

 **ratio**
ELECTRIC



CATALOGUE



A tradition in innovation



POWERED BY SIMPLICITY

Ratio Electric develops, produces and sells electrical power connection and distribution systems. Our company is based in The Netherlands and active throughout Europe. During half a century we gathered a huge amount of experience that is used to meet the latest demands in our markets. Doing so we built up a tradition in innovation with state of the art, reliable, certified and affordable products. The products are delivered to OEM's or distributed by specialized wholesale companies, covering the following areas:



Marine

Our Shore Power connection system is the marine standard all over Europe. The MP16/32/50 boat inlets and cables are stylish, certified and safe. Every marine product is designed to be user-friendly and still able to withstand the rigors of life at sea.



E-Mobility

Ratio Electric provides high quality AC connection and charging systems for electric and plug-in hybrid vehicles. All these products, such as charge stations, cables and components comply with the latest European standards.



Industry and Office

We are an industry leading supplier of power cords, cord sets, power strips, power plugs, power connectors and other components. On request we also develop custom made power connections with required approvals.



ICT

We are well acquainted with Data centers. Ratio Electric modular solutions for power distribution and power management in 19" racks can be found all over Europe. Our complete range of (intelligent) Power Distribution Units (PDU's) and power cords will normally suit your needs. When required we also produce custom made specific versions.



State-of-the-art Shore Power connections

In this catalogue you will find the best products to connect your boat with the power supply from shore. Every product we make is designed to be functional, practical and able to withstand the harsh marine environment. Boatyards and yachtmen all over Europe prefer state-of-the-art shore power products from Ratio Electric.

Ratio Electric develops innovative shorepower connections and power solutions for every type of boat.

Ranging from robust cables to stainless steel inlets. We also carry a vast range of stylish, functional and safe accessories.



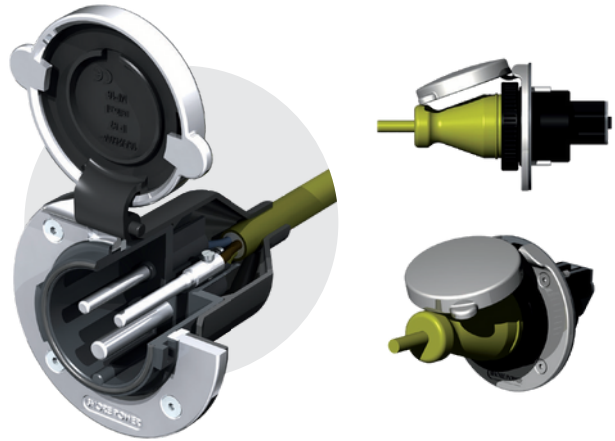
MP Shore Power system

A waterproof, stylish and approved shore power connection system for your boat.

MP series Waterproof connection system

Ratio Electric has designed the MP 16 (16A/250V), MP32 (32A/250V) and MP50 (50A/250V) system to offer a waterproof, stylish and approved shore power connection system for your boat.

The system is based on the world standard for outdoor connections (IEC 60309) and features a boat inlet and a mating connector (moulded or assembly).



Stainless steel inlet

The MP16, MP32 and MP50 inlets are made from solid cast marine grade 316 stainless steel and include an easy locking waterproof cap.

The requirements for installation of electrical systems on craft of hull length up to 24m are specified in the ISO13297 standard. MP16, MP32 and MP50 inlets will not accept standard CEE couplers.

Cable connectors

The MP16 and MP32 cable connectors are available in a moulded watertight version as well as an assembly (rewireable) type. The MP50 cable connector is only available in an assembly version. All types include a weatherproof sealing cap to ensure CE compliance.

Moulded connector

- LED power indication
- Watertight moulded construction
- 16A and 32A version

Assembly connector

- Weatherproof marine construction
- Easy assembly
- 16A, 32A and 50A version



MP16 Shore Power system 16A/250V

The Ratio Electric MP16-10 Inlet features a sleek and modern design that complements any boat. Its compact yet robust build ensures durability without compromising performance, making it the ideal solution. Safety is prioritized in its design, providing peace of mind for users. Installation is straightforward, as expected from the Ratio Electric Shore Power portfolio.



