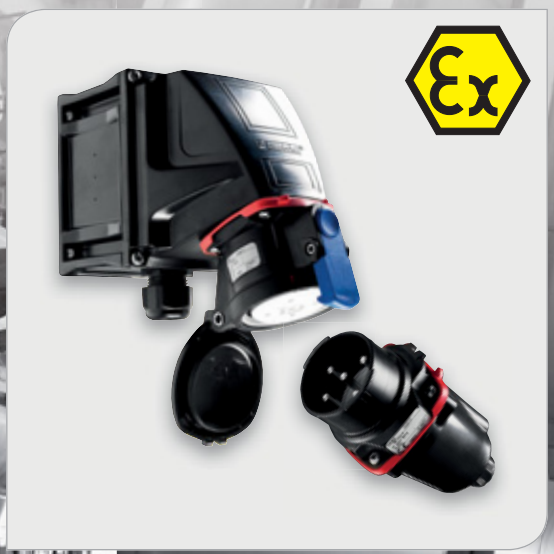
INDUSTRIAL PLUGS & SOCKET-OUTLETS
DECONTACTOR™ & BOXES

EXPLOSION-PROOF PLUGS & SOCKETS MULTICONTACT CONNECTORS HIGH CURRENT PLUGS & SOCKETS HIGH TEMPERATURE



MARECHAL ELECTRIC GROUP

Technor®

marechal.com


marechal®

INDUSTRIAL POWER SUPPLY

SIGNAL AND CONTROL

PN7C, DN9C, PN12C, DN20C,
DSN24C, DSN37C, DS37C - MULTI-CONTACT CONNECTORS • Sizes from 5 A to 30 A - From 5 to 37 contacts

HIGH CURRENT

PF - HEAVY-DUTY PLUGS & SOCKETS • Up to 600 A / 8 aux.
DS4 - HIGH-CURRENT CONNECTORS • Up to 400 A / 2 aux.
CS1000 - SINGLE-POLE POWER CONNECTORS • Up to 400 A
SP - SINGLE-POLE POWER CONNECTORS • Up to 700 A + Pilot
CS - SINGLE-POLE WELDING CONNECTORS • From 75 A to 500 A
CCH - BATTERY-CHARGER CONNECTORS • From 75 A to 200 A

HIGH TEMPERATURE

PNHT/DSHT - POWER CONNECTORS
DN7C3HT/DN7C6HT - MOTOR CONNECTORS
PN7CHT - MULTI-CONTACT CONNECTORS

SELF-EJECTING

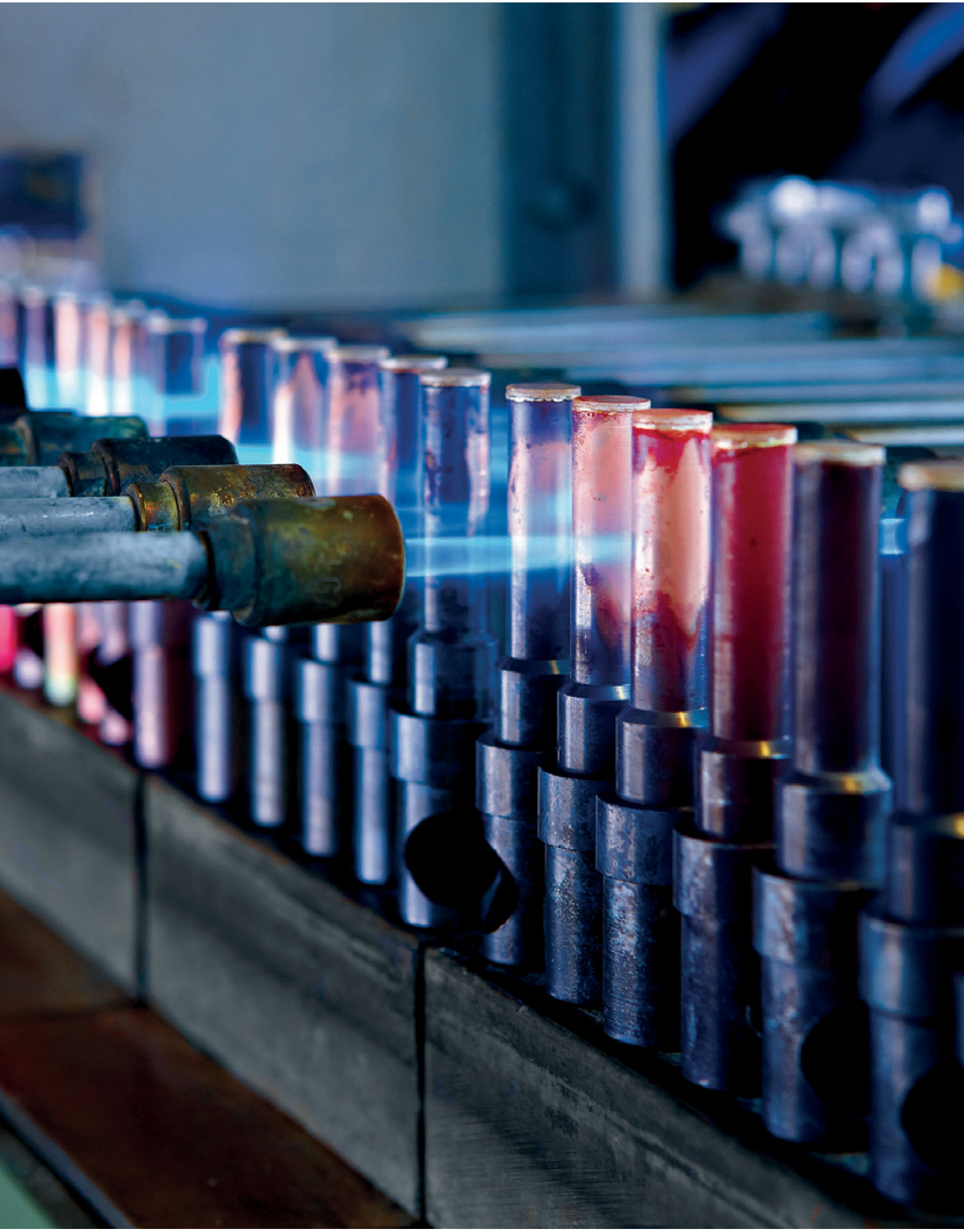
MECHANICAL EJECTION PLUGS & SOCKETS - TPM, DSN, DS & DN ON VEHICLES & MOBILE DEVICES
ELECTROMECHANICAL EJECTION BOXES - RETTBOX® & RETTBOX®-AIR ON EMERGENCY VEHICLES

DISTRIBUTION BOXES AND OTHER PRODUCTS

BM - MODULAR BOXES
CD - SOCKET-OUTLETS WITH PROTECTION
BG - LIQUEFIED GAS TRANSFER BOXES
CRIC - CONNECTION TERMINALS
BRP - PORTABLE SERVICE BOXES
TUNNELS - BOXES AND CONNECTORS

EXPLOSION-PROOF PRODUCTS

DXN - COMPACT & WATERTIGHT DECONTACTOR™ • From 20 A to 63 A
DX - METAL DECONTACTOR™ • From 20 A to 200 A
PNCX - COMPACT CONNECTOR • Up to 10 A
PXN12C, DXN25C, DXN37C - MULTI-CONTACTS CONNECTORS • From 12 to 37 contacts
SPeX - SINGLE-POLE POWER CONNECTOR • Up to 680 A - 1000 V
MXBS, MXBJ, B2X- SOCKET BOXES, JUNCTION BOXES & DISTRIBUTION BOXES • Up to 350 A - 750 V
Technor® A company of MARECHAL ELECTRIC GROUP — LIGHTING, FLAMEPROOF ENCLOSURES, JUNCTION BOXES, CONTROL STATIONS, AUDIBLE & VISUAL SIGNALS, CABLE GLANDS & ACCESSORIES



MARECHAL ELECTRIC GROUP

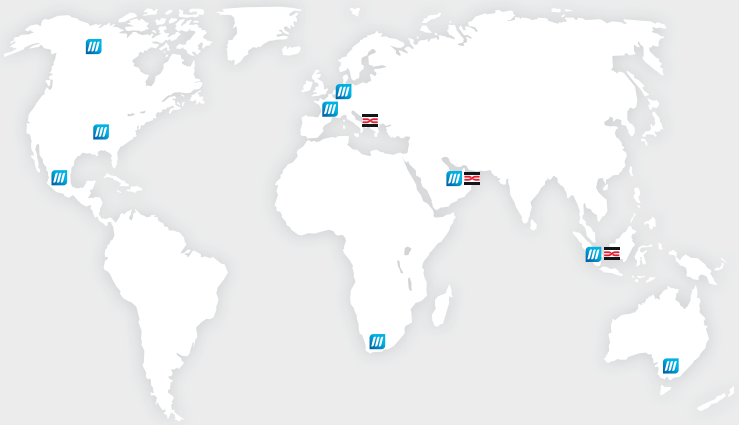
MARECHAL ELECTRIC GROUP (MEG) has been a major actor, over the past 60 years, for industrial electrical connections adapted to suit all areas of the industry: general manufacturing and process industry, premises and set-ups for the general service industry, all infrastructures as well as the specific oil and gas industry or those premises presenting a risk of explosion, referred-to as hazardous areas. The Group's know-how and technology permanently optimise the performance and life expectancy of MARECHAL® plugs and sockets. The certification of our product ranges complies with the existing requirements and standards in the different markets and enables the Group to position itself as a leading supplier for any type of industry activity throughout the world.
5% of the turnover is ploughed back into R&D every year to imagine, design, develop and adapt industrial electrical DECONTACTOR™ and distribution boxes to suit the needs of our customers all around the globe. The MEG product portfolio reflects the needs of its customers: combination of safety and reliability, broad package of technical solutions in compliance with the world's different market requirements and regulations. The breakdown of the product portfolio articulates around the fields of industry and activity and per power and current ranges. This breakdown matches the multiple and variable configurations to be found in electrical installations, industrial automation, power or information distribution for production and maintenance operations for both new and renovated equipment.

Our research strategy revolves around 4 main approaches:

- **The safety and reliability of our plugs and sockets**
  Boasting of a unique level of know-how, MEG first and foremost prioritises the safety of the individuals in the facilities and during the use and maintenance of its equipments. Their design goes hand in hand with sustainability and performance over the long-term, irrelevant of the number of operations, outer environment or conditions of use. These plugs and sockets are intrinsically designed and manufactured for sheer heavy-duty use and for use in the harshest and most severe environments.
- **Optimising the modular design**
  In order to meet each socket installation or configuration on sites, MEG offers its customers the possibility of customising the functions and modular assembly options for its sockets and boxes. For large-scale projects, a dedicated Specific Equipments Technical Team is available to support the customer for their projects so as to offer a comprehensive solution. MEG provides technical support and offers products adapted to suit its customers' needs, which are sometimes very specific to the industry involved.
- **Enriching partnership developments with its customers**
  MEG is present on turnkey markets and the close partnerships developed with all market actors enables us to grow and to continuously improve our product portfolio. We are therefore constantly improving the performances and functions of our products to exceed our customers' expectations.
- **Complying with international regulations**

MARECHAL ELECTRIC PRESENT ON 5 CONTINENTS

- **4 production sites**
  France, Germany, Australia and the United States
- **Daily commercial presence in more than 20 countries**
  A network of subsidiaries and Exclusive partnerships all around the globe
- **5% of our turnover is invested in R&D every year**



GLOBAL PRESENCE

Local network

MEG boasts of a daily international presence in more than 20 countries. Via its production sites, its commercial subsidiaries and a workforce of more than 330 employees, MEG has built up close relationships with its customers.
More than one third of the staff includes Sales Teams mainly dedicated to consulting and to support our customers with their projects and technical constraints.
We assist our customers from defining their needs through to adapting and installing the equipment or to the commissioning the products on-site.
A network of exclusive distribution and business development partners consolidates our presence on sites around the world. These partners convey MEG brand image and act as a relay for MEG in Asia, the Middle East and South America.
These close ties with our partners enable us to remain aware of the market developments, to better advise all actors involved in a given project: specifiers, consultants, design offices, contractors, distributors, resellers, OEM and end-users.
We provide a fast response to all types of requests by providing each market actor with specific tools on our websites.

Coverage

- **Europe**
- **Africa**
- **North and South America**
- **Asia Pacific**
- **Middle East**

Production sites

4 production sites operate in France, Germany, Australia and the United-States, to help us better serve all of our customers.
These factories simultaneously act as:

- controlled and flexible production units,
- testing laboratories and test beds,
- storage areas (raw materials, semi-finished products and finished goods)
- a shipping platform for optimized and reactive supply-chain models.

Each plant manufactures thousands of models: standard decontactors present in the MEG catalogue or versions specifically designed to offer customized solutions, which represents 40% of all volumes. An automated management system from order registration through to delivery guarantees 24-to-72-hour shipment times.
The choice of suppliers, sources of supply and manufacturing processes are the same for all of the 4 plants. They guarantee the reliability and efficiency of our products under a single trademark: MARECHAL®.

DYNAMICS AND DEVELOPMENT

From the
1952 : setting up of MARECHAL France
During the 60's and the 70's: subsidiaries set up in the USA, in Germany and Spain
Over the last 5 years, MEG accelerated its development:
2006 South Africa
2011 Mexico & Singapore
2012 Australia
2013 TECHNOR has joined the MARECHAL ELECTRIC GROUP of companies.

A customer-oriented organisation
MEG focuses all of its attention to its customers. A local and customer-friendly commercial network provides the customer with daily support for their projects. MEG develops sales tools dedicated to applications in the general manufacturing and process industry, the general service industry, all infrastructures as well as the specific oil and gas industry or those premises presenting a risk of explosion, referred-to as hazardous areas. Websites and a configurator provides up-to-date information to better meet customers' needs, in addition to our presence at international, national or regional trade fairs and shows.

Our objectives

Strengthening R&D to market increasingly innovative and safer products
Innovation and industrial automation are the main vehicles for growth, productivity and improvement within MEG. The latter is also increasing its research works for providing comprehensive solutions, while also taking into account the behaviors and the constraints of the contractors and/or end-users.

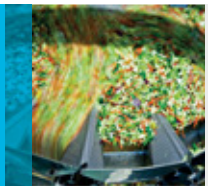
Benefiting from the structures and size of our industrial organisations in terms of flexibility and reactivity
MEG provides the tools to meet any variations in demand by investing in its production capacities every year. It improves its control of all of its industrial processes: plastics (thermoplastics), screw-cutting, foundry, etc. up to the final logistics and supply-chain organisations.

Increasing our presence abroad and in countries showing high potentials
MEG is entering into increasing numbers of partnerships on all continents so as to offer turnkey solutions (sockets integrated into distribution boxes, electrical cabinets, pits, etc.), to be reactive and to offer quotations for both small-, medium sizes as well as international projects.

TECHNOLOGICAL KNOW-HOW

60 years of expertise and know-how

MEG boasts of its unique technology: the DECONTACTOR™.
This technology combines an electrical industrial socket-outlet with a patented integrated switching device.
It combines compactness, safety and performance on electrical installations.
It perfectly integrates to any types of mounting support and provides the user with utter safety and a vast flexibility.
It is the most adapted solution for all. MEG has developed this expertise and provides similar or different solutions in the following fields of activity: general manufacturing and process industry, premises and set-ups for the general service industry, all infrastructures as well as the specific oil and gas industry or those premises presenting a risk of explosion, referred-to as hazardous areas.



Food industry

Production, processing, packaging, storage, silos

Wastewater treatment

Industrial and utility wastewater treatment plants, mobile sewage sludges treatment units

Chemical industry

Fine chemicals, petrochemicals, pharmaceutical industries, research laboratories

Heavy industry

Production and transformation of raw materials, mining industry, metal processing, steelworks, foundries, aluminum smelters

Construction & infrastructures

Public works (roads, motorways, railway trams, bridges, tunnels, industrial constructions)

Energy

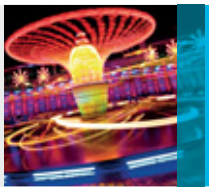
Production and distribution of electricity, oil and natural gas products (pipelines, refineries, power plants, etc.), shelters for the military applications

Transport

Air, rail, sea, and road transport, equipment manufacturers, frame workshops, emergency rescue vehicles and fire-fighting vehicles, electric vehicles

Entertainment & media

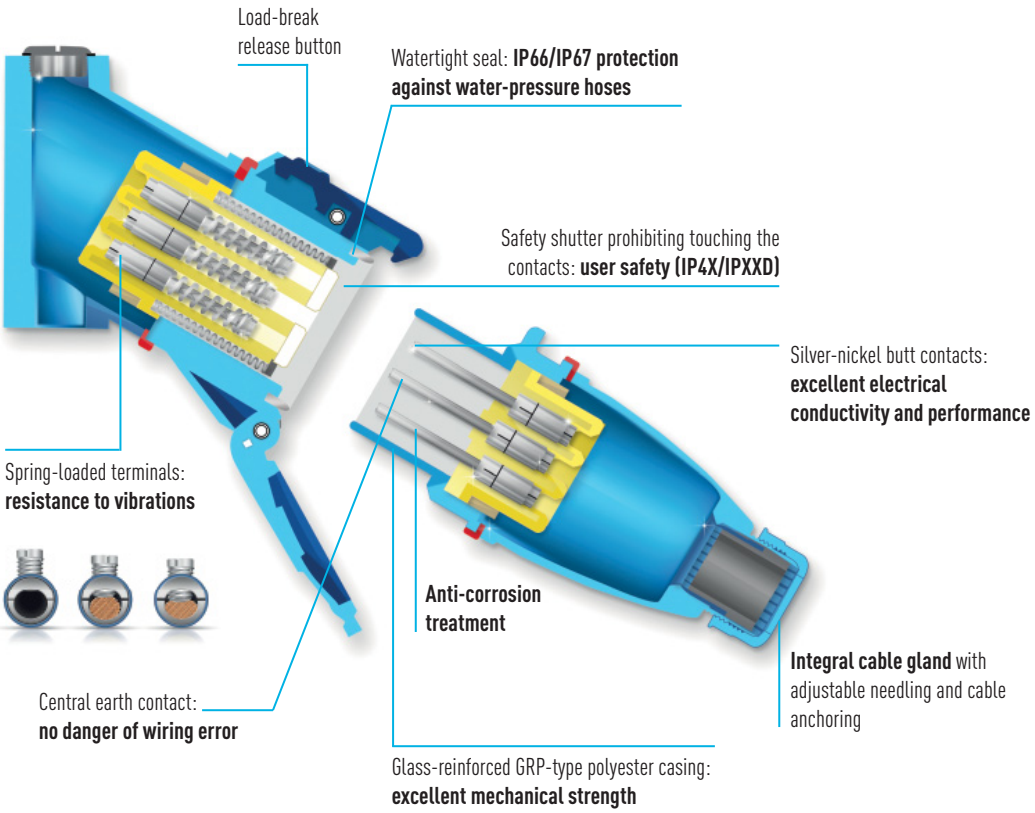
Trade fairs, convention and exhibition centers, fashion-shows, festivals and concerts, television and cinema, fairgrounds and urban entertainment



The DECONTACTOR™ technology is a result of our continuous desire to ensure the safety of both staff and premises. With a dozen of product families, it enables you to manage an electrical installation without requiring specific approvals or procedures. You can perform operations, even on live installations, in complete safety. DECONTACTOR™ incorporates a load-breaking capacity or an electrical interlock (pilot contacts) for protection purpose.
Thanks to its structure and human-sized organisation, MEG can offer specific products or become a pioneer in specific fields such as that of the power socket to the electric vehicles.
The integration of all skills and processes including R&D - Manufacture - Marketing strengthens its position and its ability to continuously adapt its technology and to react to its world's ever-changing markets.

