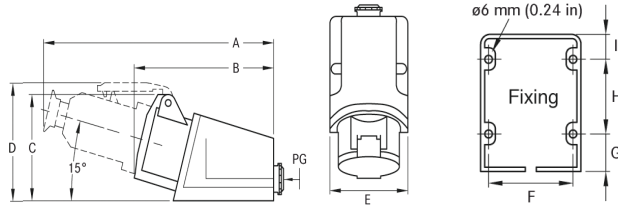
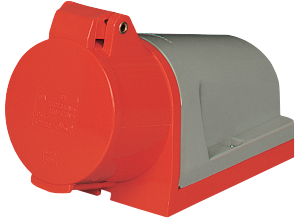
Number of Wires	I		M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
20 Amps / 16 Amps								
3	1.85	47	1.02	26	1.14	29	2.09	53
4	2.09	53	1.18	30	1.18	30	2.36	60
5	2.24	57	1.22	31	1.34	34	2.60	66

Photographs are not to scale and are not true representations of the products in question. For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® CEE Surface Mount Receptacles

North American Standard: 20 Amps; International Standard: 16 Amps

EPIC® CEE Angled Surface Mount Receptacle (IP44)

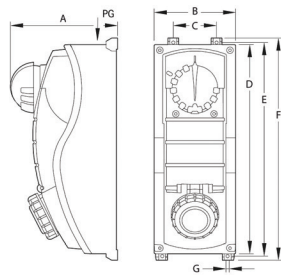


Number of Wires	A		B		C		D		E		F		G		H		I		Cable Entry
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
20 Amps / 16 Amps																			
3	5.66	220	4.92	125	3.15	80	3.54	90	2.56	65	2.13	54	0.98	25	1.73	44	0.63	16	PG 13
4	5.66	220	5.28	134	3.46	88	3.90	99	2.95	75	2.52	64	1.10	28	2.05	52	0.63	16	PG 16
5	5.66	220	5.28	134	3.62	92	4.13	105	2.95	75	2.52	64	1.10	28	2.05	52	0.63	16	PG 16

EPIC® ULYSSE & ALUPRES Switched-Socket Outlets

North American Standard: 20 Amps; International Standard: 16 Amps

EPIC® ULYSSE Thermoset Plastic Enclosure with Fuse Holder; Mechanical Interlock (IP66/67)



Technical Data

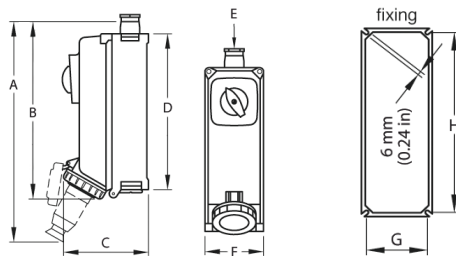
Flame Resistance:

- Glow wire test:
- Enclosure: 960°C
- Contact carrier: 850°C
- Self-extinguishing:
- Enclosure: V-0 per UL 94
- Contact carrier: V-0 per UL 94

Number of Wires	A		B		C		D		E		F		G		Cable Entry*
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
20 Amps / 16 Amps															
3	6.50	165	4.92	125	2.60	66	12.60	320	12.87	327	13.39	340	0.20	5	PG 29
4	6.50	165	4.92	125	2.60	66	12.60	320	12.87	327	13.39	340	0.20	5	PG 29
5	6.50	165	4.92	125	2.60	66	12.60	320	12.87	327	13.39	340	0.20	5	PG 29

* Unthreaded, see page 487 for long thread cable glands.

EPIC® ALUPRES Aluminum Enclosure Direct Connect; Mechanical Interlock (IP67)



Technical Data

Flame Resistance:

- Glow wire test: 960°C
- Self-extinguishing: V-0 per UL 94

Number of Wires	A		B		C		D		E*	F		G		H	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
20 Amps / 16 Amps															
3	11.61	300	9.84	250	11.81	124	8.66	220	1/2"	3.60	91.5	3.01	76.5	8.07	205
4	12.01	305	9.84	250	12.01	128	8.66	220	1/2"	3.60	91.5	3.01	76.5	8.07	205
5	12.40	315	9.92	252	12.40	132	8.66	220	3/4"	3.60	91.5	3.01	76.5	8.07	205

* Includes gland.

Photographs are not to scale and are not true representations of the products in question.

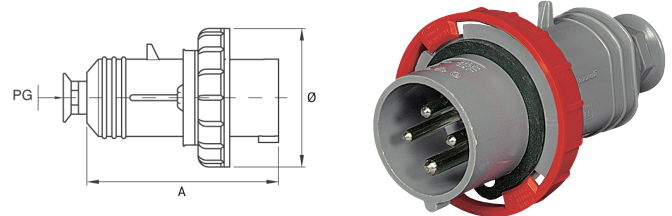
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® CEE & MULTIMAX Plugs

North American Standard: 30 Amps; International Standard: 32 Amps

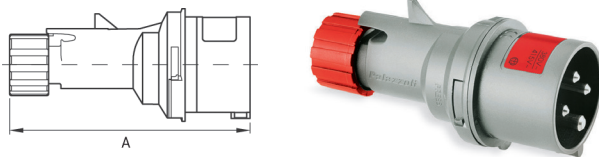
Technical Data	
Impact Resistance:	8 J
Ambient Temperature:	-25°C to +50°C
Flame Resistance:	
- Glow wire test:	
- Enclosure:	850°C
- Contact carrier:	850°C
- Self-extinguishing:	
- Enclosure:	V-2 per UL 94
- Contact carrier:	V-2 per UL 94

EPIC® CEE Straight Plug with Cable Gland (IP67)



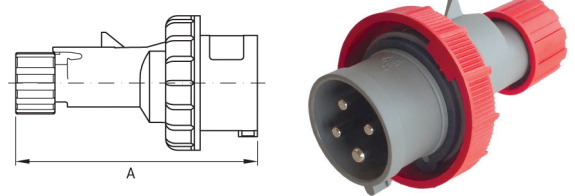
Number of Wires	A		Ø		Cable Entry
	(inches)	(mm)	(inches)	(mm)	
30 Amps / 32 Amps					
3	5.55	141	3.70	94	PG 21
4	5.55	141	3.70	94	PG 21
5	5.55	141	3.98	101	PG 21

EPIC® MULTIMAX Plug with Cable Sleeve (IP44)



Number of Wires	A	
	(inches)	(mm)
30 Amps / 32 Amps		
3	5.00	127
4	5.28	134
5	5.59	142

EPIC® MULTIMAX Plug with Cable Gland (IP67)



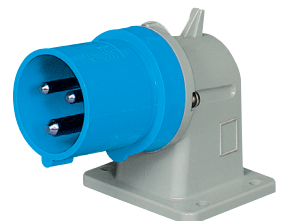
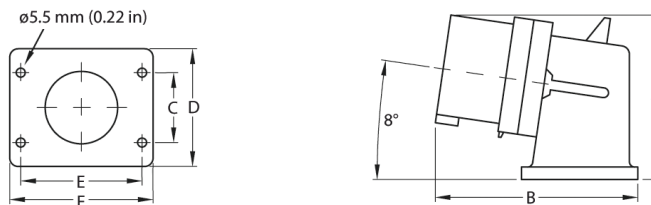
32A International standard only.

