

Products for *Section* **5**



- Emergency vehicles
- Tunnels
- Welding units
- Battery chargers
- Large gen-sets



CABLE JOINTS, CABLE TERMINATIONS, CABLE GLANDS, CABLE CLEATS
FEEDER PILLARS, FUSE LINKS, ARC FLASH, CABLE ROLLERS, CUT-OUTS

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other applications



Self-ejecting devices



Electrical distribution boxes



Road transport vehicles



Units for heated or refrigerated food

For mobile appliances

Self-ejecting devices protect the electrical installation when a mobile appliance is moved without having first separated the inlet (male) from the socket-outlet (female). There are many applications : fire-brigade vehicles, ambulances, road transport vehicles, electric

boats, mobile food trollies or refrigerating in the food industry companies, cafeterias and hospitals, or electrical equipment boxes located in vulnerable places (*a toll station, for instance*).

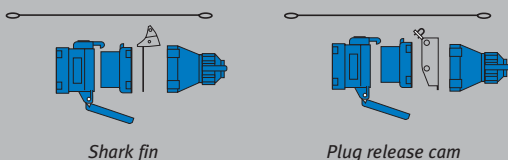
Advantages of self-ejecting devices:

Units for heated or refrigerated food: the unit can leave the kitchen without being first disconnected, and without any damage to the equipment. Watertight deconnectors can be used safely in rooms frequently cleaned with a powerful jetting water.

Achieving a self-ejecting device

In order to provide a MARECHAL ELECTRIC self-ejecting plug you only need an adequate mechanism, available as an optional feature to a socket-outlet or as an installation accessory to an inlet. Various devices are available depending on the deconnector rated current (*see the pages featuring the DSN, DS and DN ranges*).

Here are the two kinds of self-ejecting plug :



The various mechanisms are described in further detail in the Technical Manual on page 168.

Boxes for emergency vehicles

MARECHAL ELECTRIC also offers new boxes specially designed for use in emergency, fire-brigade vehicles or ambulances (*see opposite page*).



Applications :

- Battery recharging
- Power supply to breaking circuit compressor
- Permanent diesel pre-heating (*for emergency starts*)
- Power supply to on-board equipment (*with engine off*)

Advantage: save time in emergency situations. No need to disconnect the plug, a slight pull on the wire will release it. The vehicle can move without prior disconnection.

Road transport vehicles / electric boats: even if not disconnected prior to departure, the electrical device will not be pulled off by the truck or boat. Watertight deconnectors are also available.

Electrical distribution boxes: If a vehicle strikes a toll booth fitted with self-ejecting sockets, the power supply connections will automatically disconnect as the booth shifts from the impact. With the power supply off, the risk of electrocution is prevented allowing the safe rescue of personnel and subsequent repair.



Principle :

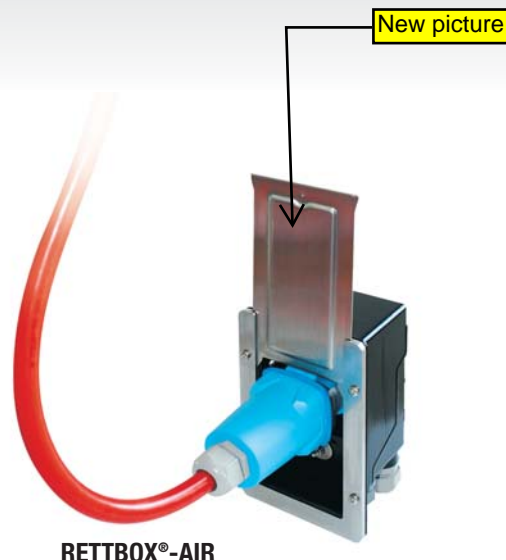
The RETTBOX® is an box/inlet fitted with an device that ejects the coupler socket with an electric impulse sent upon start-up of the vehicle. e coupler socket is automatically ejected and the lid closes automatically.

The RETTBOX® supplies parked vehicles with current through a simple coupler socket, the Rettbox-Air also supplies air.

The power supply is provided through a simple coupler socket directly to the parked vehicle. When the motor is started, the coupler socket is automatically ejected and the lid shuts automatically.



RETTBOX®



RETTBOX®-AIR

Common features:

- Loading box: ready-to-install glass-fiber reinforced polyamide with protective isolation
- Reinforced sliding cover and frame made of V4A stainless steel
- Self-closing, sliding lid
- IP55 watertightness
- Compact design: 83 x 163 x 94 mm (W x H x D) for the box and 107 x 180 mm (W x H) for the outer frame
- Coupler socket with self-closing lid
- Easy use thanks to its size and assembling frame
- From 3 to 5 contacts (auxiliary contacts can be added)
- Weight without coupler socket: 1200 g
- When the vehicle starts, self-ejection occurs through an 12/24V electro-magnet
- Optional feature: the sliding lid (H = 318 mm when open) and frame are available with a special RAL colour on request

RETTBOX® features:

- From 3 to 5 contacts (auxiliary contacts can be added)
- More than 12 000 operations guaranteed
- Integral switching device, available for a 12 V, 24 V, 230 V or 400 V power supply
- DSN1 connection (20 A) complying with the IEC / EN 60309-1 standard, with the European Low Voltage Directive, and with the international [Marechal](#) interchangeability standard (a version with a DSN3 is underway).