Our sockets and plugs are a wealth of functions and added value

The quality of the material, the design and assembly of each component make up the very heart of our know-how and of MARECHAL® technology. They all perform a precise function that optimises the efficiency and life expectancy of our sockets and installations.



Safety components

- **Load-break release button**
  A button placed on the top of the socket enables you, with a single finger pressure on the button, to disconnect the equipment on full load, up to 250 A. This operation can be performed by anyone. The plug can then be removed in complete safety. The plug manoeuvre is safe and cannot represent any electrical hazard. It guarantees a quick and easy operating and saves time during installation operations or machine shutdown.
- **Safety shutter**
  This shutter protects the user (IP4X/IPXXD). The live contacts are not accessible, even to a small screwdriver or a 1 mm wire.
- **Automatic IP66/IP67 dust and liquid tightness**
  The reinforced IP66/IP67 seal acts automatically upon connecting the socket or upon closing the cover. It enables the product to be used in extremely wet or dusty environments.
- **Locking and consignation**
  On risk facilities or where the disconection of a plug must be prevented, locking or consignation options are a token of security.

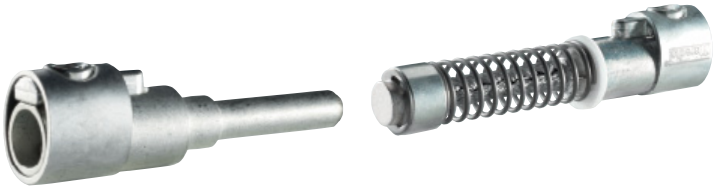
Sustainable components

Crimped braiding

The MARECHAL® system combining a crimped braid with a spiral-shaped spring guarantees performance levels and strengths beyond any standard receptacle concept.
The flexibility of the braid enables the tips of the female contact to remain in perfect alignment with the tip of the male contact, without affecting performance, irrelevant of the external conditions.
The spiral spring provides comfort for use as the force applied to create the connection and ensure that the connection and manoeuvre endurance remains minimal, as it only works with a small fraction of its elasticity.

Butt-contacts

The butt contacts with silver-nickel tips guarantee exceptional connection quality in time. Conductivity is optimal thanks to these pressure -applied contacts. With anti-corrosion treatment, these contacts offer high resistance to corrosion and mechanical (IK08) and climatic shocks (-40 °C to +60 °C under operation conditions). They also guarantee the permanent absorption and tolerance to repeat overloads, in particular with regards to powering electric motors, gen sets, pumps and their frequent greedy starting currents.



Terminals

If nothing specific is stated in relation to Solder termination or Crimp termination, then Tunnel terminals with screws apply (referred to as "pillar terminals" in IEC EN 60309-1).

Casings made from advanced materials

The DECONTACTORS™ and MARECHAL® product ranges have glass-reinforced GRP-type polyester or metal casings according to the model. This choice in materials contributes to the sockets and plugs' excellent mechanical strength and its long life expectancy.

Modular components

Dual-voltage

The 230/400 V – 3P+N+E dual-voltage sockets are meant to indifferently receive both four-phase and three-phase 400 V plugs, and single-phase 230 V plugs. This compatibility constitutes a real saving for the user when installing these sockets.

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.

Socket-outlet (female)

+ **Wall box** =  **Wall mounting socket**

+ **Inclined sleeve** =  **Inclined socket**

+ **Handle** =  **Coupler socket**

Inlet (male)

+ **Wall box** =  **Wall mounting appliance inlet**

+ **Inclined sleeve** =  **Inclined appliance inlet**

+ **Handle** =  **Plug**

Pilot auxiliary contacts

The MARECHAL® socket can receive pilot auxiliary contacts. Their main function is to transmit signal and information.

Keying

Keying is associated with keying positions on the electrical plugs and sockets. It differentiates each plug and sockets through the machining one of the notches, or «notching», 24 different types of electrical current, which is determined by the voltage/frequency pair. The line colours provided in the table below also match the relevant international standards. They appear on the ring and voltage label on the base of the connector, thus enabling the frequency/voltage pair assigned to the appliance to be easily identified. 24 keying positions are available. Most of them match an assigned operating voltage. Others remain free to meet other voltage requirements or to create specific and customised versions.

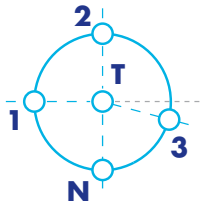
Socket-outlet

Inlet

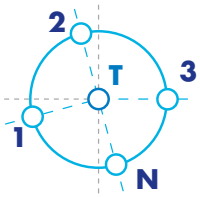
Voltage range	Frequency	Contact configuration	Keying position
20 - 24 V	a.c. 50 Hz	2P+E, 2P+N+E 3P+E, 3+N+E	08
20 - 24 V	a.c. 60 Hz	2P+E, 2P+N+E 3P+E, 3+N+E	02
25 - 28 V	a.c. 50 Hz	2P+E, 2P+N+E 3P+E, 3+N+E	06
40 - 48 V	a.c. 50 Hz	2P+E, 2P+N+E 3P+E, 3+N+E	13
110 - 125 V	a.c. 60 Hz	1P+N+E	07
110 - 125 V 220 - 250 V	a.c. 60 Hz	2P+N+E, 3P+N+E	07
110 - 130 V	a.c. 50 Hz	1P+N+E	03
110 - 130 V 190 - 230 V	a.c. 50 Hz	2P+N+E, 3P+N+E	03
110 - 130 V	d.c.	2P+E	10
115 - 127 V	a.c. 200 Hz	1P+N+E	12
115 - 127 V 200 - 220 V	a.c. 200 Hz	2P+N+E, 3P+N+E	12
115 - 127 V	a.c. 400 Hz	1P+N+E	11
115 - 127 V 200 - 220 V	a.c. 400 Hz	2P+N+E, 3P+N+E	11
120 - 127 V	a.c. 60 Hz	1P+N+E	16
120 - 127 V 208 - 220 V	a.c. 60 Hz	2P+N+E, 3P+N+E	16
190 - 230 V	a.c. 50 Hz	2P+E, 3P+E	03
200 - 220 V	a.c. 200 Hz	2P+E, 3P+E	12
200 - 220 V	a.c. 400 Hz	2P+E, 3P+E	11
208 - 220 V	a.c. 60 Hz	2P+E, 3P+E	16

Voltage range	Frequency	Contact configuration	Keying position
220 - 250 V	a.c. 50 Hz	1P+N+E	01
220 - 250 V 380 - 440 V	a.c. 50 Hz	2P+N+E, 3P+N+E	01
220 - 250 V	a.c. 60 Hz	2P+E, 3P+E	07
220 - 250 V	d.c.	2P+E	20
255 - 277 V	a.c. 60 Hz	1P+N+E	04
255 - 277 V 440 - 480 V	a.c. 60 Hz	2P+N+E, 3P+N+E	04
347 V	a.c. 60 Hz	1P+N+E	14
347 V 600 V	a.c. 60 Hz	2P+N+E, 3P+N+E	14
380 - 440 V 660 - 690 V	a.c. 50 Hz	2P+N+E, 3P+N+E	19
380 - 440 V	a.c. 50 Hz	2P+E, 3P+E	01
380 - 440 V	a.c. 50 Hz	1P+N+E	19
440 - 480 V	a.c. 60 Hz	2P+E, 3P+E	04
480 - 500 V	a.c. 50 Hz	2P+E, 3P+E	09
600 V	a.c. 60 Hz	2P+E, 3P+E	14
660 - 690 V	a.c. 50 Hz	2P+E, 3P+E	19
1000 V	a.c. 50 Hz	1P+N+E, 2P+E, 2P+N+E, 2P+N+E, 3P+E, 3P+N+E	22

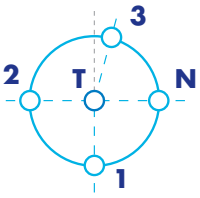
a.c. = 1P+N, 2P, 2P+N, 3P, 3P+N, 1P+N+E, 2P+E, 2P+N+E, 3P+E, 3P+N+E
d.c. = 2P, 2P+E



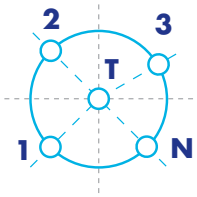
Position 01
220-250 V / 380-440 V 50 Hz



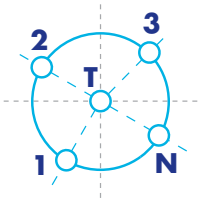
Position 02
20-24 V 60 Hz



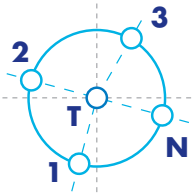
Position 03
110-130 V / 190-230 V 50 Hz



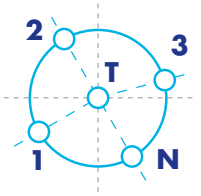
Position 04
255-277 V / 440-480 V 60 Hz



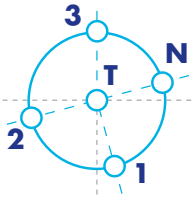
Position 05
Free



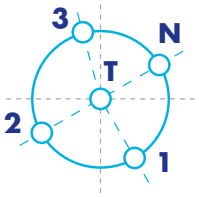
Position 06
25-28V 50 Hz



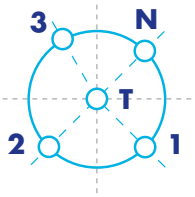
Position 07
110-125 V / 220-250 V 60 Hz



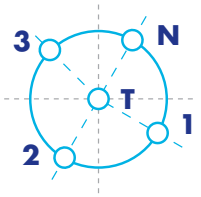
Position 08
20-24 V 50 Hz



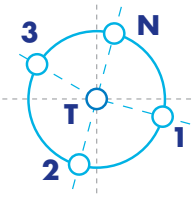
Position 09
480-500 V 50 Hz



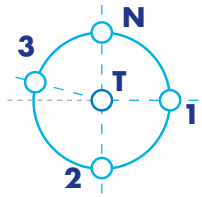
Position 10
110-130 V d.c.



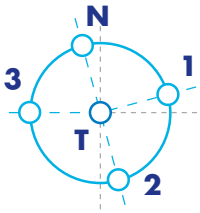
Position 11
115-127 V / 200-240 V 400 Hz



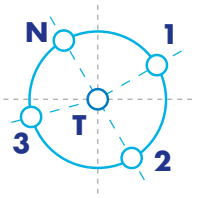
Position 12
115-127 V / 200-220 V 200 Hz



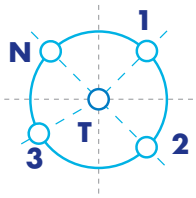
Position 13
40-48 V 50 Hz



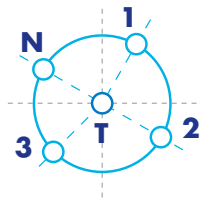
Position 14
347 V / 600 V 60 Hz



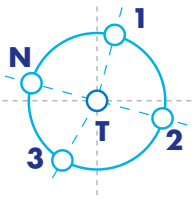
Position 15
Free



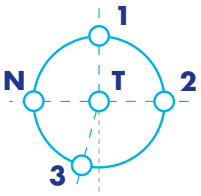
Position 16
120-127 V / 208-220 V 60 Hz



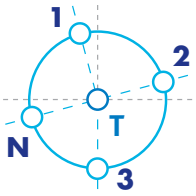
Position 17
Free



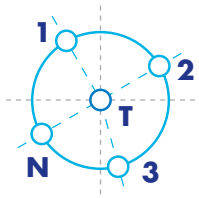
Position 18
Free



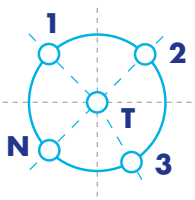
Position 19
380-440 V 50 Hz / 660-690 V 50 Hz



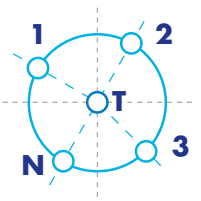
Position 20
220-250 V d.c.



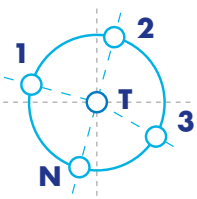
Position 21
Free



Position 22
1 000 V



Position 23
Free



Position 24
Free

APPLICABLE STANDARDS AND DIRECTIVES

European directives

The purpose of the European standards is to bring together the legislations under application in all European Union Member States so as to ease product circulation within the Union, while ensuring the protection of both persons and premises. All products launched into the market must comply with the Directives applicable thereto and bear the CE marking.
For socket-outlets intended for use in hazardous areas, the ATEX Directive 94/9/EC applies.
For socket-outlets intended for industrial use, the Low Voltage Directive (LVD) No. 2006/95/EC applies.
The LVD sets the essential safety requirements: Electrical equipment may be placed on the market only if, having been constructed in accordance with good engineering practice in safety matters in force in the Community, it does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.

The Directive requires the manufacturer to:

- design and manufacture a product in compliance with the safety requirements of the Directive (when a piece of equipment is compliant with the specifications of a product's standard, it only benefits from presumption of conformity with the essential safety requirements);
- monitor the assessment procedure and certify this compliance;
- draw up a 'Technical Documentation' gathering all design and compliance assessment elements;
- manufacture appliances within the scope of an internal control system for the manufacturing process in order to guarantee their compliance with the Technical Documentation, even when calling for external subcontractual services and/or products.

All MARECHAL® equipments are compliant with the LVD and are manufactured within the scope of an ISO 9001 quality control system.

The CE marking is a guarantee that MARECHAL® appliances do not jeopardise the safety of either persons or premises. In the event that MARECHAL® appliances are associated with non-MARECHAL® spare parts or appliances, the CE marking becomes void.

Order pertaining to the wiring and operating conditions of mobile electrical equipments.

MINISTERIAL DECREE DATED 20/12/2011

This order was published in the Official Journal on the 27th of January 2012. It stipulates:
Art. 6. - It must not be possible to connect and disconnect under load the two parts of a plug, extension or connector that have a rated current above 32 A.
Art. 8. - this order enters into application the day following its publication.

All MARECHAL® appliances comply with this national decree.