Number of Wires	A	
	(inches)	(mm)
32 Amps		
3	6.50	165
4	6.50	165
5	6.69	170

EPIC® CEE Inlets

North American Standard: 30 Amps; International Standard: 32 Amps

EPIC® CEE Angled Inlet (IP44)



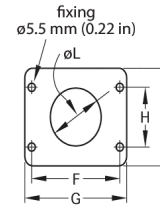
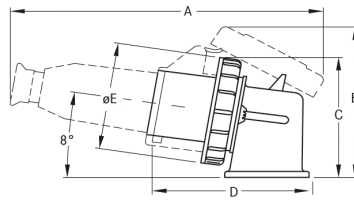
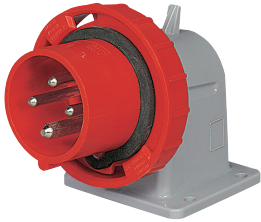
Number of Wires	A		B		C		D		E		F	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
30 Amps / 32 Amps												
3	3.74	95	4.92	125	1.57	40	2.60	66	2.68	68	3.15	80
4	3.74	95	4.92	125	1.57	40	2.60	66	2.68	68	3.15	80
5	4.13	105	5.24	133	1.77	45	2.95	75	3.07	78	3.54	90

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EPIC® CEE Inlets

North American Standard: 30 Amps; International Standard: 32 Amps

EPIC® CEE Angled Inlet (IP67)

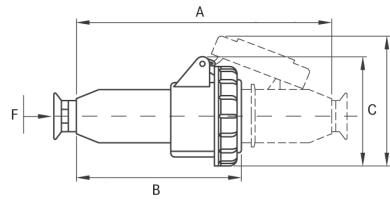
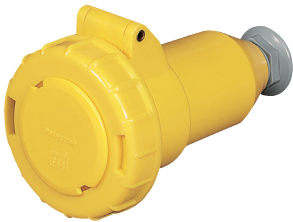


Number of Wires	A		B		C		D		øE		F		G		H		I		øL	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
30 Amps / 32 Amps																				
3	9.76	248	5.35	136	4.25	108	4.92	125	3.70	94	2.68	68	3.15	80	1.57	40	2.60	66	1.57	40
4	9.76	248	5.35	136	4.25	108	4.92	125	3.70	94	2.68	68	3.15	80	1.57	40	2.60	66	1.57	40
5	10.04	255	5.83	148	4.72	120	5.24	133	3.98	101	3.07	78	3.54	90	1.77	45	2.95	75	1.77	45

EPIC® CEE & MULTIMAX Connectors

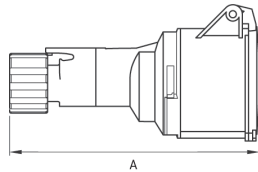
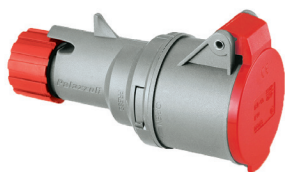
North American Standard: 30 Amps; International Standard: 32 Amps

EPIC® CEE Straight Connector with Cable Gland (IP67)



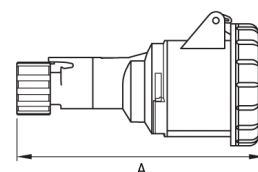
Number of Wires	A		B		C		D		F
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
30 Amps / 32 Amps									
3	9.37	238	6.02	153	4.13	105	4.92	125	PG 21
4	9.37	238	6.02	153	4.13	105	4.92	125	PG 21
5	9.37	238	6.02	153	4.33	110	5.12	130	PG 21

EPIC® MULTIMAX Connector with Cable Sleeve (IP44)



Number of Wires	A	
	(inches)	(mm)
30 Amps / 32 Amps		
3	6.42	163
4	6.42	163
5	7.17	182

EPIC® MULTIMAX Connector with Cable Gland (IP67)



Number of Wires	A	
	(inches)	(mm)
32 Amps		
3	7.09	180
4	7.09	180
5	7.28	185

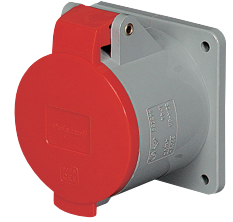
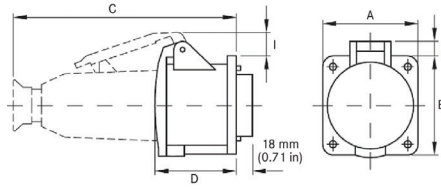
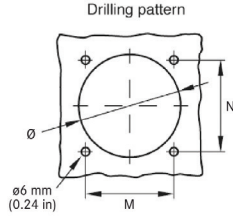
32A International standard only.

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EPIC® CEE Panel Mount Receptacles

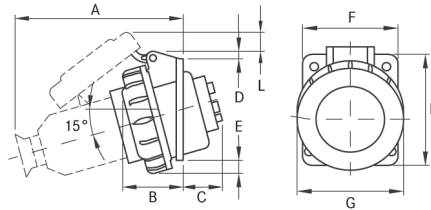
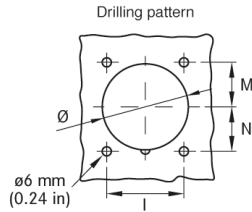
North American Standard: 30 Amps; International Standard: 32 Amps

EPIC® CEE Straight Panel Mount Receptacle (IP44)



Number of Wires	A		B		C		D		H		I		M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
30 Amps / 32 Amps																		
3	2.95	75	2.95	75	6.69	170	2.44	62	0.47	12	0.79	20	2.36	60	2.36	60	2.49	63
4	2.95	75	2.95	75	6.69	170	2.44	62	0.47	12	0.79	20	2.36	60	2.36	60	2.49	63
5	2.95	75	2.95	75	6.69	170	2.44	62	0.59	15	1.02	26	2.36	60	2.36	60	2.49	63

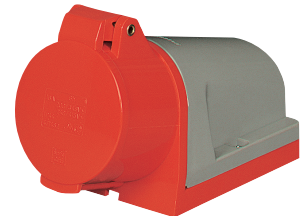
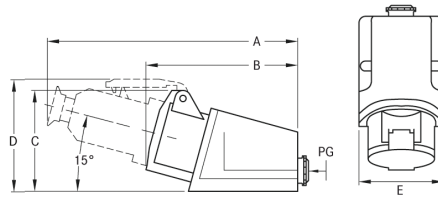
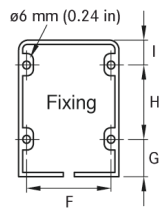
EPIC® CEE Angled Panel Mount Receptacle (IP67)



Number of Wires	A		B		C		D		E		F		G		H		L	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
30 Amps / 32 Amps																		
3	6.18	157	2.20	56	1.54	39	0.12	3	0.28	7	3.35	85	3.70	94	3.82	97	0.79	20
4	6.18	157	2.20	56	1.54	39	0.12	3	0.24	6	3.35	85	3.70	94	3.82	97	0.79	20
5	6.22	158	2.28	58	1.50	38	0.12	3	0.30	7.5	3.54	90	3.98	101	4.13	105	0.79	20

Number of Wires	I		M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
30 Amps / 32 Amps								
3	2.36	60	1.38	35	1.46	37	2.76	70
4	2.36	60	1.38	35	1.46	37	2.76	70
5	2.56	65	1.50	38	1.65	42	2.95	75

EPIC® CEE Angled Surface Mount Receptacle (IP44)



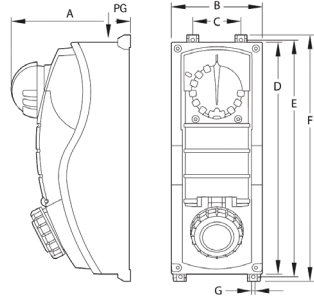
Number of Wires	A		B		C		D		E		F		G		H		I		Cable Entry
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
30 Amps / 32 Amps																			
3	10.08	256	6.06	154	3.94	100	4.53	115	3.31	84	2.83	72	1.24	31.5	2.20	56	0.89	22.5	PG 21
4	10.08	256	6.06	154	3.94	100	4.53	115	3.31	84	2.83	72	1.24	31.5	2.20	56	0.89	22.5	PG 21
5	10.18	258	6.10	155	4.06	103	4.72	120	3.31	84	2.83	72	1.24	31.5	2.20	56	0.89	22.5	PG 21

Photographs are not to scale and are not true representations of the products in question.
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® ULYSSE & ALUPRES Switched-Socket Outlets

North American Standard: 30 Amps; International Standard: 32 Amps

EPIC® ULYSSE Thermoset Plastic Enclosure
with Fuse Holder; Mechanical Interlock (IP66/67)

