



GENERAL CATALOGUE

INDUSTRIAL PLUGS & SOCKET-OUTLETS
DECONTACTOR™ & BOXES

A close-up photograph of a metallic surface, likely aluminum, showing a rivet at the top center. Below the rivet, the word "Marechal" is embossed in a stylized, lowercase font within a rectangular border. To the right of the word is a registered trademark symbol (®). Below the embossed text, there are four horizontal, rounded rectangular grooves or channels, stacked vertically.


Marechal®

INDUSTRIAL APPLICATION





I max	Nb max contact	Nb aux. max	(AC/DC) U max	IP max	Material	Temperature	
DECONTACTOR™ = SWITCH + SOCKET-OUTLET							Page 14
20-63 A	5	4	1000 V	66/67/69k	Poly	-40 °+60 °C	DSN
30-400 A	5	6	1000 V	55	Poly/Metal	-40 °+60 °C	DS
125 A	4	2	440 V	66	Metal	+400 °C	DSHT
20-90 A	5	4	690 V	55	Metal	-40 °+60 °C	DN
40-125 A	5	4	690 V	66/67	Metal	-40 °+60 °C	DB
MULTICONTACT							Page 82
25 A	7		500 V	66/67	Poly/Metal	-40 °+60 °C	PN7C
30 A	9		415 V	54/55	Metal	-40 °+60 °C	DN9C
16 A	12		480 V	66/67	Poly/Metal	-40 °+60 °C	PN12C
25 A	20		415 V	54/55	Metal	-40 °+60 °C	DN20C
16 A	24		480 V	66/67	Poly	-40 °+60 °C	DSN24C
16 A	37		480 V	66/67	Poly	-40 °+60 °C	DSN37C
INDUSTRIAL PLUGS							Page 98
16 A	5		480 V	66/67/68	Poly	-40 °+100 °C	PNC
30 A	5		500 V	66/67	Poly/Metal	-40 °+60 °C	PN
30 A	5		500 V	44	Metal	240 °C	PNHT
315-400 A	5	8	690 V	66/67	Metal	-40 °+60 °C	PFQ
500-600 A	5	4	1000 V	66/67	Metal	-40 °+60 °C	PFC
SINGLE POLE POWER CONNECTOR							Page 124
75-250 A	1		50 V		Poly	-40 °+60 °C	CS2/3
400 A	1		1000 V		Poly	-40 °+60 °C	CS1000
700 A	1		1000 V		Poly	-40 °+60 °C	SP
CUSTOMIZED SOLUTIONS							Page 142

Distribution boxes, service boxes, with or without MCB, cable extension.

ZONE APPLICATION

I max	Nb max contact	Nb aux. max	(AC/DC) U max	IP max	Material	Temperature	
DECONTACTOR™ = SWITCH + SOCKET-OUTLET							Page 160
20-63 A	4	2	750 V	66/67	GRP	-40 °+60 °C	DXN
20 A	4		550 V	66/67	Metal	-55 °+60 °C	DXA1
20-200 A	4		750 V	65	Metal	-40 °+60 °C	DX
MULTICONTACT CONNECTORS							Page 188
10 A	12		220 V	65/66	Metal	-40 °+55 °C	PXN12C
10 A	25		440 V	66/67	Metal	-40 °+55 °C	DXN25C
10 A	37		230 V	66/67	Metal	-40 °+55 °C	DXN37C
PRISE ZONES EX							Page 198
5 A	5		250 V	66/67	GRP	-40 °+60 °C	PNCX
SINGLE POLE POWER CONNECTOR							Page 200
680 A	1		1000 V	65/66	GRP	-20 °+60 °C	SPeX
CUSTOMIZED SOLUTIONS							Page 202
Socket-Outlet combination boxes				66	GRP/ALU/STAIN-LESS STEEL	-55 °+60 °C	MXBS
Junction boxes				66	GRP/ALU/STAIN-LESS STEEL	-55 °+60 °C	MXBJ
Junction & socket boxes				66/67	GRP	-50 °+60 °C	B2X
TECHNOR® products						-50 °+60 °C	

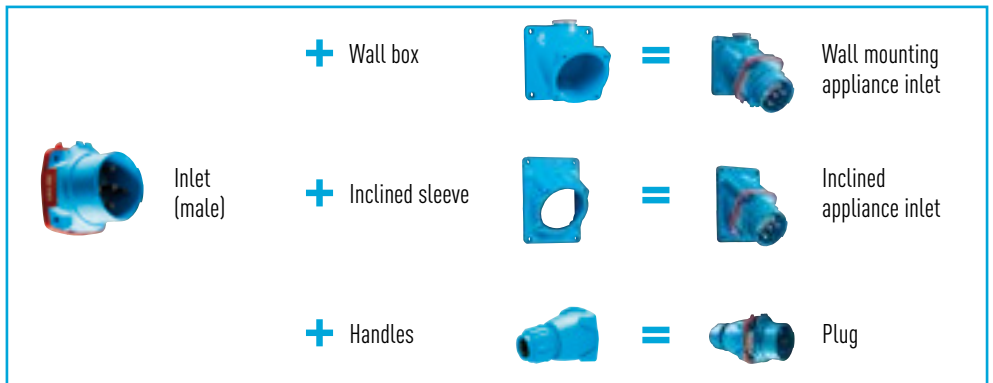
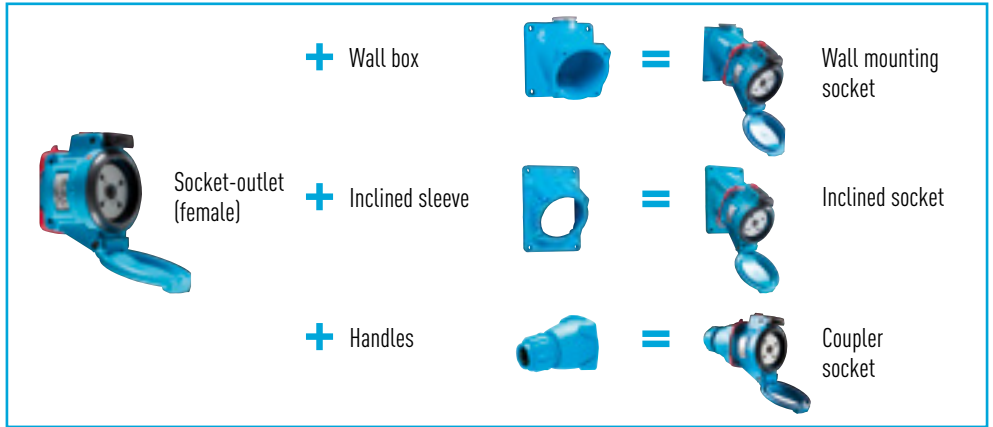
LEGEND FOR OPTIONAL ACCESSORIES

-  Angle
-  Threading or gland size
-  EMC option
-  HT 240° C
-  Self-ejection

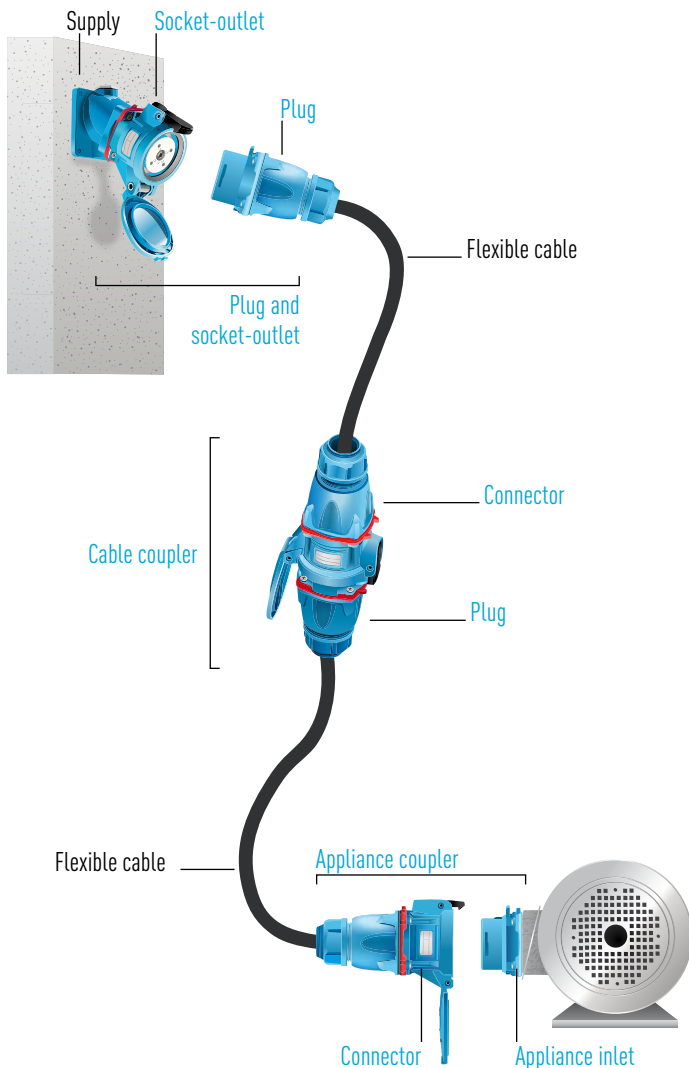
INFO +

A MODULAR SYSTEM TO SUIT A MAXIMUM NUMBER OF DIFFERENT COMBINATIONS

By combining 2 products and 3 assembly accessories, 6 additional products can be obtained.