International standards

MARECHAL® appliances comply with the following standards:

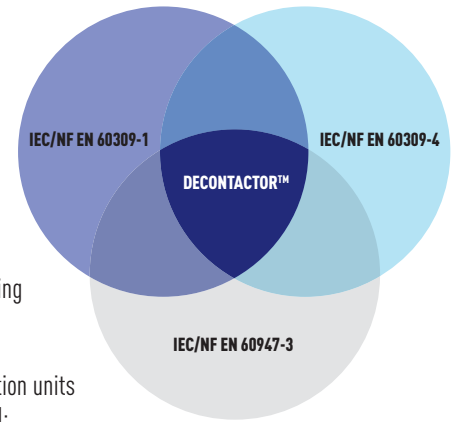
- **IEC/NF EN 60309-1 Ed. 4.2:**
  Plugs, socket-outlets and couplers for industrial purposes - Part 1 General requirements
- **IEC/NF EN 60309-4 Ed. 1.1:**
  Plugs, socket-outlets and couplers for industrial purposes - Part 4: Switched socket-outlets and connectors with or without interlock

The breaking capacity of MARECHAL® decontactors is tested as per the following standard:

- **IEC/NF EN 60947-3:** Low-voltage switchgear and controlgear – Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units

For specific uses, MARECHAL® appliances are based on the following standard:

- **IEC 61984:** Connectors – Safety requirements and tests

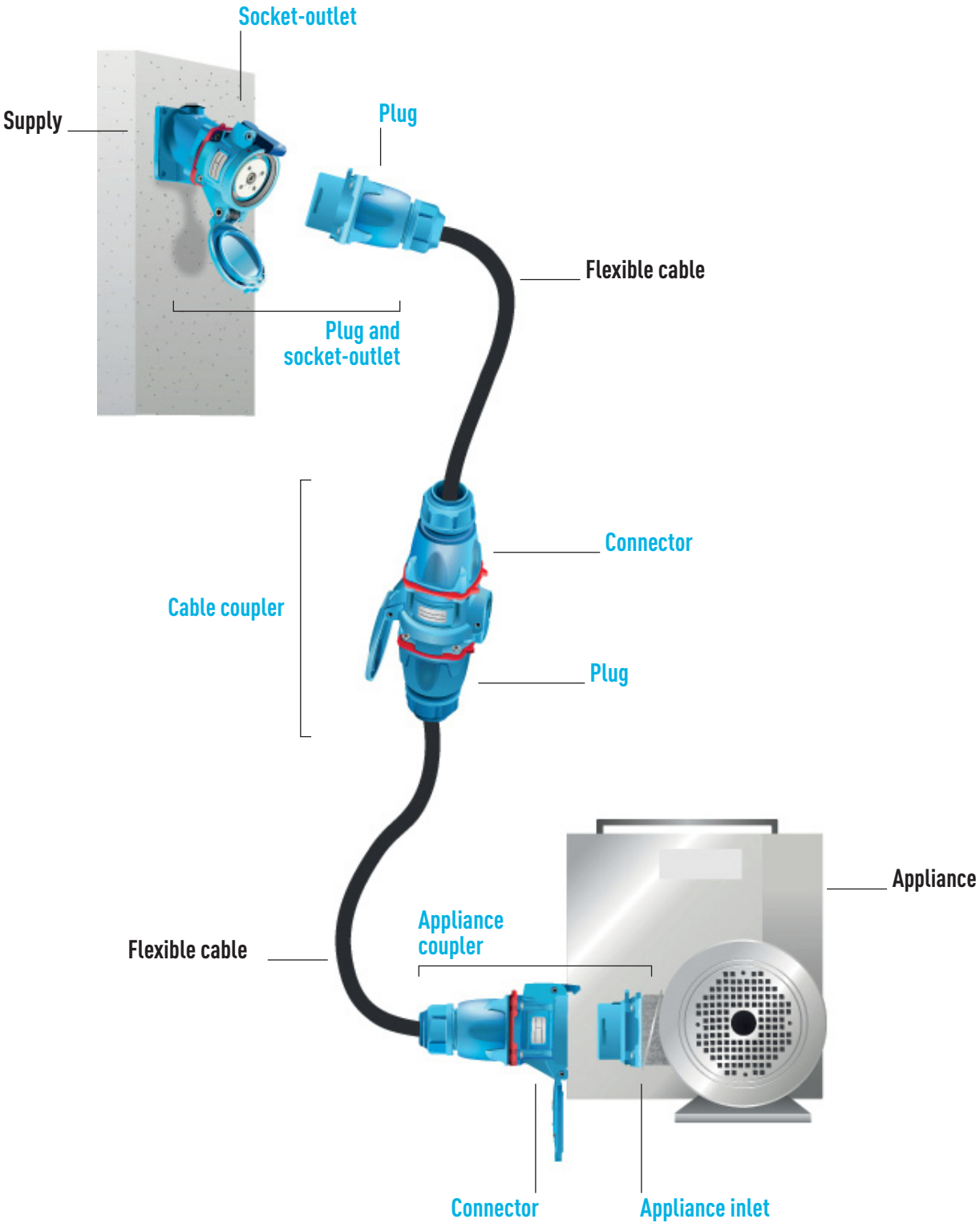


Foreign standards

Depending on each relevant case, MARECHAL® appliances comply with the following international standards:

- **UL 2682 (USA):** Switch-rated plugs and receptacles
- **UL 1682 (USA) and CSA C22.2 N° 182.1-07 (Canada):** Plugs, receptacles, and cable connectors
- **UL 98-508 (USA):** Non-fused disconnect switches - Manual motor controller - Branch circuit disconnect
- **AS 3123 (Australia):** Air-break switches
- **AS 3133 (Australia):** Air-break switches

TERMINOLOGY



SIMPLIFIED DIGIT CODING OF COMMERCIAL PART NUMBERS

7 digits for basic products + 3 digits for specials products

1ST DIGIT — PRODUCT LINE

- **0** = PN - PNC
- **1** = DN
- **2** = DX - DXN
- **3** = DS
- **4** = PF - SP - CS
- **5** = CCH
- **6** = DSN
- **7** = DM
- **8** = DB
- **9** = BOXES

2ND DIGIT — CASING

- **1** = BLUE POLY
- **5** = BLACK POLY
- **9** = METAL

3RD DIGIT — RATING

16 A	E	= PNC
30 A	N/S	= PN
20 A	8	= DN
30 A	1	
50 A	3	
90 A	6	
150 A	9	
30 A	1	= DS
50 A	3	
90 A	6	
150 A	9	
250 A	2	
400 A	4	
20 A	1	= DSN / DXN
32 A	3	
63 A	6	
315 A	3	= PFQ
400 A	4	
400 A	4	= PFC
500 A	5	
600 A	6	
30 A	1	= DM
40 A	3	= DB
75 A	6	
125 A	9	

4TH DIGIT

FORM

4 = Socket-outlet (female) semi-recessed
8 = Inlet (male) semi-recessed
A = Accessories (handle, sleeve, box)

For DX - PXN12C - DXN25C - DXN37C

1 = Plug
3 = Coupler socket
6 = Wall mounting appliance inlet
7 = Inclined socket
9 = Inclined appliance inlet
4 = Socket-outlet (female) semi-recessed
8 = Inlet (male) semi-recessed
A = Accessories (handle, sleeve, box)

See Terminology on page 11

5TH & 6TH DIGIT

VOLTAGE

08 =	20-24 V	50 Hz
06 =	25-28 V	50 Hz
13 =	40-48 V	50 Hz
03 =	110-130/190-230 V	50 Hz
01 =	220-250/380-440 V	50 Hz
09 =	480-500 V	50 Hz
19 =	400/690 V	50 Hz
22 =	1 000 V	a.c.
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	d.c.
20 =	220-250 V	d.c.

Other voltages and frequencies are available on request

7TH DIGIT

PHASING

Alternating current (a.c.)

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	
5	=	1P+N+E	
2	=	2P+E	
6	=	2P+N+E	
3	=	3P+E	
7	=	3P+N+E	
M	=	2P+2P+E	

Direct current (d.c.)

Z	=	2P	
N	=	2P+2P	
J	=	3P	(- / + / 0 V)
9	=	2P+E	
8	=	2P+E	(4 pole break)
P	=	2P+2P+E	
K	=	3P+E	(- / + / 0 V / E)

DSN

COMPACT AND WATERTIGHT DECONTACTOR™

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

page 18

DS

DECONTACTOR™ FOR INDUSTRY

- Safe and simple connection, even at 250 A
- Safety shutter
- GRP or metal casing

page 26

DN

ROBUST DECONTACTOR™

- Automatic IP54/IP55 water- and dust-tight
- Impact-resistant metal casing
- Suitable for heavy industry

page 40

RANGE INDUSTRIAL POWER SUPPLY

This extensive and comprehensive product range covers all industrial applications. With sizes varying from 16 A to 250 A, it offers a wide range of options.

Find all information on our website:

marechal.com

Technical documentation

Product configurator

PNC/PN

COMPACTS CONNECTORS AND PLUGS

- GRP or metal casing
- Automatic IP66/IP67 water- and dust-tight
- Long life

page 52

DB

DISCONNECTABLE MOTOR SWITCH

- AC-3 switch for motors
- Automatic IP66/IP67 water- and dust-tight
- Impact-resistant metal casing

page 58

STAR-DELTA

7 POLE DECONTACTORS AND CONNECTORS

- Star-delta start-up
- Connecting motors with two operating speeds
- Simpler and safer than fixed wiring
- Designed to withstand high overloads

page 66

DSN

COMPACT AND WATERTIGHT DECONTACTOR™ 20 A / 32 A / 63 A

- AUTOMATIC IP66/IP67/IP69k WATER- AND DUST-TIGHT SEALING
- AC-22 AND AC-23 BREAKING CAPACITY
- IMPACT-RESISTANT GRP CASING

With sizes from 20 to 63 A, DSN decontactors are highly compact: a 63 A plug is only 83 mm in diameter. Once connected, the plug and socket is automatically IP66/IP67/IP69k, the socket-outlet is also IP66/IP67/IP69k when the lid is closed.

IP66/IP67/IP69k WATER- AND DUST-TIGHT

The sealing IP66/IP67 (water jet and temporary immersion) is provided automatically without additional operation. It enables the product to be used in extermely wet or dusty environments. The DSN is available up to IP69k for high-pressure cleaning at 100 bar and 80 °C, making it the ideal product for the food industry.

MOUNTING: SWITCH SHOULD BE ON THE UPPER SIDE!

The decontactor is a socket-outlet with integral switching. It does not need to be interlocked with a switch. The switch button is highlit for easier identification. When installing the socket-outlet , ensure the switch button is positioned upwards.

SPECIFICATION

Plug and socket-outlet with incorporated breaking capacity AC-22 / AC-23, IP66/IP67/IP69k without additional operation, safety shutter (socket IP4X/IPXXD) silver-nickel butt contacts and metallic braid, comply with BECMA international standard.

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
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	4
Keying positions [1]	24 for all DSN		
Ambient temperature	-40 °C to +60 °C for all DSN		
Short-circuit current Icc	10 kA for all DSN		

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

DSN decontactors comply with:

- IEC EN 60309-1 & IEC EN 60309-4 European and International standards (plugs and socket-outlets for industrial purposes),
- The European Low Voltage Directive 2006/95/CE,
- 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-22A and AC-23A 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 (French, American, Australian, German, Russian and Canadian inspection laboratories), and by BUREAU VERITAS MARINE.

DSN1 DECONTACTOR™ GRP

20 A
IP66/IP67/IP69k

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DSN1

Wall box poly 30°
611A053

Socket-outlet
6114017

PLUG DSN1

Straight handle poly
611A013

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 mm²
IP protection lid closed	IP66/IP67/IP69k	Stranded wiring (min-max)	1,5 - 4 mm²
IP protection connected plug	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-22A	20 A / 500 V
Load-break capability according to IEC EN 60947-3 / AC-23A	20 A / 400 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DSN1 (20 A)**

INLET male **DSN1 (20 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	611408A	611808A
190 - 230 V	3P+E	6114033	6118033
220 - 250 V	1P+N+E	6114015	6118015
380 - 440 V	3P+E	6114013	6118013
220 - 250 V / 380 - 440 V	3P+N+E	6114017	6118017
480 - 500 V	3P+E	6114093	6118093
480 - 500 V	3P+N+E	6114097	6118097

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

CERTIFICAT N°
FR 60042266D

BOXES

Cable gland not included



	Wall box poly 30°	Wall box metal + Inclined poly 30°	Wall box poly + Inclined poly 70°
Entry			
M20	611A053	611A653	Not drilled and without cable gland Part no. 51AA058

SLEEVES


Inclined poly 30°	Inclined poly 70°
611A057	51AA757

HANDLES





	Straight poly		Straight poly		Angled poly		Straight poly with poly cable gland		Straight poly without cable gland with metric threaded entry
9-18 mm	611A013			01NA313	5-12 mm	611A753	M20	611A253417
5-21 mm			611A413		9-18 mm	611A25325P	M25	611A253418
					14-25 mm	611A25332P	M32	611A253419

INDUSTRIAL-DOMESTIC ADAPTERS


Industrial inlet MARECHAL® 1P+N+E + domestic socket-outlet 10/16 A 230V.

Type	Material	Part no.
France	Poly	6118015D11
UK	Poly	6118015D40
Germany	Poly	6118015D30
Italy	Poly	6118015D06

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844

Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + Z1646

Lockable plug: contact us

E-Stop button
Socket no. + 453

Inlet cap
611A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
611A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18

INFO +

TPM: Electrical inlet with flap/DSN1

Electrical inlet with direct introduction.
See page 116

DSN3 DECONTACTOR™ GRP

32 A
IP66/IP67/IP69k

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DSN3

PLUG DSN3

Wall box poly 30°
613A053

Socket-outlet
6134017

Straight handle poly
613A013

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 mm²
IP protection lid closed	IP66/IP67/IP69k	Stranded wiring (min-max)	2,5 - 10 mm²
IP protection connected plug	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-22A	32 A / 690 V
Load-break capability according to IEC EN 60947-3 / AC-23A	32 A / 400 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DSN3 (32 A)**

INLET male **DSN3 (32 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	613408A	613808A
190 - 230 V	3P+E	6134033	6138033
220 - 250 V	1P+N+E	6134015	6138015
380 - 440 V	3P+E	6134013	6138013
220 - 250 V / 380 - 440 V	3P+N+E	6134017	6138017
660 - 690 V	3P+E	6134193	6138193
380 - 440 V / 660 - 690 V	3P+N+E	6134197	6138197

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

AUXILIARY CONTACTS	
Socket-outlet with 2 auxiliary contacts (30 A / 500 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (30 A / 500 V)	Inlet no. + 972

CERTIFICAT N°
FR 60042266E

BOXES

Cable gland not included

Wall box poly 30°

Wall box metal + Inclined poly 30°

Wall box metal + straight metal sleeve

Wall box poly + Inclined poly 70°

Entry				
M20	613A053	613A653	693A095	Not drilled and without cable gland Part no. 51BA058
M25	613A083	613A653418	693A095418	
M32		613A653419	693A095419	
M40		613A653420	693A095420	

SLEEVES

Inclined poly 30°

Inclined poly 70°

Straight metal

613A027	51BA757	693A127

HANDLES

Straight poly

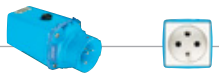
Straight poly with poly cable gland

Straight metal with metal cable gland

Straight poly without cable gland with metric threaded entry

5-21 mm	613A013	5-12 mm	613A753	7-13 mm	613A963	M20	613A253417
		9-18 mm	613A25325P	8-16 mm	613A95325M	M25	613A253418
		14-25 mm	613A25332P			M32	613A253419
		18-32 mm	613A25340P			M40	613A253420

INDUSTRIAL-DOMESTIC ADAPTERS



Industrial inlet MARECHAL® 1P+N+E domestic socket-outlet 10/16 A 230V fuse protection 10 A and 16 A.

Type	Material	Part no.
France	Poly	6138015D11*
UK	Poly	6138015D40
Germany	Poly	6138015D30
Italy	Poly	6138015D06

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844
Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + Z1646

Lockable plug: contact us

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
613A226

Inlet cap
613A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
613A346

180° opening lid Socket no. + 10
Self-returning lid Socket no. + R
180° opening and self-returning lid Socket no. + 18

INFO +

Phase tester

This accessory checks the correct wiring of phases from 250 to 690 V, and tests the phase orientation of three phase sources.
Please consult us.

DSN6 DECONTACTOR™ GRP

63 A
IP66/IP67/IP69k

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DSN6

Wall box poly 70°
51CA058

Socket-outlet
6164017

PLUG DSN6

Straight handle poly
616A013

Inlet
6168017

MAIN FEATURES

Rated current (with wiring according to standard)	63 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	1000 V	Flexible wiring (min-max)	6 - 16 mm²
IP protection lid closed	IP66/IP67/IP69k	Stranded wiring (min-max)	10 - 25 mm²
IP protection connected plug	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-22A	50 A / 690 V
Load-break capability according to IEC EN 60947-3 / AC-23A	63 A / 400 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DSN6 (63 A)**

INLET male **DSN6 (63 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	616408A	616808A
190 - 230 V	3P+E	6164033	6168033
220 - 250 V	1P+N+E	6164015	6168015
380 - 440 V	3P+E	6164013	6168013
220 - 250 V / 380 - 440 V	3P+N+E	6164017	6168017
660 - 690 V	3P+E	6164193	6168193
380 - 440 V / 660 - 690 V	3P+N+E	6164197	6168197

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

AUXILIARY CONTACTS	
Socket-outlet with 2 auxiliary contacts (16 A / 400 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (16 A / 400 V)	Inlet no. + 972
Socket-outlet with 4 auxiliary contacts (16 A / 400 V)	Socket no. + 264
Inlet with 4 auxiliary contacts (16 A / 400 V)	Inlet no. + 264

CERTIFICAT N°
FR 60037180-537184N

BOXES

Cable gland not included





	Wall box poly 30°	Wall box metal + Inclined poly 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box poly + Inclined poly 70°
Entry					
M25	616A053	616A653	696A095	873A053	Not drilled and without cable gland Part no. 51CA058
M32		616A653419	696A095419	873A053419	
M40		616A653420	696A095420	873A053420	

SLEEVES




Inclined poly 30°	Inclined poly 70°	Straight metal	Inclined metal 70°
616A027	51CA757	696A127	873A087

HANDLES




Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
10-30 mm	616A013	5-12 mm	616A25320P	7-13 mm	616A95320M	M20	616A253417
10-30 mm	616A473*	9-18 mm	616A753	8-16 mm	616A963	M25	616A253418
		14-25 mm	616A25332P	16-24 mm	616A95332M	M32	616A253419
		18-32 mm	616A25340P	22-32 mm	616A95340M	M40	616A253420

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844

Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + Z1646

Lockable plug: contact us

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
616A226

Inlet cap
616A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
616A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18

DS

DECONTACTOR™ FOR INDUSTRY
30 A / 50 A / 90 A / 150 A / 250 A

- SAFE AND SIMPLE CONNECTION, EVEN AT 250 A
- SAFETY SHUTTER
- GRP OR METAL CASING

The DS family of decontactors offer ratings from 30 to 250 A (ratings specified by IEC 60309-1). Both sockets and inlets are available in metal version from 90 A rating.

MOUNTING: SWITCH SHOULD BE ON THE UPPER SIDE!

The decontactor is a socket-outlet with integral switching. It does not need to be interlocked with a switch. The switch button is highlit for easier identification. When installing the socket-outlet , ensure the switch button is positioned upwards.

SPECIFICATION

IP54/ IP55 Plug and socket-outlet with integral AC-22 / AC-23 switching device, safety shutter (IP4X/IPXXD socket-outlet), silver-nickel butt contacts with metallic braid, comply with BECMA international standard.

