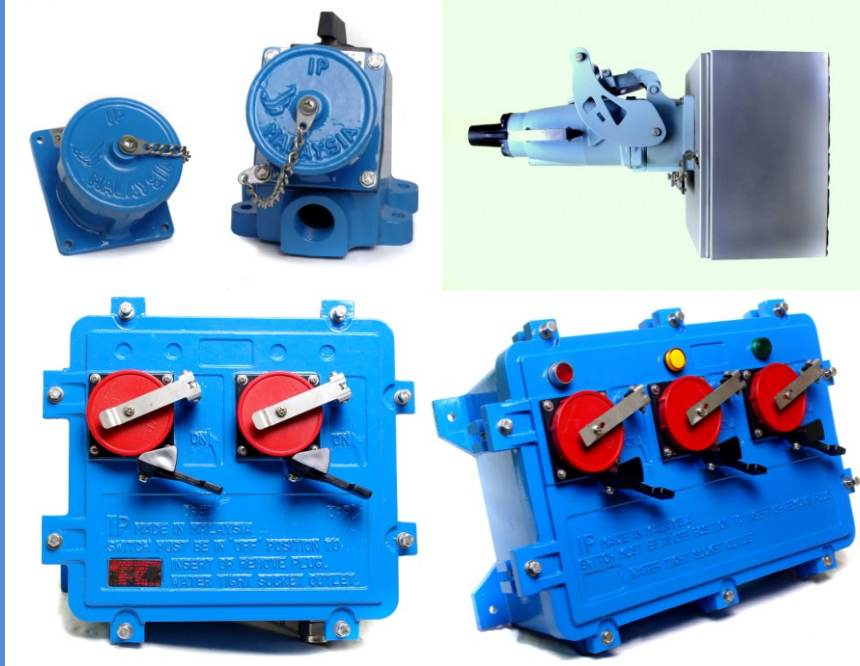


IP Port Solutions

For the efficient port



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Product Introduction

The IP Reefer Socket Series and the IP Alternate Power Series are products with a long history of field operations. The products are designed to weather the harsh environments which they will operate in and will give the end user unrivalled reliability, safety, operational efficiency, durability, and cost savings over the lifetime of the products. All products have been tested, and conform to the following standards: CEE17, IEC309-2, BS4343 and IP66.

Every product is put through stringent manufacturing processes and quality assurance to ensure high quality products.

IP products offer a variety of technical and safety advantages, and the company invites you to browse through the ranges of products to see just where these advantages are.

We offer competitive warranties for all products, and we highly believe in the aim of customer satisfaction.



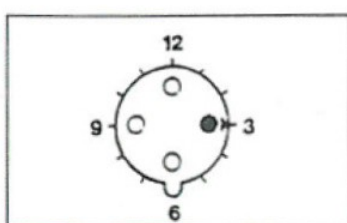
IP Reefer Socket

IP Reefer Sockets are a series of reefer socket solutions that are designed to be tough, dependable, and long lasting to weather the rigours of port reefer operations. The current range is constructed from a choice of cast aluminum alloy, and stainless steel. These sockets are coated with a proprietary paint method that combats the effects of weathering and corrosion.

The use of high strength, high temperature plastics on all electrical and plastic components reduce the effects of burning, melting, and breakage. This guarantees the operator service reliability, reduced downtimes, safe operations, and very low replacement rates due to product breakage.

In addition, provisions for SCADA systems are provided on all interlocking reefer sockets.

The IP Reefer Socket comes in 2 varieties; non-interlocking and interlocking type, each with their own design advantages. Spare parts are available for all parts used in the sockets.



380/440V AC

Non-Interlocking Series

The IP Non-Interlocking range is a range that is designed to give the operator flexibility in creating a multi gang reefer point configuration. Brackets and mounting panels will be designed based on operator requirements.



IP3211



IP32183

Model: IP3211



Technical Data:

- Housing: Cast Aluminum Alloy
- Surface Protection: ED Coating and Marine Painted
- Ingress Protection: IP66
- Voltage Rating: 380V/440V
- Amperage Rating: 32A -3h
- 3 phase, Earth at 3 O'clock.