IEC 60309-1 NORM TERMINOLOGY



DECONTACTOR™ = SWITCH + INDUSTRIAL SOCKET-OUTLET

DSN	DECONTACTOR™ range = industrial socket with integrated switch.	
RETTBOX®	Switching capability AC22/23 or AC2/3.	Page 14
DS	GRP or Metal casing with automatic IP55/66/67/69K dust & liquid tightness.	
DSHT	Full load breaking till 250 A Umax 1000 V.	
DN	Option : padlocking, self-ejection, auxiliary contact.	
DB	Vibration & Shock resistance.	

MULTICONTACT

PN7C	DSN24C	Multipin connector range from 7 to 37 pin.	
DN9C	DSN37C	Solid silver-nickel contacts assure superior conductivity and fulfill up to 2000 mating.	Page 82
PN12C	DS7C3	GRP or Metal casing with automatic IP55/66/67 dust & liquid.	
DN20C		Option : padlocking.	
		Vibration & Shock resistance.	

INDUSTRIAL SOCKET-OUTLET

PNC	Industrial socket outlet range from 16 A to 600 A 1000 V.	
PN	Temperature range : -40°C to 240°C.	Page 98
PNHT	Reliable & compact in GRP or Metal casing.	
PFQ	Option : padlocking, up to 6 auxiliaries + 2 pilots.	
PFC		

SINGLE POLE POWER CONNECTOR

CS2/3	Single-Pole power connectors from 75 A to 700 A-1000 V.	
CS1000	High reliability, resistant to strong starting currents.	Page 124
SP	Option : padlocking, auxiliary contact.	

CUSTOMIZED SOLUTIONS

BM	Distribution, Services & portable boxes with or without MCB, equipped with MARECHAL®	
CD	connectors or DECONTACTOR™	Page 142
BG/CRIC/BRP	Several type of casing: GRP, metal, stainless steel, rubber, ...	
TUNNELS	On request : cable assembly, electric winder, etc.	
CUSTOM		

DECONTACTOR™ = SWITCH + SOCKET-OUTLET/ Zone

DXN	Available under ATEX/ IECEx for Zone 1, 2, 21, 22 : DECONTACTOR™ range = socket with integrated switch, switching capability AC22/23.	
DXA1	GRP or Metal casing with automatic IP55/66/67 dust & liquid tightness.	Page 160
DX	Full load breaking from 20 A till 200 A Umax 750 V,	
	Option : padlocking, self-ejection, auxiliary contact.	
	Vibration & Shock resistance.	

MULTICONTACT CONNECTORS/ Zone

PXN12C	Available under ATEX/ IECEx for Zone 1, 2, 21, 22.	
DXN25C	Multipin connector range from 12 to 37 pin.	Page 188
DXN37C	Solid silver-nickel contacts assure superior conductivity and fulfill up to 2000 mating.	
	Metal casing with automatic IP55/66/67 dust & liquid tightness.	
	Option : padlocking.	
	Vibration & Shock resistance.	

COMPACT CONNECTOR/ Zone

PNCX	Available under ATEX/ IECEx for Zone 1, 2, 21, 22.	
	5 PIN Compact connector 5 A 250 V.	Page 198
	Temperature range : -20°C to + 70°C.	
	Reliable & compact in GRP casing.	

SINGLE POLE POWER CONNECTOR/ Zone

SPeX	Available under ATEX/ IECEx for Zone 1, 2, 21, 22.	
	Single-Pole power connectors till 680 A-1000 V.	Page 200
	High reliability, resistant to strong starting currents.	
	Option : padlocking, auxiliary contact.	

CUSTOMIZED SOLUTIONS/ Zone

MXBS	Available under ATEX/ IECEx for Zone 1, 2, 21, 22.	
MXBJ	Customized socket distribution, junction or control enclosures.	Page 204
B2X	In several type of casing: GRP, aluminium or stainless steel.	
TECHNOR®	In several sizes.	
	Technor brand can offer also the full EX lighting solution with fluorescent, LED, HID lamp.	

MAIN OPTIONS

	- Description of the main products option.	Page 216
	- Introduction to Hazardous areas.	
	- Accessories correlation table between old and new references.	



MARECHAL ELECTRIC GROUP



Founded in 1952, the MARECHAL ELECTRIC group counts among the major players in Low Voltage LT electrical connection systems in industrial environments with or without the presence of an EX explosive atmosphere. With a consolidated turnover of nearly €100 million, its operational and/or sales subsidiaries in Europe, America, Asia, the Middle East, Africa and Australia, offer the best products and local services to the most demanding customers. A workforce of nearly 500 worldwide includes R&D, manufacturing and commercial development skills. The product range is intended for all sectors of industrial activity where safety and endurance are required.

MARECHAL®

For more than 65 years it has been the brand of low voltage electrical connectors designed, manufactured and controlled in France in strict compliance with the requirements of international standards (IEC and UL). Thanks to the butt-contact technology, to the dozens of patents (filed in more than 50 countries) and the choice of the most advanced materials, MARECHAL® connectors are the most reliable in the world. They guarantee the best safety for users and equipment in accordance with the requirements of the European Low Voltage Directive (LVD no. 2014/35/EU since April 20, 2016).

They are available for non-ATEX or ATEX environments (IECex) Areas 1, 21, 2, 22:

- DECONTACTOR™ = plug + industrial switch (up to 250 A),
- multi-contact sockets (up to 37 contacts),
- industrial connectors (up to 600 A),
- single pole connectors (up to 700 A with pilots),
- socket, distribution, break-out, junction, boxes.

TECHNOR®

Part of the Marechal Group since 2013, this brand dedicated to ATEX/IECex products has built its reputation over more than 30 years on exceptional product quality. All the products are designed, manufactured and tested in France and Italy.

A wide range of products conforming to the ATEX or/and IECex standards:

- explosion-proof distribution and control boxes,
- explosion-proof cast aluminium, steel, stainless steel or GRP/thermoset resin boxes,
- lighting (luminaires, spot lights with fluorescent or LEDs),
- stainless steel or GRP control and junction units,
- warning/indicator lights,
- earthing systems,

These products comply with European, international (IEC) and North American (UL, CSA) standards and regulations.



MARKETS & REFERENCES

MARECHAL® and TECHNOR® products are ideal for the most demanding users, installers, integrators (EPC, OEM, etc.). Where **safety, reliability** and **endurance** are required. Each year, our teams provide advice, technical follow-up and design of custom solutions as part of projects or sites in more than 100 countries.

The offer is segmented by areas of activity and by types of site/project: NEW or RENOVATION, industrial or ATEX areas. This is in order to meet the requirements of the multiple and varied configurations of electrical installations: more than 40,000 products references are supplied every year.

In all industrial installations there are critical areas or processes where **reliability, strength** and safety are essential. The main industries using our products are:

- the agri-food industry (safety),
- water treatment (reliability),
- chemicals and refineries (safety and reliability),
- heavy industry (strength),
- construction and building (strength and safety),
- energy (reliability),
- transport and airports (safety and reliability),
- entertainment and medias (safety),
- fire emergency services (safety and reliability),
- mines and quarries (safety and toughness),
- ports, marinas, offshore and shipyards (toughness and safety),
- tunnels (safety),
- towns and infrastructure (safety).