TECHNICAL FEATURES

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

	DS1	DS3	DS6	DS9	DS2
Rated current (In)	30 A	50 A	90 A	150 A	250 A
Umax	690 V	1 000 V	1 000 V	1 000 V	1 000 V
AC-22 switching capability	16 A / 690 V	32 A / 690 V	63 A / 690 V	150 A / 400 V	250 A / 400 V
AC-23 switching capability	30 A / 400 V	50 A / 400 V	90 A / 400 V	100 A / 440 V	160 A / 440 V
Auxiliary contacts (optional)	2	4	4	6	7
Keying positions [1]	24	24	24	24	12
Ambient temperature	-40 °C to +60 °C for all DS				
Short-circuit current Icc	10 kA for all DS				

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

DS decontactors comply with:

- IEC EN 60309-1 & IEC EN 60309-4 European and International standards (plugs and socket-outlets for industrial purposes),
- The European Low Voltage Directive 2006/95/CE,
- 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-22A and AC-23A 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), CCC and cCSAus (French, American, Australian, German, Russian, Chinese and Canadian inspection laboratories).

DS1 DECONTACTOR™ GRP

30 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS1

Wall box poly 30°
311A053

Socket-outlet
3114017

PLUG DS1

Straight handle poly
311A013

Inlet
3118017

MAIN FEATURES

Rated current (with wiring according to standard)	30 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	690 V	Flexible wiring (min-max)	2,5 - 6 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	2,5 - 10 mm²
IP protection connected plug	IP54	Other wiring	on request
Shock resistance	IK08	Keying positions	24

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1	30 A / 690 V
Load-break capability according to IEC EN 60947-3 / AC-22A	(30 A / 500 V) or (16 A / 690 V)
Load-break capability according to IEC EN 60947-3 / AC-23A	30 A / 400 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

	SOCKET-OUTLET female DS1 (30 A) 	**INLET** male DS1 (30 A) 
Voltage 50 Hz	**Polarity**	**Part no.**	**Part no.**
20 - 24 V	2P	311408A	311808A
190 - 230 V	3P+E	3114033	3118033
220 - 250 V	1P+N+E	3114015	3118015
380 - 440 V	3P+E	3114013	3118013
220 - 250 V / 380 - 440 V	3P+N+E	3114017	3118017
660 - 690 V	3P+E	3114193	3118193
380 - 440 V / 660 - 690 V	3P+N+E	3114197	3118197

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

AUXILIARY CONTACTS	
Socket-outlet with 2 auxiliary contacts (30 A / 500 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (30 A / 500 V)	Inlet no. + 972

CERTIFICAT N°
FR 60042266A

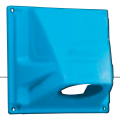
BOXES
Cable gland not included





	Wall box poly 30°	Wall box metal + Inclined poly 30°	Wall box metal 20°	Wall box metal + straight metal sleeve	Wall box poly + Inclined poly 70°
Entry					
M20	311A053	311A653	391A053	391A095	Not drilled and without cable gland Part no. 51BA058
M25	311A083	311A653418		391A095418	
M32		311A653419		391A095419	
M40		311A653420		391A095420	

SLEEVES

Inclined poly 30°	Inclined poly 70°	Inclined metal 30°	Straight metal
311A027	51BA757	391A027	391A127

HANDLES




Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry	
5 - 21mm	311A013	5-12 mm	311A753	7 - 13 mm	311A963	M20	311A253417
		9-18 mm	311A25325P	8 - 16 mm	311A95325M	M25	311A253418
		14-25 mm	311A25332P			M32	311A253419
		18-32 mm	311A25340P			M40	311A253420

INDUSTRIAL-DOMESTIC ADAPTERS


Industrial inlet MARECHAL® 1P+N+E domestic socket-outlet 10/16 A 230V fuse protection 10 A and 16 A.

Type	Material	Part no.
France	Poly	3118015D11
UK	Poly	3118015D40
Germany	Poly	3118015D30
Italy	Poly	3118015D06

I.D.D. EXTENSION CABLE
(do not connect to a generator)

Extension with a IP44 domestic plug - 10/16 A 230V 2P+E + DS1 IP55 coupler socket - 230 V 1P+N+E, IP55 differential protection unit - 10 or 30 mA with reset (rated current 16 A)

Diff. Protection	Length	Part no.
10 mA	1,80 m	3---93155-1
30 mA	1,80 m	3---93155-3

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
311A226

Inlet cap
311A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
613A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18

DS3 DECONTACTOR™ GRP

50 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS3

Wall box poly 30°
313A053

Socket-outlet
3134017

PLUG DS3

Straight handle poly
313A013

Inlet
3138017

MAIN FEATURES

Rated current (with wiring according to standard)	50 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	1000 V	Flexible wiring (min-max)	6 - 16 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	10 - 25 mm²
IP protection connected plug	IP54	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	(50 A / 690 V) or (32 A / 1 000 V)
Load-break capability according to IEC EN 60947-3 / AC-22A	32 A / 690 V
Load-break capability according to IEC EN 60947-3 / AC-23A	50 A / 400 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

		SOCKET-OUTLET female **DS3 (50 A)** 	**INLET** male **DS3 (50 A)** 
Voltage 50 Hz	**Polarity**	**Part no.**	**Part no.**
20 - 24 V	2P	313408A	313808A
190 - 230 V	3P+E	3134033	3138033
220 - 250 V	1P+N+E	3134015	3138015
380 - 440 V	3P+E	3134013	3138013
220 - 250 V / 380 - 440 V	3P+N+E	3134017	3138017
660 - 690 V	3P+E	3134193	3138193
380 - 440 V / 660 - 690 V	3P+N+E	3134197	3138197
1 000 V	3P+E	3134223	3138223

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

AUXILIARY CONTACTS

Socket-outlet with 2 auxiliary contacts (16 A / 400 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (16 A / 400 V)	Inlet no. + 972
Socket-outlet with 4 auxiliary contacts (16 A / 400 V)	Socket no. + 264
Inlet with 4 auxiliary contacts (16 A / 400 V)	Inlet no. + 264

LCIE CERTIFICAT N° FR 60042266B

BOXES

Cable gland not included





	Wall box poly 30°	Wall box metal + Inclined poly 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box poly + Inclined poly 70°
Entry					
M20		313A653417	393A095417	873A053417	Not drilled and without cable gland Part no. 51CA058
M25	313A053	313A653	393A095	873A053	
M32		313A653419	393A095419	873A053419	
M40		313A653420	393A095420	873A053420	


Wall box metal 20° : Part no. 393A053 for M20 entry

SLEEVES





	Inclined poly 30°	Inclined poly 70°	Inclined metal 30°	Straight metal	Inclined metal 70°
	313A027	51CA757	393A027	393A127	873A087

HANDLES





	Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
10-30 mm	313A013	5-12 mm	313A25320P	7-13 mm	313A95320M	M20	313A253417
10-30 mm	313A473*	9-18 mm	313A753	8-16 mm	313A963	M25	313A253418
		14-25 mm	313A25332P	16-24 mm	313A95332M	M32	313A253419
		18-32 mm	313A25340P	22-32 mm	313A95340M	M40	313A253420

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
313A226

Inlet cap
313A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
616A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

DS6 DECONTACTOR™ GRP OR METAL

90 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS6

Wall box poly 30°
316A053

Socket-outlet
3164017

PLUG DS6

Straight handle poly
316A013

Inlet
3168017

MAIN FEATURES

Rated current (with wiring according to standard)	90 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	1000 V	Flexible wiring (min-max)	10 - 25 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	10 - 35 mm²
IP protection connected plug	IP54	Other wiring	on request
Shock resistance (poly casing)	IK08	Keying positions	24
Shock resistance (metal casing)	IK09		

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	(90 A / 690 V) or (63 A / 1000 V)
Load-break capability according to IEC EN 60947-3 / AC-22A	63 A / 690 V
Load-break capability according to IEC EN 60947-3 / AC-23A	90 A / 400 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DS6 (90 A)**

INLET male **DS6 (90 A)**

Voltage 50 Hz	Polarity	Part no.*	Part no.*
190 - 230 V	3P+E	3164033	3168033
220 - 250 V	1P+N+E	3164015	3168015
380 - 440 V	3P+E	3164013	3168013
220 - 250 V / 380 - 440 V	3P+N+E	3164017	3168017
660 - 690 V	3P+E	3164193	3168193
380 - 440 V / 660 - 690 V	3P+N+E	3164197	3168197
1000 V	3P+E	3164223	3168223

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

*** The listed Part nos. call up GRP casings. For metal casings, replace prefix 31 by 39.**

AUXILIARY CONTACTS	
Socket-outlet with 2 auxiliary contacts (5 A / 500 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (5 A / 500 V)	Inlet no. + 972
Socket-outlet with 4 auxiliary contacts (5 A / 500 V)	Socket no. + 264
Inlet with 4 auxiliary contacts (5 A / 500 V)	Inlet no. + 264

LCIE

CERTIFICAT N°
FR 60042266C

BOXES

Cable gland not included





	Wall box poly 30°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box poly + Inclined poly 70°
Entry					
M25		396A653418	396A095418	876A053418	Not drilled and without cable gland Part no. 51DA058
M32		396A653419	396A095419	876A053419	
M40	316A053	396A653	396A095	876A053	
M50		396A653429	396A095429	876A053429	


Wall box metal 20° : Part no. 396A053 for M40 entry

SLEEVES





Inclined poly 30°	Inclined poly 70°	Inclined metal 30°	Straight metal	Inclined metal 70°
316A027	51DA757	396A027	396A127	876A087

HANDLES




Straight poly			Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
13-35 mm	316A013	9-18 mm	316A25325P	8-16 mm	316A95325M	M25	316A253418
13-35 mm	316A473*	14-25 mm	316A25332P	16-24 mm	316A95332M	M32	316A253419
		18-32 mm	316A753	22-32 mm	316A963	M40	316A253420
		24-38 mm	316A25350P	34-44 mm	316A95350M	M50	316A253429

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844
Lockable plug: contact us
Padlocking device 1 to 6 padlocks
873A541


E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
316A226

Inlet cap
316A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
316A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS9

Wall box metal 30°
399A053

Socket-outlet
3194017

PLUG DS9

Straight elastomer
659A013 ...

Inlet
3198017

MAIN FEATURES

Rated current (with wiring according to standard)	150 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	1000 V	Flexible wiring (min-max)	25 - 70 mm²
IP protection lid closed	IP66/IP67	Stranded wiring (min-max)	25 - 95 mm²
IP protection connected plug	IP66/IP67	Keying positions	24
Shock resistance (poly casing)	IK08		

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	(150 A / 500 V) or (125 A / 690 V)
Load-break capability according to IEC EN 60947-3 / AC-22A	(90 A / 690 V) or (150 A / 400 V)
Load-break capability according to IEC EN 60947-3 / AC-23A	100 A / 440 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DS9 (150 A)**

INLET male **DS9 (150 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
190 - 230 V	3P+E	3194033	3198033
220 - 250 V	1P+N+E	3194015	3198015
380 - 440 V	3P+E	3194013	3198013
220 - 250 V / 380 - 440 V	3P+N+E	3194017	3198017
660 - 690 V	3P+E	3194193	3198193
380 - 440 V / 660 - 690 V	3P+N+E	3194197	3198197
1000 V	3P+E	3194223	3198223

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

AUXILIARY CONTACTS	
Socket-outlet with 2 auxiliary contacts (10 A / 400 V) **Inlet with 2 auxiliary contacts (10 A / 400 V)**	Socket no. + 262 Inlet no. + 262
Socket-outlet with 4 auxiliary contacts (10 A / 400 V) **Inlet with 4 auxiliary contacts (10 A / 400 V)**	Socket no. + 264 Inlet no. + 264
Socket-outlet with 6 auxiliary contacts (10 A / 400 V) **Inlet with 6 auxiliary contacts (10 A / 400 V)**	Socket no. + 976 Inlet no. + 976

LCIE

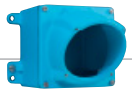
CERTIFICAT N°
FR 617256A

BOXES

Cable gland not included








	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry						
M32				879A823419	399A653419	399A095419
M40				879A823420	399A653420	399A095420
M50	879A853	399A053	399A895	879A823	399A653	399A095
M63	879A853463	399A053463	399A895463	879A823463	399A653463	399A095463
M75	879A853475	399A053475	399A895475			

SLEEVES




Inclined poly 30°	Inclined metal 30°	Inclined metal 70°	Straight metal
319A027	399A027	879A087	399A127

HANDLES



	Straight elastomer		Straight poly with poly cable gland		Straight poly without cable gland with metric threaded entry
18-25 mm	659A013D25	35-48 mm	619A25363P	M63	619A253463
25-35 mm	659A013D35				
35-45 mm	659A013D45				
45-49 mm	659A013D49				

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us
Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet contact us

Inlet cap
319A126

Self-returning lid Socket no. + R

INFO +

DS9 with 6 auxiliary contacts

With up to 6 auxiliary contacts, DS9 can connect a thermistor and control a process in addition to the main power connection. There is no need to operate an additional connector.

This feature allows for the connection of power supply and between the control board and the machine.

DS9 DECONTACTOR™ METAL

150 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS9

Wall box metal 70°
879A823

Socket-outlet
3994017

PLUG DS9

Straight elastomer
659A013 ...

Inlet
3998017

MAIN FEATURES

Rated current (with wiring according to standard)	150 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	1000 V	Flexible wiring (min-max)	25 - 70 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	25 - 95 mm²
IP protection connected plug	IP54	Keying positions	24
Shock resistance (metal casing)	IK09		

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	(150 A / 500 V) or (125 A / 690 V)
Load-break capability according to IEC EN 60947-3 / AC-22A	(90 A / 690 V) or (150 A / 400 V)
Load-break capability according to IEC EN 60947-3 / AC-23A	100 A / 440 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

Voltage 50 Hz	Polarity	**SOCKET-OUTLET** female DS9 (150 A) Part no.	**INLET** male DS9 (150 A) Part no.
190 - 230 V	3P+E	3994033	3998033
220 - 250 V	1P+N+E	3994015	3998015
380 - 440 V	3P+E	3994013	3998013
220 - 250 V / 380 - 440 V	3P+N+E	3994017	3998017
660 - 690 V	3P+E	3994193	3998193
380 - 440 V / 660 - 690 V	3P+N+E	3994197	3998197
1000 V	3P+E	3994223	3998223

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

AUXILIARY CONTACTS	
Socket-outlet with 2 auxiliary contacts (10 A / 400 V) **Inlet with 2 auxiliary contacts (10 A / 400 V)**	Socket no. + 262 Inlet no. + 262
Socket-outlet with 4 auxiliary contacts (10 A / 400 V) **Inlet with 4 auxiliary contacts (10 A / 400 V)**	Socket no. + 264 Inlet no. + 264
Socket-outlet with 6 auxiliary contacts (10 A / 400 V) **Inlet with 6 auxiliary contacts (10 A / 400 V)**	Socket no. + 976 Inlet no. + 976

LCIE

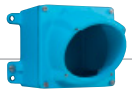
CERTIFICAT N°
FR 617256A

BOXES

Cable gland not included








	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry						
M32				879A823419	399A653419	399A095419
M40				879A823420	399A653420	399A095420
M50	879A853	399A053	399A895	879A823	399A653	399A095
M63	879A853463	399A053463	399A895463	879A823463	399A653463	399A095463
M75	879A853475	399A053475	399A895475			

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
399A027	879A087	399A127

HANDLES




	Straight elastomer		Straight poly with metal cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
18-25 mm	659A013D25	35-48 mm	619A25363M	22-32 mm	319A95340M	M63	619A253463
25-35 mm	659A013D35			34-44 mm	319A963		
35-45 mm	659A013D45			35-48 mm	319A95363M		
45-49 mm	659A013D49						

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
contact us

Inlet cap
319A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

DS2 DECONTACTOR™ METAL

250 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS2

Wall box metal 60°
392A053

Socket-outlet
3924017

PLUG DS2

Straight elastomer
352A013D45

Inlet
3928017

MAIN FEATURES

Rated current (with wiring according to standard)	250 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	1000 V	Flexible wiring (min-max)	70 - 95 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	70 - 120 mm²
IP protection connected plug	IP54	Keying positions	12
Shock resistance	IK09		

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	(250 A / 500 V) or (200 A / 690 V)
Load-break capability according to IEC EN 60947-3 / AC-22A	(250 A / 400 V) or (125 A / 690 V)
Load-break capability according to IEC EN 60947-3 / AC-23A	160 A / 440 V
Short-circuit current Icc	10 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DS2 (250 A)**

INLET male **DS2 (250 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
190 - 230 V	3P+E	3924033	3928033
380 - 440 V	3P+E	3924013	3928013
220 - 250 V / 380 - 440 V	3P+N+E	3924017	3928017
660 - 690 V	3P+E	3924193	3928193
380 - 440 V / 660 - 690 V	3P+N+E	3924197	3928197
1000 V	3P+E	3924223	3928223

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

AUXILIARY CONTACTS	
Socket-outlet with 2 auxiliary contacts (5 A / 400 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (5 A / 400 V)	Inlet no. + 972

For more than 2 auxiliary contacts, please contact us.

CERTIFICAT N°
FR 617263A

BOXES
Cable gland not included

Wall box metal + Inclined metal 60°

Entry	
M63	392A053
M75	392A053475

BOXES
Cable gland included

Wall box 70° SS

Entry	
35-46 mm	394A02563M
48-65 mm	392A02575M

SLEEVES

Inclined metal 60°

392A027

HANDLES

Straight elastomer

25-35 mm	352A013D35	40-54 mm	352A013D45
35-45 mm	352A013D45	54-63 mm	352A013D49
45-49 mm	352A013D49		

Straight metal

392A913	M63
392A913-63	M75

Straight poly without cable gland with metric threaded entry

392A253463	40-63 mm
392A253475	

Straight poly with gland for mechanical retention only

392A253D63

INFO +

400 A / 1000 V connecting device

DS4 is aplug and socket-outlet that can work with up to 400 A as a connector without load-breaking capacity. It is is available in 2P+E or 3P+E version with 2 pilot contacts for electrical interlocking.

Advantage: The DS4 has the same interface as the DS2 and is just as easy to operate.

See HIGHT CURRENT RANGE (page 100).