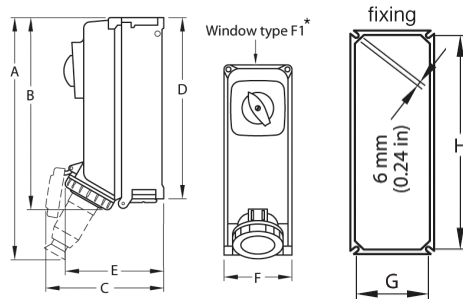


Technical Data	
Flame Resistance:	
- Glow wire test:	
- Enclosure:	960°C
- Contact carrier:	850°C
- Self-extinguishing:	
- Enclosure:	V-0 per UL 94
- Contact carrier:	V-0 per UL 94

Number of Wires	A		B		C		D		E		F		G		Cable Entry*
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
30 Amps / 32 Amps															
3	6.50	165	4.92	125	2.60	66	12.60	320	12.87	327	13.39	340	0.20	5	PG 29
4	6.50	165	4.92	125	2.60	66	12.60	320	12.87	327	13.39	340	0.20	5	PG 29
5	6.50	165	4.92	125	2.60	66	12.60	320	12.87	327	13.39	340	0.20	5	PG 29

* Unthreaded, see page 487 for long thread cable glands

EPIC® ALUPRES Aluminum Enclosure
Direct Connect; Mechanical Interlock (IP67)



Technical Data	
Flame Resistance:	
- Glow wire test:	960°C
- Self-extinguishing:	V-0 per UL 94

Number of Wires	A		B		C		D		E		F		G		H	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
30 Amps / 32 Amps																
3	16.54	420	13.19	335	8.19	208	12.40	315	6.61	168	4.92	125	4.33	110	11.81	300
4	16.54	420	13.19	335	8.19	208	12.40	315	6.61	168	4.92	125	4.33	110	11.81	300
5	16.54	420	13.29	336	8.28	210	12.40	315	6.69	170	4.92	125	4.33	110	11.81	300

* Order flange and cable gland as required on page 487.

Photographs are not to scale and are not true representations of the products in question.
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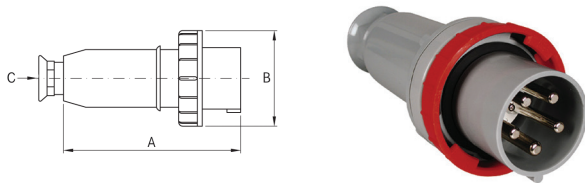
EPIC® CEE & MULTIMAX Plugs

North American Standard: 60 Amps; International Standard: 63 Amps

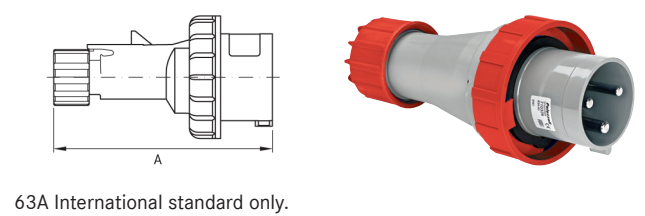
Technical Data			
Impact Resistance:	8 J	Flame Resistance:	
Ambient Temperature:	-25°C to +50°C	- Glow wire test:	
		- Enclosure:	850°C
		- Contact carrier:	960°C
		- Self-extinguishing:	
		- Enclosure:	V-2 per UL 94
		- Contact carrier:	V-0 per UL 94

* Technical Data also applies to 100/125A Connectors

EPIC® CEE Straight Plug with Cable Gland (IP67)



EPIC® MULTIMAX Plug with Cable Gland (IP67)



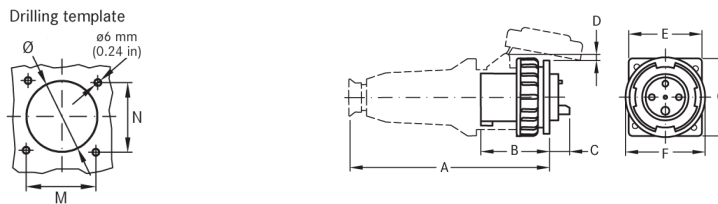
Number of Wires	A		B		C
	(inches)	(mm)	(inches)	(mm)	
60 Amps / 63 Amps					
3, 4, 5	8.19	208	4.33	110	PG 29

Number of Wires	A	
	(inches)	(mm)
63 Amps		
3, 4, 5	9.84	250

EPIC® CEE Inlets

North American Standard: 60 Amps; International Standard: 63 Amps

EPIC® CEE Straight Inlet (IP67)



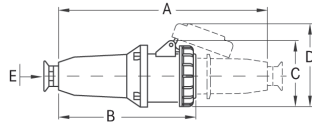
Number of Wires	A		B		C		D		E		F		G		M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
60 Amps / 63 Amps																				
3, 4, 5	11.22	285	3.74	95	1.02	26	0.39	10	3.94	100	4.33	110	4.25	108	3.03	77	3.35	85	3.35	85

Photographs are not to scale and are not true representations of the products in question.
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® CEE & MULTIMAX Connectors

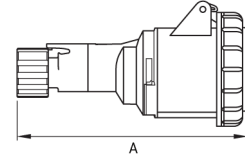
North American Standard: 60 Amps; International Standard: 63 Amps

EPIC® CEE Straight Connector with Cable Gland (IP67)



Number of Wires	A		B		C		D		E
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
60 Amps / 63 Amps									
3, 4, 5	14.76	375	9.76	248	4.72	120	5.91	150	PG 29

EPIC® MULTIMAX Connector with Cable Gland (IP67)



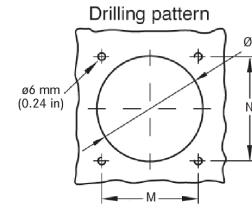
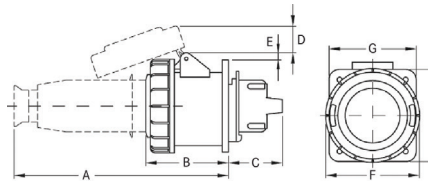
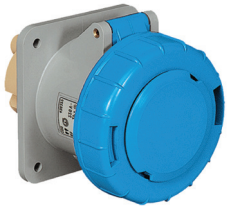
Number of Wires	A	
	(inches)	(mm)
63 Amps		
3, 4, 5	10.63	270

63A International standard only.

EPIC® CEE Panel Mount Receptacles

North American Standard: 60 Amps; International Standard: 63 Amps

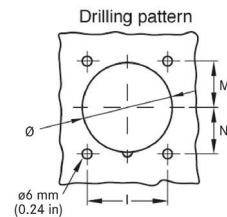
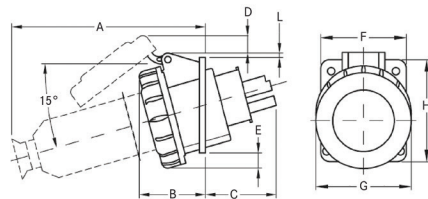
EPIC® CEE Straight Panel Mount Receptacle (IP67)



Number of Wires	A		B		C		D		E		F		G		H	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
60 Amps / 63 Amps																
3, 4, 5	9.84	250	3.78	96	2.52	64	1.26	32	0.35	9	4.33	110	3.94	100	4.25	108

Number of Wires	M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
60 Amps / 63 Amps						
3, 4, 5	3.03	77	3.35	85	3.35	85

EPIC® CEE Angled Panel Mount Receptacle (IP67)



Number of Wires	A		B		C		D		E		F		G		H		L	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
60 Amps / 63 Amps																		
3, 4, 5	8.90	226	3.15	80	3.15	80	0.91	23	0.39	10	3.94	100	4.29	109	4.25	108	0.31	8

Number of Wires	I		M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
60 Amps / 63 Amps								
3, 4, 5	3.03	77	1.54	39	1.81	46	3.39	86

Photographs are not to scale and are not true representations of the products in question.