16A/250V Stainless Steel Inlet

- Part no. MP16-10
- Marking: CE
- Waterproof: IP56
- Solid cast 316 stainless steel



16A/250V Stainless Steel Inlet

- Part no. MP16-10-SQ
- Marking: CE
- Waterproof: IP56
- Solid cast 316 stainless steel



16A/250V chromed Inlet

- Part no. MP16-10-KX
- Marking: CE
- Waterproof: IP56
- ABS chrome plated



16A/250V Polyamid Inlet

- Part no. MP16-10-K
- Marking: CE
- Waterproof: IP56
- Glass filled PA6



16A/250V Polyamid Inlet

- Part no. MP16-10-KZ
- Marking: CE
- Waterproof: IP56
- Glass filled PA6





MP16 Cord Sets

- Marking: CE
- Waterproof: IP44
- PUR cable (H07BQ-F)
- Watertight moulded plug and connector
- LED power indication



16A/250V Connector

- Part no. MP16-110
- Marking: CE
- Waterproof: IP44
- Recommended Cable:
- H07BQ-F 3G 1,50mm² and 3G 2,50mm²



P/N	MP16 Cord Sets	Length	Max. rating
2801	MP16 Cord Set with H07BQ-F 3G 1,50mm ² (PUR) Yellow cable	15m	16A
2823	MP16 Cord Set with H07BQ-F 3G 2,50mm ² (PUR) Yellow cable	5m	16A
2821	MP16 Cord Set with H07BQ-F 3G 2,50mm ² (PUR) Yellow cable	15m	16A
2822	MP16 Cord Set with H07BQ-F 3G 2,50mm ² (PUR) Yellow cable	25m	16A

MP32 Shore Power system 32A/250V

MP 32 Cord set

- Marking: CE
- Waterproof: IP44
- PUR Cable (H07BQ-F)
- Watertight moulded plug and connector •
- LED power indication



32A/250V Rewirable Connector

- Part no. MP32-110
- Marking: CE
- Waterproof: IP44
- Recommended cable
- H07BQ-F 3G 4,00mm² and H07BQ-F 3G 6,00mm²



32A/250V stainless steel inlet

- Part no. MP32-10
- Marking: CE
- Waterproof: IP56
- Solid cast 316 stainless steel

P/N	MP32 Cord Sets	Length	Max. rating
2836	MP32 Cord Set with H07BQ-F 3G 4,00mm ² (PUR) Yellow cable	15m	32A
2832	MP32 Cord Set with H07BQ-F 3G 4,00mm ² (PUR) Yellow cable	25m	25A
2837	MP32 Cord Set with H07BQ-F 3G 6,00mm ² (PUR) Yellow cable	15m	32A
2838	MP32 Cord Set with H07BQ-F 3G 6,00mm ² (PUR) Yellow cable	25m	32A

MP50 Shore Power system 50A/250V



63A MP-series to be introduced in 2024

Check with your supplier or with Ratio Electric to explore the available options.

MP 50 Cord set (assembly type)

- Marking: CE
- Watertight assembled plug and connector
- PUR Cable (H07BQ-F)
- MP50-110 Connector and 63A blue CEE plug



front view



side view



50A/250V Connector

- Part no. MP50-110
- Marking: CE
- Waterproof: IP44
- Recommended cable H07BQ-F 3G 10mm2 (max. 25m)

50A/250V Stainless steel inlet

- Part no. MP50-10
- Marking: CE
- Waterproof: IP56
- Solid cast 316 stainless steel

P/N	MP50 Cord Sets	Length	Max. rating
2851	MP50 Cord Set with H07BQ-F 3G 10,00mm2 (PUR) Yellow cable	15m	50A
2852	MP50 Cord Set with H07BQ-F 3G 10,00mm2 (PUR) Yellow cable	25m	50A



AC16 Shore Power System

The Ratio Electric AC16 Power System provides a complete plug & play shore power and battery charger system for boats. The system is flexible and easy to extend or modify. All components use snap-in connections for easy installation.



There are more varieties of Electrical Cabinets, please check on possibilities.

AC16 power system components

P/N	Inlet with Cord	Max. rating
AC16-01	Stainless Steel Inlet	16A
AC16-01-K	Polyamid Inlet	16A
AC16-01-KX	Chrome plated Inlet	16A

P/N	Inlet with Cord	Max. rating
AC 16-03	Electrical Cabinet BASIC	1xRCBO 30mA/16A
AC 16-13	Electrical Cabinet PRO	3xRCBO 30mA/16A

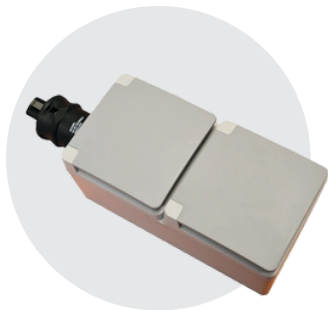
AC16 Shore Power System

Check with your supplier or with Ratio Electric to explore the available options.