RETTBOX®-AIR features:

- Integral switching device, available for a 12 V, 24 V, 230 V power supply + compressed air.
- Compressed air: pressure up to 13 bar.
- Power supply coating:
 - Wire: 3 x 2.5 mm²
 - Duct for compressed air: Ø 6 mm
 - Flexible protective coating is available in synthetic or stainless steel
- Coupler socket supplied with 4 m wire
- Coupler socket with self-closing lid



For further information, please ask for our "Self-ejecting systems" documentation (see at the end of the catalogue)



Box with DSN1 (20A)* inlet



DSN1 (20A)* coupler socket

Device	Voltage	Polarity	Part #
Rettbox with 12 V relay and (male) inlet	230 V	1P+N+E	61 16 015Y12
Rettbox with 24 V relay and (male) inlet	230 V	1P+N+E	61 16 015Y24
Rettbox with 12 V relay and (male) inlet	400 V	3P+N+E	61 16 017Y12
Rettbox with 24 V relay and (male) inlet	400 V	3P+N+E	61 16 017Y24
Rettbox-Air with compressed air, 12 V relay and Inlet	230 V	1P+N+E	61 16 015Z12
Rettbox-Air with compressed air, 24 V relay and Inlet	230 V	1P+N+E	61 16 015Z24

* version with DSN3 underway

Voltage	Polarity	Part #
230 V	1P+N+E	61 13 015Y00
230 V	1P+N+E	61 13 015Y00
400 V	3P+N+E	61 13 017Y00
400 V	3P+N+E	61 13 017Y00
230 V	1P+N+E	61 13 015Z00
230 V	1P+N+E	61 13 015Z00

Tunnel boxes

and other boxes for specific applications



Lighting control



Express box for direct wiring



Boxes for emergency departments

The leading range

MARECHAL ELECTRIC is now a leading company in the electric connection for tunnels. Based on technology specially intended for such difficult environments and quick light disconnection, MARECHAL ELECTRIC has already equipped more

than 700 km of underground roads and railroads ... Always with the same objective: provide user safety, optimise maintenance and make the work of emergency services easier.

Products suited for special tunnel environments

Very often in a tunnel, there is dust, stone projections, smoke, gas, moisture, water streaming and, of course, pollution.

Electric connections in tunnels are subjected to extremely corrosive conditions.

Designed to withstand such conditions, MARECHAL ELECTRIC boxes equipped with connectors or decontactors provide safe solutions for tunnel maintenance.

Corrosion and impact resistance

To ensure optimum safety, MARECHAL ELECTRIC boxes are made of aluminium or cast iron, and connectors made of glass fibre reinforced polyester.

Watertightness

All boxes are watertight and withstand the use of high-pressure washing during the tunnels' maintenance.

Halogeneous gas and smoke free

In the event of fire, the materials (aluminium, zamak, polyester or polyamide) used for the boxes and connectors protect from dangerous gas and smoke.

Quality connection and easy disconnection: use of butt-contact

Easy disconnection = easy maintenance: thanks to the Marechal silver-nickel butt-contact technology, the contacts are never welded. Therefore, the connection quality remains absolutely stable, and the disconnection can be done any time, even after several years.

Standards and certifications

The equipment is C.S.T.B. certified. MARECHAL connectors and decontactors are compliant with the IEC /EN 60309-1 standard, with the French decree N° 88-1056 dated November 14, 1988 relating to workers' protection and with the European Low Voltage Directive.

MARECHAL ELECTRIC has already equipped a large number of tunnels in France: A14, A12, A51, A86/A14 connection, Pontchartrain tunnel, La Villette tunnel, Epine tunnel, Croix Rousse tunnel, BPNL (ring road around Lyon), Liège tunnel, Cairo tunnel, Mont Blanc tunnel, Monte Carlo railroad tunnel, Paris underground tunnels...

Emergency lighting

Fire rated distribution boxes

Also see:

Dimensions page 148



Part #: 91161 + suffix
CSTB certificate
No RS06-023B

Watertight IP66 cast iron boxes

Those boxes are used for jointing main cables and providing service tap-offs (CR1-C1 cable). They comprise a base box with a removeable cover fitted with captive stainless steel screws and a silicone seal.

Features

- Watertightness according to IEC EN 60529 standard: IP66
- Shock resistance acc. to IEC EN 50102 standard: IK09
- Fire withstand: Electrical continuity guaranteed to 920°C in test house. Temperature increases according to ISO 834 curve of NFC C 32-070 standard.

Material

Cast Iron Box
Captive screws: stainless steel
Surface treatment: Polyester paint coating
Marechal CRIC terminals

Supply circuit

Cable: single pole or multipole cable
Conductor size: up to 16 mm² (part # 91161) and up to 35 mm² (part # 91178)

Terminals: 3 to 5

The main cable, after cutting and stripping, is glanded off and conductors are terminated on the CRIC terminals. These spring-assisted terminals are mounted on a fire-resistant ceramic base.

External earth connection

Usually with a steel threaded rod or a Marechal earth terminal, for bare copper conductor of 70 mm² maximum cross section.

Distribution

Metal cable gland: 2 (part # 91161)
to 3 maximum (part # 91178)
Marechal socket-outlets: 2 (part # 91161)
to 3 maximum (part # 91178)
Protection by thermal fuses mounted on seatite base (4 maxi.)

Modularity – Option – Other equipment

MARECHAL ELECTRIC can supply cable coupler, standard or halogen free cable, additional DIN rail terminal blocks and circuit breaker protection on request.