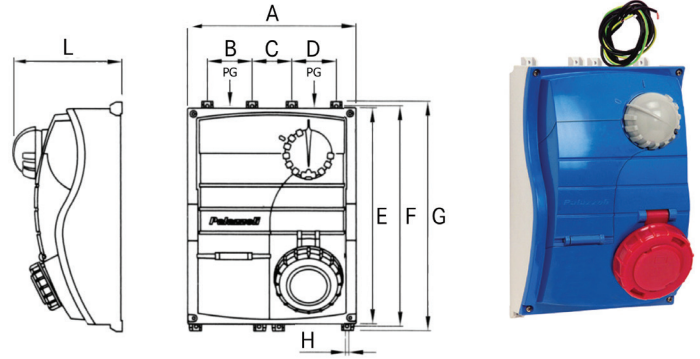
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® ULYSSE & ALUPRES Switched-Socket Outlets

North American Standard: 60 Amps; International Standard: 63 Amps

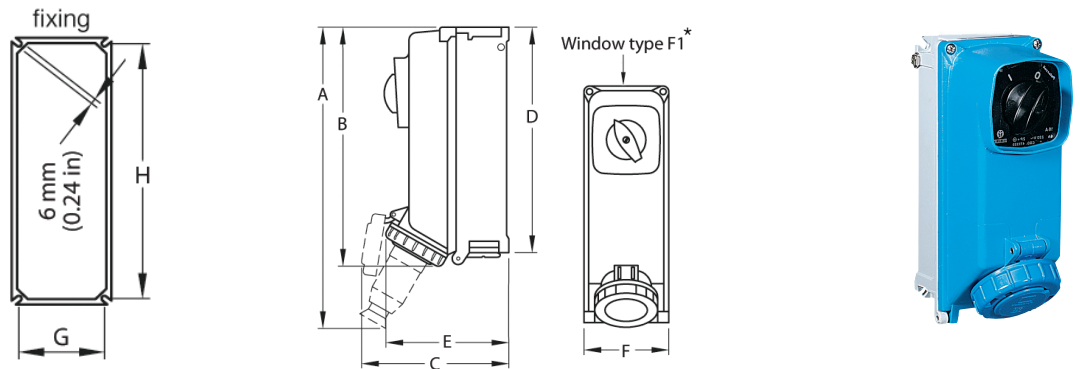
EPIC® ULYSSE Thermoset Plastic Enclosure;
Mechanical Interlock (IP66/67)

Technical Data	
Flame Resistance:	
- Glow wire test:	960°C
- Self-extinguishing:	V-0 per UL 94



Number of Wires	A		B		C		D		E		F		G		H		L	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
60 Amps / 63 Amps																		
3, 4, 5	9.84	250	2.60	66	2.32	59	2.60	66	12.60	320	12.87	327	13.39	340	0.20	5	6.50	165

EPIC® ALUPRES Aluminum Enclosure;
Mechanical Interlock (IP67)



Number of Wires	A		B		C		D		E		F		G		H	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
60 Amps / 63 Amps																
3, 4, 5	20.39	518	15.04	382	9.84	250	13.98	355	7.40	188	4.92	125	4.33	110	13.39	340

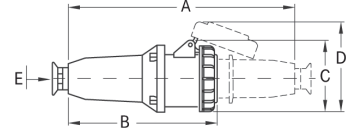
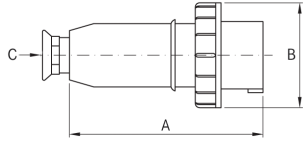
Photographs are not to scale and are not true representations of the products in question.
For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® CEE Plugs & Connectors

North American Standard: 100 Amps; International Standard: 125 Amps

EPIC® CEE Straight Plug with Cable Gland (IP67)

EPIC® CEE Straight Connector with Cable Gland (IP67)



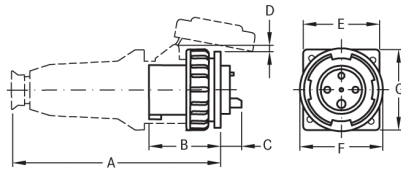
Number of Wires	A		B		C
	(inches)	(mm)	(inches)	(mm)	
100 Amps / 125 Amps					
3, 4, 5	11.14	283	4.96	126	NPT 2"

Number of Wires	A		B		C		D		E
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	
100 Amps / 125 Amps									
3, 4, 5	19.02	483	11.42	290	5.12	130	6.61	168	NPT 2"

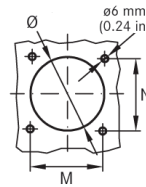
EPIC® CEE Inlets

North American Standard: 100 Amps; International Standard: 125 Amps

EPIC® CEE Straight Inlet (IP67)



Drilling template

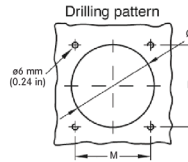
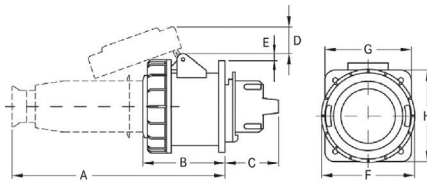
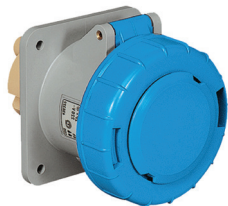


Number of Wires	A		B		C		D		E		F		G		M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
100 Amps / 125 Amps																				
3, 4, 5	13.98	355	4.65	118	2.64	67	0.39	10	4.49	114	4.96	126	4.49	114	3.54	90	3.54	90	3.90	99

EPIC® CEE Panel Mount Receptacles

North American Standard: 100 Amps; International Standard: 125 Amps

EPIC® CEE Straight Panel Mount Receptacle (IP67)



Number of Wires	A		B		C		D		E		F		G		H	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
100 Amps / 125 Amps																
3, 4, 5	13.78	350	4.45	113	3.07	78	1.50	38	0.39	10	4.96	126	4.49	114	4.49	114

Number of Wires	M		N		Ø	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
100 Amps / 125 Amps						
3, 4, 5	3.54	90	3.54	90	3.86	98

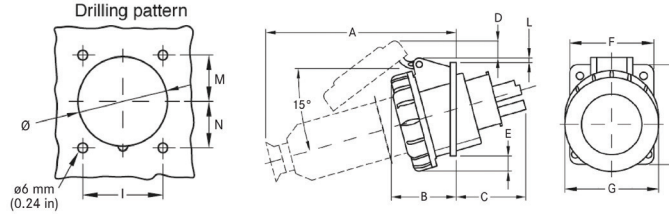
Photographs are not to scale and are not true representations of the products in question.

For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® CEE Panel Mount Receptacles

North American Standard: 100 Amps; International Standard: 125 Amps

EPIC® CEE Angled Panel Mount Receptacle (IP67)



Number of Wires	A (inches)	A (mm)	B (inches)	B (mm)	C (inches)	C (mm)	D (inches)	D (mm)	E (inches)	E (mm)	F (inches)	F (mm)	G (inches)	G (mm)	H (inches)	H (mm)	L (inches)	L (mm)
100 Amps / 125 Amps																		
3, 4, 5	12.60	320	3.98	101	3.23	82	1.38	35	0.79	20	4.49	114	5.03	128	4.49	114	0.31	8

Number of Wires	I (inches)	I (mm)	M (inches)	M (mm)	N (inches)	N (mm)	Ø (inches)	Ø (mm)
100 Amps / 125 Amps								
3, 4, 5	3.54	90	1.69	43	1.85	47	3.78	96

Watertight Covers for Plugs & Inlets (IP67)

Amps	Plug Type	Part Number
20/16	2+PE	476903
20/16	3+PE	476913
20/16	3+N+PE	476923
30/32	2+PE	476905
30/32	3+PE	476905
30/32	3+N+PE	476925
60/63	all	PC60
100/125	all	PC100