Model: IP32183 with Isolator



Technical Data:

- Housing: Cast Aluminum Alloy
- Surface Protection: ED Coating and Marine Paint
- Isolator: Yes
- Ingress Protection: IP66
- Voltage Rating: 380V/440V
- Amperage Rating: 32A -3h
- 3 phase, Earth at 3 O'clock

Note: For model without isolator, simply specify model number IP180356 without isolator

Model: IP32115

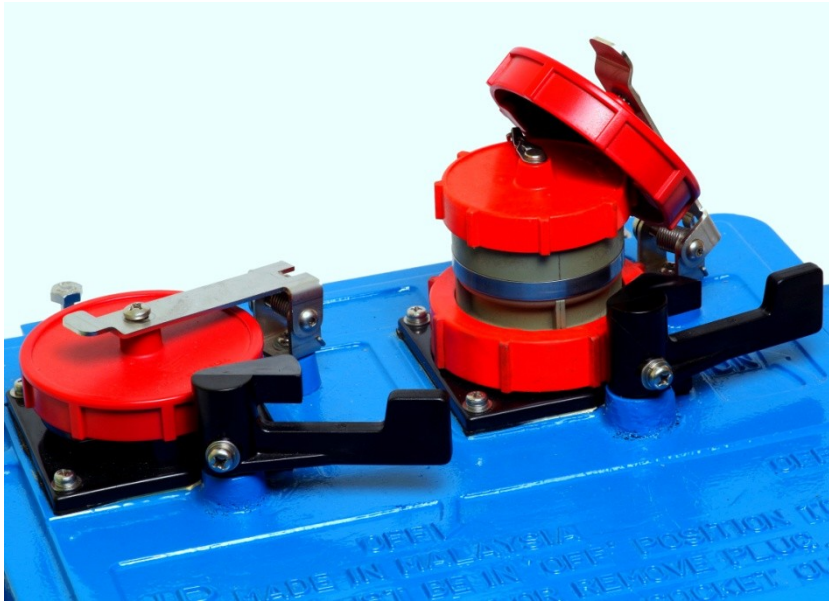


Technical Data:

- Housing: Cast Aluminum Alloy
- Mounting Bracket: Stainless Steel
- Outlets: 5
- Surface Protection: ED Coating and Marine Paint
- Ingress Protection: IP66
- Voltage Rating: 380/440V
- Amperage Rating: 32A-3h
- 3 phase, Earth at 3 O'Clock.

Interlocking Series

The IP Interlocking range is designed with a mechanically interlocking system to provide safety during plugging and unplugging of plugs. The sockets also come with an inbuilt circuit breaker, and provisions for SCADA systems where the operator can remotely monitor the status of the sockets, the temperature of the reefer container as well as any other additional parameters. The sockets come in 1, 2, 3 and 4 gang configurations.



Interlocking Mechanism

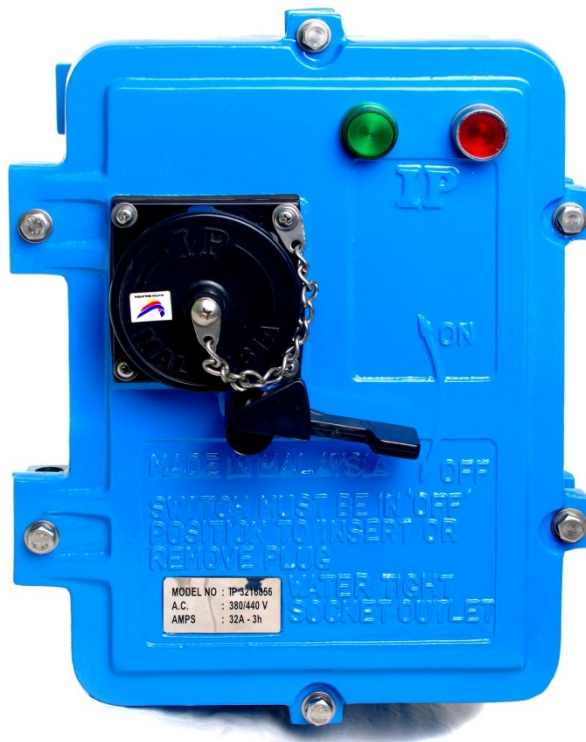
The interlocking mechanism ensures that the unit can only be turned on when the plug is securely plugged into the socket. Once the unit has been turned on, the plug cannot be removed. The plug can only be removed once the socket has been turned off.

SCADA

SCADA systems are an optional feature on the IP Reefer Socket Interlocking Series. The SCADA system allows the operator to remotely monitor the health and operating status of the reefer socket.