ACCESSORIES & OPTIONS

Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

Inlet cap
312A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

DN ROBUST DECONTACTOR™ 20 A / 30 A / 50 A / 90 A / 150 A

- AUTOMATIC IP54/IP55 WATER- AND DUST-TIGHT
- IMPACT-RESISTANT METAL CASING
- SUITABLE FOR HEAVY INDUSTRY

The DN family of decontactors cover ratings from 30 to 150 A (ratings specified by IEC 60309-1). DN decontactors offer safety and reliability in heavy duty environments. The metal casings and accessories are anticorrosion treated.

SILVER-NICKEL BUTT CONTACTS

MARECHAL® products are manufactured with high-quality materials adapted to suit harsh environments. They are fitted with spring-loaded butt contacts guaranteeing a permanent and long-lasting connection. Silver-nickel tips, at the end of each contact, ensure high-quality electrical performance and excellent resistance to humid and corrosive environments, even after years of use.

SPECIFICATION

Metal-bodied plug and socket-outlet with integral switching device AC-22, silver-nickel butt contacts with metallic braid, comply with BECMA international standard.

TECHNICAL FEATURES

Plugs and sockets with integral load-break switching capability according to IEC EN 60947-3.

	DN8	DN1	DN3	DN6	DN9
Rated current (In)	20 A	30 A	50 A	90 A	150 A
Umax	500 V	500 V	500 V	500 V	440 V
AC-22 switching capability	20 A / 400 V	30 A / 400 V	50 A / 400 V	90 A / 400 V	150 A / 400 V
Auxiliary contacts (optional)	-	-	-	4	-
Keying positions [1]	16	16	16	16	4
Ambient temperature	-40 °C to +60 °C for all DN				

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

DN decontactors comply with:

- The essential requirements of IEC EN 60309-1 & IEC EN 60309-4 European and International standards (plugs and socket-outlets for industrial purposes),
- The European Low Voltage Directive 2006/95/CE,
- 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 load-break capability for AC-22 category described in IEC EN 60947-3.

Also certified by TR CU (GOST) (Russian inspection laboratory).

EAC

DN8 DECONTACTOR™ GRP OR METAL

20 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN8

Wall box metal 20°
198A053

Socket-outlet
1984017

PLUG DN8

Straight handle poly
118A013

Inlet
1988017

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 - 6 mm²
IP protection lid closed	IP55	Solid or stranded wiring (min-max)	1,5 - 10 mm²
IP protection connected plug	IP54	Other wiring	on request
Shock resistance (poly casing)	IK08	Keying positions	16
Shock resistance (metal casing)	IK09		

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-22A	(20 A / 400 V) or (10 A / 500 V)

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DN8 (20 A)**

INLET male **DN8 (20 A)**

Voltage 50 Hz	Polarity	Part no.*	Part no.*
20 - 24 V	2P	198408A	198808A
190 - 230 V	3P+E	1984033	1988033
220 - 250 V	1P+N+E	1984015	1988015
380 - 440 V	3P+E	1984013	1988013
220 - 250 V / 380 - 440 V	3P+N+E	1984017	1988017
480 - 500 V	3P+E	1984093	1988093
480 - 500 V	3P+N+E	1984097	1988097

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

*** The listed Part nos. call up metal casings. For GRP casings, replace prefix 19 by 11**

BOXES
Cable gland not included

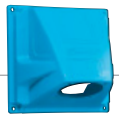




	Wall box metal 20°	Wall box poly 30°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve	Wall box poly + Inclined poly 70°
Entry					
M20	198A053	118A053	198A653	198A095	Not drilled and without cable gland Part no. 51BA058
M25			198A653418	198A095418	
M32			198A653419	198A095419	
M40			198A653420	198A095420	

SLEEVES





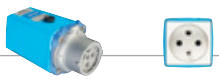

Inclined poly 30°	Inclined metal 30°	Inclined poly 70°	Straight metal
118A027	198A027	51BA757	198A127

HANDLES




Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry	
5-21 mm	118A013	5-12 mm	198A753	7-13 mm	198A963	M20	198A253417
		9-18 mm	198A25325P	8-16 mm	198A95325M	M25	198A253418
		14-25 mm	198A25332P			M32	198A253419
		18-32 mm	198A25340P			M40	198A253420

INDUSTRIAL-DOMESTIC ADAPTERS



Industrial inlet MARECHAL® 1P+N+E + domestic socketoutlet 10/16 A 230V.

Type	Material	Part no.
France	GRP	1188015D11
France	Metal	1988015D11
UK	GRP	1188015D40
UK	Metal	1988015D40
Germany	GRP	1188015D30
Germany	Metal	1988015D30
Italy	GRP	1188015D06
Italy	Metal	1988015D06

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844
Lockable plug: contact us
Padlocking device 1 to 6 padlocks
873A541


E-Stop button
Socket no. + 453

Inlet cap
198A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 metal bodies (socket & inlet)	Part no. + 600

DN1 DECONTACTOR™ METAL

30 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN1

Wall box metal 20°
191A053

Socket-outlet
1914017

PLUG DN1

Straight handle poly
191A013

Inlet
1918017

MAIN FEATURES

Rated current (with wiring according to standard)	30 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	2,5 - 6 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	2,5 - 10 mm²
IP protection connected plug	IP54	Other wiring	on request
Shock resistance (metal casing)	IK09	Keying positions	16

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	30 A / 500 V
Load-break capability according to IEC EN 60947-3 / AC-22A	(30 A / 400 V) or (16 A / 500 V)

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DN1 (30 A)**

INLET male **DN1 (30 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	191408A	191808A
190 - 230 V	3P+E	1914033	1918033
220 - 250 V	1P+N+E	1914015	1918015
380 - 440 V	3P+E	1914013	1918013
220 - 250 V / 380 - 440 V	3P+N+E	1914017	1918017
480 - 500 V	3P+E	1914093	1918093
480 - 500 V	3P+N+E	1914097	1918097

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

BOXES

Cable gland not included




	Wall box metal 20°	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry				
M20	191A053	873A053417	191A653	191A095
M25	191A053418	873A053	191A653418	191A095418
M32	191A053419	873A053419	191A653419	191A095419
M40		873A053420	191A653420	191A095420

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
191A027	873A087	191A127

HANDLES





	Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
10-30 mm	191A013	5-12 mm	191A753	7-13 mm	191A963	M20	191A253417
10-30 mm	191A473*	9-18 mm	191A25325P	8-16 mm	191A95325M	M25	191A253418
		14-25 mm	191A25332P	16-24 mm	191A95332M	M32	191A253419
		18-32 mm	191A25340P	22-32 mm	191A95340M	M40	191A253420

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Inlet cap
191A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

DN3 DECONTACTOR™ METAL

50 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN3

Wall box metal 20°
193A053

Socket-outlet
1934017

PLUG DN3

Straight handle poly
193A013

Inlet
1938017

MAIN FEATURES

Rated current (with wiring according to standard)	50 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	2,5 - 16 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	2,5 - 25 mm²
IP protection connected plug	IP54	Other wiring	on request
Shock resistance (metal casing)	IK09	Keying positions	16

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	50 A / 500 V
Load-break capability according to IEC EN 60947-3 / AC-22A	(50 A / 400 V) or (32 A / 500 V)

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female
DN3 (50 A)

INLET male
DN3 (50 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	193408A	193808A
190 - 230 V	3P+E	1934033	1938033
220 - 250 V	1P+N+E	1934015	1938015
380 - 440 V	3P+E	1934013	1938013
220 - 250 V / 380 - 440 V	3P+N+E	1934017	1938017
480 - 500 V	3P+E	1934093	1938093
480 - 500 V	3P+N+E	1934097	1938097

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

BOXES

Cable gland not included




	Wall box metal 20°	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry				
M25	193A053	876A053	193A653	193A095
M32		876A053419	193A653419	193A095419
M40		876A053420	193A653420	193A095420
M50		876A053429	193A653429	193A095429

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
193A027	876A087	193A127

HANDLES





	Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
13-35 mm	193A013	5-12 mm	193A25320P	7-13 mm	193A95320M	M20	193A253417
13-35 mm	193A473*	9-18 mm	193A753	8-16 mm	193A963	M25	193A253418
		14-25 mm	193A25332P	16-24 mm	193A95332M	M32	193A253419
		18-32 mm	193A25340P	22-32 mm	193A95340M	M40	193A253420

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

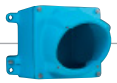
E-Stop button
Socket no. + 453

Inlet cap
193A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN6



Wall box metal 30°
196A653

Socket-outlet
1964017

PLUG DN6

Straight elastomer
659A013D25

Inlet
1968017

MAIN FEATURES

Rated current (with wiring according to standard)	90 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	10 - 25 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	10 - 35 mm²
IP protection connected plug	IP54	Other wiring	on request
Shock resistance (metal casing)	IK09	Keying positions	16

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	90 A / 500 V
Load-break capability according to IEC EN 60947-3 / AC-22A	(90 A / 400 V) or (63 A / 500 V)

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female
DN6 (90 A)

INLET male
DN6 (90 A)

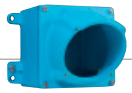
Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	196408A	196808A
190 - 230 V	3P+E	1964033	1968033
220 - 250 V	1P+N+E	1964015	1968015
380 - 440 V	3P+E	1964013	1968013
220 - 250 V / 380 - 440 V	3P+N+E	1964017	1968017
480 - 500 V	3P+E	1964093	1968093
480 - 500 V	3P+N+E	1964097	1968097

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

AUXILIARY CONTACTS	
Socket-outlet with 4 auxiliary contacts (5 A / 400 V)	Socket no. + 264
Inlet with 4 auxiliary contacts (5 A / 400 V)	Inlet no. + 264

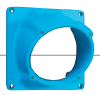
BOXES

Cable gland not included


	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry			
M32	879A823419	196A653419	196A095419
M40	879A823420	196A653420	196A095420
M50	879A823	196A653	196A095
M63	879A823463	196A653463	196A095463

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
196A027	879A087	196A127

HANDLES




Straight elastomer		Straight poly with metal cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry	
18-25 mm	659A013D25	35-48 mm	619A25363M	16-24 mm	196A95332M	M63	619A253463
25-35 mm	659A013D35			22-32 mm	196A963		
35-45 mm	659A013D45			34-44 mm	196A95350M		

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Inlet cap
196A126

Closing mechanism
Draw lever only: 196A376
Draw plate only: 196A396

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

INFO +

Durability in harsh environments

The DN decontactor is designed and built to resist in harsh environments.
Its metal body resists mechanical abuse and corrosion; its components are dimensioned to be durable in heavy industry and mines. The interior mouldings in both outlet and inlet provide effective protection against dust.

DN9 DECONTACTOR™ METAL

150 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN9

Wall box metal 30°
199A053

Socket-outlet
1994013

PLUG DN9

Straight elastomer
659A013D35

Inlet
1998013

MAIN FEATURES

Rated current (with wiring according to standard)	150 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	440 V	Flexible wiring (min-max)	16 - 50 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	25 - 70 mm²
IP protection connected plug	IP54	Other wiring	on request
Shock resistance (metal casing)	IK09	Keying positions	4

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	150 A / 440 V
Load-break capability according to IEC EN 60947-3 / AC-22A	150 A / 400 V

SOCKET-OUTLET female **DN9 (150 A)**

INLET male **DN9 (150 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
190 - 230 V	3P+E	1994033	1998033
380 - 440 V	3P+E	1994013	1998013

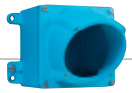
▶ Other voltages, frequencies and contact configurations are available (see page 10).

BOXES

Cable gland not included

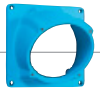







	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry						
M32				879A823419	199A653419	199A095419
M40				879A823420	199A653420	199A095420
M50	879A853	399A053	399A895	879A823	199A653	199A095
M63	879A853463	399A053463	399A895463	879A823463	199A653463	199A095463
M75	879A853475	399A053475	399A895475			

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
199A027	879A087	199A127

HANDLES




	Straight elastomer		Straight poly with metal cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
25-35 mm	659A013D35	35-48 mm	619A25363M	22-32 mm	199A95340M	M63	619A253463
35-45 mm	659A013D45			34-44 mm	199A963		
45-49 mm	659A013D49			35-48 mm	199A95363M		

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844
Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Inlet cap
199A126

Closing mechanism
Draw lever only: 199A376
Draw plate only: 199A396

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

PNC

COMPACT CONNECTOR 16 A

- GLASSFIBRE REINFORCED THERMOPLASTIC UL94 V-0
- IP66/IP67AS STANDARD (IP68 ON REQUEST)
- LONG LIFE

The PNC is a compact and rugged connector designed for all types of aggressive environments (humidity, corrosion, pollution) found in many industrial sectors including transport infrastructure.
MARECHAL®'s technically advanced silver-nickel butt contact system assures next level performance no matter the conditions.

ELECTRICAL FEATURES

Voltage	480 V
Impulse withstand voltage	5 kV / Pollution degree 3
Contact resistance	< 2mΩ
Permitted current range	4-20 mA / 16 A
Polarity	3P+N+E
Conductors accepted	From 0,75 mm^2 to 2,5 mm^2 - Mechanical terminals
Cable diameter	From 11 to 15 mm (smaller ø available according to specification)

CLIMATIC FEATURES

Ambient temperature	-40 °C à +100 °C
IP protection Socket with cap	IP66/IP67 IP69K 100bar (1450 PSI) 80 °C
IP protection connected plug	IP66/IP67 IP68 tested at 10 meters deep for 15 days (please contact us for references) IP69K 100bar (1450 PSI) 80 °C
Salt, Fog performance	200 h minimum not connected - More than 1000 h connected
Resistance to fluids	Motor oils, petrol,fats, detergents...

MECHANICAL FEATURES

Casing & insulator	Glassfibre reinforced thermoplastic UL94 V-0
Butt contacts	Copper alloy with silver-nickel tips
Contact protection	Tinning
Load cycles	More than 2000 cycles
Shock resistance	IK08
Vibration	Frequency 5-1000 Hz, 1g (90 minutes on each critical frequency) according to IEC 6068-2-6

STANDARDS ASPECTS

PNC connectors comply with:

- The requirements of IEC 61984, IEC 60529, IEC 62262, IEC 68-2-6 International standards,
- The European Low Voltage Directive 2006/95/CE,
- The French NF C 15-100 standard,
- The decrees relating to workers' protection in Belgium, Spain and Italy.

Also certified by TR CU (GOST) (Russian inspection laboratory).

EAC

SPECIFICATION

IP66/IP67 plug and socket-outlet (IP68 on specification) silver-nickel butt contacts and metallic braid, comply with BECMA international standard

SOCKET-OUTLET female **(with lock nut)** PNC (16 A)

INLET male **(with lock nut)** PNC (16 A)

Umax	Polarity	Part no.	Part no.
480 V	5P	01E4007	01E8007

COUPLER SOCKET female PNC (16 A)

PLUG male PNC (16 A)

Umax	Polarity	Part no.	Part no.
480 V	5P	01E3007	01E1007

SOCKET-OUTLET CAP PNC (16 A)

PLUG CAP PNC (16 A)

Part no.	Part no.
01EA125	01EA126

ADAPTER PLATE FOR PN ACCESSORIES (See page 57)

Part no.
251A457-E

PN

COMPACT CONNECTOR
30 A

- AUTOMATIC IP66/IP67 WATER- AND DUST-TIGHT SEALING
- ALL INDUSTRIES
- GRP OR METAL CASING

The PN industrial plug and socket offer similar benefits to decontactors: automatically watertight, dual voltage, resistance to corrosion and reliability of the connection thanks to MARECHAL®'s butt-contact technology. In addition, it is very compact.

OPERATION

To connect the plug: align the red dots on the plug and the socket-outlet, then turn the plug anticlockwise to connect.

To remove the plug: turn the plug clockwise and withdraw.

SPECIFICATION

IP66/IP67 plug and socket-outlet, silver-nickel butt contacts and metallic braid, comply with BECMA international standard

TECHNICAL FEATURES

	PN
Rated current (In)	30 A
Umax	500 V
Keying positions [1]	16
Ambient temperature	-40 °C to +60 °C
IP protection	IP66/IP67

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

PN plugs and socket-outlets comply with:

- IEC EN 60309-1 European and International standard (plugs and socket-outlets for industrial purposes),
- The European Low Voltage Directive 2006/95/CE,
- 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 requirements of IEC 60529 international standard
- 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, TR CU (GOST) and cCSAus (French, American, Australian, Russian and Canadian inspection laboratories).

PN

COMPACT CONNECTOR GRP OR METAL

30 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET PN

Wall box poly 30°
01NA053

Socket-outlet
01N4017

PLUG PN

Straight handle poly
01NA013

Inlet
01N8017

MAIN FEATURES

Rated current (with wiring according to standard)	30 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	1 - 6 mm²
IP protection lid closed	IP66/IP67	Stranded wiring (min-max)	1,5 - 10 mm²
IP protection connected plug	IP66/IP67	Other wiring	on request
Shock resistance (poly casing)	IK08	Keying positions	16
Shock resistance (metal casing)	IK09		

SOCKET-OUTLET female
PN (30 A*)
GRP

INLET male
PN (30 A*)
GRP

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	01N408A	01N808A
190 - 230 V	3P+E	01N4033	01N8033
220 - 250 V	1P+N+E	01N4015	01N8015
380 - 440 V	3P+E	01N4013	01N8013
220 - 250 V / 380 - 440 V	3P+N+E	01N4017	01N8017
480 - 500 V	3P+E	01N4093	01N8093
480 - 500 V	3P+N+E	01N4097	01N8097

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

* 20 A for 480 - 500 V

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

Note: GRP devices are not compatible with metal devices.