Part #: 91178 + suffix
CSTB certificate
No RS06-023A

Watertight IP66 thermoplastic box (distribution without cutting fire rated cable)

This innovative enclosure features very lightweight materials coupled with rapid installation. Made of thermoplastic materials, it is equipped with 316 stainless steel platinum and allows junction and distribution without cutting fire rated cable (e.g. type CR1-C1).

Features

- Watertightness according to IEC EN 60529 standard: IP66
- Shock resistance acc. to IEC EN 50102 standard: IK08
- Fire resistance: Electrical continuity guaranteed to 920°C Temperature increases according to ISO curve as defined in NFC C32-070 standard and P3 classification according to IEC EN 50 200 standard
- CSTB certificate: N° RS05-172

Material

Enclosure: Halogen free (VO) thermoplastic, low smoke release, low toxicity (category M1)
Platinum: 316 Stainless steel
Captive screws: stainless steel

Main cable conductors are installed on steel terminals without the need to cut and strip. Those terminals are an insulation piercing style, mounted on a fire-rated ceramic base.

Spring-assisted tightening terminals: zinc coated steel

Supply circuit

Cable: single pole or multipole cable
Conductor size: 4 mm² to 35 mm² stranded cable (max. exterior diameter 28 mm)

Terminals: 3 to 5

Distribution

Poly cable gland: 4 maximum
Marechal socket-outlet: 4 maximum
Protection by fuses mounted on seatite base



Part #: 92946 + suffix
CSTB certificate
No RS05-172

400°C Wall mounting socket-outlet

Up to now, no connector complied with the IEC/ EN 12101-3 standard, smoke extraction devices were directly wired, leading to expensive maintenance periods. The new Marechal connector, with its on-load breaking capacity now reduces the time to isolate and disconnect a fan to just seconds.

Mounted on aluminium boxes, the 3P+E 63A / 690V connector withstands 400°C for 2 hours. The main cable, after cutting and stripping, feeds through cable glands and is wired on steel terminals mounted on a fire rated ceramic base. The socket-outlet is prewired to the same terminals with a 16 mm² fire resistant cable.



Socket part #: 3934013Z + suffix
Plug part #: 3938013Z + suffix
CSTB certificate
No RS05-026

**For further information, please ask for our
"Products for tunnel applications"
documentation (see at the end of the catalogue)**

Standard lighting

Distribution boxes without cutting main cable



Part #:
01N4017020Eo + suffix



Part #:
01N4015010Eo + suffix



Part #:
93036 + suffix

Watertight IP66 EXPRESS® Box in Aluminium

Made of aluminium with 2 seals, these boxes permit termination of one or two supply feeds.

The main cable conductors are installed without the need for cutting and stripping by means of insulation piercing

terminals. The actual cable connections can be made outside of the enclosure.

Specific entries allow automatic cable positioning and perfect watertightness.

Features

- Watertightness according to IEC EN 60529 standard: IP66
- Shock resistance acc. to IEC EN 50102 standard: IK09

Material

Enclosure: cast aluminium
Captive screws: stainless steel

Supply circuit

Cable: single-pole or multipole cable
Cross section: 4 mm² to 35 mm² stranded cable
(max exterior diameter 28 mm)

Terminals: 3 to 5

External earth connection

Usually with a steel threaded rod or a Marechal earth terminal, for bare copper conductor of 50 mm² maximum cross section.

Distribution

Metal cable gland: 2 maximum
Marechal socket-outlet: 1 to 2 maximum
Protection by circuit breakers or fuses.

Modularity – Option – Other equipment

MARECHAL ELECTRIC can supply cable coupler, standard or halogen free cable, additional DIN rail terminal blocks and circuit breaker protection on request.



Call us to order
one of these boxes!

Watertight IP66 Thermoplastic Boxes

This innovative enclosure features very light-weight materials coupled with rapid installation.

The main cable conductors are installed without the need for cutting and stripping by means of insulation piercing terminals. The actual cable connections can be made outside of the enclosure.

Up to four service outlets can be provided, either as cable glands, Marechal PN socket-outlets or Marechal DSN decontactors.

Features

- Watertightness according to IEC EN 60529 standard: IP66
- Shock resistance acc. to IEC EN 50102 standard: IK08

Material

Enclosure: Halogen free (V0) thermoplastic
Captive screws: stainless steel

Supply circuit

Cable: single pole or multipole cable
Conductor size: 4 mm² to 35 mm² stranded cable
(max. exterior diameter 28 mm)

Terminals: 3 to 5

External earth connection

Usually with a steel threaded rod or a Marechal earth terminal, for bare copper conductor of 70 mm² maximum cross section.

Distribution

Poly cable gland: 4 maximum
Marechal socket-outlet: 4 maximum
Protection by circuit breakers or fuses.

Modularity – Option – Other equipment

MARECHAL ELECTRIC can supply cable coupler, standard or halogen free cable, additional DIN rail terminal blocks and circuit breaker protection on request.

**For further information, please ask for our
"Products for tunnel applications"
documentation (see at the end of the catalogue)**

Security Recess

Fire department box

Also see:

Dimensions page 148



Part #:
91277 + suffix

Watertight IP55 Aluminium Box

Especially developed in collaboration with emergency services who specialise in tunnel rescue, this box is installed in a security recess.

Completely made of aluminium, this box is composed of a back box, an inclined cover with an inspection window.