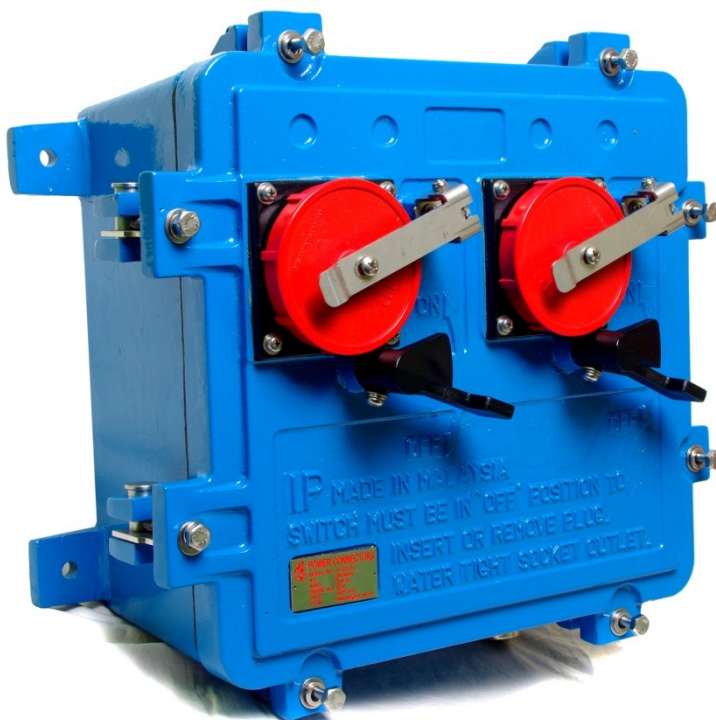
Model: IP3216856



Technical Data:

- Housing: Cast Aluminum Alloy
- Outlet: 1 Gang
- Surface Protection: ED Coating and Marine Paint
- Ingress Protection: IP66
- Voltage Rating: 380/440V
- Amperage Rating: 32A-3h
- 3 phase, Earth at 3 O'Clock,

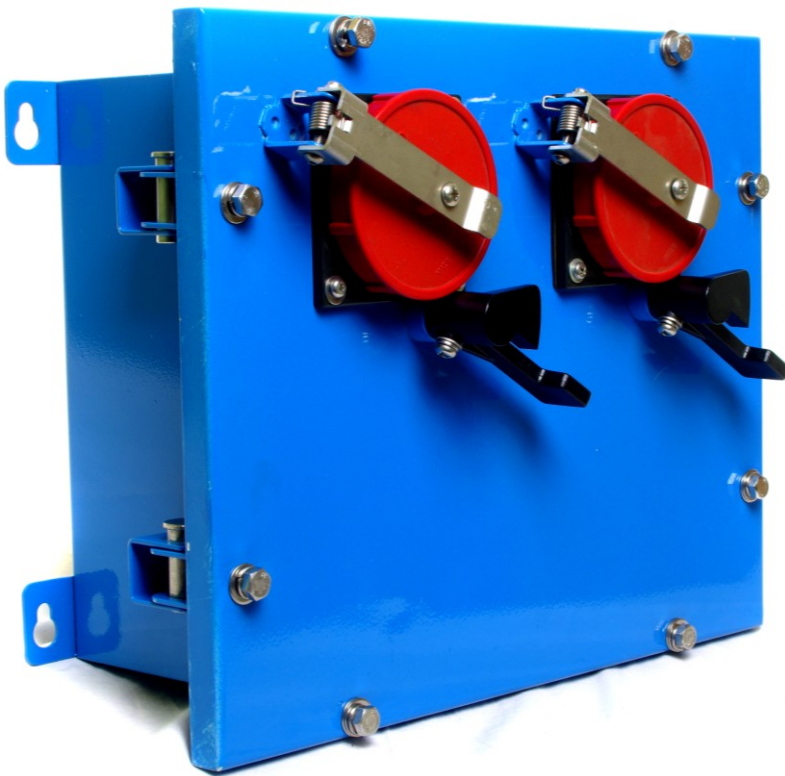
Model: IP323218



Technical Data:

- Housing: Cast Aluminum Alloy
- Outlet: 2 Gang
- Surface Protection: ED Coating and Marine Paint
- Ingress Protection: IP66
- Voltage Rating: 380/440V
- Amperage Rating: 32A-3h
- 3 phase, Earth at 3 O'Clock