Companies such as Technip, Total, Nestlé, Pepsi, Aramco, Sasol, SNCF, EDF, CEPSA, Actavis, Transnet, Arcelor, Universal Studios, Airbus, Boeing, McDonald's, Rio Tinto and BHP Billiton trust us.

MEANS

Since its inception, MARECHAL ELECTRIC Group's R&D has filed nearly 100 patent in more than 50 countries. It has a laboratory approved by LCIE (Central Laboratory of Electrical Industries in France) Bureau Veritas for pre-testing and qualification of products. 5% of turnover is invested every year in R&D to create, develop and adapt.

With a total surface area of almost 34,000 m², 9 sites are dedicated to production, assembly, inspection and shipment: France (3), Germany, Italy, Singapore, Australia, South Africa and the United States.

Our sites are certified:

- ISO 9001 (France),
- DIN EN ISO 9001 (Germany),
- UL (QLHN.E145931 for power sockets/plugs and QLIW.E85952 for bases/connectors - United States).

INVOLVEMENT IN INTERNATIONAL STANDARDS

In its capacity as an expert and recognized participant in the industry at the international level, the MARECHAL ELECTRIC Group actively participates in standardization work by providing the Secretariat for the technical committees SC 23H of the IEC - "Power sockets for industrial uses" and SC 31-2 of the CENELEC - "Explosion-proof "d" casing", as well as chairing the French UF 23H research committee.

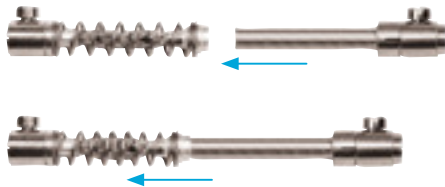
MARECHAL® also participates in the work of study committees (IEC and CENELEC) such as TC64, TC18 and TC69.

MARECHAL® power socket international charter: for the development and standardization of ranges internationally, a charter has been created to ensure the quality, compatibility and performance of power sockets with butt contacts.





TECHNOLOGY



Split terminal
(allows constant force)

Elliptical Deforming Ring
(Prevents loosening)

Conductor



DECONTACTOR™, A ONE OF ITS KIND DESIGN IN THE WORLD

The DECONTACTOR™ is a connector which combines

- the advantages of a **power socket**,
- and the performance of a **switch**.

With more than 65 years of research and innovations behind it, the DECONTACTOR™ range offers a level of reliability and safety never yet equalled in the world. It allows you to connect and disconnect devices thousands of times and in the most severe environments in perfect safety for the user!

BUTT CONTACT ON A SILVER-NICKEL TIP

The MARECHAL® DECONTACTOR™ and connectors are all fitted with butt contacts with silver-nickel tips. They provide exceptional connection quality by eliminating the damage due to electric arcs and to wear seen with pin and sleeve sockets. The silver is an excellent conductor of current even when oxidized. Conductivity is optimal even in the presence of vibration and temperature variation thanks to the pressure of the springs.

CRIMPED BRAIDS

The MARECHAL® contact uses a crimped braid with a spring which provides contact performance and tolerances superior to pin and sleeve contacts. The flexibility of the braid and the spring allows the base contact tip to always be perfectly aligned with the plug contact tip. These contacts, which are silver and anti-corrosion treated, offer very good corrosion resistance.

ELASTIC LOCK TERMINALS

MARECHAL® contacts are fitted with "elastic lock" connection terminals. The wire clamp is split and surrounded by an elliptical deforming ring. This method allows the tightening force on the wire to be constant. Hence despite the creep of the copper or aluminium, the variations of temperature and vibration, the conductor wire is perfectly connected to the contact terminal.

SAFETY SHUTTER

DECONTACTOR™ bases are fitted with an interlocked safety shutter which prevents access to live contacts. This shutter only unlocks at the time of connection of the plug into its base.

CASING MADE FROM ADVANCED MATERIALS

MARECHAL® range connectors and DECONTACTOR™ have casings made from fibre glass- or metal-reinforced GRP, depending on the models. This choice of material contributes to the excellent mechanical performance and longevity of the socket.

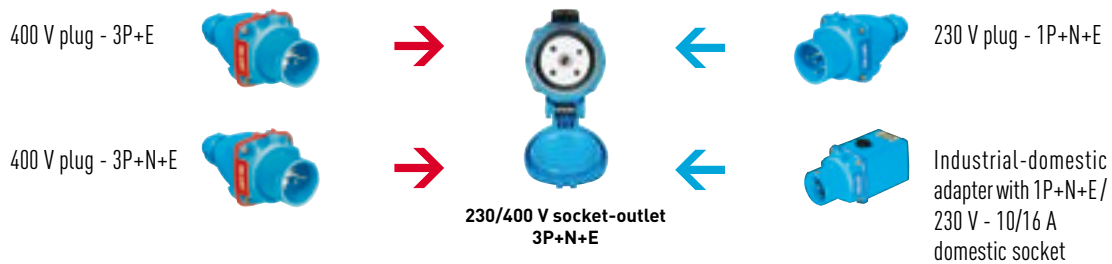


ECONOMY OF INSTALLATION: DUAL-VOLTAGE

With a single base (e.g.: 3 PNE - 230/400 V) it is possible to feed 3 plugs indifferently:

- a 3 PNE - 230/400 V plug
- a 3 PE - 400 V plug
- a PNE - 230/400 V plug

This compatibility provides real savings on the installation of these sockets for the user.



ADVANTAGES

These technical choices provide MARECHAL® connectors and DECONTACTOR™ with unparalleled performance:

- Absolute safety after thousands of connections/disconnections,
- The ability to withstand repeated overloads, particularly on power supplies to motors with frequent starting,
- Perfect operation in the presence of vibration and variations in temperatures,
- Resistance to shocks, falls and climatic variations,
- A perfect resistance to corrosion and the most severe chemical agents.