Features

- Watertightness according to IEC EN 60529 standard: IP66
- Shock resistance acc. to IEC EN 50102 standard: IK09

Material: Cast aluminium enclosure. Stainless steel captive screws.

Supply circuit

Cable: max 5 x 16 mm²

Terminals: 3 to 5

External earth connection

Usually with a steel threaded rod or a Marechal earth terminal, for bare copper conductor of 70 mm² maximum cross section.

One or two Marechal Deconnectors can be fit on the inclined cover and are protected by a differential circuit breaker.

Distribution

Up to 2 Marechal socket-outlets, DS or DN type. Connection of the power cable on terminal blocks mounted on DIN rail or directly on to the protection device. Protection: By circuit breaker mounted on DIN rail, accessible through a metal window.

Modularity – Option – Other equipment

Optional protection devices available on request



Call us to order
one of these boxes!

Other boxes for specific applications



Box for liquefied gas

Safety box for loading and unloading liquefied gas during vehicle connection



Marechal socket-outlet	Current	Voltage	Box part #	Plug (inlet + handle) part #
DN	50 A	400 V	9 0670 A	19 68 037 01A + 19 6A 013
DN	80 A	230 V	9 0670 B	19 68 037 + 19 6A 013
DN	16 A	400 V	9 0670 C	19 18 017 + 19 1A 013
DS	100 A	400 V	9 0670 D	39 38 017 + 31 9A 013



Portable service boxes

IP54 Polyester box (2-3-4 outlets)

- Entry by cable gland (maximum 4 outlets)
- Entry by inlet (maximum 3 outlets)

- From 16 to 90 A - **DS**, **DSN** or **DN** 24, 230 or 400 V plugs and socket-outlets
- Protection on request

CCH Battery charger connectors

75 to 200 A



Description :

- Battery charger connectors
- From 75 to 200A - 690V
- Pilot contact rated at 20 A - 50 V
- With or without earth contact
- Conductors from 16 to 75 mm²
- High reliability due to the silver-nickel butt-contacts
- Easy plug insertion thanks to closing lever
- Crimped or soldered connections by ferrules

Wiring (mm ²)	Rated current (A)
16	75
30	100
40	125
50	150
75	200

I Inlet (male)



Plug	Rated current	CCH black polyamide		CCH grey polyamide	
Wire section (mm ²)		2P + pilot 50V max.	2P + E +pilot 690V max.	2P + pilot 50V max.	2P + E +pilot 690V max.
16	75 A	5-0206-016	5-0207-016	5-0205-016	5-0209-016
30	100 A	5-0206-030	5-0207-030	5-0205-030	5-0209-030
40	125 A	5-0206-040	5-0207-040	5-0205-040	5-0209-040
50	150 A	5-0206-050	5-0207-050	5-0205-050	5-0209-050
75	200 A	5-0206-075	5-0207-075	5-0205-075	5-0209-075

S Socket-outlet (female)



Socket	Rated current	CCH black polyamide		CCH grey polyamide	
Wire section (mm ²)		2P + pilot 50V max.	2P + E +pilot 690V max.	2P + pilot 50V max.	2P + E +pilot 690V max.
16	75 A	5-2106-016	5-2107-016	5-2105-016	5-2109-016
30	100 A	5-2106-030	5-2107-030	5-2105-030	5-2109-030
40	125 A	5-2106-040	5-2107-040	5-2105-040	5-2109-04Z
50	150 A	5-2106-050	5-2107-050	5-2105-050	5-2109-050
75	200 A	5-2106-075	5-2107-075	5-2105-075	5-2109-075

Spare parts	CCH black polyamide		CCH grey polyamide	
Socket contact	5-2106-021		5-2109-021	
Plug contact	5-0206-011		5-0209-011	
Socket earth contact		5-2000-029		
Plug earth contact		5-0200-019		
Socket pilot contact		5-2000-229		
Plug pilot contact		5-0200-219		
Copper ferrules (connection in mm ²)				
16		42 301	416	
30		42 301	430	
40		42 301	440	
50		42 301	450	
75		52 106	475	

CRIC Terminals

from 2 x 1.5 to 2 x 120 mm²

Also see:

Dimensions page 148

CCH
Battery charger
connectors
75 to 200 A

CRIC
Terminals

Main features:

- From 2 x 1.5 to 2 x 120 mm²
500 Volts AC/DC max.
- Spring-assisted tightening (even after copper yield)
- Vibration-resistant, thermal cycling-resistant and anti-shearing terminals
- Compliant with the NFC 20-110 standard
- Compliant with the safety "e" standards (by choice of the insulation base)
- Identification of conductors with colour caps or labels

Prevention of loose conductors:

Voltage drop and subsequent temperature rise are dependent on the torque applied to the conductors.

The CRIC terminals are characterised by:

- special screw threading: - providing better results of the tightening torque and strength (optimum applied strength), - helping achieve perfect tightening, even without a tool, - prevents both sections of the terminal from moving apart
- a spring-assisted tightening system (spring placed inside the terminal head) that: - provides constant strength applied to the conductors with no deterioration, - compensates for strand settlement and copper yield.



insulated with
fixing part



insulated +
screw with rear part



earth with
threaded hole

Terminal

Connection of...