EPIC® Pin & Sleeve Accessories

Long Thread Plastic Cable Gland for EPIC® ULYSSE Outlets



Description	Cable Outer Diameter (inches)	Cable Outer Diameter (mm)	Thread Size	Thread Length (inches)	Thread Length (mm)	Part Number
Gland	0.70 - 0.98	18 - 25	PG 29	0.59	15	571129
Lock nut	—	—	PG 29	—	—	571229

Flanges with Cable Glands for EPIC® ALUPRES Outlets

Window Size (Amps)	Cable Outer Diameter (inches)	Cable Outer Diameter (mm)	Thread Type	Part Number
F0 Flat Flanges				
20/16	0.35 - 0.47	9 - 12	NPT 1/2"	541080FX*
20/16	0.47 - 0.63	12 - 16	NPT 3/4"	541090FX**
20/16	0.67 - 0.79	17 - 20	NPT 1"	541030FX
F1 Flat Flanges				
30/32, 60/63	0.35 - 0.47	9 - 12	NPT 1/2"	541011FX
30/32, 60/63	0.55 - 0.63	14 - 16	NPT 3/4"	541021FX
F1 Raised Flanges				
30/32, 60/63	0.63 - 0.87	16 - 22	NPT 1"	540151FX
30/32, 60/63	0.98 - 1.02	25 - 26	NPT 1 1/4"	540141FX

Raised Flange



Flat Flange



* Supplied with 20/16A EPIC® ALUPRES: 2+PE, 3+PE

** Supplied with 20/16A EPIC® ALUPRES: 3+N+PE

Fuses for EPIC® ULYSSE Outlets

Switch Outlet Rating (A)	Fuse Size A x B (mm)	Fuse Current (A)	Fuse Voltage Rating (V)
20/16	10 x 38	0.5 - 32	500
30/32	14 x 51	2 - 50	500
63	22 x 58	16 - 100	500

EPIC® ULYSSE switched-socket outlets use standard IEC-60269 cylindrical fuses. Fuse selection is application-specific and typically based on providing short circuit line protection (gL-gG fast-acting type) or motor protection (aM slow-acting type). Consult with a fuse manufacturer for proper selection and to place an order. Lapp does not carry fuses. The table here shows general fuse information for each EPIC® ULYSSE outlet size. Order one fuse for each outlet pole.

Example: P/N 400139FX (250V, 20A, 3+PE outlet) requires three 10 x 38 fuses.

Photographs are not to scale and are not true representations of the products in question.

For current information go to our website. If not otherwise specified, all values relating to the product are nominal values.

EPIC® Pin & Sleeve Cordsets

Harmonized or UL Cordsets

These pre-assembled and tested cable connector cordsets are easy to order and stock. They speed up initial installation and replacement, minimizing installation cost and downtime. They are available in both North American and international voltage and

current configurations using any of our wide offering of EPIC® Pin & Sleeve connectors and cables. Please contact a representative with your specific requirements for a custom cordset.

IP44 Cordsets

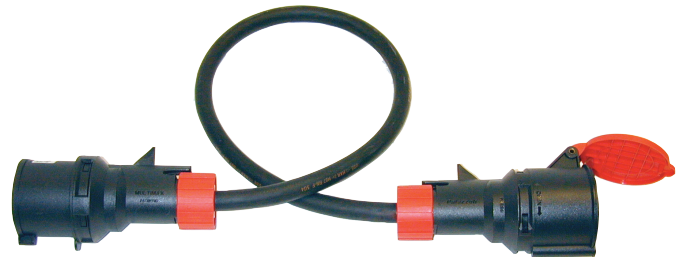
Type A: Plug to Pigtail



Type B: Connector to Pigtail



Type C: Plug to Connector



IP67 Cordsets

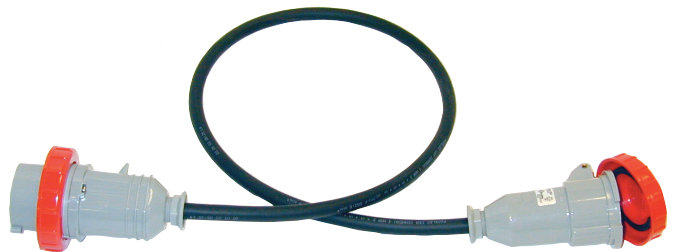
Type A: Plug to Pigtail



Type B: Connector to Pigtail



Type C: Plug to Connector



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IEC & UL Standards

Founded in 1906, the International Electrotechnical Commission (IEC) is the global organization that prepares and publishes international standards for all electrical, electronic, and related technologies. The IEC was founded as a result of a resolution passed at the International Electrical Congress held in St. Louis, Missouri in 1904. The membership consists of more than 60 participating countries, including all the world's major trading nations, and a growing number of industrialized countries.

IEC 60309-1 (1999-02)

Plugs, socket-outlets, and couplers for industrial purposes

Part 1: General Requirements

Applies to plugs and socket-outlets, cable couplers, and appliance couplers with a rated operating voltage not exceeding 690V DC or AC, 500Hz AC, and a rated current not exceeding 250A, primarily intended for industrial use, either indoors or outdoors, when the ambient temperature does not normally exceed 40°C.

Part 2: Dimensional Interchangeability Requirements for Pin and Contact-tube Accessories

Applies to plugs and socket-outlets, cable couplers, and appliance couplers with a rated operating voltage not exceeding 690V, 500Hz, and a rated current not exceeding 125A, primarily intended for industrial use, either indoors or outdoors. Together, the IEC 60309 standards provide industrial pin and sleeve connectors that are coded to provide positive voltage and frequency matching. Physical characteristics of these connectors make it virtually impossible to mis-match plugs and receptacles of different voltage and current ratings. The size of the device is determined by its amperage rating. Devices with different amperage ratings cannot be coupled due to the size variance used.

Pin & sleeve devices conforming to IEC 309-2 are single-rated with their voltage determined by the location of the oversized female ground contact relative to a keyway molded into the bottom of the housing. Twelve positions are possible (conforming to the positions of a clock face) to represent the ground pin location for specific voltages. Mis-matched voltage devices are impossible to couple. In addition, each device is clearly marked and color-coded to indicate the voltage for which it is intended to be used.

The IEC's mission is to promote international cooperation on all electrotechnical standardization questions and related matters in the fields of electricity, electronics, and related technologies. IEC's international standards ensure that a component or system manufactured in one country to IEC specifications can be sold to and used in any other country using the same standards.

As a result of this standardization, all manufacturers' devices that conform to these standards are intermateable and interchangeable.

All North American products in this catalog are designed, tested, and approved by Underwriters Labs in accordance with UL 1682 and UL 1686 standards:

UL 1682

Plugs, Receptacles, and Cable Connectors of the Pin & Sleeve Type

Describes the electrical and mechanical characteristics.

UL 1686

Pin & Sleeve Configurations

Describes contact location and other requirements relative to voltage rating for interchangeability.

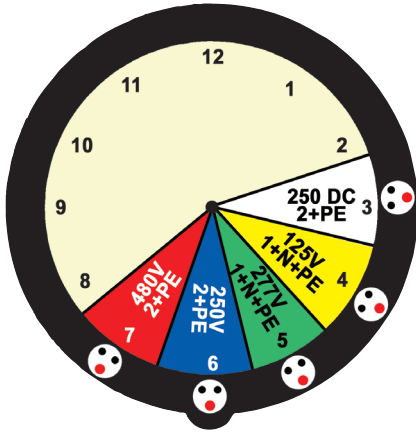
The following charts show the ground pin location (referenced to the female connector) and color coding for both the North American and international product configurations.

Ground Pin Location & Voltage

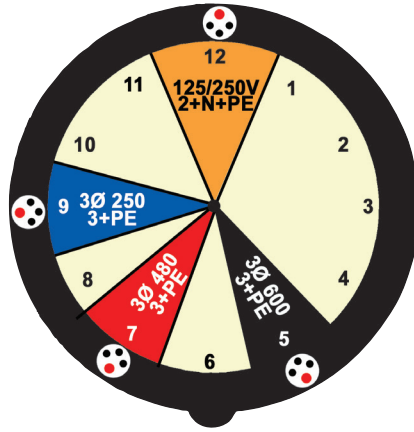
Ground pin location is specified for the female connector referenced to the hour positions on the face of a clock. The keyway is always at the 6 o'clock position. Color slices represent voltages. Voltage is represented by the color of the connector.