Internal cable

P/N	Internal Cable	Length	Max. rating
AC16 - 02-1	Internal Cable H07RN-F 3G 2,50mm2	1m	20A
AC16 - 02-2	Internal Cable H07RN-F 3G 2,50mm2	2m	20A
AC16 - 02-3	Internal Cable H07RN-F 3G 2,50mm2	3m	20A
AC16 - 02- 4	Internal Cable H07RN-F 3G 2,50mm2	4m	20A
AC16 - 02-5	Internal Cable H07RN-F 3G 2,50mm2	5m	20A



Wall socket

P/N	Wall Socket IP55	Max. rating
AC16 - 07-1	Wall Socket 1-way IP44	16A
AC16 - 07-2	Wall Socket 2-way IP44	16A



Wall socket flush

P/N	Wall Socket Flush	Max. rating
AC16 -17	Wall Socket 1-way FLUSH white	16A
AC16 -18	Wall Socket 1-way FLUSH black	16A
AC16 -19	Wall Socket 1-way FLUSH brown	16A

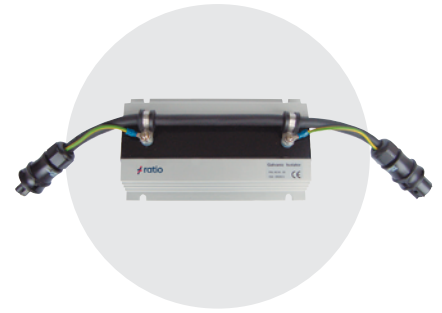


Wall socket IP56

P/N	Wall Socket IP56	Max. rating
AC16 -2 3	Wall Socket IP56	16A

Galvanic isolator

P/N	Galvanic Isolator	Max. rating
AC16 -20	Galvanic Isolator	16A



Splitter

P/N	Splitter	Max. rating
AC16 - 0 6	Splitter 1:3	16A



Basic Kit

The AC Power System is also available as the AC16 Basic Kit (p/n AC16-BASICKIT). Including:

P/N	Description
2801	Shore Power Cord Set 15m
AC16 - 01	Stainless Steel Inlet with
AC16 - 03	cord Electrical Cabinet
AC16 - 02-1	Internal Cable 1m
AC16 - 02-2	Internal Cable 2m
AC16 - 07-2	Wall Socket 2-way IP44



MP16 Shore Power Kit

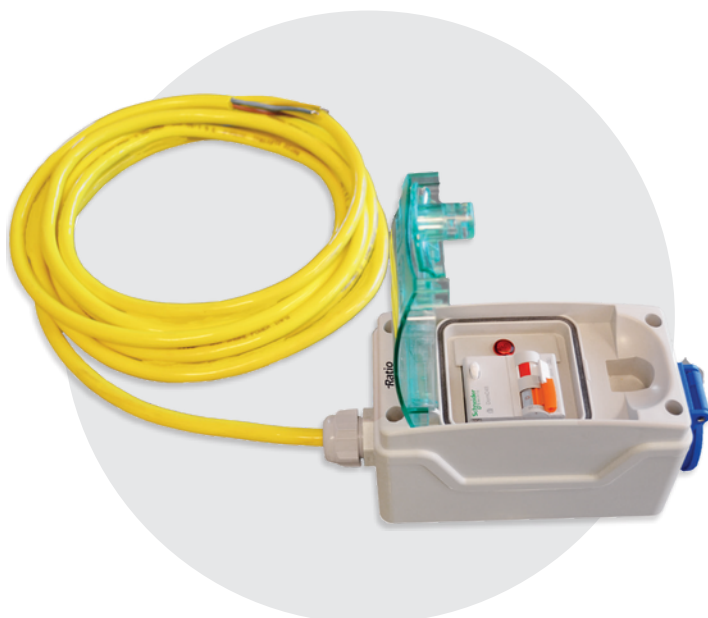
CE Complete Shore Power System for small boats. 10A/250 Vac.