	Minimum	Maximum
T6	2 x 1.5 mm ²	2 x 6 mm ²
T16	2 x 4 mm ²	2 x 16 mm ²
T35	2 x 6 mm ²	2 x 35 mm ²
B70	2 x 25 mm ²	2 x 70 mm ²
B120	2 x 50 mm ²	2 x 120 mm ²

6TA 6

6TB 6

6TD 6

6TA 16

6TB 16

6TD 16

6TA 35

6TB 35

6TD 35

6BA 70

6BB 70

6BD 70

6BA 120

6BB 120

6BD 120



earth +
screw with rear part



earth + screw
with threaded hole



insulated with
no fixing part

label or cap
identification

Terminal

Connection of...

	Minimum	Maximum
T6	2 x 1.5 mm ²	2 x 6 mm ²
T16	2 x 4 mm ²	2 x 16 mm ²
T35	2 x 6 mm ²	2 x 35 mm ²
B70	2 x 25 mm ²	2 x 70 mm ²
B120	2 x 50 mm ²	2 x 120 mm ²

6TE 6

6TF 6

6TV 6

6EP 6

6TE 16

6TF 16

6TV 16

6EP 16

6TE 35

6TF 35

6TV 35

6EP 35

6BE 70

6BF 70

-

6C 70

6BE 120

6BF 120

-

6C 120

CS Single pole and welding connectors 75 to 500 A



Description :

- Single pole connectors from 16 to 150 mm²
- From 75 to 500 A - TBT (50 volts max.)
- Bayonet locking system providing perfect contact when connected
- Self-cleaning contacts
- Highly reliable silver-nickel butt-contacts
- Crimped or soldered connections by ferrules
- Connection by screw in option

Type	Wiring (mm ²)	In rated current (A)	I max welding cycle (A)	
CS			5 min cycles	
			60%	30%
CS2	16	75	100	150
	30	100	125	200
	40	125	150	250
	50	150	200	300
CS3	50	150	200	300
	75	200	250	350
	100	250	300	400
CS5	120	275	350	450
	150	325	450	500

Definition of 30% welding cycle: on a 5 min cycle, 30% of the time working (i.e. 1 mn 30 s) and 70% off (i.e. 3 mn 30 s)

I Inlet (male)



Inlet	Rated current welding cycle		CS2	CS3	CS5
Wiring (mm ²)	60%	30%			
16	100 A	150 A	42 901 016		
30	125 A	200 A	42 901 030		
40	150 A	250 A	42 901 040		
50	200 A	300 A	42 901 050	43 901 050	
75	250 A	350 A		43 901 075	
100	300 A	400 A		43 901 100	
120	350 A	450 A			45 901 120
150	450 A	500 A			45 901 150
screw	200 A	300 A	42 901 121		
screw	300 A	400 A		43 901 121	
screw	450 A	500 A			45 901 121

Plug	Rated current welding cycle		CS2	CS3	CS5
Wiring (mm ²)	60%	30%			
16	100 A	150 A	40 201 016		
30	125 A	200 A	40 201 030		
40	150 A	250 A	40 201 040		
50	200 A	300 A	40 201 050	40 301 050	
75	250 A	350 A		40 301 075	
100	300 A	400 A		40 301 100	
120	350 A	450 A			40 501 120
150	450 A	500 A			40 501 150



Also see:

Dimensions page 149

Socket-outlet (female)



Socket	Rated current welding cycle		CS ₂	CS ₃	CS ₅
Wiring (mm ²)	60%	30%			
16	100 A	150 A	42 401 016		
30	125 A	200 A	42 401 030		
40	150 A	250 A	42 401 040		
50	200 A	300 A	42 401 050	43 401 050	
75	250 A	350 A		43 401 075	
100	300 A	400 A		43 401 100	
120	350 A	450 A			45 401 120
150	450 A	500 A			45 401 150
screw	200 A	300 A	42 401 121		
screw	300 A	400 A		43 401 121	
screw	450 A	500 A			45 401 121

Coupler socket	Rated current welding cycle		CS ₂	CS ₃	CS ₅
Wiring (mm ²)	60%	30%			
16	100 A	150 A	42 301 016		
30	125 A	200 A	42 301 030		
40	150 A	250 A	42 301 040		
50	200 A	300 A	42 301 050	43 301 050	
75	250 A	350 A		43 301 075	
100	300 A	400 A		43 301 100	
120	350 A	450 A			45 301 120
150	450 A	500 A			45 301 150

Spare parts	CS ₂	CS ₃	CS ₅
Socket-outlet			
Contact	42 301 021	43 301 021	45 301 021
Insulating handle	42 301 013	43 301 013	45 301 013
Insulating interior	42 401 013	43 401 013	45 401 013
Plug			
Contact	40 201 011	40 301 011	40 501 011
Insulating handle	40 201 013	40 301 013	40 501 013
Insulating interior	42 901 013	43 901 013	45 901 013
Copper ferrules (wiring in mm²)			
16	42 301 416		
30	42 301 430		
40	42 301 440		
50	42 301 450	43 301 450	
75		43 301 475	
100		43 301 400	
120			45 301 520
150			45 301 550
Screw			
Ø 14 (except CS ₂ : Ø 10)	42 000 121	43 000 121	45 000 121

SP4 Single pole power connector

Max 700 A 1000 V AC / 1500 V DC

S Socket-outlet (female)



Socket-outlet without lug

Country	Eur./Japan	U.K./S.Afr.	USA	Australia
L1	4544 001	4544 001 P40	4544 001 P80	4544 001 P67
L2	4544 002	4544 002 P40	4544 002 P80	4544 002 P67
L3	4544 003	4544 003 P40	4544 003 P80	4544 003 P67
Neutral	4544 00N	4544 00N P40	4544 00N P80	4544 00N P67
Earth	4544 00T	4544 00T P40	4544 00T P80	4544 00T P67
Positive	4544 00P	4544 00P P40	4544 00P P80	4544 00P P67
Negative	4544 00M	4544 00M P40	4544 00M P80	4544 00M P67