North American Standard

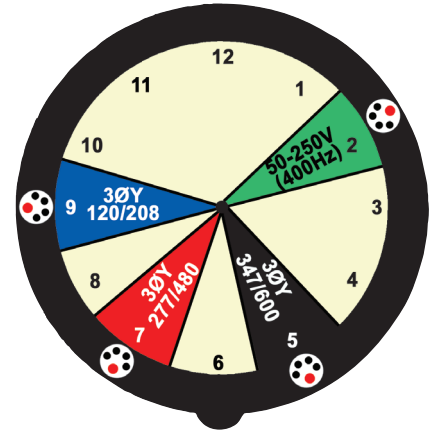
3 Wires: 2+PE & 1+N+PE



4 Wires: 2+N+PE & 3+PE

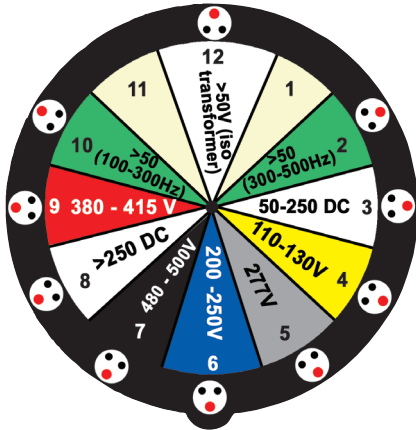


5 Wires: 3+N+PE

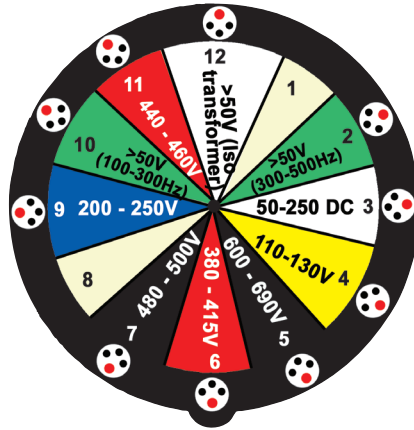


International Standard

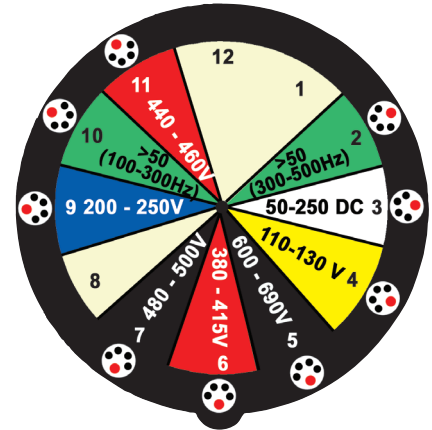
3 Wires: 2+PE



4 Wires: 3+PE



5 Wires: 3+N+PE



Key Features

EPIC® MULTIMAX Series

- Patented click-lock housing
- Patented integral cable grip with shade ring locking device
- Patented universal membrane seal
- High-copper solid brass contacts

EPIC® CEE Series

- Integral cable clamp
- Peelable neoprene grommet
- PG-threaded cable gland
- Stainless steel assembly screws
- High-copper solid brass contacts with nickel-plated male pins for IP67 plugs:
 - North American: 20A & 30A plugs
 - International: All plugs

Common Features

- Tough type 6 nylon housing
- Mate first/break last ground contact
- Voltage-polarized contacts and color-coded housings
- Conforms to IEC 60309-1 & -2
- UL 1682 & 1686 approved

Electrical Features

Dielectric Voltage Withstand:	up to 3000V for 1 minute
Maximum Working Voltage:	600V (North American), 690V (International)
Insulation Resistance:	5 mΩ minimum
Overload:	150% rated current at rated voltage for 50 make/break cycles
Current Interrupting/Load Breaking:	tested to 125% rated current at 110% rated voltage per IEC 60309-1, clause 20
Conditional Short Circuit Current:	10,000A at rated voltage per IEC 60309-1, clause 29
Endurance, Connect & Disconnect Cycles:	see Table 2 on next page
Ground Path Current:	see Table 1 on next page

Mechanical Features

Impact Resistance (-25°C for 6 hours):	per UL 1682, section 34 & IEC 60309-1, clause 24
Crush Resistance (-25°C for 6 hours):	250 lbs for 1 minute
Withdrawal Force:	see Table 4 on next page
Cable Security:	see Table 3 on next page
Polarization Integrity:	maintained by oversized ground pin and clock key
Wire Size Accommodation:	see Table 6 on next page
Cable Outer Diameter Accommodation:	see Table 5 on next page

Environmental Features

Operating Temperature Range:	-25°C to +50°C	
Flammability (self-extinguishing):	20/16A & 30/32A contact holders:	Glow Wire 850°C (V-2 per UL 94)
	60/63A & 100/125A contact holders:	Glow Wire 960°C (V-0 per UL 94)
	other components:	Glow Wire 650°C
	EPIC® ULYSSE series:	Glow Wire 960°C (V-0 per UL 94)
Moisture Resistance:	EPIC® MULTIMAX series:	IP44 (indoor splash-proof)
	EPIC® CEE series:	IP44 (indoor splash-proof) & IP67 (indoor/outdoor watertight)
	EPIC® ULYSSE series:	IP66/67 (indoor/outdoor watertight)
	EPIC® ALUPRES series:	IP55/67 (indoor/outdoor watertight)
Corrosion Resistance:	external screws & cover springs:	stainless steel
	EPIC® CEE series contact pins: (North American: 20A & 30A; Int'l: all)	nickel-plated brass
Chemical Resistance:	resists standard industrial hydrocarbons, acids, bases, and solvents	
UV Resistance:	exposed plastic materials are UV-stabilized	

Test Data & Cable Outer Diameter Accommodation

Table 1: Ground Path Current Test

A test current that far exceeds the device rating is passed through the mating device and grounding wires.

Device Rating (A)	Grounding Conductor Min. Size (AWG)	Min. Size (mm ²)	Time (sec)	Test Current (A)
20/16	12	3.3	4	470
30/32	10	5.3	4	750
60/63	10	5.3	4	750
100/125	8	8.4	4	1180

Table 2: Endurance Test

The test sequence is conducted using a no-load, followed by a loading sequence. The power factor of the load is 0.75 - 0.80.

Device Rating (A)	Cycles with Load @ Rated Current & Voltage	No-Load Cycles	Sequence
20/16	5000	0	—
30/32	1000	1000	Alternating
60/63	1000	1000	Alternating
100/125	250	250	Alternating

Table 3: Cable Security Test

The flexible cord or cable is simultaneously twisted and pulled. Values for the applied twisting torque and force of pull are shown. In all cases, the cord displacement is less than 3/32"

Device Rating (A)	Force		Torque		Max. Displacement	
	(lb)	(N)	(ft/lb)	(N/m)	(inches)	(mm)
20/16	30	133	0.4	0.54	3/32	2.38
30/32	75	333	0.5	0.68	3/32	2.38
60/63	150	667	1.0	1.4	3/32	2.38
100/125	150	667	2.0	2.7	3/32	2.38

Table 4: Withdrawal Force Test

The pressure exerted by mating contacts of a plug and a connector must be sufficient to prevent unintentional withdrawal during normal use. During the test any locked rings or retaining means are not engaged.