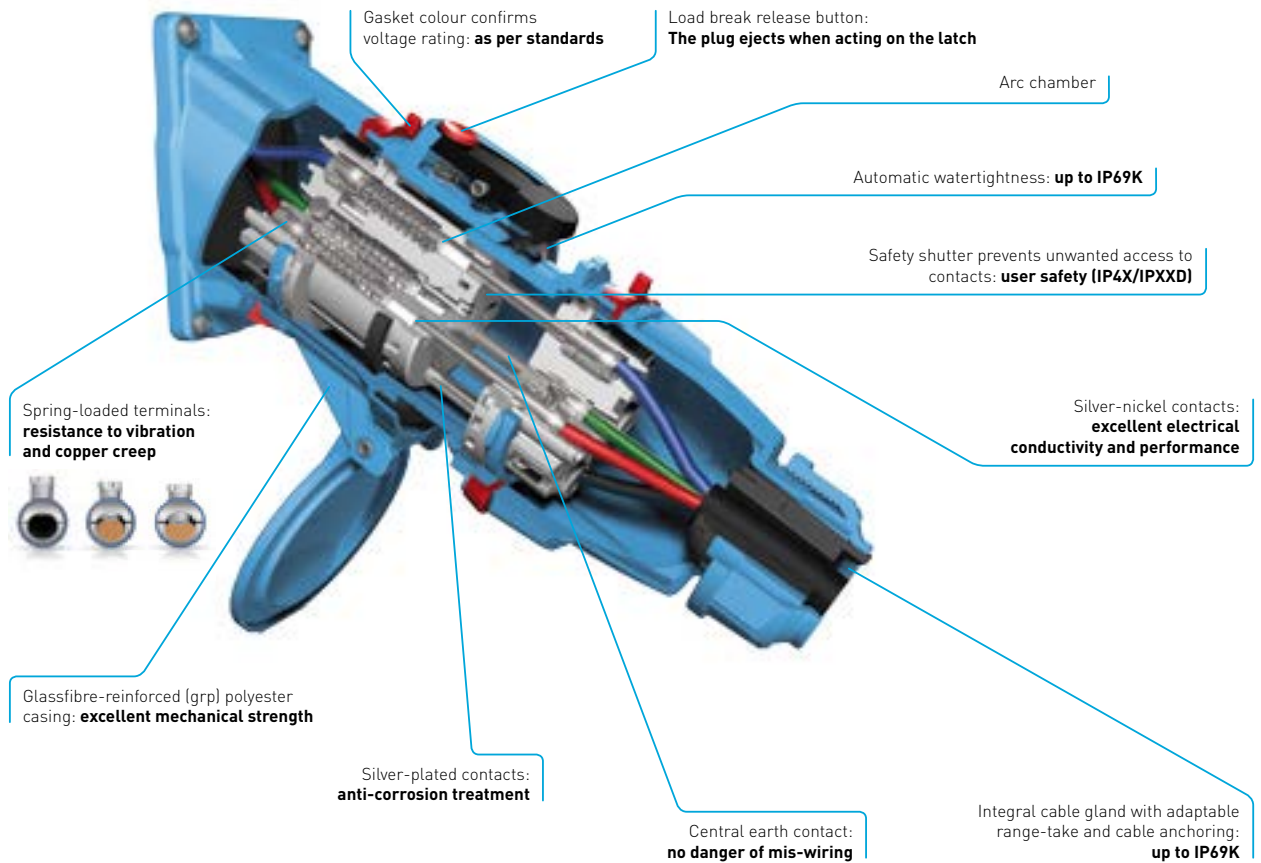




TECHNOLOGY

A CONCENTRATE OF FEATURES TO ENSURE YOUR SAFETY

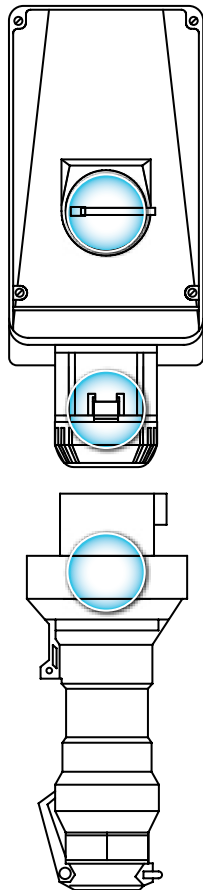
The quality of the material, the design, the assembly and the inspection of each component are at the core of our know-how and the MARECHAL® technology. They each provide a precise function that optimizes the performance, safety and sustainability of our sockets and your installations.





COMPETITIVE ADVANTAGE, FOR A 63 A PRODUCT (SCALE PROPORTION PRESERVED)

Industrial socket
with external switch



DECONTACTOR™ =
socket outlet + integrated switch



On Load switch
compulsory from 32 A or 1000 W

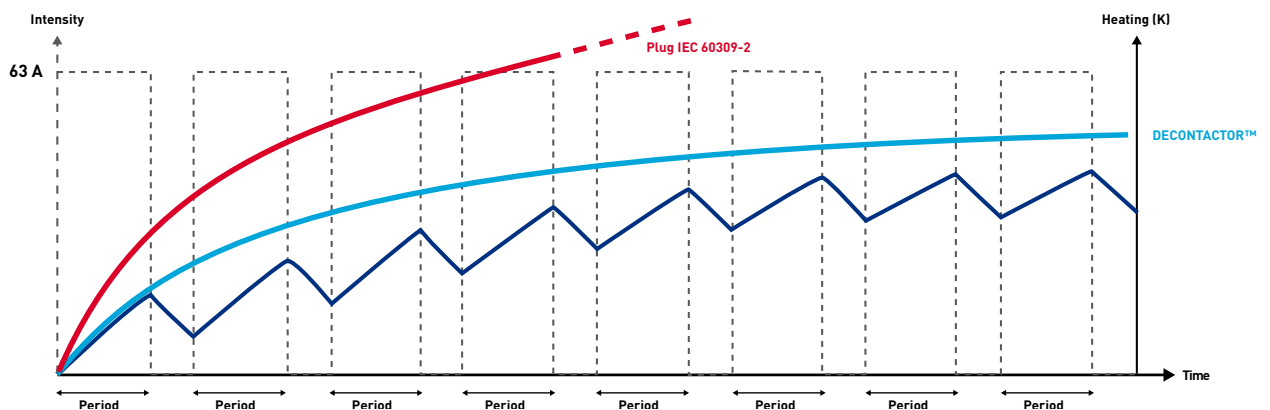
Socket-outlet

Plug

Advantage for the DECONTACTOR™:

- Ease of installation: no additional pilot wire or switch upstream.
- No compulsory switch required, even beyond 32 A.
- More compact.
- Cable extension possibility.

Comparative heating curve



■ Heating curve of a 60309-2 socket at a constant 63 A current.

■ Heating curve of a DECONTACTOR™ at a constant 63 A current.

■ Successive heating curves of a DECONTACTOR™ at a particular current cycle of 63 A. The DECONTACTOR™ stabilized.



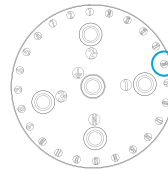
TECHNOLOGY

24 POSSIBILITIES FOR VOLTAGE/FREQUENCY INTERLOCKING

The interlock device is associated with coding positions on the electrical connectors. It enables 24 different positions that are distinguished by volt-age/frequency. This is achieved by machining the relevant 'notch' on the coding ring. The colours in the rows of the table below correspond to the international voltage standard. These are the colours of the rings and labels on the bases and connectors.



Socket-outlet



Inlet

Keying positions				Keying positions			
20-24 V AC	AC	2P+E, 2P+N+E 3P+E, 3+N+E	08	220-250 V	AC	1P+N+E	01
20-24 V AC	AC 60 Hz	2P+E, 2P+N+E 3P+E, 3+N+E	UL 02	220-250 V 380-440 V	AC	2P+N+E, 3P+N+E	01
25-28 V	AC	2P+E, 2P+N+E 3P+E, 3+N+E	06	220-250 V	AC 60 Hz	2P+E, 3P+E	UL 07
40-48 V	AC	2P+E, 2P+N+E 3P+E, 3+N+E	13	220-250 V	DC	2P+E	20
110-125 V	AC 60 Hz	1P+N+E	UL 07	255-277 V	AC 60 Hz	1P+N+E	UL 04
110-125 V 220-250 V	AC 60 Hz	2P+N+E, 3P+N+E	UL 07	255-277 V 440-480 V	AC 60 Hz	2P+N+E, 3P+N+E	UL 04
110-130 V	AC	1P+N+E	03	347 V	AC 60 Hz	1P+N+E	UL 14
110-130 V 190-230 V	AC	2P+N+E, 3P+N+E	03	347 V 600 V	AC 60 Hz	2P+N+E, 3P+N+E	UL 14
110-130 V	DC	2P+E	10	380-400 V 660-690 V	AC	2P+N+E, 3P+N+E	19
115-127 V	AC 200 Hz	1P+N+E	12	380-440 V	AC	2P+E, 3P+E	01
115-127 V 200-220 V	AC 200 Hz	2P+N+E, 3P+N+E	12	380-440 V	AC	1P+N+E	19
115-127 V	AC 400 Hz	1P+N+E	11	440-480 V	AC 60 Hz	2P+E, 3P+E	UL 04
115-127 V 200-220 V	AC 400 Hz	2P+N+E, 3P+N+E	11	480-500 V	AC	2P+E, 3P+E	09
120-127 V	AC 60 Hz	1P+N+E	16	600 V	AC 60 Hz	2P+E, 3P+E	UL 14
120-127 V 208-220 V	AC 60 Hz	2P+N+E, 3P+N+E	16	660-690 V	AC	2P+E, 3P+E	19
190-230 V	AC	2P+E, 3P+E	03	1 000 V	AC	1P+N+E, 2P+E, 2P+N+E, 2P+N+E, 3P+E, 3P+N+E	22
200-220 V	AC 200 Hz	2P+E, 3P+E	12				
200-220 V	AC 400 Hz	2P+E, 3P+E	11				
208-220 V	AC 60 Hz	2P+E, 3P+E	UL 16				

AC = 50/60 Hz



APPLICABLE STANDARDS AND DIRECTIVES

EUROPEAN DIRECTIVES

The European texts aim to align the laws of the Member States to facilitate the movement of products while ensuring the protection of persons and property. All products put on the market must be consistent with the guidelines applicable to them and carry the CE mark.

For the power sockets designed to be used in potentially explosive atmospheres, the applicable Directive is the ATEX Directive 2014/34/EU.

For power sockets for industrial uses, the Directive applicable is the Low Voltage Directive (LVD) N°2014/35/EU.