Crimping lug * Straight with terminal Straight threaded **

Flexible wiring (mm²)		Diam. (mm)	Diam. 12 mm
70	454 A70 C	12	454 A70 D
95	454 A95 C	12	454 A95 D
120	454 A12 C	12	454 A12 D
150	454 A15 C	12	454 A15 D
185	454 A18 C	12	454 A18 D
240	454 A24 C	14	454 A24 D
300	454 A30 C	16	454 A30 D
400	454 A40 C	16	454 A40 D

* Wiring with lugs to crimp in compliance with NFC 20-130 / IEC 1238-1 (for VDE 0220 standard, please consult us) ** Select the threaded version when combining a handle with the socket-outlet



Si Sleeve * Inclined metal 45°

454 A027

* The use of an inclined sleeve is recommended from 150 mm² to minimise the impact of the weight of the cable.



H Handle

Flexible wiring (mm²)		Tightening
70 to 240	454 A753	17 - 38 mm
300 to 400	454 A783	35 - 48 mm

S + **H** = Coupler socket



I Inlet (male)



Inlet without lug

Country	Eur./Japan	U.K./S.Afr.	USA	Australia
L1	4548 001	4548 001 P40	4548 001 P80	4548 001 P67
L2	4548 002	4548 002 P40	4548 002 P80	4548 002 P67
L3	4548 003	4548 003 P40	4548 003 P80	4548 003 P67
Neutral	4548 00N	4548 00N P40	4548 00N P80	4548 00N P67
Earth	4548 00T	4548 00T P40	4548 00T P80	4548 00T P67
Positive	4548 00P	4548 00P P40	4548 00P P80	4548 00P P67
Negative	4548 00M	4548 00M P40	4548 00M P80	4548 00M P67



Crimping lug * Straight with terminal Straight threaded **

Flexible wiring (mm²)		Diam. (mm)	Diam. 12 mm
70	454 A70 C	12	454 A70 D
95	454 A95 C	12	454 A95 D
120	454 A12 C	12	454 A12 D
150	454 A15 C	12	454 A15 D
185	454 A18 C	12	454 A18 D
240	454 A24 C	14	454 A24 D
300	454 A30 C	16	454 A30 D
400	454 A40 C	16	454 A40 D

* Wiring with lugs to crimp in compliance with NFC 20-130 / IEC 1238-1 (for VDE 0220 standard, please consult us) ** Select the threaded version when combining a handle with the socket-outlet



Si Sleeve * Inclined metal 45°

454 A027

* The use of an inclined sleeve is recommended from 150 mm² to minimise the impact of the weight of the cable.



H Handle

Flexible wiring (mm²)		Tightening
70 to 240	454 A753	17 - 38 mm
300 to 400	454 A783	35 - 48 mm

I + **H** = Plug



For more information, please ask for our "SP4 Single pole power connector" documentation (see at the end of the catalogue)

The highest possible safety

- Reliable mechanical and electrical interlocking,
- IP2X socket-outlet when cap removed,
- Automatic IP66/67 watertightness.

An easy operable connector

- Straight insertion of the plug into the socket-outlet without any rotation,
- Different mechanical keying of L1, L2, L3, N and E,
- Visual identification by standard colors,
- Screwed crimping lugs facilitate cable replacement.



Performances

Thanks to the **butt contact** principle, the SP4 single pole connector:

- withstands continuously up to 700 A / 1000 V AC or 1500 V DC (70 mm² to 400 mm² conductors),
- withstands at least 2000 operations.

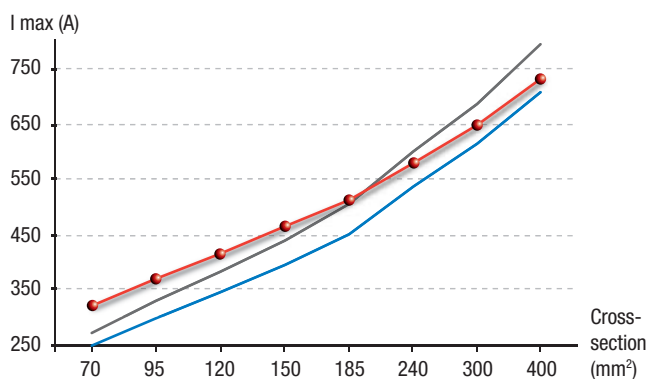
Applications

- Army, defence
- Automotive manufacturing (welding),
- Civil engineering (concrete injection pumps),
- Entertainment Industry
- Harbors (shore-to-ship & ship-to-ship feeders),
- Large gen-sets
- Mining (drag-lines),
- Steel industry
- Testing facilities (e.g. electrical motors),
- etc.