MP16 shore power kit

- MP16 Shore Power Kit includes:
- MP16 Inlet. Stainless Steel, Polyamid or Chromed version.
- MP16 Cordset, 10A/250V, length 10m (p/n 2803)
- Electrical Cabinet Single

P/N	Description
MP16-Kit	MP16 Kit Stainless Steel Inlet
MP16-K-Kit	MP16 Kit Polyamid Inlet
MP16-KX-Kit	MP16 Kit Chromed Inlet



Electrical cabinet

- Circuitbreaker 16A
- Earth leakage protection 30mA
- LED Power indication
- Schuko outlet
- IP65 Housing

P/N	Description
70 0 51	Electrical Cabinet Single (1x Schuko outlet)
70 0 52	Electrical Cabinet Dual (2x Schuko outlet)

Check with your supplier or with Ratio Electric to explore the available options.

Shore Power Cord Sets



Marinco compatible cord sets 16A /250V

- Moulded 3-pin CEE plug
- Moulded Marinco compatible plug
- Threaded locking ring
- Weatherproof protection cap
- LED power indication
- Marking: CE

Nema L5-30

Marinco MCP16 Cord Set

P/N	Marinco Compatible Cord Sets	Length	Max. rating
2811	MCP16 Cord Set with H07BQ-F 3G 2,50mm2 (PUR) Yellow cable	15m	16A
2812	MCP16 Cord Set with H07BQ-F 3G 2,50mm2 (PUR) Yellow cable	25m	16A



CEE extension cord sets 16A/250V

- Moulded 3-pin (male) CEE plug
- Moulded 3-pin (female) CEE connector with weatherproof protection cap and LED power indication
- Marking: CE

P/N	CEE Extension Cord Sets	Length	Max. rating
2834	CEE16 Cord Set with H07BQ-F 3G 2,50mm2 (PUR) Yellow cable	15m	16A
2835	CEE16 Cord Set with H07BQ-F 3G 2,50mm2 (PUR) Yellow cable	25m	16A

Shore Power Cable



Ratio Electric uses PUR (H07BQ-F) cable for all its cord sets. The same cable can also be supplied on 50m rings. PUR cable offers the best available features for boat owners.

Shore Power cable 50m ring

- Good resistance to oil and other chemicals
- Extremely robust and noted for its good tear and abrasion resistance
- Suitable for outdoor use and resistant to UV radiation, ozon and oxygen
- Approval: KEMA
- Marking: H07BQ-F

P/N	Description	Max. rating
70030	Shore Power H07BQ-F 3G 1,50mm ² (PUR) Yellow cable	10A
70031	Shore Power H07BQ-F 3G 2,50mm ² (PUR) Yellow cable	16A
70032	Shore Power H07BQ-F 3G 4,00mm ² (PUR) Yellow cable	25A
70033	Shore Power H07BQ-F 3G 6,00mm ² (PUR) Yellow cable	32A
70034	Shore Power H07BQ-F 3G 10,00mm ² (PUR) Yellow cable	40A



Outlet Socket IP56

Schuko outlet socket for exterior applications.

Socket IP56

- Part no.: MP16-230
- Material: solid cast 316 stainless steel
- Waterproof: IP56
- Marking: CE
- Rating: 16A/230V

The Schuko socket is a high quality in-wall outlet designed for outdoor use. The high-gloss polished stainless steel cap and flange guaranty a long lasting stylish look.

When the bayonet cap is closed the outlet is protected against water ingress (IP56).



Stainless steel



MP16-230-SQ



MP16-230

Polyamide



White
MP16-230-K



Chromed
MP16-230-K



Black:
MP16-230-KZ

Powerful Performance.
Powerful Products.



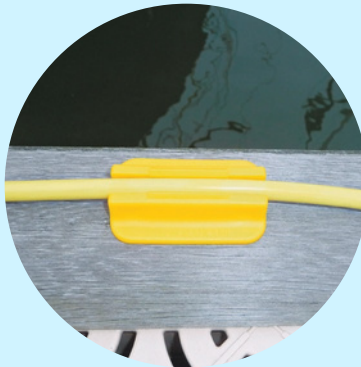
Shore Power Accessoires

Loose power cords on the dock and on the deck can create dangerous situations.

The Shore Power Cord Clips from Ratio Electric helps you to increase safety on and around your boat.

