


GENERAL

SP is a single-pole connector whose socket-outlet is fitted with an auxiliary switch allowing its interlocking with a contactor, thus avoiding any accidental connection/disconnection under load. **The SP must imperatively be interlocked with a contactor having a suitable rating.**

Socket-outlet contacts are protected against standard test finger (IP2X) according to IEC/EN 60529 standard.


INSTALLATION

 SP must be installed by a qualified electrician. Be sure power is off before starting.

Wiring must be made according to applicable installation standards.

For a correct operation the power cable must not exert any constraint on the back of the product.

Wiring

 For a proper clamping the use of PVC cables is not recommended. Insert cable through the cable gland and the handle or through the inclined sleeve.

Wiring of the pilot wires

Use flexible conductors with a cross-sectional area between

1.5 mm² and 4 mm². Strip conductors by 8 mm and crimp the supplied lugs (blue for 1.5 mm² and 2.5 mm² conductors, yellow for 4 mm² conductors) by means of an adequate tool.

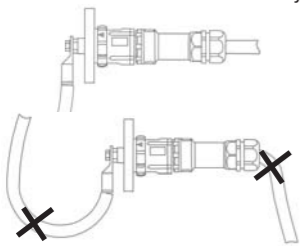
Wiring of the main conductor

Use a flexible cable with a cross-section between 70 mm² and 400 mm². The cross-section must be suitable for the load according to IEC 60364-5-52 standard. Strip the conductor by 46 mm. Crimp the threaded lug or the ferrule with the appropriate die (NFC 20-130 or VDE 0220 or another).

Hexagonal crimping is recommended.

Tighten directly the threaded lug with a 24 mm key or tighten the ferrule with a ring and screw with a 19 mm key. Apply a torque ca. 40 N.m.

The tightening torque of the ferrule must not be transmitted to the insulated casing of the SP: while tightening the ferrule, maintain the rear of the contact with a 24 mm key.



Assembly of the handle

Assemble handle with screws and the gasket supplied and apply a torque of 2 Nm on each screw. Tighten the cable gland with an appropriate tool.

To guarantee the IP66/IP67 of a connector with electrical interlock, use a cable with built-in pilot conductors.

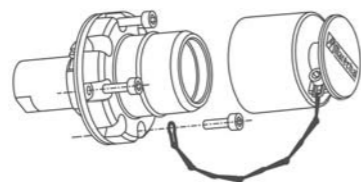
Assembly of the metal inclined sleeve.

Respect air and creepage distances when assembling the appliance inlet or the socket-outlet onto the metal inclined sleeve, according to the operating voltage of the main and auxiliary circuit. Apply a torque of 2 Nm on each screw

 Connect the metal inclined sleeve to Earth.

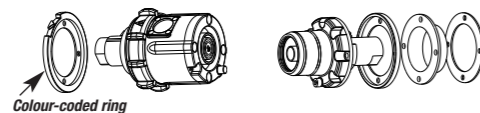
Assembly of the plug/inlet or socket-outlet/connector cap

Place the lug located at the tip of the wire under one of the fixing screws. Assemble the small fixing part supplied on the last link of the chain and fix it to the plug/inlet body by means of one of the screws.



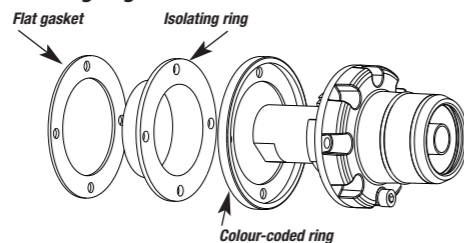
Colour-coded rings

In order to achieve watertightness, do not forget the colour-coded ring at the rear of the inlet or socket-outlet and the rear of the accessory or panel board.



The colour-coded ring allows visual identification of the pole, depending on the colour code of each country.

Isolating ring



When assembling the SP on a metallic support (enclosure, panel, etc ...), the isolating ring must be positioned as above. Do not forget the flat black gasket, which guarantees the watertightness, between the isolating ring and the accessory.

Rated current and voltage markings

It is essential to indicate, by means of the supplied adhesive stickers, the current and voltage of the main circuit. Fill legibly and stick the supplied stickers on or adjacent to the product, so that they can be easily seen in normal use.