SOCKET-OUTLET female
PN (30 A*)
METAL

INLET male
PN (30 A*)
METAL

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	09N408A	09N808A
190 - 230 V	3P+E	09N4033	09N8033
220 - 250 V	1P+N+E	09N4015	09N8015
380 - 440 V	3P+E	09N4013	09N8013
220 - 250 V / 380 - 440 V	3P+N+E	09N4017	09N8017
480 - 500 V	3P+E	09N4093	09N8093
480 - 500 V	3P+N+E	09N4097	09N8097

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

* 20 A for 480 - 500 V

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

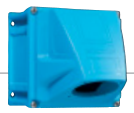
CERTIFICAT N°
FR 60037180-5371840

BOXES

Cable gland not included







	Wall box poly 30°	Wall box poly droit	Wall box metal straight	Wall box metal + Inclined metal 45°	Wall box poly + Inclined poly 70°
Entry					
M20	01NA053	01NA055	09NA055	09NA653	Not drilled and without cable gland Part no. 51AA058
M25				09NA653418	
M32				09NA653419	

SLEEVES



Inclined poly 30°	Inclined metal 30°	Inclined poly 70°
611A057	09NA027	51AA757

HANDLES





Straight poly		Angled poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry	
9-18 mm	01NA013	01NA313	5-12 mm	01NA753	7-13 mm	09NA963	M20	01NA253417
5-21 mm	611A413		8-18 mm	01NA25325P	8-16 mm	09NA95325M	M25	01NA253418
			14-25 mm	01NA25332P	16-24 mm	09NA95332M	M32	01NA253419

INDUSTRIAL-DOMESTIC ADAPTERS


Industrial inlet MARECHAL® 1P+N+E domestic socket-outlet 10/16 A 230V 10 A and 16 A.

Type	Material	Part no.
France	GRP	01N8015D11
France	Metal	09N8015D11
UK	GRP	01N8015D40
UK	Metal	09N8015D40
Germany	GRP	01N8015D30
Germany	Metal	09N8015D30
Italy	GRP	01N8015D06
Italy	Metal	09N8015D06

ACCESSORIES & OPTIONS

Locking with padlock (ø 4 mm) without shaft (padlocks not supplied)
Socket no. + 843

Screw locking imprint BTR 2,5
Socket no. + 22

Reversed interior and contacts (inlet cap is included)
Inlet no. + 001
Socket no. + 001

IP55 self-closing lid (Socket-outlet)
Replace N by S
Eg: 400 V 3P+N+E poly = 01S4017

Inlet cap
01NA126

Self-returning lid	Socket no. + R
180° opening lid	Socket no. + 10
180° opening and self-returning lid	Socket no. + 18

DB

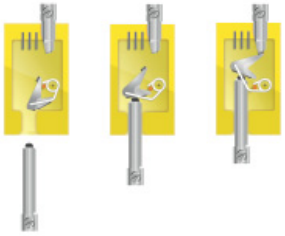
DISCONNECTABLE MOTOR SWITCH 40 A / 75 A / 125 A

- AC-3 SWITCH FOR MOTORS
- AUTOMATIC IP66/IP67 WATER- AND DUST-TIGHT
- IMPACT-RESISTANT METAL CASING

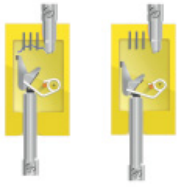
DB disconnectable motor switches combine the functions of switch-engine cutoff switch and plug and socket-outlet. They guarantee the safety of persons during an operation on the load (motor load or highly inductive).

MECHANICAL FEATURES

Connection :
Under spring pressure, the dead socket contact pushed by the plug escapes from a stop (yellow) and rocks to connect with the live switch contact. This provides the independent making.



Diconnection :
When the latch is released, the plug moves back. The socket contact escapes from the live switch contact and the arc is split across the three blades. Arcing is thus reduced by this independent break.



SPECIFICATION

IP66/IP67 disconnectable motor switch - AC3 utilisation category according to IEC / IEC EN 60947-3 standard.

TECHNICAL FEATURES

AC-3 motor switch

	DB3	DB6	DB9
AC-3 load-break capability	7,5 kW	22 kW	45 kW
Imax	40 A	75 A	125 A
Umax	690 V for all DB		
Casing material	metal for all DB		
Keying positions [1]	24 for all DB		
Ambient temperature	-40 °C to +60 °C for all DB		
Short-circuit current Icc	200 kA for all DB		

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

DB disconnectable motor switches comply with:

- The European Low Voltage Directive 2006/95/CE,
- The European 'Machine Directive' 2006/42/CE regarding equipment isolation,
- The French decree dated 20 December 2011 pertaining to the wiring and operating conditions of movable electrical apparatuses,
- The French NF C 15-100 standard,
- The decrees relating to workers' protection in Belgium, Spain and Italy,
- The requirements of IEC EN 60309-1 European and international standard (plugs and socket-outlets for industrial purposes) , Interlock according to IEC EN 60309-4 International and European standard
- UL 1682, UL 2682 and UL 98/508 American standards
- The load breaking capacity according to utilisation category AC-3 of IEC EN 60947-3 standard.

Also certified by VERITAS LCIE, UL, AS, TR CU (GOST) and cCSAus (French, American, Australian, Russian and Canadian inspection laboratories).

DB3 DISCONNECTABLE MOTOR SWITCH

40 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DB3

Wall box metal 70°
873A053

Socket-outlet
8734017

PLUG DB3

Straight handle poly
873A013

Inlet
8738017

MAIN FEATURES

Rated current (with wiring according to standard)	40 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	690 V	Flexible wiring (min-max)	2,5 - 6 mm²
IP protection lid closed	IP66/IP67	Solid or stranded wiring (min-max)	2,5 - 10 mm²
IP protection connected plug	IP66/IP67	Pre-wired auiliary contacts (5 A)	1,5 mm²
Shock resistance	IK09	Keying positions	24

LOAD-BREAK CAPABILITY OF THE DISCONNECTABLE MOTOR SWITCH

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	40 A / 690 V
Rated powers (AC-3 load-breaking capacity according to IEC EN 60947-3):	
	3 kW up to 230 V - 1P
	5,5 kW up to 230 V - 3P
	7,5 kW up to 400 V - 3P
	7,5 kW up to 500 V - 3P
	7,5 kW up to 690 V - 3P
Short-circuit current Icc	200 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DB3 (40 A)**

INLET male **DB3 (40 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
190 - 230 V	3P+E	8734033	8738033
220 - 250 V	1P+N+E	8734015	8738015
380 - 440 V	3P+E	8734013	8738013
220 - 250 V / 380 - 440 V	3P+N+E	8734017	8738017
660 - 690 V	3P+E	8734193	8738193
380 - 440 V / 660 - 690 V	3P+N+E	8734197	8738197

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

AUXILIARY CONTACTS FOR 2P+E AND 3P+E POLARITIES	
Socket-outlet with 2 auxiliary contacts (5 A / 400 V)	Socket no. + 172
Inlet with 2 auxiliary contacts (5 A / 400 V)	Inlet no. + 172

BOXES

Cable gland not included



	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry			
M20	873A053417	873A653417	873A095417
M25	873A053	873A653	873A095
M32	873A053419	873A653419	873A095419
M40	873A053420	873A653420	873A095420

It is possible to drill several entries for PE to have a separate cable for the auxiliary.

SLEEVES



Inclined metal 70°	Inclined metal 30°	Straight metal
873A087	393A027	873A127

HANDLES

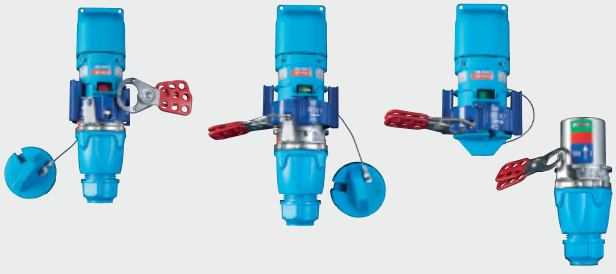



Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
10-30 mm	873A013	5-12 mm	873A25320P	7-13 mm	873A95320M	M20	873A253417
		9-18 mm	873A753	8-16 mm	873A963	M25	873A253418
		14-25 mm	873A25332P	16-24 mm	873A95332M	M32	873A253419
		18-32 mm	873A25340P	22-32 mm	873A95340M	M40	873A253420

INFO +

Padlocking

From left to right:
Padlocked in ON position
Padlocked in OFF position
Socket-outlet padlocked with closed cover
Inlet padlocked



ACCESSORIES & OPTIONS

Padlocking device 1 to 6 padlocks
873A541

Inlet cap
873A126

DB6 DISCONNECTABLE MOTOR SWITCH

75 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DB6

Wall box metal 70°
876A053

Socket-outlet
8764017

PLUG DB6

Straight handle poly
876A013

Inlet
8768017

MAIN FEATURES

Rated current (with wiring according to standard)	75 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	690 V	Flexible wiring (min-max)	10 - 25 mm^2
IP protection lid closed	IP66/IP67	Stranded wiring (min-max)	16 - 35 mm^2
IP protection connected plug	IP66/IP67	Pre-wired auiliary contacts (5 A)	1,5 mm^2
Shock resistance	IK09	Keying positions	24

LOAD-BREAK CAPABILITY OF THE DISCONNECTABLE MOTOR SWITCH

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	75 A / 690 V
Rated powers (AC-3 load-breaking capacity according to IEC EN 60947-3):	
	7,5 kW up to 230 V - 1P
	11 kW up to 230 V - 3P
	15 kW up to 400 V - 3P
	15 kW up to 500 V - 3P
	22 kW up to 690 V - 3P
Short-circuit current Icc	200 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DB6 (75 A)**

INLET male **DB6 (75 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
190 - 230 V	3P+E	8764033	8768033
220 - 250 V	1P+N+E	8764015	8768015
380 - 440 V	3P+E	8764013	8768013
220 - 250 V / 380 - 440 V	3P+N+E	8764017	8768017
660 - 690 V	3P+E	8764193	8768193
380 - 440 V / 660 - 690 V	3P+N+E	8764197	8768197

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

AUXILIARY CONTACTS FOR 2P+E AND 3P+E POLARITIES	
Socket-outlet with 2 auxiliary contacts (5 A / 400 V)	Socket no. + 172
Inlet with 2 auxiliary contacts (5 A / 400 V)	Inlet no. + 172

BOXES

Cable gland not included



	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry			
M25	876A053418	876A653418	876A095418
M32	876A053419	876A653419	876A095419
M40	876A053	876A653	876A095
M50	876A053429	876A653429	876A095429

It is possible to drill several entries for PE to have a separate cable for the auxiliary.

SLEEVES



Inclined metal 70°	Inclined metal 30°	Straight metal
876A087	396A027	876A127

HANDLES




	Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
13-35 mm	876A013	9-18 mm	876A25325P	8-16 mm	876A95325M	M25	876A253418
		14-25 mm	876A25332P	16-24 mm	876A95332M	M32	876A253419
		18-32 mm	876A753	22-32 mm	876A963	M40	876A253420
		24-38 mm	876A25350P	34-44 mm	876A95350M	M40	876A253429

INFO +

Motor-switch + plug and socket

The DB is especially designed to supply power to motors and any highly inductive loads. Its **AC-3** load-break capability guarantees user safety during intervention on equipment. The colour window and isolator function (physical separation) further enhance safety.
The product complies with the European '**Machine Directive**' and save installation cost by combining motor switch, isolator and connector.

ACCESSORIES & OPTIONS

Padlocking device 1 to 6 padlocks
873A541

Inlet cap
876A126

DB9 DISCONNECTABLE MOTOR SWITCH

125 A IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DB9

Wall box metal 70°
879A823

Socket-outlet
8794017

PLUG DB9

Straight elastomer
659A013D45

Inlet
8798017

MAIN FEATURES

Rated current (with wiring according to standard)	125 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	690 V	Flexible wiring (min-max)	16 - 50 mm²
IP protection lid closed	IP66/IP67	Stranded wiring (min-max)	25 - 70 mm²
IP protection connected plug	IP66/IP67	Pre-wired auiliary contacts (5 A)	1,5 mm²
Shock resistance	IK09	Keying positions	24

LOAD-BREAK CAPABILITY OF THE DISCONNECTABLE MOTOR SWITCH

Comply with IEC EN 60309-1 and IEC EN 60309-4 standards	125 A / 690 V
Rated powers (AC-3 load-breaking capacity according to IEC EN 60947-3):	
	15 kW up to 230 V - 1P
	22 kW up to 230 V - 3P
	30 kW up to 400 V - 3P
	30 kW up to 500 V - 3P
	45 kW up to 690 V - 3P
Short-circuit current Icc	200 kA

DUAL VOLTAGE SOCKET-OUTLET
(SEE P.8)

SOCKET-OUTLET female **DB9 (125 A)**

INLET male **DB9 (125 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.
190 - 230 V	3P+E	8794033	8798033
220 - 250 V	1P+N+E	8794015	8798015
380 - 440 V	3P+E	8794013	8798013
220 - 250 V / 380 - 440 V	3P+N+E	8794017	8798017
660 - 690 V	3P+E	8794193	8798193
380 - 440 V / 660 - 690 V	3P+N+E	8794197	8798197

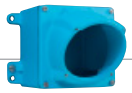
▶ Other voltages, frequencies and contact configurations are available (see page 10).

AUXILIARY CONTACTS FOR 2P+E AND 3P+E POLARITIES	
Socket-outlet with 4 auxiliary contacts (5 A / 400 V)	Socket no. + 264
Inlet with 4 auxiliary contacts (5 A / 400 V)	Inlet no. + 264

BOXES
Cable gland not included








	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry						
M32				879A823419	879A653419	879A095419
M40				879A823420	879A653420	879A095420
M50	879A853	399A053	399A895	879A823	879A653	879A095
M63	879A853463	399A053463	399A895463	879A823463	879A653463	879A095463
M75	879A853475	399A053475	399A895475			

It is possible to drill several entries for PE to have a separate cable for the auxiliary.

SLEEVES



Inclined metal 70°	Inclined metal 30°	Straight metal
879A087	399A027	879A127

HANDLES




	Straight elastomer		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
25-35 mm	659A013D35	35-48 mm	619A25363P	22-32 mm	879A95340M	M63	619A253463
35-45 mm	659A013D45			34-44 mm	879A963		
45-49 mm	659A013D49			35-48 mm	879A95363M		

INFO +

Breaking direct current at 125 A / 500 V

For applications in back-up circuit, **DB9 can safely break high power direct currents: 125 A / 500 V d.c.** DB disconnectable switches have very high load break capability and offer an attractive solution to break under load and disconnect equipment.
Please feel free to contact us for any special applications that require breaking under load.

ACCESSORIES & OPTIONS

Padlocking device 1 to 6 padlocks
873A541

Inlet cap
879A126

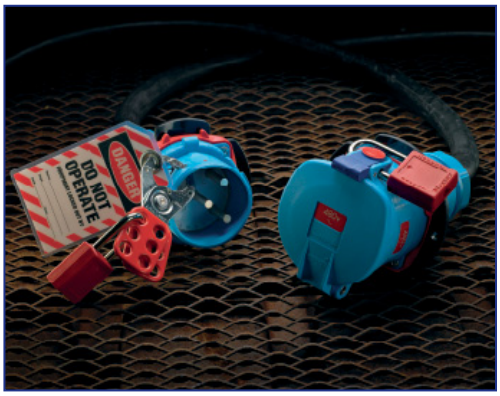
STAR-DELTA

7 POLE DECONTACTORS AND CONNECTORS FROM 30 A TO 150 A

- STAR-DELTA START-UP
- CONNECTING MOTORS WITH TWO OPERATING SPEEDS
- SIMPLER AND SAFER THAN FIXED WIRING
- DESIGNED TO WITHSTAND HIGH OVERLOADS

When a motor starts, the short-time overload generated is many times greater than the nominal current. While this overload should not affect properly designed motors, it could be damaging to most connectors.

Thanks to its silver-nickel butt-contact technology, the decontactor withstands these high and repeated overloads without over-heating or change in its performance. The decontactor is thus ideally suited for motor connections, even for motors that have to start frequently.



MARECHAL® decontactors allow you to connect and disconnect motors safely. Locking devices (optional) prevent the unintended supply of a device under maintenance.

TECHNICAL FEATURES

7 contacts plugs and sockets to supply star-delta motors with integral load-break switching capability.
DS7C9 : 7 contacts connector to supply star-delta motors, equipped with a locking screw for preventing accidental disconnection of the plug.

	DN9C	DSN7C3	DS7C3	DN7C6	DS7C9
Imax per phase	30 A	32 A	50 A	90 A	150 A
Umax	415 V	500 V	500 V	415 V	500 V
AC-22 switching capability	30 A / 415 V	32 A / 500 V	50 A / 500 V	90 A / 415 V	-
Same dimensions as	DN1	DSN3	DS6	DN6	DS2
Auxiliary contacts (max.)	2	-	3	-	2
Keying positions [1]	2	-	5	-	-
Ambient temperature	-40 °C to +60 °C for all				
Wiring (terminals)	screw-type				

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

7 pole decontactors and connectors comply with:

- The European Low Voltage Directive 2006/95/CE,
- 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 load-break capability for AC-22 category described in IEC EN 60947-3.

Also certified by TR CU (GOST) (Russian inspection laboratory).