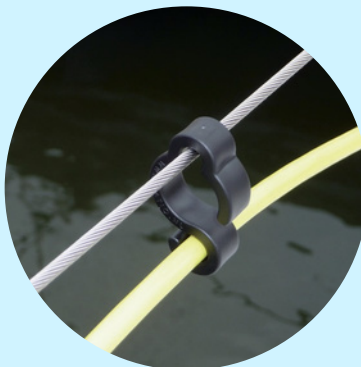
Shore Power cord dock clip

- Use on the edge of the dock or deck
- Keeps Powercords organised and out of the water
- Packaged as a set of 6 clips with stainless steel mounting screws
- Easy to install
- For cable H07BQ-F 3G 1,50 mm² p/n 70040
- For cable H07BQ-F 3G 2,50 mm² p/n 70041



Shore Power cord rail clip

- p/n 70038
- Keeps your Power cord from the deck Easy clip on tube or wire rails
- Packaged as set of 6 clips
- For 16A cords



Electric boating with Ratio Electric Shore Power

Ratio Electric's Shore Power portfolio (MP16, MP32 and MP50, with the MP63 on its way) is well equipped to charge your electric boat. Besides the MP-series boats are also charged via CCS.

The Combined Charging System (CCS) is a standard for charging electric vehicles. It can use Combo 1 or Combo 2 connectors. These two connectors are extensions of the IEC 62196 Type 1 and Type 2 connectors, with two additional direct current (DC) contacts to allow high-power DC fast charging. Ratio Electric offers the CCS inlets in two versions: 32A en 63A.

CCS-10

CCS Boat Inlet

Max. Current

AC: 32A/480V

DC: 60A/1000V IP55

Waterproof

IP55



CCS-20

CCS Boat Inlet

Max. Current

AC: 63A/415V

DC: 200A/1000V

Waterproof

IP55

32101

Inlet Type 2

Max. Current

32A/ 400V

Waterproof

IP54

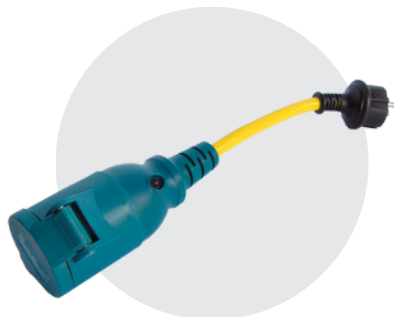


Organiser bag



- Part no. 32409

Adapter Cord Set 16A/250V



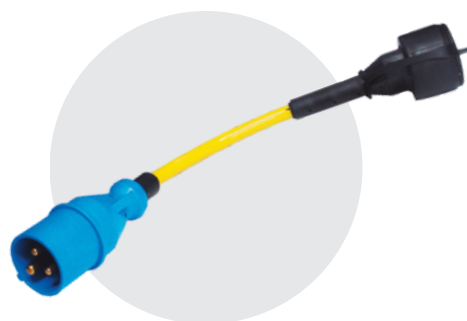
- Part no. 70022
- Length 0,30m
- Shore Power Adapter Schuko-Coupler CEE

Splitter Cord Set CEE 16A/250V



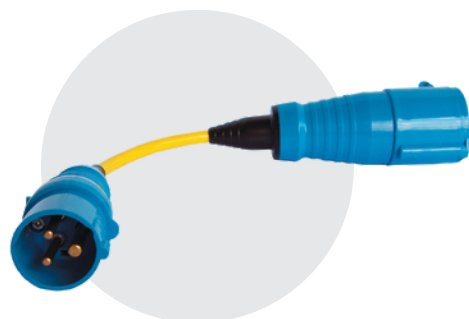
- Part no. 70024
- Length 0,50m

Adapter Cord Set 16A/250V



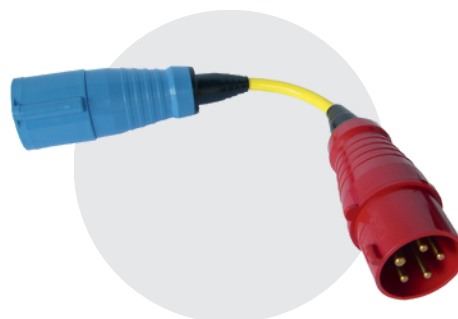
- Part no. 70026
- Length 0,30m
- Shore Power Adapter CEE-Coupler Schuko

Adapter Cord Set 16A to 32A/250V



- Part no. 70035
- Length 0,50m

Adapter Cord Set 32A 3-phase to single phase



- Part no. 70036
- Length 0,50m

Ahead in Shore Power

CATALOGUE

While Shore Power solutions are still developing, we would welcome your comments and ideas on any adaptations to our existing products as well as your useful suggestions for possible new products. Please send your comments to: info@ratio.nl



Ratio Electric B.V.
Ambachtsstraat 12, Nijkerk
The Netherlands (NL)
+31 (0)33 2452360

info@ratio.nl
www.ratio-electric.com