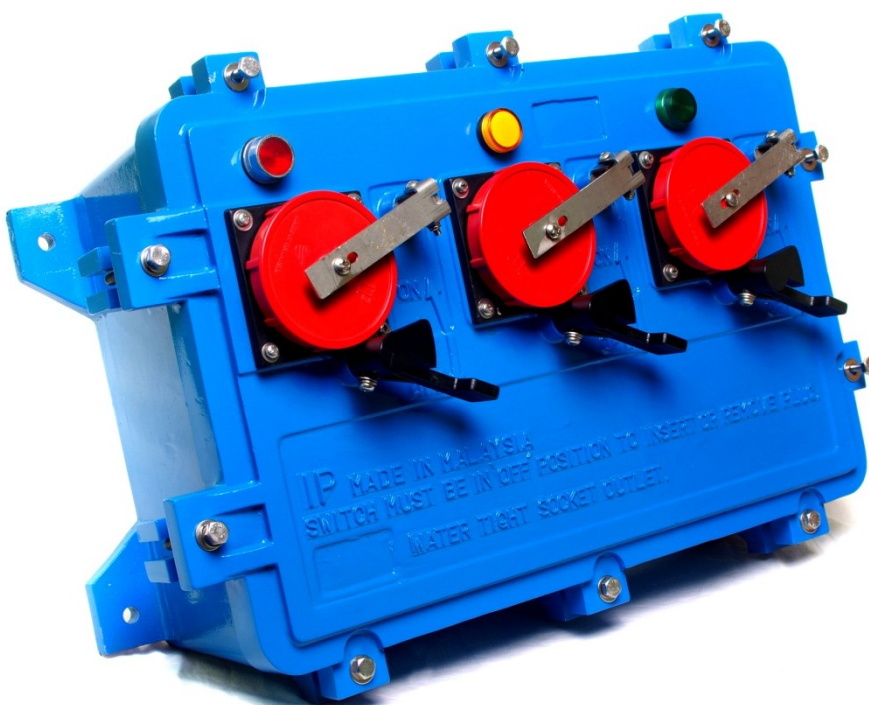
Model: IP323218SS



Technical Data:

- Housing: Stainless Steel
- Outlet: 2 Gang
- Surface Protection: ED Coating and Marine Paint
- Ingress Protection: IP66
- Voltage Rating: 380/440V
- Amperage Rating: 32A-3h
- 3 phase, Earth at 3 O'Clock

Model: IP3X3216



Technical Data:

- Housing: Cast Aluminum Alloy
- Outlet: 3 Gang
- Surface Protection: ED Coating and Marine Paint
- Ingress Protection: IP66
- Voltage Rating: 380/440V
- Amperage Rating: 32A-3h
- 3 phase, Earth at 3 O'Clock

Model: IP4X3216



Technical Data:

- Housing: Stainless Steel
- Outlet: 4 Gang
- Surface Protection: ED Coating and Marine Paint
- Ingress Protection: IP66
- Voltage Rating: 380/440V
- Amperage Rating: 32A-3h
- 3 phase, Earth at 3 O'Clock

Reefer Socket Spare Parts

The following are spare parts for the IP Reefer Socket range. Should any part become damaged or require replacement, simply contact your nearest dealer for replacements.



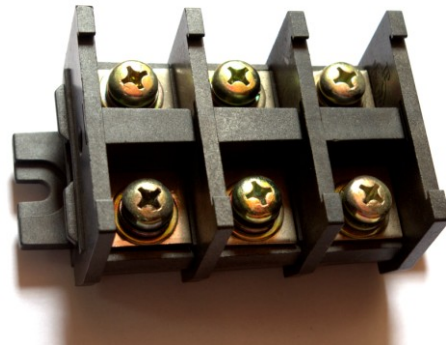
Part: Socket Cover
Part Number: IP3226592



Part: Socket Flange
Part Number: IP3281189



Part: Socket Interior Assembly
Part Number: IP3224888



Part: Power Terminal Block
Part Number:
60 Amps 3 Pole: IP PIT/60/3MB
100 Amps 3 Pole: IP PIT/100/3 MB