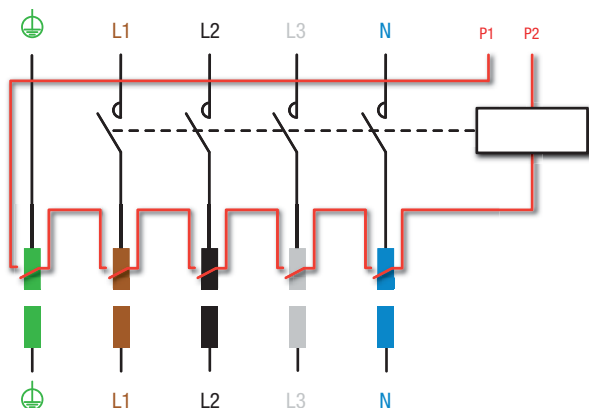
SP4 features

Current according to conductor cross-section at 30 °C ambient temperature

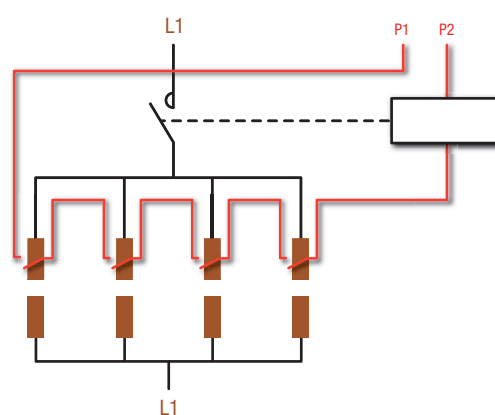
- Curve for the continuous max current for the **SP4** after 2000 operational cycles as a function of the conductor cross-section
- Curve for the continuous max current specified by the cable manufacturers in order to maintain a cable temperature < 85 °C
- Curve for the continuous max current as per IEC 60364-5-52 (or NFC 15-100) maintaining a cable temperature < 70 °C



Wiring diagram electrical of interlocking: by connecting all polarities

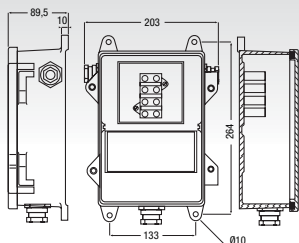


Wiring diagram electrical of interlocking: increased current by parallel connection

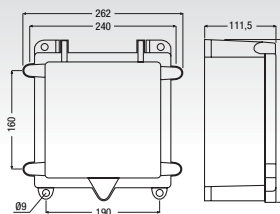


Dimensions

Fire-rated and watertight IP66 cast iron distribution boxes (emergency lighting)

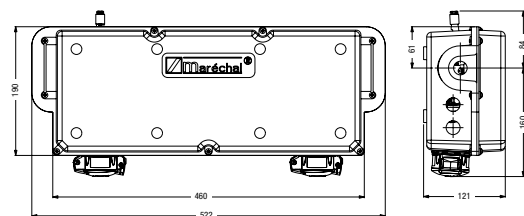


PART # 91 161 (METAL)



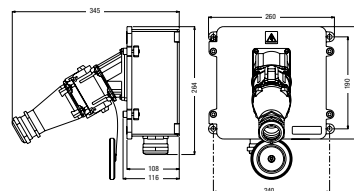
PART # 91 178 (METAL)

Fire rated and watertight IP66 thermoplastic distribution box (emergency lighting)



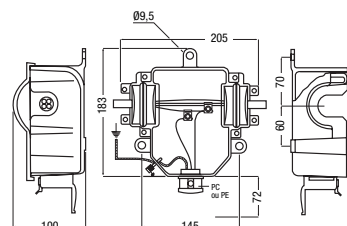
PART # 92 946 (POLY) Dimensions in mm (HxWxD): 190 x 522 x 121

400°C wall mounting socket-outlet

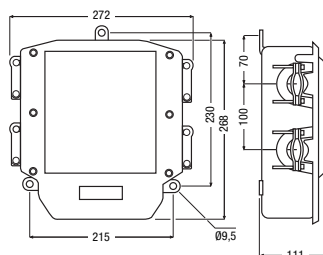


Dimensions in mm (HxWxD): 264 x 260 x 345

Watertight IP66 EXPRESS® box in aluminium (standard lighting)

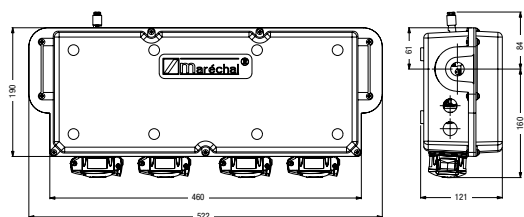


PART # 01 N4015 010E0 (METAL)



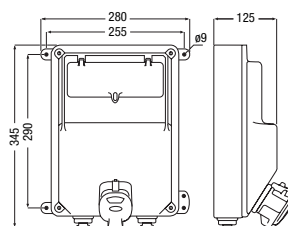
PART # 01 N4017 020E0 (METAL)

Watertight IP66 thermoplastic distribution box (standard lighting)



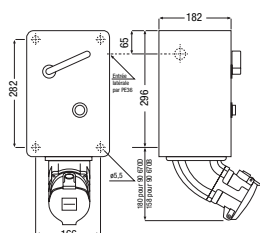
PART # 93 036 (POLY) Dimensions in mm (HxWxD): 190 x 522 x 121

Fire dept. tunnel box (safety niche)



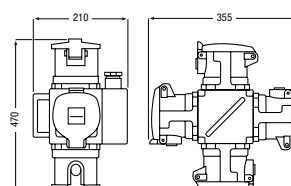
PART # 91 277 (METAL)

Box for liquefied gas

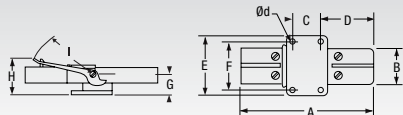


PART # 90 670A
90 670B
90 670C
90 670D

Portable service boxes (IP54 polyester)