The LVD lays down essential safety requirements: " Equipment may only be put on the market if it is built in accordance with the rules of good practice, and if when installed and maintained properly and used for the purpose intended it does not compromise the safety of persons, or domestic animals or property ".

The Directive requires manufacturers to:

- design and manufacture a product that complies with the safety requirements of the Directive (when equipment complies with the requirements of a product standard, it receives only a presumption of compliance with the essential safety requirements) ;
- follow the procedure of evaluation and then of attestation of this compliance;
- gather all the elements of the design and evaluation of this compliance in "Technical Documentation";
- manufacture appliances within the framework of a system of internal inspection of the manufacture, in order to ensure their conformity to the Technical Documentation, even when bought-in products and/or external services are used.

All MARECHAL® appliances are consistent with the LVD and are manufactured within the framework of an ISO 9001 quality control system.

CE marking constitutes a guarantee that MARECHAL® appliances do not compromise the safety of persons or property. If MARECHAL® appliances are associated with devices or spare parts that are not of MARECHAL® origin, the CE marking is invalidated and the responsibility of MARECHAL® cannot be engaged.

**MINISTERIAL
DECREE DATED
20/12/2011**

Order relating to removable electrical devices and their conditions of connection and use.

This Order was published in the Official Journal on 27 January 2012. It stipulates:

Art. 6. - The joining or separation of the two parts of power sockets, extension cords and current connectors with a rating higher than 32 amps, must

only be able to be performed off load.

Art. 8. - This order is applicable with effect from the day following the day of its publication.

All MARECHAL® appliances comply with this order.

INTERNATIONAL STANDARDS

MARECHAL® devices comply with the following standards:

- IEC/EN 60309-1 Ed. 4.2 : power outlets for industrial uses - Part 1: General rules
- IEC/EN 60309-4 Ed. 1.1 : Power outlets for industrial uses - Part 4: Switched socket-outlets and connectors with or without interlock.

The break capacity of the MARECHAL® DECONTACTOR™ is tested according to the following standard:

- IEC/EN 60947-3 : low voltage appliances - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units.

For specific uses, the MARECHAL® appliances comply with the following standard:

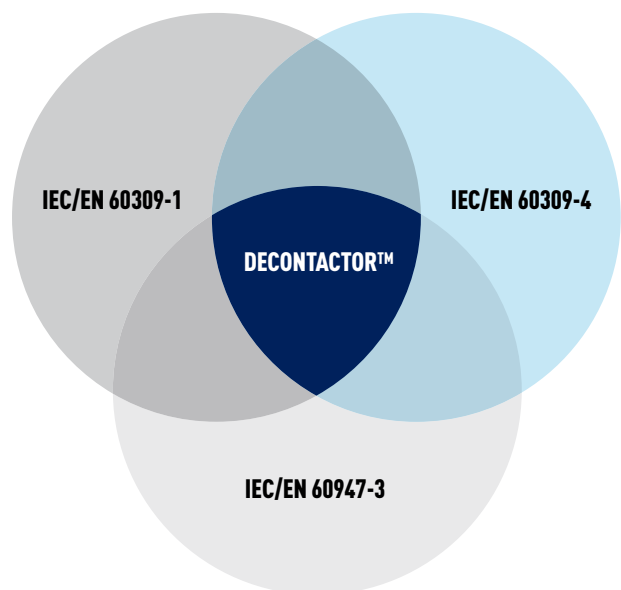
- CEI 61984 : connectors.

AMERICAN STANDARDS

MARECHAL® devices comply with the following standards:

- UL 2682 (United States) : power sockets with break capacity for motor connection.
- UL 1682 (United States) and CSA C22.2 No. 182.1-07 (Canada) : power sockets and connectors.

OTHER STANDARDS





SIMPLIFIED DIGIT CODING OF COMMERCIAL PART NUMBERS

7 DIGITS FOR BASIC PRODUCTS + 3 DIGITS FOR SPECIALS PRODUCTS

Main option combination suffixes page 232.

1 ST DIGIT	2 ND DIGIT	3 RD DIGIT																																																														
▼	▼	▼																																																														
PRODUCT LINE	CASING	RATING																																																														
<p>0 = PN - PNC 1 = DN 2 = DX - DXN - DXA 3 = DS 4 = PF - SP - CS- SPeX 5 = ACCESSORIES 6 = DSN 8 = DB 9 = BOXES</p>	<p>IEC : 1 = BLUE POLY 5 = BLACK POLY 9 = METAL</p> <p>UL : 3 = BLUE POLY 7 = METAL 6 = BLACK METAL</p>	<table border="0"> <tr> <td>16 A</td> <td>E</td> <td>= PNC</td> </tr> <tr> <td>30 A</td> <td>N/2</td> <td>= PN</td> </tr> <tr> <td>20 A</td> <td>8</td> <td rowspan="3">] = DN</td> </tr> <tr> <td>30 A</td> <td>1</td> </tr> <tr> <td>50 A</td> <td>3</td> </tr> <tr> <td>90 A</td> <td>6</td> <td rowspan="5">] = DS/DX</td> </tr> <tr> <td>30 A</td> <td>1</td> </tr> <tr> <td>50 A</td> <td>3</td> </tr> <tr> <td>90 A</td> <td>6</td> </tr> <tr> <td>150 A</td> <td>9</td> </tr> <tr> <td>250 A</td> <td>2</td> <td rowspan="3">] = DSN/DXN/DXA</td> </tr> <tr> <td>400 A</td> <td>4</td> </tr> <tr> <td>20 A</td> <td>1</td> </tr> <tr> <td>32 A</td> <td>3</td> <td rowspan="2">] = PFQ</td> </tr> <tr> <td>63 A</td> <td>6</td> </tr> <tr> <td>315 A</td> <td>3</td> <td rowspan="2">] = PFC</td> </tr> <tr> <td>400 A</td> <td>4</td> </tr> <tr> <td>500 A</td> <td>5</td> <td rowspan="3">] = DB</td> </tr> <tr> <td>600 A</td> <td>6</td> </tr> <tr> <td>40 A</td> <td>3</td> </tr> <tr> <td>75 A</td> <td>6</td> <td rowspan="2">] = CS1000</td> </tr> <tr> <td>125 A</td> <td>9</td> </tr> <tr> <td>400 A</td> <td>3</td> <td>= SPeX</td> </tr> <tr> <td>680 A</td> <td>4</td> <td>= SP</td> </tr> <tr> <td>700 A</td> <td>4</td> <td></td> </tr> </table>	16 A	E	= PNC	30 A	N/2	= PN	20 A	8] = DN	30 A	1	50 A	3	90 A	6] = DS/DX	30 A	1	50 A	3	90 A	6	150 A	9	250 A	2] = DSN/DXN/DXA	400 A	4	20 A	1	32 A	3] = PFQ	63 A	6	315 A	3] = PFC	400 A	4	500 A	5] = DB	600 A	6	40 A	3	75 A	6] = CS1000	125 A	9	400 A	3	= SPeX	680 A	4	= SP	700 A	4	
16 A	E	= PNC																																																														
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680 A	4	= SP																																																														
700 A	4																																																															



4TH DIGIT

5TH & 6TH DIGIT

7TH DIGIT

FORM

MALE

- 1 = Plug (with handle)
- 6 = Wall mounting appliance inlet (with box)
- 8 = Appliance inlet (male) semi-recessed
- 9 = Inclined appliance inlet (with sleeve)

FEMELLE

- 0 = Wall mounting socket (with box)
- 3 = Coupler socket (with handle)
- 7 = Inclined socket (with sleeve)
- 4 = Socket-outlet (female) semi-recessed

VOLTAGE

08 =	20-24 V	AC
06 =	25-28 V	AC
13 =	40-48 V	AC
03 =	110-130/190-230 V	AC
01 =	220-250/380-440 V	AC
09 =	480-500 V	AC
19 =	400/690 V	AC
22 =	1 000 V	AC
02 =	20-24 V	60 Hz
16 =	120-208 V	60 Hz
07 =	110-125/220-250 V	60 Hz
04 =	255-277/440-480 V	60 Hz
14 =	347-600 V	60 Hz
12 =	115-127/200-220 V	200 Hz
11 =	115-127/200-220 V	400 Hz
10 =	110-130 V	DC
20 =	220-250 V	DC

Other voltages and frequencies are available on request, see table page 10.