OPERATION

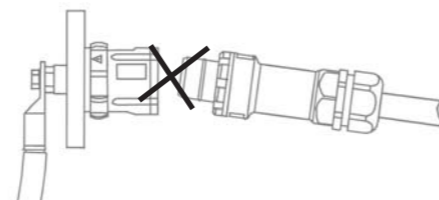
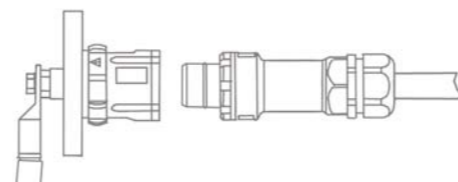
With conductors of the maximum cross-section, the SP can carry permanently a current of 700 A.

Wiring of the SP must be made according to IEC 60364-5-52 standard. SP performances comply with the requirements of this standard.

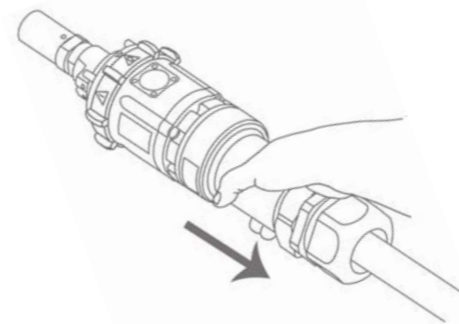
To ensure a safe and reliable operation, the SP must be used according to its designed destination, in a strict respect of the required operation of connection and disconnection.

Socket-outlets, plugs, connectors and inlets are protected against dust and water ingress by means of caps.

To achieve IP66/IP67, the socket-outlet or connector cap must be assembled with its slot facing the socket-outlet protruding finger.



1 Insert the plug straight into the socket-outlet, **until a 'click' is heard**. The plug and its flexible cable must not exert constraint on the socket-outlet.



2 Pull on the plug to make sure it is properly latched in the socket-outlet.

3 A small rotation of the plug, in either direction, allows the locking finger of the socket-outlet to prevent any further rotation.



4 To close the pilot circuit, if any, and to mechanically lock the plug into the socket-outlet, **turn the ring of the socket-outlet up to the stop towards 1**.

 **DO NOT ATTEMPT TO TURN THE RING TOWARDS 1 WHEN THERE IS NO PLUG ENGAGED.**



5 To open the pilot circuit, if any, and unlock the plug, **turn the ring back to 0 up to the stop**. Press on the button to release the plug. The caps must then be re-assembled on both sides.


MAINTENANCE

From time to time, the fastening screws should be checked for tightness.

Contact surfaces must be checked for cleanliness. Any deposit of dust can be rubbed off with a clean cloth. Do not file or grind contact surfaces as this would damage the silver-nickel tips. Sprays should not be used, as they tend to collect dirt.

Depending on prevailing conditions, plug and socket-outlet contacts should be regularly inspected.

The plug O-ring must be regularly inspected and lubricated.

 Any repair or service must be achieved with genuine **Marechal** parts only.

DECLARATION OF CONFORMITY

The SP uses the **Marechal** technology.

It has been designed, manufactured and controlled in a strict respect of the relevant international and European standards, laws and directives, and particularly of the European Low Voltage Directive 2006/95/EC. It bears the CE marking whenever applicable.

Note: The CE marking does not apply to spare parts and components supplied separately.

For the SP and whenever it is in the scope of the 2006/95/EC Directive:

We,
MARECHAL ELECTRIC S.A.,
5 avenue de Presles - F-94417 Saint-Maurice Cedex - France

Declare that the SP satisfies the measures set in the European Low Voltage Directive 2006/95/EC and in the application decrees of Member States.

Saint Maurice
Quality Manager
MARECHAL ELECTRIC S.A.

RESPONSIBILITY

A **Marechal** product must be used with a **Marechal** complementary accessory only.

The CE marking defined in the European Low Voltage Directive 2006/95/EC and affixed on **Marechal** products constitutes a warranty that **Marechal** products do not compromise the safety of persons and installations.

In the case **Marechal** products are associated to products or spare parts other than from **Marechal**, the CE marking is invalidated and MARECHAL ELECTRIC S.A.'s responsibility cannot be engaged.

MARECHAL ELECTRIC S.A.'s responsibility is strictly limited to the obligations expressly agreed in its general sales conditions.

Any penalty or indemnity provided herein will be considered as lump damages, redeeming from any other sanctions.

MARECHAL ELECTRIC S.A. is a member of the international association, BECMA: the Butt-contact Electrical Connectors Manufacturers' Association.



www.becma.ch

INSTRUCTION SHEET



SP

MARECHAL electric

MARECHAL ELECTRIC S.A.
5, avenue de Presles - F-94417 Saint-Maurice Cedex - France
Tel. : +33 (0)1 45 11 60 00 - Fax : +33 (0)1 45 11 60 60
e-mail : sales@marechal.com - www.marechal.com