Device Rating (A)	Min. Withdrawal Force	
	(lb)	(N)
20/16	5	22
30/32	6	27
60/63	15	67
100/125	20	89

Table 5: Cable Outer Diameter Accommodation

Device Rating & Configuration	Sleeve / Cable Gland	Cable Diameter Range: 2+PE (mm)		Cable Diameter Range: 3+PE (mm)		Cable Diameter Range: 3+N+PE (mm)	
		(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
EPIC® MULTIMAX Series							
20/16 A	—	0.32 - 0.55	8.1 - 14.0	0.33 - 0.55	8.5 - 14.0	0.39 - 0.60	10.0 - 15.3
30/32 A	—	0.45 - 0.68	11.5 - 17.3	0.49 - 0.76	12.5 - 19.3	0.55 - 0.84	14.0 - 21.3
EPIC® CEE Series							
20/16 A: 2P+PE	PG 13	0.32 - 0.53	8.1 - 13.5	—	—	—	—
20/16 A: 3P+PE	PG 16	—	—	0.35 - 0.60	8.8 - 15.3	—	—
20/16 A: 3P+N+PE	PG 16	—	—	—	—	0.35 - 0.60	8.8 - 15.3
30/32 A	PG 21	0.45 - 0.84	11.5 - 21.3	0.45 - 0.84	11.5 - 21.3	0.45 - 0.84	11.5 - 21.3
60/63 A	PG 29	0.63 - 1.12	16.0 - 28.5	0.63 - 1.12	16.0 - 28.5	0.63 - 1.12	16.0 - 28.5
100/125 A	NPT 2"	1.02 - 1.93	26.0 - 49.0	1.02 - 1.93	26.0 - 49.0	1.02 - 1.93	26.0 - 49.0
EPIC® ULYSSE Series							
20/16 A	PG 29	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0
30/32 A	PG 29	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0
60/63 A	2x PG 29	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0	0.71 - 0.98	18.0 - 25.0
EPIC® ALUPRES Series							
20/16 A: 2+PE, 3+PE	FO-NPT 1/2"	0.35 - 0.47	9.0 - 12.0	0.35 - 0.47	9.0 - 12.0	0.47 - 0.63	—
20/16 A: 3+N+PE	FO-NPT 3/4"	—	—	—	—	0.47 - 0.63	12.0 - 16.0
30/32 A & 60/63 A (order flanges separately)	F1-NPT 1/2"	0.35 - 0.47	9.0 - 12.0	0.35 - 0.47	9.0 - 12.0	0.35 - 0.47	9.0 - 12.0
	F1-NPT 3/4"	0.55 - 0.63	14.0 - 16.0	0.55 - 0.63	14.0 - 16.0	0.55 - 0.63	14.0 - 16.0
	F1-NPT 1"	0.63 - 0.87	16.0 - 22.0	0.63 - 0.87	16.0 - 22.0	0.63 - 0.87	16.0 - 22.0
	F1-NPT 1 1/4"	0.98 - 1.02	25.0 - 26.0	0.98 - 1.02	25.0 - 26.0	0.98 - 1.02	25.0 - 26.0

Table 6: Wire Size Accommodation

Rated Current (A)	Max. Wire Size*		Recommended Torque for CEE Contact Set Screws		Recommended Torque for MULTIMAX Contact Set Screws	
	(AWG)	(mm ²)	(ft/lb)	(N/m)	(ft/lb)	(N/m)
20/16	12	4	0.60	0.8	0.60	0.8
30/32	8	10	2x 0.60	2x 0.8	1.48	2.0
60/63	6	16	2x 1.48	2x 2.0	—	—
100/125	1	50	2x 2.95	2x 4.0	—	—

* subject to stranding configuration.

Construction Materials

Plugs, Connectors, Receptacles & Inlets

Component	Material
Housing	Thermoplastic
Cable grip	Thermoplastic
Cover (splash-proof)	Thermoplastic
Locking ring / cover (watertight)	Thermoplastic
Contact carrier (20/16A & 30/32A)	Thermoplastic
Contact carrier (60/63A & 100/125A)	Thermoset plastic
Cable grommet / seal	Neoprene
Locking ring gasket	Neoprene
Flange seal gasket	Neoprene
EPIC® MULTIMAX contact pins	High-copper brass
EPIC® CEE contact pins	Nickel-plated high-copper brass
Contact sleeves	High-copper brass
Terminal screws (splash-proof)	Brass
Terminal screws (watertight)	Nickel-plated brass
Assembly screws	Stainless steel
Cover spring	Stainless steel

Interlocked Switched-Socket Outlets

Component	Material	
	EPIC® ULYSSE	EPIC® ALUPRES
Housing	Thermoset plastic	Aluminum alloy with baked polymerized paint finish
Control grip	Thermoset plastic	Thermoplastic
Locking ring / cover	Thermoplastic	Thermoplastic
Entry gland	Thermoplastic	—
Contact carrier (20/16A & 30/32A)	Thermoplastic	Thermoplastic
Contact carrier (60/63A)	Thermoset plastic	Thermoset plastic
Cable grommet	Neoprene	Neoprene
Locking ring gasket	Neoprene	Neoprene
Contact sleeves	High-copper brass	High-copper brass
Terminal screws	Brass	Brass
Mechanical interlock	Tropicalized steel	Tropicalized steel
Switch lock-out device	Stainless steel	—
Assembly screws	Stainless steel	Stainless Steel
Cover spring	Stainless steel	Stainless Steel

Reference Data

Plugs & Connectors

Reference Standards

• General characteristics:	CEI EN 60309-1	IEC 309	CEI 23-12/1
• Standardization:	CEI EN 60309-2	IEC 309-2	CEI 23-12/2
• Protection ratings:	CEI EN 60529	IEC 529	CEI 70-1

Construction Characteristics

IP44 & IP67 rated products

- Pins and plug contacts are made of solid brass bars with a high level of copper.
- External screws, where present, and spring clasps for lids are made of stainless steel.
- The cable clamp is designed to prevent strain from torque and/or traction on the wires in the terminals and also assures that the wire covering stays in good condition
- Elements holding live parts (for 20A & 30A North American or 16A & 32A international standards) are made of self-extinguishing thermoplastic technopolymer (V-2 per UL 94), with Glow Wire resistance to 850°C and resistance to tracking of > 600V. For products to 60A & 100A North American and 63A & 125A international standards, they are made of self-extinguishing thermoset technopolymer (V-0 per UL 94), with Glow Wire resistance to 960°C and resistance to tracking of > 600V.
- Body and lids are made of technopolymer with high impact resistance and excellent dimensional stability.

IP67 rated products

- Pins are subject to a thick nickel-plating treatment to increase their resistance to oxidation and wear even under the worst operating conditions.
- In products to 60A & 100A North American and 63A & 125A international standards, a standard pilot contact is included.
- Cable glands have parts in peelable rubber for adapting to a variety of cable sizes.
- For plug and socket-outlets to 60A & 100A North American and 63A & 125A international standards, bodies are made of extra-durable thermoplastic technopolymer to assure improved impact resistance even under extreme conditions.

Resistance & Testing

Resistance to excess heat and fire

Glow Wire test (according to IEC Publication 695-2-1): This test checks the reaction of a given insulation after overheating of adjacent metallic parts caused by bad connections or faults in the system. A glow wire coil is pressed into the specimen for 30 seconds, penetrating up to 7 mm. A sheet of tissue paper is put under the point of contact. The temperature of the wire required by the standard is 850°C for items used for holding parts that carry current and 650°C for other insulations. The test is considered to have a positive outcome if the specimen does not catch fire or if it self-extinguishes within 30 seconds of the wire being removed without burning entirely and causing continuous burning of the tissue paper beneath.

All plugs and connector components meet or exceed the temperature test requirements set by IEC.

UL 94: self-extinguishing test

A Bunsen burner is twice brought into contact with an insulation specimen in a vertical position, each time lasting 10 seconds. Cotton wool is placed under the point of contact.

Classification	Reaction of Specimen
V-0	Extinguishes within 5 seconds. The cotton beneath does not ignite.
V-1	Extinguishes within 25 seconds. The cotton beneath does not ignite.
V-2	Extinguishes within 25 seconds. The cotton beneath ignites.
HB	Does not extinguish within 25 seconds. When testing the specimen horizontally, burns at a speed lower than 38 mm/min (at a thickness greater than 3 mm) and less than 76 mm/min (at a thickness of up to 3 mm).