PHASING

Alternating current (AC)

5 =	1P+N+E
3 =	3P+E
7 =	3P+N+E
D =	1P+N
A =	2P (L1, L2)
E =	2P (L1, L3)
G =	2P+N
B =	3P
C =	3P+N
L =	2P+2P
H =	1P+E
2 =	2P+E
6 =	2P+N+E
M =	2P+2P+E

Direct current (DC)

8 =	2P+E	Double Break
9 =	2P+E	
J =	3P	(-/+ /0 V)
K =	3P+E	(-/+ /0 V/T)
N =	2P+2P	
P =	2P+2P+E	
Z =	2P	

DECONTACTOR™



SWITCH WITH SOCKET-OUTLET

This extensive and comprehensive product range covers all industrial applications. With sizes up to 400 A, it offers a wide range of mounting and installation options.



FIND ALL INFORMATION
ON OUR WEBSITE:



marechal.com



Dimensions
and certificates



DSN P. 16

COMPACT AND WATERTIGHT DECONTACTOR™ GRP

- Automatic IP66/IP67/IP69k water- and dust-tight
- AC-22 and ac-23 breaking capacity
- IK08 Impact-resistant GRP casing



RETTBOX® P. 30

COUPLER SOCKET/INLET ELECTROMAGNETIC SELF-EJECT

- RETTBOX® & RETTBOX®-Air ranges on emergency vehicles
- Integrated self-eject



DS P. 34

DECONTACTOR™ FOR INDUSTRY GRP AND METAL

- Safe and simple connection, even at 400 A
- Safety shutter
- IK08 GRP or IK09 metal casing



DSHT P. 56

DECONTACTOR™ HIGH TEMPERATURE

- 240 °C permanent et 400 °C (2 hours)
- 125 A/690 V
- IP66 Watertight



DN P. 58

METAL DECONTACTOR™

- Automatic IP55 water- and dust-tight (IP66/67 in option)
- IK09 Impact-resistant metal casing
- Suitable for heavy industry



DB P. 70

DISCONNECTABLE MOTOR SWITCH

- AC-3 switch for motors (up to 45 kW)
- Standard IP66/IP67 water- and dust-tight
- IK09 Impact-resistant metal casing

DSN



COMPACT AND WATERTIGHT DECONTACTOR™ GRP



20 A/32 A/63 A

- ▶ Automatic IP66/IP67/IP69k
- ▶ AC-22 and ac-23 breaking capacity
- ▶ Chemical resistant GRP UL 94 casing
- ▶ Impact resistance IK08, vibration resistance
- ▶ -40 °C +60 °C temperature
- ▶ With safety shutter, up to 4 auxiliaries/pilots

TECHNICAL FEATURES

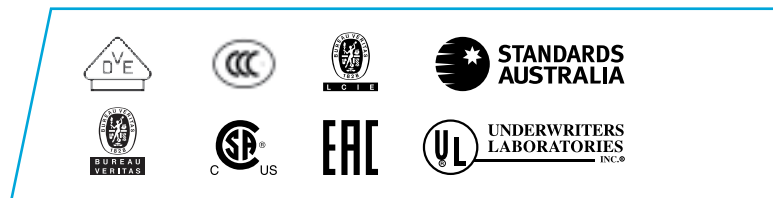
Plugs and sockets with integral load-break switching capability complying with IEC/EN 60309-1 and IEC/EN 60309-4 standards.

	DSN1	DSN3	DSN6
Rated current (In)	20 A	32 A	63 A
Umax	500 V	690 V	1 000 V
Power kW AC-22/AC-23	10 kW	15 kW	30 kW
AC-22 switching capability	20 A/500 V	32 A/690 V	50 A/690 V
AC-23 switching capability	20 A/400 V	32 A/400 V	63 A/400 V
Auxiliary contacts (optional)	2 pil	2 aux	4 aux
Keying positions	<<< 24 >>>		
Ambient temperature	<<< -40°C to +60°C >>>		
Short-circuit current Icc	<<< 10 kA >>>		

MOUNTING: LOAD BREAK RELEASE BUTTON SHOULD BE AT THE TOP



IP66/IP67/IP69K WATER- AND DUST-TIGHT



DSN DECONTACTOR™ complies with (download our certificates on marechal.com):

- IEC/EN 60309-1 et IEC/EN 60309-4 European and International standards (plugs and socket-outlets for industrial purposes),
- The European Low Voltage Directive 2014/35/UE, conformity with the CE marking,
- The European 'Machine Directive' 2006/42/CE regarding equipment isolation,
- The French NF C 15-100 standard,
- The French decree dated 20 December 2011 pertaining to the wiring and operating conditions of movable electrical apparatuses,
- The decrees relating to workers' protection in Belgium, Spain and Italy,
- The switch utilization categories AC-22 A and AC-23 A described in IEC/EN 60947-3,
- The UL 1682 (USA) and CSA C22.2 N° 182.1-07 (Canada) standards for plugs and socket-outlets.

Also certified by VERITAS LCIE, UL, AS, VDE, TR CU (GOST) and cCSAus and Specification of Military Naval Standard MIL-S-901D (French, American, Australian, German, Russian and Canadian inspection laboratories), and by BUREAU VERITAS MARINE.



WALL MOUNTING SOCKET DSN1



Wall box poly 30°
511B3M20

Socket-outlet
6114017

PLUG DSN1



Straight handle poly
511POD18

Inlet
6118017

MAIN FEATURES

Rated current (with wiring according to standard)	20 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	1-2,5 mm ²
IP protection lid closed	IP66/IP67/IP69k	Stranded wiring (min-max)	1,5-4 mm ²
IP protection plug connected	IP66/IP67/IP69k	Other wiring	on request
Shock resistance	IK08	Keying positions	24

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC/EN 60309-1 and IEC/EN 60309-4 standards	20 A/500 V
Load-break capability according to IEC/EN 60947-3/AC-22 A	20 A/500 V
Load-break capability according to IEC/EN 60947-3/AC-23 A	20 A/400 V
Short-circuit current I _{cc}	10 kA
Power kW AC-22/AC-23	10 kW

SOCKET-OUTLET female DSN1 (20 A)



INLET male DSN1 (20 A)



Dual-voltage socket-outlet (see p. 7)

20-24 V AC	2P	611408A	611808A
220-250 V AC	1P+N+E	6114015	6118015
380-440 V AC	3P+E	6114013	6118013
220-250 V AC 380-440 V AC	3P+N+E	6114017	6118017
480-500 V AC	3P+E	6114093	6118093
480-500 V AC	3P+N+E	6114097	6118097
Pilots 2 A/220 V AC	+ 2 pilots	Ref. + 972	NA

► Other voltages, frequencies and contact configurations are available (see page 10).

INFO+

OPTIONS AND ACCESSORIES

Find the boxes, sleeves and handles at the end of the section page 22.





WALL MOUNTING SOCKET DSN³



Wall box poly 30°
512B3M25

Socket-outlet
6134017

PLUG DSN³



Straight handle poly
512POD21

Inlet
6138017

MAIN FEATURES

Rated current (with wiring according to standard)	32 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	690 V	Flexible wiring (min-max)	2,5-6 mm ²
IP protection lid closed	IP66/IP67/IP69k	Stranded wiring (min-max)	2,5-10 mm ²
IP protection plug connected	IP66/IP67/IP69k	Other wiring	on request
Shock resistance	IK08	Keying positions	24

Load-break capability of the DECONTACTOR™

Comply with IEC/EN 60309-1 and IEC/EN 60309-4 standards	32 A/690 V
Load-break capability according to IEC/EN 60947-3/AC-22 A	32 A/690 V
Load-break capability according to IEC/EN 60947-3/AC-23 A	32 A/400 V
Short-circuit current I _{cc}	10 kA
Power kW AC-22/AC-23	15 kW

SOCKET-OUTLET female DSN³ (32 A)



INLET male DSN³ (32 A)



Dual-voltage socket-outlet (see p. 7)

20-24 V AC	2P	613408A	613808A
220-250 V AC	1P+N+E	6134015	6138015
380-440 V AC	3P+E	6134013	6138013
220-250 V AC / 380-440 V AC	3P+N+E	6134017	6138017
660-690 V AC	3P+E	6134193	6138193
380-400 V AC / 660-690 V AC	3P+N+E	6134197	6138197
Auxiliaries 30 A/500 V AC	+ 2 contacts	Ref. + 972	Ref. + 972

► Other voltages, frequencies and contact configurations are available (see page 10).