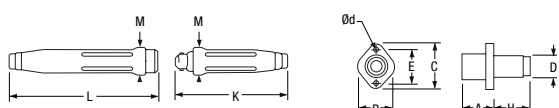


CCH : plug and socket-outlet



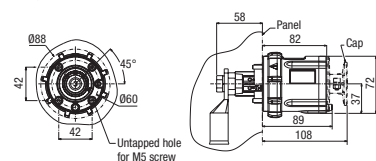
	A	B	C	D	E	F	G	H	I	Ød
CCH	228	60	48	82	106	82	35	65	106	7

CS : inlet, plug, socket-outlet, coupler socket

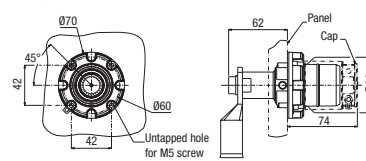


	A	B	C	D	d	E	H	K	L	M
CS2	21	32	50	26	4.5	38	57	115	152	31
CS3	33	44	70	32	5.5	44	66	158	204	38
CS5	45	45	71	32	5.5	45	50	165	220	

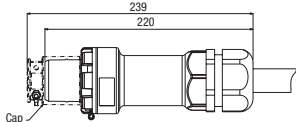
SP4 - Socket-outlet



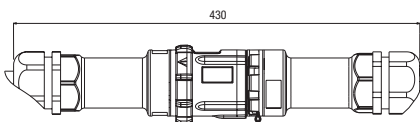
SP4 - Inlet



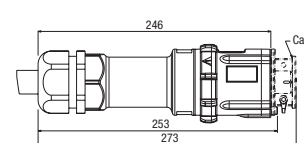
SP4 - Plug



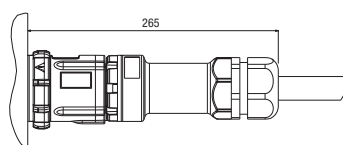
SP4 - Cable coupler



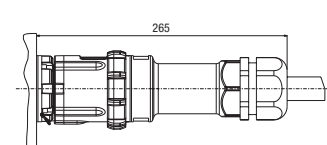
SP4 - Coupler socket



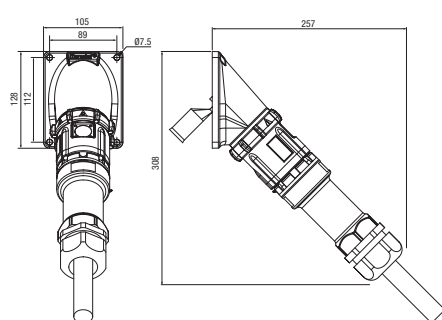
SP4 - Plug connected in a socket-outlet



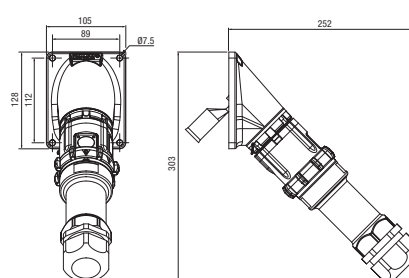
SP4 - Coupler socket connected in an Inlet



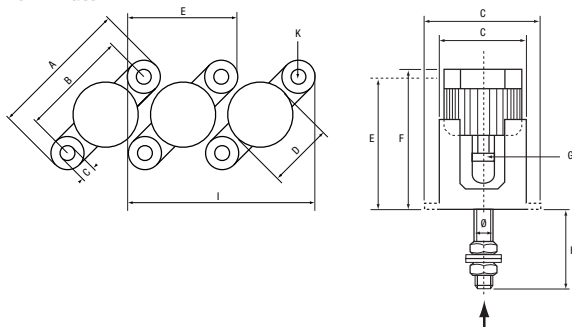
SP4 - Plug connected in a 45° inclined socket



SP4 - Coupler socket connected in a 45° inclined appliance Inlet



Terminals



	A	B	C	D	E	F	G	H	I	K	Ø
6TA6/6TD6/6TV6	19	16	23.5	26.5	25	30	3.1x6		45.5	Ø3.3	M4
6TB6	19	16	23.5	26.5	25	30	3.1x6	23	45.5	Ø3.3	M4
6TE6	19	16	23.5	26.5	25	30	3.1x6	25	45.5	Ø3.3	M4
6TF6	19	16	23.5	26.5	25	30	3.1x6	5	45.5	Ø3.3	M4
6TA16/6TD16/6TV16	23	19	29	33	36	43	4.9x10		56	Ø4.5	M5
6TB16	23	19	29	33	36	43	4.9x10	22	56	Ø4.5	M5
6TE16	23	19	29	33	36	43	4.9x10	24.5	56	Ø4.5	M5
6TF16	23	19	29	33	36	43	4.9x10	5.5	56	Ø4.5	M5
6TA35/6TD35/6TV35	30	25	37	42	57	70	8.1x16		72	Ø5.5	M8
6TB35	30	25	37	42	57	70	8.1x16	29	72	Ø5.5	M8
6TE35	30	25	37	42	57	70	8.1x16	34	72	Ø5.5	M8
6TF35	30	25	37	42	57	70	8.1x16	7	72	Ø5.5	M8
6BA70/6BB70/6BD70/ 6BE70/6BF70	45		35	56	58.5	76.2	11.2x22.5			Ø5.2	Ø10