EAC

DN9C DECONTACTOR™ METAL

30 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN9C

Wall box metal 20°
191A053

Socket-outlet
1914081262

PLUG DN9C

Straight handle poly
191A013

Inlet
1918081262

MAIN FEATURES

Rated current (with wiring according to standard)	30 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	415 V	Flexible wiring (min-max)	1 - 6 mm²
IP protection lid closed	IP55	Solid or stranded wiring (min-max)	1,5 - 10 mm²
IP protection connected plug	IP54	Wiring (terminals)	screw-type
Shock resistance (metal casing)	IK09	Keying positions	2

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 standard	30 A / 415 V
Load-break capability according to IEC EN 60947-3 / AC-22	30 A / 415 V

SOCKET-OUTLET female **DN9C (30 A)**

INLET male **DN9C (30 A)**

Umax (V) / Imax (A)	Polarity	Part no.	Part no.
415 / 30	6P+E	1914061	1918061
415 / 30	6P+E+2aux.	1914081262	1918081262

BOXES

Cable gland not included




	Wall box metal 20°	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry				
M20	191A053	873A053417	191A653	191A095
M25	191A053418	873A053	191A653418	191A095418
M32	191A053419	873A053419	191A653419	191A095419
M40		873A053420	191A653420	191A095420

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
191A027	873A087	191A127

HANDLES





	Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
10-30 mm	191A013	5-12 mm	191A753	7-13 mm	191A963	M20	191A253417
10-30 mm	191A473*	9-18 mm	191A25325P	8-16 mm	191A95325M	M25	191A253418
		14-25 mm	191A25332P	16-24 mm	191A95332M	M32	191A253419
		18-32 mm	191A25340P	22-32 mm	191A95340M	M40	191A253420

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Inlet cap
191A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

DSN7C3 DECONTACTOR™ GRP

32 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DSN7C3

Wall box poly 70°
51BA058

Socket-outlet
6134561

PLUG DSN7C3

Straight handle poly
613A013

Inlet
6138561

MAIN FEATURES

Rated current (with wiring according to standard)	32 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	2,5 - 6 mm²
IP protection lid closed	IP66/IP67	Stranded wiring (min-max)	2,5 - 10 mm²
IP protection connected plug	IP66/IP67	Wiring (terminals)	screw-type
Shock resistance	IK08		

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 standard	32 A / 500 V
Load-break capability according to IEC EN 60947-3 / AC-22	32 A / 500 V

SOCKET-OUTLET female
DSN7C3 (32 A)

INLET male
DSN7C3 (32 A)

Umax (V) / Imax (A)	Polarity	Part no.	Part no.
500 / 32	6P+E	6134561	6138561

BOXES

Cable gland not included




Entry	Wall box poly 30°	Wall box metal + Inclined poly 30°	Wall box metal + straight metal sleeve	Wall box poly + Inclined poly 70°
M20	613A053	613A653	693A095	Not drilled and without cable gland Part no. 51BA058
M25	613A083	613A653418	693A095418	
M32		613A653419	693A095419	
M40		613A653420	693A095420	

SLEEVES



Inclined poly 30°	Inclined poly 70°	Straight metal
613A027	51BA757	693A127

HANDLES




Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry	
5-21 mm	613A013	5-12 mm	613A753	7-13 mm	613A963	M20	613A253417
		9-18 mm	613A25325P	8-16 mm	613A95325M	M25	613A253418
		14-25 mm	613A25332P			M32	613A253419
		18-32 mm	613A25340P			M40	613A253420

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844
Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + Z1646
Lockable plug: contact us

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
613A226

Inlet cap
613A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
613A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18

DS7C3 DECONTACTOR™ GRP OR METAL

50 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS7C3

Wall box metal 30°
396A653

Socket-outlet
3934561

PLUG DS7C3

Straight handle poly
316A013

Inlet
3938561

MAIN FEATURES

Rated current (with wiring according to standard)	50 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	2,5 - 10 mm²
IP protection lid closed	IP55	Solid or stranded wiring (min-max)	2,5 - 16 mm²
IP protection connected plug	IP54	Wiring (terminals)	screw-type
Shock resistance (poly casing)	IK08	Keying positions	5
Shock resistance (metal casing)	IK09		

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 standard	50 A / 500 V
Load-break capability according to IEC EN 60947-3 / AC-22	50 A / 500 V

SOCKET-OUTLET female
DS7C3 (50 A)

INLET male
DS7C3 (50 A)

Umax (V) / Imax (A)	Polarity	Part no.*	Part no.*
500 / 50	6P+E	3934561	3938561
500 / 50	6P+E+2 aux.	3934561172	3938561172
500 / 50	6P+E+3 aux.	3934561263	3938561263

*** The listed Part nos. call up metal casings. For a GRP casing, replace prefix 39 with 31**

BOXES

Cable gland not included





	Wall box poly 30°	Wall box metal + Inclined poly 30°	Wall box metal + straight metal sleeve	Wall box metal + Inclined metal 70°	Wall box poly + Inclined poly 70°
Entry					
M25		396A653418	396A095418	876A053418	Not drilled and without cable gland Part no. 51DA058
M32		396A653419	396A095419	876A053419	
M40	316A053	396A653	396A095	876A053	
M50		396A653429	396A095429	876A053429	

Wall box metal 20° : Part no. 39 6A 053 for M40 entry

SLEEVES





	Inclined poly 30°	Inclined poly 70°	Inclined metal 30°	Straight metal	Inclined metal 70°
	316A027	51DA757	396A027	396A127	876A087

HANDLES





	Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
13-35 mm	316A013	9-18 mm	316A25325P	8-16 mm	316A95325M	M25	316A253418
13-35 mm	316A473*	14-25 mm	316A25332P	16-24 mm	316A95332M	M32	316A253419
		18-32 mm	316A753	22-32 mm	316A963	M40	316A253420
		24-38 mm	316A25350P	34-44 mm	316A95350M	M50	316A253429

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844
Lockable plug: contact us
Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
316A226

Inlet cap
316A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
316A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

DN7C6 DECONTACTOR™ METAL

90 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN7C6

Wall box metal straight
196A095

Socket-outlet
1964561

PLUG DN7C6

Straight elastomer
659A013D45

Inlet
1968561

MAIN FEATURES

Rated current (with wiring according to standard)	90 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	415 V	Flexible wiring (min-max)	10 - 25 mm²
IP protection lid closed	IP55	Stranded wiring (min-max)	10 - 35 mm²
IP protection connected plug	IP54	Wiring (terminals)	screw-type
Shock resistance	IK09		

LOAD-BREAK CAPABILITY OF THE DECONTACTOR™

Comply with IEC EN 60309-1 standard	90 A / 415 V
Load-break capability according to IEC EN 60947-3 / AC-22 90 A	90 A / 415 V

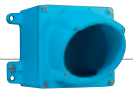
SOCKET-OUTLET female
DN7C6 (90 A)

INLET male
DN7C6 (90 A)

Umax (V) / Imax (A)	Polarity	Part no.	Part no.
415 / 90	6P+E	1964561	1968561

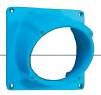
BOXES

Cable gland not included


	Wall box metal + Inclined metal 70°	Wall box metal + Inclined metal 30°	Wall box metal + straight metal sleeve
Entry			
M32	879A823419	196A653419	196A095419
M40	879A823420	196A653420	196A095420
M50	879A823	196A653	196A095
M63	879A823463	196A653463	196A095463

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
196A027	879A087	196A127

HANDLES




Straight elastomer		Straight poly with metal cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry	
18-25 mm	659A013D25	35-48 mm	619A25363M	16-24 mm	196A95332M	M63	619A253463
25-35 mm	659A013D35			22-32 mm	196A963		
35-45 mm	659A013D45			34-44 mm	196A95350M		

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Inlet cap
196A126

Closing mechanism
Draw lever only: 196A376
Draw plate only: 196A396

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

DS7C9 CONNECTOR METAL

150 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DS7C9

Wall box metal 60°
392A053

Socket-outlet
3994561

PLUG DS7C9

Straight elastomer
352A013D45

Inlet
3998561

MAIN FEATURES

Rated current (with wiring according to standard)	150 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	16 - 50 mm^2
IP protection lid closed	IP55	Stranded wiring (min-max)	25 - 70 mm^2
IP protection connected plug	IP54	Wiring (terminals)	screw-type
Shock resistance	IK09		

Umax (V) / Imax (A)	Polarity	**SOCKET-OUTLET** female DS7C9 (150 A) Part no.	**INLET** male DS7C9 (150 A) Part no.
500 / 150	6P+E	3994561	3998561
500 / 150	6P+E+2 aux.	3994561172	3998561172

BOXES
Cable gland not included

Wall box metal + Inclined metal 60°

Entry	
M63	392A053
M75	392A053475

BOXES
Cable gland included

Wall box 70° SS

Entry	
35-46 mm	394A02563M
48-65 mm	392A02575M

SLEEVES

Inclined metal 60°

392A027

HANDLES

Straight elastomer

25-35 mm	352A013D35	40-54 mm	
35-45 mm	352A013D45	54-63 mm	
45-49 mm	352A013D49		

Straight metal

392A913	M63
392A913-63	M75

Straight poly without cable gland with metric threaded entry

392A253463	40-63 mm
392A253475	

Straight poly with gland for mechanical retention only

392A253D63

ACCESSORIES & OPTIONS

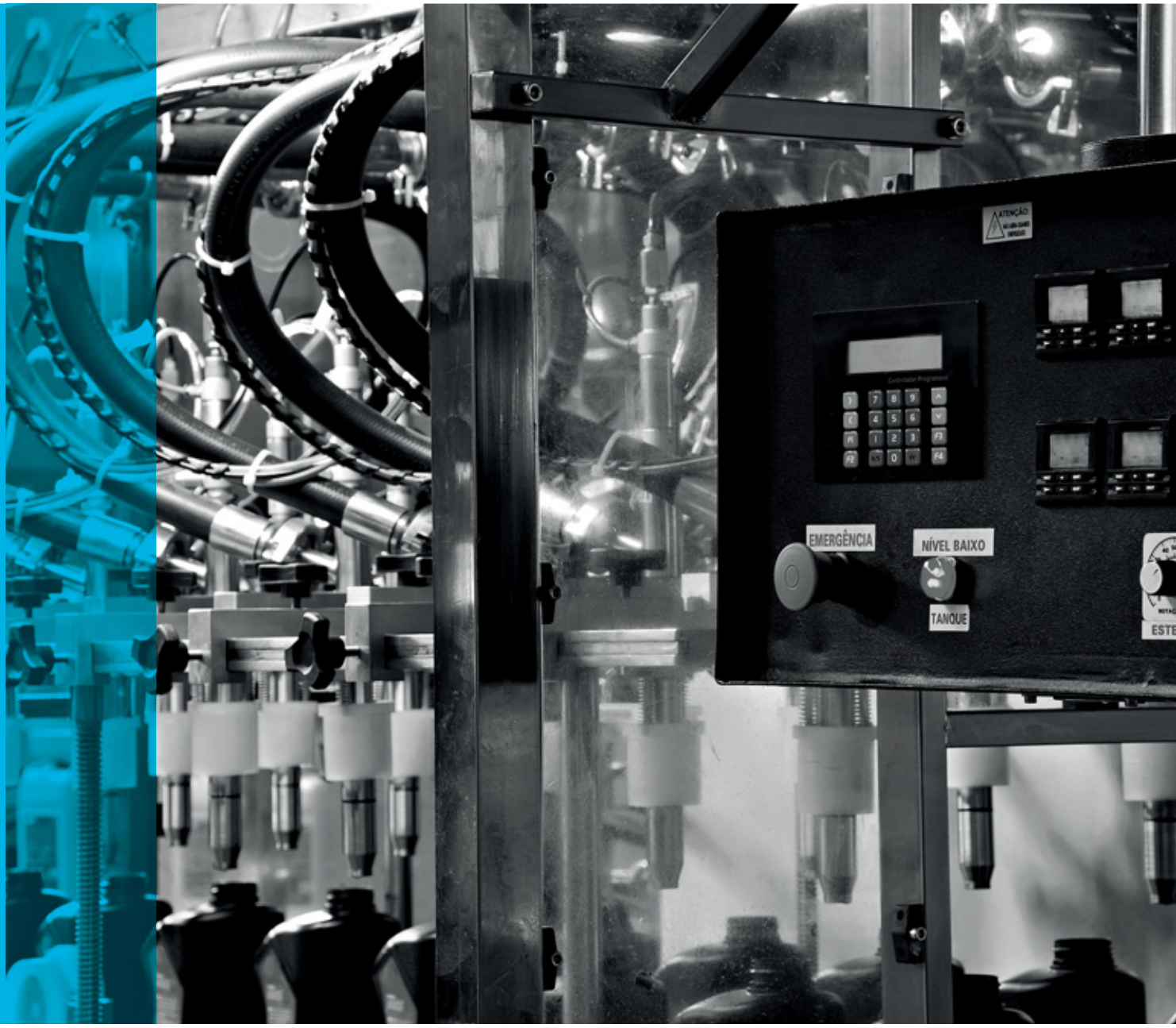
Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

Inlet cap
312A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600



PN7C

- Up to 7 contacts
- 25 A / 500 V max.
- IP66/IP67
- GRP or metal

page 80

DN9C

- Up to 9 contacts
- 30 A / 415 V max.
- IP54/IP55
- Metal

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PN12C

- Up to 12 contacts
- 16 A / 500 V max.
- IP66/IP67
- GRP or metal

page 84

RANGE SIGNAL & CONTROL

MARECHAL® multicontact connectors are used for signal and control applications such as temporary phone lines and control of overhead cranes. The solid silver-nickel contacts assure superior conductivity, electrical performance and durability. Also the materials used for the bodies resist extreme conditions in harsh environments.

Find all information on our website:

marechal.com

Technical documentation

Product configurator

DN20C

- Up to 20 contacts
- 25 A / 415 V max.
- IP54/IP55
- Metal

page 86

DSN24C

- Up to 24 contacts
- 16 A / 415 V max.
- IP66/IP67
- GRP

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DSN37C

- Up to 37 contacts
- 16 A / 415 V max.
- IP66/IP67
- GRP

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PN7C MULTI-CONTACT CONNECTORS GRP OR METAL

16/25 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET PN7C

Wall box poly 30°
01NA053

Socket-outlet
01P4061

PLUG PN7C

Straight handle poly
01NA013

Inlet
01P8061

MAIN FEATURES

Rated current/contact (wiring according to standard)	25 A	Shock resistance (metal casing)	IK09
∑ of currents (contacts)	≤ 130 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	500 V	Flexible wiring (min-max)	1 - 4 mm²
IP protection lid closed	IP66/IP67	Stranded wiring (min-max)	1 - 6 mm²
IP protection connected plug	IP66/IP67	Wiring (terminals)	screw-type
Shock resistance (poly casing)	IK08	Keying positions	5

SOCKET-OUTLET female
PN7C (16/25 A)
GRP

INLET male
PN7C (16/25 A)
GRP

Umax	Polarity	Part no.	Part no.
50 V	5P (25 A)	01P4050	01P8050
50 V	6P (16 A)	01P4060	01P8060
50 V	7P (16 A)	01P4070	01P8070
500 V	4P+E (25 A)	01P4041	01P8041
500 V	5P+E (25 A)	01P4051	01P8051
500 V	6P+E (16 A)	01P4061	01P8061

Note: When using two different voltages on the same site, thank you for contacting us.

SOCKET-OUTLET female
PN7C (16/25 A)
METAL

INLET male
PN7C (16/25 A)
METAL

Umax	Polarity	Part no.	Part no.
50 V	5P (25 A)	09P4050	09P8050
50 V	6P (16 A)	09P4060	09P8060
50 V	7P (16 A)	09P4070	09P8070
415 V	4P+E (25 A)	09P4041	09P8041
415 V	5P+E (25 A)	09P4051	09P8051
415 V	6P+E (16 A)	09P4061	09P8061

BOXES

Cable gland not included





	Wall box poly 30°	Wall box poly straight	Wall box metal straight	Wall box metal + inclined metal 45°	Wall box poly + inclined poly 70°
Entry					
M20	01NA053	01NA055	09NA055	09NA653	Not drilled and without cable gland Part no. 51AA058
M25				09NA653418	
M32				09NA653419	

SLEEVES



Inclined poly 30°	Inclined metal 30°	Inclined poly 70°
611A057	09NA027	51AA757

HANDLES





	Straight poly		Angled poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
9-18 mm	01NA013	01NA313	5-12 mm	01NA753	7-13 mm	09NA963	M20	01NA253417
5-21 mm	611A413		8-18 mm	01NA25325P	8-16 mm	09NA95325M	M25	01NA253418
			14-25 mm	01NA25332P	16-24 mm	09NA95332M	M32	01NA253419

ACCESSORIES & OPTIONS

Locking with padlock (ø 4 mm) without shaft (padlocks not supplied)
Socket no. + 843

Screw locking imprint BTR 2,5
Socket no. + 22

Reversed interior and contacts (inlet cap is included)
Inlet no. + 001
Socket no. + 001

IP55 self-closing lid (Socket-outlet)
Replace N by S
Eg: 400 V 3P+N+E poly = 01S4017

Inlet cap
01NA126

Self-returning lid	Socket no. + R
180° opening lid	Socket no. + 10
180° opening and self-returning lid	Socket no. + 18

DN9C METAL MULTI-CONTACT CONNECTORS

30 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN9C

Wall box metal 20°
191A053

Socket-outlet
1914081

PLUG DN9C

Straight handle poly
191A013

Inlet
1918081

MAIN FEATURES

Rated current/contact (wiring according to standard)	30 A	Ambient temperature	-40 °C to +60 °C
∑ of currents (contacts)	≤ 210 A	Flexible wiring (min-max)	1 - 6 mm²
Maximum voltage	415 V	Stranded wiring (min-max)	1,5 - 10 mm²
IP protection lid closed	IP55	Wiring (terminals)	screw-type
IP protection connected plug	IP54	Keying positions	2
Shock resistance	IK09		

Note: When using two different voltages on the same site, thank you for contacting us.