INFO+

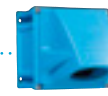
OPTIONS AND ACCESSORIES

Find the boxes, sleeves and handles at the end of the section page 22.





WALL MOUNTING SOCKET DSN6



Wall box poly 70°
513C7M25

Socket-outlet
6164017

PLUG DSN6



Straight handle poly
513P0D30

Inlet
6168017

MAIN FEATURES

Rated current (with wiring according to standard)	63 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	1 000 V	Flexible wiring (min-max)	6-16 mm ²
IP protection lid closed	IP66/IP67/IP69k	Stranded wiring (min-max)	10-25 mm ²
IP protection plug connected	IP66/IP67/IP69k	Other wiring	on request
Shock resistance	IK08	Keying positions	24

Load-break capability of the DECONTACTOR™

Comply with IEC/EN 60309-1 and IEC/EN 60309-4 standards	(63 A/690 V) or (45 A/1 000 V)
Load-break capability according to IEC/EN 60947-3/AC-22 A	50 A/690 V
Load-break capability according to IEC/EN 60947-3/AC-23 A	63 A/400 V
Short-circuit current I _{cc}	10 kA
Power kW AC-22/AC-23	30 kW

SOCKET-OUTLET female DSN6 (63 A)



INLET male DSN6 (63 A)



Dual-voltage socket-outlet (see p. 7)

20-24 V AC	2P	616408A	616808A
190-230 V AC	3P+E	6164033	6168033
220-250 V AC	1P+N+E	6164015	6168015
380-440 V AC	3P+E	6164013	6168013
220-250 V AC 380-440 V AC	3P+N+E	6164017	6168017
660-690 V	3P+E	6164193	6168193
380-400 V 660-690 V	3P+N+E	6164197	6168197
Auxiliaries 16 A/400 V AC	+ 2 contacts	Ref. + 972	Ref. + 972
Auxiliaries 16 A/400 V AC	+ 4 contacts	Ref. + 264	Ref. + 264

► Other voltages, frequencies and contact configurations are available (see page 10).

INFO+

OPTIONS AND ACCESSORIES

Find the boxes, sleeves and handles at the end of the section page 22.













OPTIONS (DETAILS ON PAGE 216)






	DSN1 size 1	DSN3 size 2	DSN6 size 3
INDUSTRIAL-DOMESTIC ADAPTERS			
 <p>Industrial inlet MARECHAL® 1P+N+E domestic socket-outlet 10/16 A 230 V fuse protection 10 A and 16 A (with integrated fuse).</p>	6118015D11*	6138015D11*	NA
 <p>* Adapters are available in foreign standards : replace D11 by D40 for UK, D30 for Germany/NL/Lux, D06 for Italy.</p>			
LOCKING PIN FOR 2 PADLOCKS Ø 8 mm (PADLOCKS NOT SUPPLIED)			
	Socket-outlet ref. + 843	Socket-outlet ref. + 843	Socket-outlet ref. + 843
SAFETY HASP FOR UP TO 6 PADLOCKS			
	873A541	873A541	873A541
LARGER RELEASE BUTTON			
	Socket-outlet ref. + 453	Socket-outlet ref. + 453	Socket-outlet ref. + 453
INLET CAP IP66/67			
	611A426	311A426	313A426
IN-LINE CONNECTIONS (A PAIR OF FINGER DRAW PLATES TO AID CLOSING)			
	611A346	311A346	313A346
180° OPENING LID			
	Metal socket ref. + 10	Metal socket ref. + 10	Metal socket ref. + 10
SELF-RETURNING LID (WITHOUT FULL CLOSURE IP40)			
	Socket-outlet ref. + R	Socket-outlet ref. + R	Socket-outlet ref. + R
180° OPENING & SELF-RETURNING LID			
	Socket-outlet ref. + 18	Socket-outlet ref. + 18	Socket-outlet ref. + 18
SELF-CLOSING LID FOR INLET (IP54)			
	NA	311A226	313A226
SELF-EJECTING (see references AND OPTIONS DETAILS PAGE 228)			
			



ACCESSORIES (SEE PAGE 238 TO CROSS REFERENCE WITH OLDER PART NUMBERS)

SLEEVE		DSN1 size 1	DSN3 size 2	DSN6 size 3
POLY SLEEVE				
	30°	511M3	512M3	513M3
	70°	511M7	512M7	513M7
METAL SLEEVE				
	0°	591M0	592M0	593M0
	30°	591M3	592M3	593M3
	70°			593M7













LEGEND FOR OPTIONAL ACCESSORIES

-  Angle
-  Threading or gland size
-  EMC option
-  HT 240° C
-  Self-ejection

INFO +



ACCESSORIES (SEE PAGE 238 TO CROSS REFERENCE WITH OLDER PART NUMBERS)





HANDLE		DSN1 size 1	DSN3 size 2	DSN6 size 3	
POLY HANDLE WITH GLAND					
	9-18 mm	511P0D18			
	5-21 mm	511P0D21	512P0D21		
	10-30 mm			513P0D30	
	9-18 mm	551P0D18			
	5-21 mm		552P0D21		
	10-30 mm			553P0D30	
	60° angle	511P6D18			
	60° angle	551P6D18			
POLY HANDLE WITH POLY CABLE GLAND					
	5-12 mm	511P020P	512P020P	513P020P	Ref. +443
	9-18 mm	511P025P	512P025P	513P025P	Ref. +443
	14-25 mm	511P032P	512P032P	513P032P	Ref. +443
	18-32 mm		512P040P	513P040P	Ref. +443
POLY HANDLE WITH METAL GLAND (+ EARTHING WIRE)					
	7-13 mm	511P020M	512P020M		
	9-16 mm	511P025M	512P025M		
	11-21 mm	511P032M	512P032M	513P032M	
	19-28 mm			513P040M	
METAL HANDLE WITH METAL GLAND (+ EARTHING WIRE)					
	7-13 mm		592P020M	593P020M	
	8-16 mm		592P025M	593P025M	
	15-23 mm		592P032M	593P032M	
	21-34 mm			593P040M	
	7-13 mm		572P020M		
	8-16 mm		572P025M	573P025M	
	15-23 mm		572P032M	573P032M	
POLY HANDLE WITHOUT CABLE GLAND (METRIC THREAD ENTRY)					
	M20	511P0M20	512P0M20	513P0M20	Ref. +443
	M25	511P0M25	512P0M25	513P0M25	Ref. +443
	M32	511P0M32	512P0M32	513P0M32	Ref. +443
	M40		512P0M40	513P0M40	Ref. +443
METAL HANDLE WITHOUT CABLE GLAND (METRIC THREAD ENTRY)					
	M20		592P0M20	593P0M20	
	M25		592P0M25	593P0M25	
	M32		592P0M32	593P0M32	
	M40			593P0M40	

BOXES			DSN1 size 1	DSN3 size 2	DSN6 size 3
POLY BOX					
	30°	M20	511B3M20	512B3M20	
	30°	M25	511B3M25	512B3M25	513B3M25
	30°	M32			513B3M32
METAL BOX (+ EARTHING WIRE)					
	20°	M20		592B2M20	593B2M20
	20°	M25		592B2M25	593B2M25
	20°	M32			593B2M32
POLY BOX + POLY SLEEVE					
	70°	Without Hole	511C7000	512C7000	513C7000
	70°	Ø M20	511C7M20	512C7M20	
	70°	Ø M25	511C7M25	512C7M25	513C7M25
	70°	Ø M32	511C7M32	512C7M32	513C7M32
	70°	Ø M40		512C7M40	513C7M40
METAL BOX (+ EARTHING WIRE) + POLY SLEEVE					
	30°	M20	511C3M20	512C3M20	513C3M20
	30°	M25		512C3M25	513C3M25
	30°	M32		512C3M32	513C3M32
	30°	M40		512C3M40	513C3M40
METAL BOXES WITH METAL SLEEVE (+ EARTHING WIRE)					
	30°	M20		592C3M20	593C3M20
	30°	M25		592C3M25	593C3M25
	30°	M32		592C3M32	593C3M32
	30°	M40			593C3M40
	0°	M20		592C0M20	593C0M20
	0°	M25		592C0M25	593C0M25
	0°	M32		592C0M32	593C0M32
	0°	M40			593C0M40
	70°	M20			593C7M20
	70°	M25			593C7M25
	70°	M32			593C7M32
	70°	M40			593C7M40



SPARE PARTS



PLUG		DSN1	DSN3	DSN6
1	Plug interior	611A010	311A010	313A010
2	Locking ring	611A583	311A583	616A583
3	Plug contact	611A011	311A011	616A011
4	Color-coded voltage gasket	 611AB26	613AB26	313AB26
 611AR26		613AR26	313AR26	
 611AV26		613AV26	313AV26	
 611AN26		613AN26	313AN26	
5	Plug casing	611A501	613A501	616A501







Remember to order the special removal key



Yellow disassembly key
31-A500-1

Contact us for spare parts.