Part: Handle
Part Number: 32



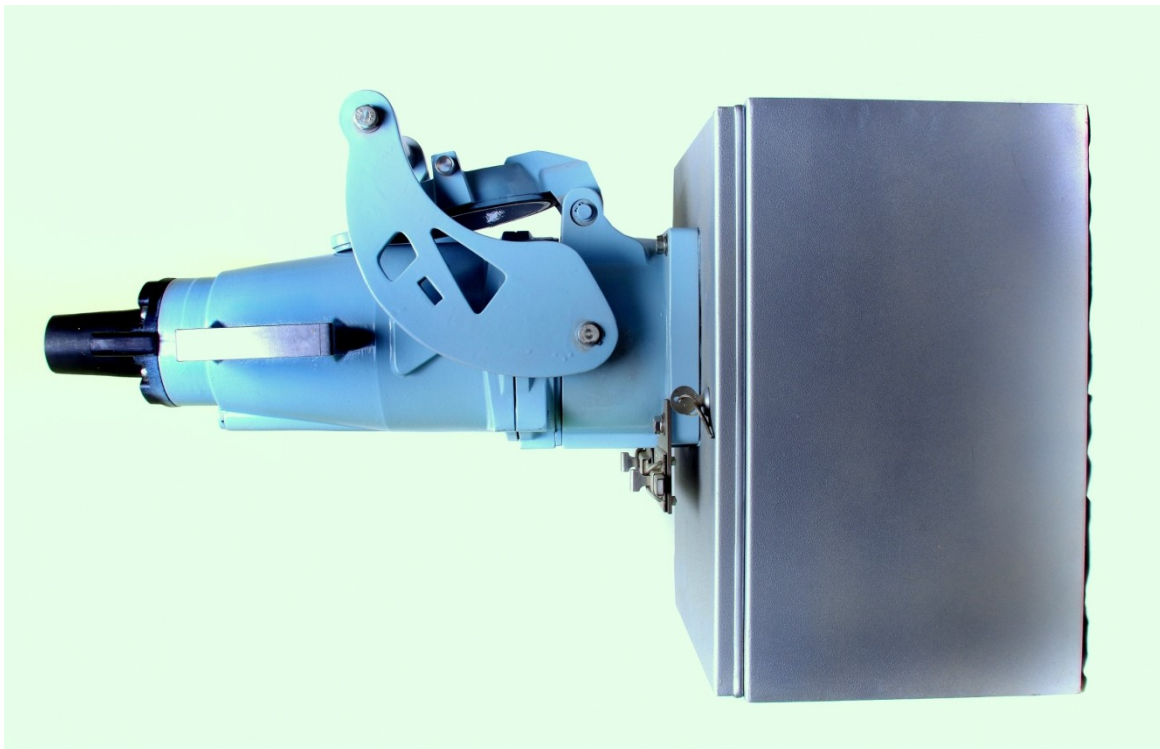
Part: Circuit Breaker
Part Number: IP180356
Rated Voltage/Ampere
550V/60A
550V/30-50 A

IP Alternate Power Series

The IP Alternate Power series is a plug and receptacle combination that is designed to perform as backup power to reefer yards, as well as to provide ship to shore power solutions. An interlocking mechanism provides easy plugging and unplugging, without requiring the use of force from ground personnel. The use of pilot pins in the receptacle greatly increases safety by ensuring that the plug is properly inserted before power is transferred. This greatly reduces the risk of arcing and sparking.

Backup power is provided to the reefer yards by connecting the plug to the existing generators on the RTG cranes, which is then subsequently connected to the receptacle which then powers the reefer container yard. This provides an advantage where the port operator will not have to invest in a backup generator that is both costly and maintenance intensive. By employing the use of the IP400 Amps series, the port operator is guaranteed a cheaper and more reliable alternative that can be pressed into action on short notice.

The ship to shore power solution can be employed by transferring power from the shore onto the ship via the plug and receptacle. This allows the ship to turn their engines off when berthed, thus reducing the amount of emissions coming from the ship.



Model: IP4001M



Technical Data:

- Construction: Cast Aluminum Alloy
- Configuration: 3L + N + PE
- Max Amperage Rating: 400 A
- Rated Voltage: 400VAC – 6h
- Frequency: 50 Hz
- Ingress Protection: IP66

Model: IP4001F



Technical Data:

- Construction: Cast Aluminum Alloy
- Configuration: 3L + N + PE
- Max Amperage Rating: 400 A
- Rated Voltage: 400VAC – 6h
- Frequency: 50 Hz
- Ingress Protection: IP66