Testing for resistance to tracking (in compliance with IEC 112)

The surfaces of the insulated item being tested are arranged horizontally and two platinum electrodes are placed on them at a distance of 4 mm. The electrodes are connected to a 50 Hz supply source. Every 30 seconds a drop of 0.1% ammonium chloride in distilled water falls between the two electrodes. The test is passed if there are no electrical charges between the two electrodes before 50 drops have fallen. Results depend on the level of voltage applied to the electrodes, and this is taken as the index of resistance to tracking.

All plugs and connectors comply with the tracking resistance requirement of IEC.

Reference Standards

• Socket outlets:	CEI EN 60309-1	IEC 309	CEI 23-12/1	CEI EN 60309-2	IEC 309-2	CEI 23-12/2
• Enclosures:	CEI EN 60529	IEC 309-2	CEI 70-1			
• Safety transformer:	CEI EN 60742	IEC 742	CEI 96-2			
• Switches:	CEI EN 60974-3	IEC 947-3	CEI 17-11			

Construction Characteristics**Socket outlets with mechanical interlock**

- Socket outlets that are interlocked, both mechanically & electrically, make it possible to create electricity distribution systems in maximum safety. They also meet specific requirements of system regulations for special system configurations, as described in the following:
 - “socket outlets with a power load over 16A must be the interlocking type.” (CEI 64-8/7, sect. 752.55.1: In electrical systems for public entertainment places)
 - “in C2 sites the socket outlets must be of the interlocking type.” (CEI 64-2, chap. XII, sect. 3, para. 12.3.03: Socket outlet in making an operating safety system (AD-FT))
- The interlock device prevents the switch from being closed if the plug has not been inserted into the socket-outlet and thereafter stops it from being taken out if the switch is in the “closed” position. In addition to this safety feature, the switch knob is connected to a door lock that only allows the enclosure to be opened for maintenance purposes if the switch is in the “open” position.
- The complete functional unit is assembled onto the light alloy frame, which is in turn coupled to the thermoset plastic enclosure. The entire functional structure thus makes up a rigid sub-assembly that is mechanically defined, guaranteeing that the regulations and original functions are maintained in the long term.
- The parts making up the mechanical interlocking device are made in tropicalized steel plate, which guarantees the necessary rigidity and strength even if forced through incorrect use.
- The fuse-holder bases, where included, are in thermoset plastic (EPIC® ULYSSE) or ceramic-mounted (EPIC® ALUPRES) and wired in the switched outlet. Unless specifically requested, the fuses are not normally included with the equipment.
- The interlocked socket-outlets are available with a rotary control switch, with or without a fuse-holder base as indicated.

EPIC® ULYSSE interlocked socket-outlets in thermoset plastic

- Bottom boxes and covers are made of very thick reinforced thermoset plastic (SMC or CMC or BMC, according to use) with excellent dimensional stability, non-deformability, and resistance to extremes of heat and fire, to the action of chemical and atmospheric agents, and to mechanical stress even at very low temperatures. All these characteristics in the enclosure material ensures maximum performance in any environment, even when chemically aggressive, and represents perfection in terms of insulating material.
- The transparent covers are made of thick polycarbonate with a long-chain molecular structure. They are self-extinguishing and UV stabilized for maximum resistance to atmospheric and chemical agents.
- Captive screws for closing the covers are made of stainless steel, with gaskets in non-aging elastomer.
- All the enclosures in the EPIC® ULYSSE series are suitable for creating systems in compliance with standards CEI 64-8 and particularly for installation in places at “greater risk in case of fire” (64-8/7, sect. 751). They also permit the fitting out of distribution boards with protection through complete insulation (CEI EN 60439-1) and meet the requirements of the IEC 670 publication.
- The entire EPIC® ULYSSE series is completely modular and ideal for making even complex distribution boards using predefined configurations and standard accessories.

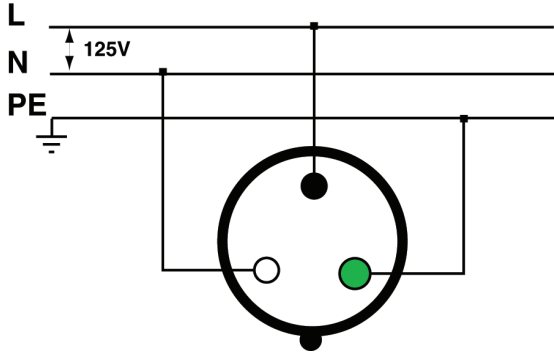
EPIC® ALUPRES interlocked socket-outlets in light alloy

- Bottom boxes and covers are made of UNI-5076 light alloy with a high aluminum content, oven-painted internally and externally over a pretreatment of chromate galvanizing for a maximum resistance to corrosion. The heavy thickness of the material used for making these enclosures assures maximum results in any environment, even when chemically aggressive, and represents perfection in terms of metal structures due to the very high impact resistance.
- Captive screws for closing the covers are made of stainless or tropicalized steel with gaskets in non-aging elastomer.
- Internal and external earth connection screws.
- All the enclosures in the EPIC® ALUPRES series are suitable for creating systems in compliance with CEI 64/8 standards, and particularly for installation in places with “greater risk in case of fire” (64-8/7, sect. 751).
- The entire EPIC® ALUPRES series is completely modular and ideal for making even complex distribution boards using predefined configurations and standard accessories.

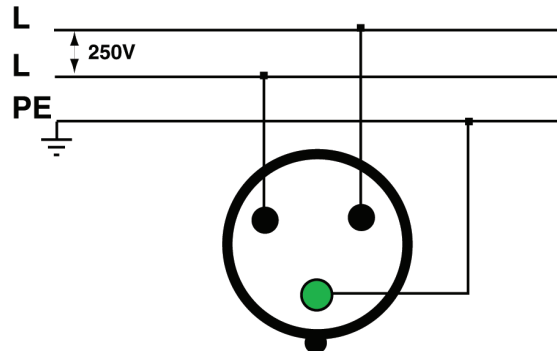
Circuit Wiring Diagrams

North American Standard Female Devices

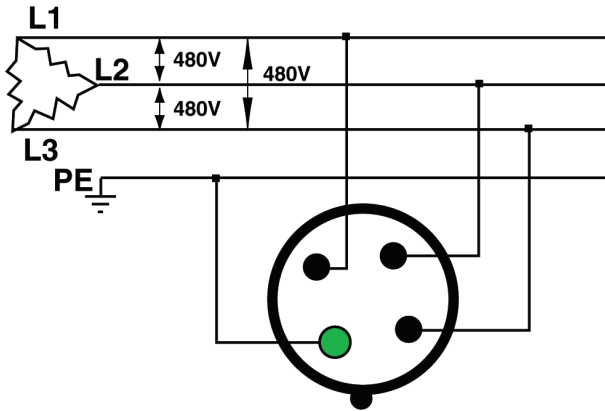
125V; 1+N+PE, 3-wire, 4h



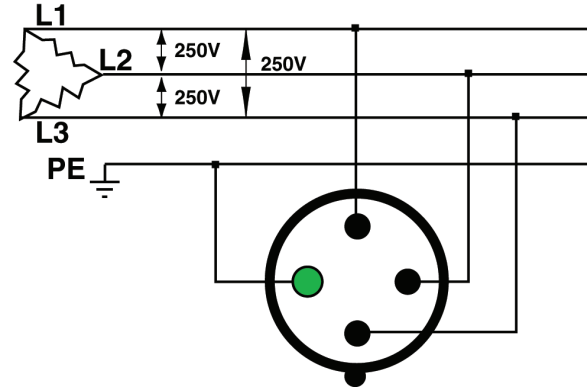
250V; 2+PE, 3-wire, 6h



480V; 3+PE, 4-wire, 7h, 3phase



250V; 3+PE, 4-wire, 9h, 3phase



120/208V; 3+N+PE, 5-wire, 9h, 3phY