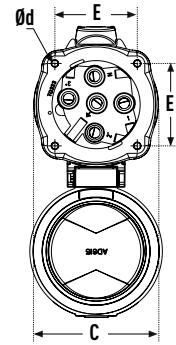
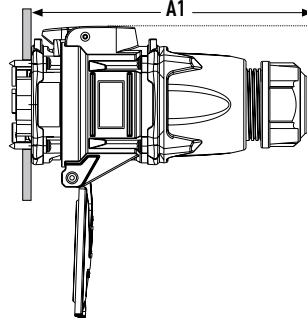
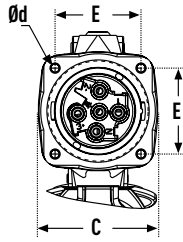
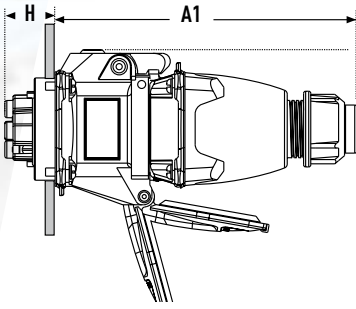


SOCKET		DSN1	DSN3	DSN6	
1	Socket Interior	611A020	311A020	313A020	
2	Locking ring	611A583	311A583	616A583	
3	Socket contact	611A021	311A021	616A021	
4	Color-coded voltage gasket		611AB26	613AB26	313AB26
			611AR26	613AR26	313AR26
			611AV26	613AV26	313AV26
			611AN26	613AN26	313AN26
5	Socket Casing	611A524	613A524	616A524	
6	Casing gasket	611A074	613A074	616A074	

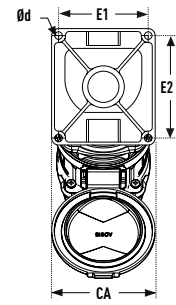
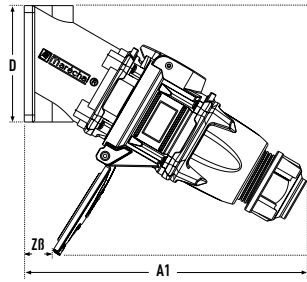
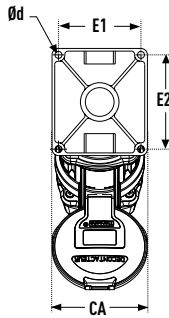
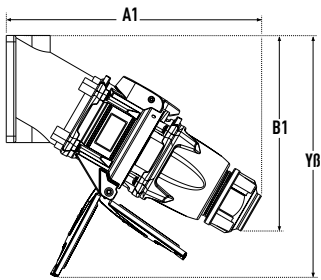
Contact us for spare parts.



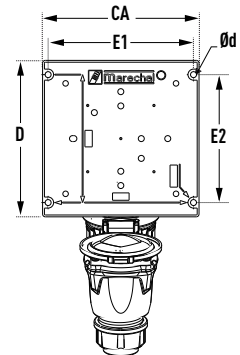
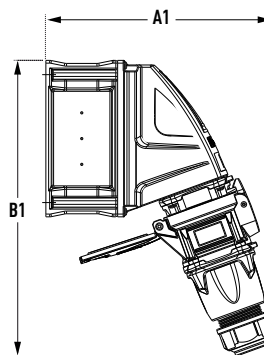
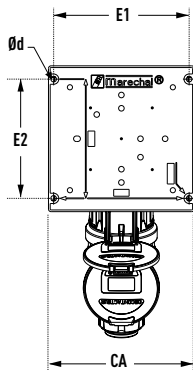
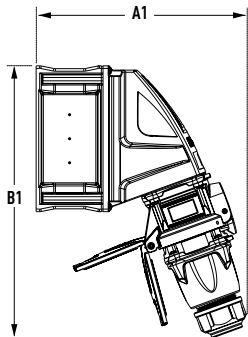
DIMENSIONS



	A1	C	E	H	Ød*
DSN1	147	58	42	25	4,5
DSN3	171	74	48	14	5
DSN6	184	84	55	16	5

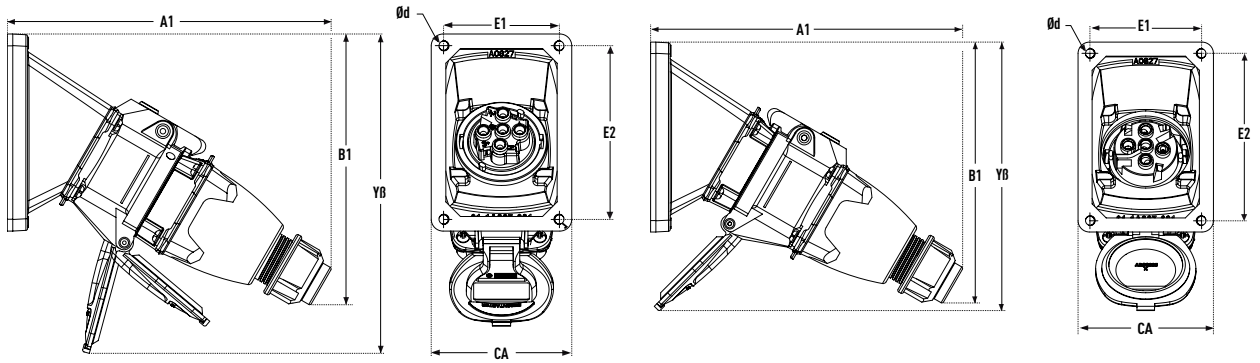


	A1	B1	CA	E1	E2	Ød*
DSN1	196	154	68	36/56	78	4,5
DSN3	213	159	84	70	70	6
DSN6	238	182	89	77	88	6,5

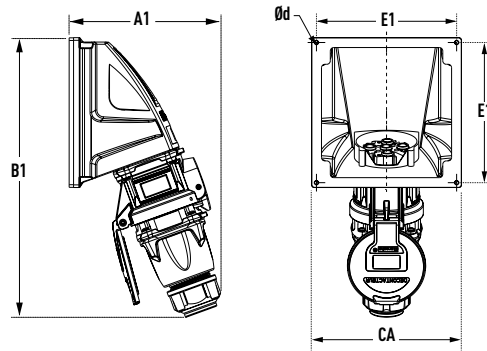


	A1	B1	CA	E1	E2	Ød*
DSN1	206	244	128	116	96	6,5
DSN3	221	268	128	116	96	6,5
DSN6	245	317	170	158	139	6,5

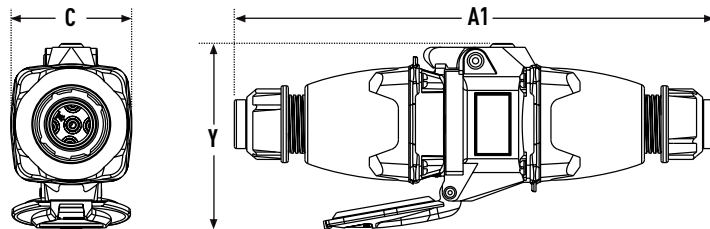
*Ød : maximum drilling diameter.



	A1	B1	CA	E1	E2	Ød*
DSN1	177	148	77	63,5	95	5
DSN3	197	165	77	63	95	5,5
DSN6	212	178	77	64	95	5,5



	A1	B1	CA	E1	Ød*
DSN1	134	244	128	116	4
DSN3	144	268	128	116	5
DSN6	172	317	170	159	5



	A1	C	Y
DSN1	231	58	89
DSN3	265	74	116
DSN6	286	84	122

*Ød : maximum drilling diameter.