SOCKET-OUTLET female
DN9C (30 A)

INLET male
DN9C (30 A)

Umax	Polarity	Part no.	Part no.
50 V	6P	1914060	1918060
50 V	7P	1914070	1918070
50 V	8P	1914080	1918080
50 V	9P	1914090	1918090
415 V	5P+E	1914051	1918051
415 V	6P+E	1914061	1918061
415 V	7P+E	1914071	1918071
415 V	8P+E	1914081	1918081

AUXILIARY CONTACTS	
Including 2 pilot contacts (30 A)	Socket no. + 262
Including 2 pilot contacts (30 A)	Inlet no. + 262
Including 4 pilot contacts (30 A)	Socket no. + 264
Including 4 pilot contacts (30 A)	Inlet no. + 264

BOXES

Cable gland not included




	Wall box metal 20°	Wall box metal + inclined metal 70°	Wall box metal + inclined metal 30°	Wall box metal + straight metal sleeve
Entry				
M20	191A053	873A053417	191A653	191A095
M25	191A053418	873A053	191A653418	191A095418
M32	191A053419	873A053419	191A653419	191A095419
M40		873A053420	191A653420	191A095420

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
191A027	873A087	191A127

HANDLES




Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
10-30 mm	191A013	5-12 mm	191A753	7-13 mm	191A963	M20	191A253417
10-30 mm	191A473*	9-18 mm	191A25325P	8-16 mm	191A95325M	M25	191A253418
		14-25 mm	191A25332P	16-24 mm	191A95332M	M32	191A253419
		18-32 mm	191A25340P	22-32 mm	191A95340M	M40	191A253420

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Inlet cap
191A126

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Part no. + 600

PN12C MULTI-CONTACT CONNECTORS GRP OR METAL

16 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET PN12C

Wall box poly 30°
01NA053

Socket-outlet
01A4001

PLUG PN12C

Straight handle poly
01NA013

Inlet
01A8001

ELECTRICAL FEATURES

Maximum voltage	480 V
Impulse withstand voltage	5 kV / Pollution degree 3
Contact resistance	‹ 2mΩ
Permited current range	4-20 mA / 16 A
Rated current percontact (max)	16 A
Total current carried	≤ 110 A
Flexible wiring (min-max)	1 - 2,5 mm^2
Wiring (terminals)	crimping
Keying positions	2

CLIMATIC FEATURES

Ambient temperature	-40 °C to +60 °C
IP protection connected plug	IP66/IP67
IP protection lid closed	IP66/IP67
Salt, Fog performance	200 hrs minimum connected
Resistance to fluids	Motor oils, petrol, fats, detergents...

MECHANICAL FEATURES

Butt contacts	Female contacts: copper alloy silver plated / Male contacts: Silver-nickel tips
Contact protection	Silvering
Load cycles	More than 5000 cycles
Shock resistance (poly casing)	IK08
Shock resistance (metal casing)	IK09
Vibration	Frequency 5-1000 Hz, 1g / (90 minutes on each critical frequency) according to IEC 6068-2-6

SOCKET-OUTLET female
PN12C (16 A)

INLET male
PN12C (16 A)

Umax	Contacts	Part no.*	Part no.*
480 V	12 contacts	01A4001	01A8001

*** The listed Part nos. call up GRP casings. For metal casings, replace prefix 01 with 09**

Each product is supplied with 1 bag of 13 contacts depending on the maximum configuration.
This allows you to set up the product to suit your needs.

BAG OF 13 CONTACTS (SUPPLIED WITH INSULATION SLEEVES AND FERRULES)	
Female socket-outlet Part Number	01AA213
Male inlet Part Number	01AA113

BOXES

Cable gland not included





	Wall box poly 30°	Wall box poly straight	Wall box metal straight	Wall box metal + inclined metal 45°	Wall box poly + inclined poly 70°
Entry					
M20	01NA053	01NA055	09NA055	09NA653	Not drilled and without cable gland Part no. 51AA058
M25				09NA653418	
M32				09NA653419	

SLEEVES



Inclined poly 30°	Inclined metal 30°	Inclined poly 70°
611A057	09NA027	51AA757

HANDLES





	Straight poly		Angled poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
9-18 mm	01NA013	01NA313	5-12 mm	01NA753	7-13 mm	09NA963	M20	01NA253417
5-21 mm	611A413		8-18 mm	01NA25325P	8-16 mm	09NA95325M	M25	01NA253418
			14-25 mm	01NA25332P	16-24 mm	09NA95332M	M32	01NA253419

ACCESSORIES & OPTIONS

Locking with padlock (ø 4 mm) without shaft (padlocks not supplied)
Socket no. + 843

Screw locking imprint BTR 2,5
Socket no. + 22

Reversed interior and contacts (inlet cap is included)
Inlet no. + 001
Socket no. + 001

IP55 self-closing lid (Socket-outlet)
Replace N by S
Eg: 400 V 3P+N+E poly = 01S4017

Inlet cap
01NA126

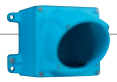
Self-returning lid	Socket no. + R
180° opening lid	Socket no. + 10
180° opening and self-returning lid	Socket no. + 18

DN20C METAL MULTI-CONTACT CONNECTORS

25 A
IP55

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DN20C



Wall box metal 30°
196A653

Socket-outlet
1964191

PLUG DN20C

Straight elastomer
659A013D35

Inlet
1968191

MAIN FEATURES

Rated current/contact (wiring according to standard)	25 A	Ambient temperature	-40 °C to +135 °C
∑ of currents (contacts)	≤ 350 A	Flexible wiring (min-max)	1 - 6 mm²
Maximum voltage	415 V	Stranded wiring (min-max)	1,5 - 10 mm²
IP protection lid closed	IP55	Wiring (terminals)	screw-type
IP protection connected plug	IP54	Keying positions	4
Shock resistance	IK09		

SOCKET-OUTLET female **DN20C (25 A)**

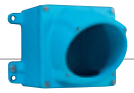
INLET male **DN20C (25 A)**

Umax	Polarity	Part no.	Part no.
50 V	10P	1964100	1968100
50 V	11P	1964110	1968110
50 V	12P	1964120	1968120
50 V	13P	1964130	1968130
50 V	14P	1964140	1968140
50 V	15P	1964150	1968150
50 V	16P	1964160	1968160
50 V	17P	1964170	1968170
50 V	18P	1964180	1968180
50 V	19P	1964190	1968190
50 V	20P	1964200	1968200
415 V	9P+E	1964091	1968091
415 V	10P+E	1964101	1968101
415 V	11P+E	1964111	1968111
415 V	12P+E	1964121	1968121
415 V	13P+E	1964131	1968131
415 V	14P+E	1964141	1968141
415 V	15P+E	1964151	1968151
415 V	16P+E	1964161	1968161
415 V	17P+E	1964171	1968171
415 V	18P+E	1964181	1968181
415 V	19P+E	1964191	1968191

Note: When using two different voltages on the same site, thank you for contacting us.

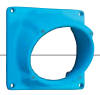
BOXES

Cable gland not included


	Wall box metal + inclined metal 70°	Wall box metal + inclined metal 30°	Wall box metal + straight metal sleeve
Entry			
M32	879A823419	196A653419	196A095419
M40	879A823420	196A653420	196A095420
M50	879A823	196A653	196A095
M63	879A823463	196A653463	196A095463

SLEEVES



Inclined metal 30°	Inclined metal 70°	Straight metal
196A027	879A087	196A127

HANDLES*




Straight elastomer		Straight poly with metal cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry	
18-25 mm	659A013D25	35-48 mm	619A25363M	16-24 mm	196A95332M	M63	619A253463
25-35 mm	659A013D35			22-32 mm	196A963		
35-45 mm	659A013D45			34-44 mm	196A95350M		

* For use at 135 °C, use only metal handles.

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 8 mm (padlocks not supplied)
Socket no. + 844

Lockable plug: contact us

Padlocking device 1 to 6 padlocks
873A541

E-Stop button
Socket no. + 453

Inlet cap
196A126

Closing mechanism
Draw lever only: 196A376
Draw plate only: 196A396

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
IP66/IP67 (socket & inlet)	Socket no. + 600

DSN24C MULTI-CONTACT CONNECTORS GRP

16 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DSN24C

Wall box poly 70°
51BA058

Socket-outlet
61B4002

PLUG DSN24C

Straight handle poly
613A013

Inlet
61B8002

ELECTRICAL FEATURES

Maximum voltage	480 V
Impulse withstand voltage	5 kV / Pollution degree 3
Contact resistance	‹ 2mΩ
Permited current range	4-20 mA / 16 A
Rated current percontact (max)	16 A
Total current carried	≤ 230 A
Flexible wiring (min-max)	1 - 2,5 mm^2
Wiring (terminals)	crimping
Keying positions	1

CLIMATIC FEATURES

Ambient temperature	-40 °C to +60 °C
IP protection connected plug	IP66/IP67
IP protection lid closed	IP66/IP67
Salt, Fog performance	200 hrs minimum connected
Resistance to fluids	Motor oils, petrol, fats, detergents...

MECHANICAL FEATURES

Butt contacts	Female contacts: copper alloy silver plated / Male contacts: Silver-nickel tips
Contact protection	Silvering
Load cycles	More than 5000 cycles
Shock resistance	IK08
Vibration	Frequency 5-1000 Hz, 1g / (90 minutes on each critical frequency) according to IEC 6068-2-6

SOCKET-OUTLET female
DSN24C (16 A)

INLET male
DSN24C (16 A)

Umax	Contacts	Part no.	Part no.
480 V	24 contacts	61B4002	61B8002

Each product is supplied with 2 bags of 13 contacts depending on the maximum configuration.
This allows you to set up the product to suit your needs.

BAG OF 13 CONTACTS (SUPPLIED WITH INSULATION SLEEVES AND FERRULES)	
Female socket-outlet Part Number	01AA213
Male inlet Part Number	61CA113

BOXES

Cable gland not included

Wall box poly 30°

Wall box metal + inclined poly 30°

Wall box metal + straight metal sleeve

Wall box poly + inclined poly 70°

Entry				
M20	613A053	613A653	693A095	Not drilled and without cable gland Part no. 51BA058
M25	613A083	613A653418	693A095418	
M32		613A653419	693A095419	
M40		613A653420	693A095420	

SLEEVES

Inclined poly 30°

Inclined poly 70°

Straight metal

613A027	51BA757	693A127

HANDLES

Straight poly

Straight poly with poly cable gland

Straight metal with metal cable gland

Straight poly without cable gland with metric threaded entry

5-21 mm	613A013	5-12 mm	613A753	7-13 mm	613A963	M20	613A253417
		9-18 mm	613A25325P	8-16 mm	613A95325M	M25	613A253418
		14-25 mm	613A25332P			M32	613A253419
		18-32 mm	613A25340P			M40	613A253420

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844

Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + Z1646

Lockable plug: contact us

E-Stop button
Socket no. + 453

Inlet cap
613A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
613A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
Crimping tool	61CA500
Helavia sleeve expansion tool	61CA400
Bag of 13 heat shrink insulation sleeves	61CA083

DSN37C MULTI-CONTACT CONNECTORS GRP

16 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DSN37C

Wall box poly 70°
51CA058

Socket-outlet
61C4003

PLUG DSN37C

Straight handle poly
616A013

Inlet
61C8003

ELECTRICAL FEATURES

Maximum voltage	480 V
Impulse withstand voltage	5 kV / Pollution degree 3
Contact resistance	‹ 2mΩ
Permited current range	4-20 mA / 16 A
Rated current percontact (max)	16 A
Total current carried	≤ 360 A
Flexible wiring (min-max)	1 - 2,5 mm^2
Wiring (terminals)	crimping
Keying positions	3

CLIMATIC FEATURES

Ambient temperature	-40 °C to +60 °C
IP protection connected plug	IP66/IP67
IP protection lid closed	IP66/IP67
Salt, Fog performance	200 hrs minimum connected
Resistance to fluids	Motor oils, petrol, fats, detergents...

MECHANICAL FEATURES

Butt contacts	Female contacts: copper alloy silver plated / Male contacts: Silver-nickel tips
Contact protection	Silvering
Load cycles	More than 5000 cycles
Shock resistance	IK08
Vibration	Frequency 5-1000 Hz, 1g / (90 minutes on each critical frequency) according to IEC 6068-2-6

SOCKET-OUTLET female
DSN37C (16 A)

INLET male
DSN37C (16 A)

Umax	Contacts	Part no.	Part no.
480 V	37 contacts	61C4003	61C8003

Each product is supplied with 3 bags of 13 contacts depending on the maximum configuration.
This allows you to set up the product to suit your needs.

BAG OF 13 CONTACTS (SUPPLIED WITH INSULATION SLEEVES AND FERRULES)	
Female socket-outlet Part Number	01AA213
Male inlet Part Number	61CA113

BOXES
Cable gland not included





	Wall box poly 30°	Wall box metal + inclined poly 30°	Wall box metal + straight metal sleeve	Wall box metal + inclined metal 70°	Wall box poly + inclined poly 70°
Entry					
M25	616A053	616A653	696A095	873A053	Not drilled and without cable gland Part no. 51CA058
M32		616A653419	696A095419	873A053419	
M40		616A653420	696A095420	873A053420	

SLEEVES




Inclined poly 30°	Inclined poly 70°	Straight metal	Inclined metal 70°
616A027	51CA757	696A127	873A087

HANDLES




Straight poly		Straight poly with poly cable gland		Straight metal with metal cable gland		Straight poly without cable gland with metric threaded entry
10-30 mm	616A013	5-12 mm	616A25320P	7-13 mm	616A95320M	M20	616A253417
10-30 mm	616A473*	9-18 mm	616A753	8-16 mm	616A963	M25	616A253418
		14-25 mm	616A25332P	16-24 mm	616A95332M	M32	616A253419
		18-32 mm	616A25340P	22-32 mm	616A95340M	M40	616A253420

*With built-in finger draw plate (recommended for inline connections)

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844

Locking with shaft for 2 padlocks ø 8 mm (padlocks not supplied)
Socket no. + Z1646

Lockable plug: contact us

E-Stop button
Socket no. + 453

Slelf-closing lid for inlet
616A226

Inlet cap
616A426

Closing mechanism (in-line connections) (a pair of finger draw plates)
616A346

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18
Crimping tool	61CA500
Helavia sleeve expansion tool	61CA400
Bag of 13 heat shrink insulation sleeves	61CA083

INFO +

Connector 37 contacts in metal

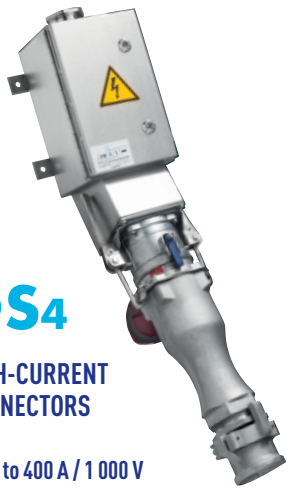
A metal version is also available with a locking position connected or disconnected by lockable shaft.
Please contact us for part no.

PF

HEAVY-DUTY PLUGS & SOCKETS

- Up to 600 A / 1 000 V
- Automatic IP66/IP67 water- and dust-tight
- Mechanical and electrical interlocking
- Up to 6 auxiliary and 2 pilot contacts

page 94



DS4

HIGH-CURRENT CONNECTORS

- Up to 400 A / 1 000 V
- 2 pilot contacts as standard
- Electrical locking system
- Insertion mechanism

page 100

CS1000

SINGLE-POLE POWER CONNECTORS

- Up to 400 A / 1 000 V
- Automatic IP66/IP67 water- and dust-tight
- Mechanical fool-proofing
- Padlocking ring

page 102

RANGE HIGH CURRENT

MARECHAL® high-current plugs provide a reliable connection up to 700 A / 1000 V, even under the harshest environments.

Find all information on our website:

marechal.com

Technical documentation

Product configurator

SP

SINGLE-POLE POWER CONNECTORS

- Up to 700 A / 1 000 V
- Automatic IP66/IP67 water- and dust-tight
- Electromechanical interlocking system

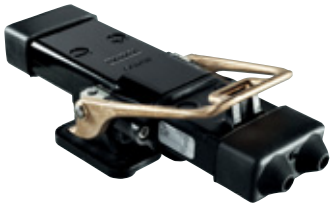
page 104

CS

SINGLE-POLE WELDING CONNECTORS

- From 75 to 500 A
- Bayonet contact system
- Self-cleaning contacts
- 16 to 150 mm² conductors

page 106



CCH

BATTERY-CHARGER CONNECTORS

- From 75 to 200 A
- With or without earth contact
- Effortless connection
- 16 to to 75 mm² conductors

page 108

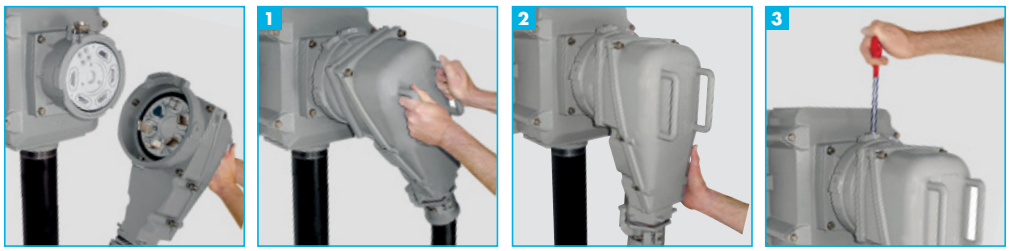
PF

HEAVY-DUTY PLUGS & SOCKETS
315 A / 400 A / 500 A / 600 A

- UP TO 600 A / 1000 V
- AUTOMATIC IP66/IP67 WATER- AND DUST-TIGHT
- MECHANICAL AND ELECTRICAL INTERLOCKING
- UP TO 6 AUXILIARY AND 2 PILOT CONTACTS

Big equipment and gensets power supply : in quarries, tunnel boring machines, port cranes, mining equipment...

MECHANICAL FEATURES

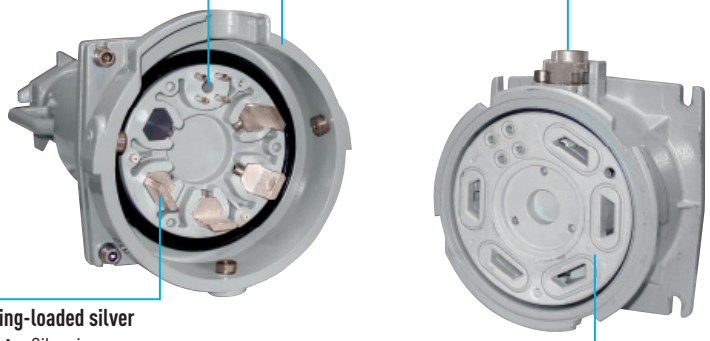


1 Off load engagement. 2 Automatically watertight. 3 Locking the plug in the socket closes the pilots and connects the main circuit.

Pilot contacts: Designed to connect after and disconnect before the phase contacts

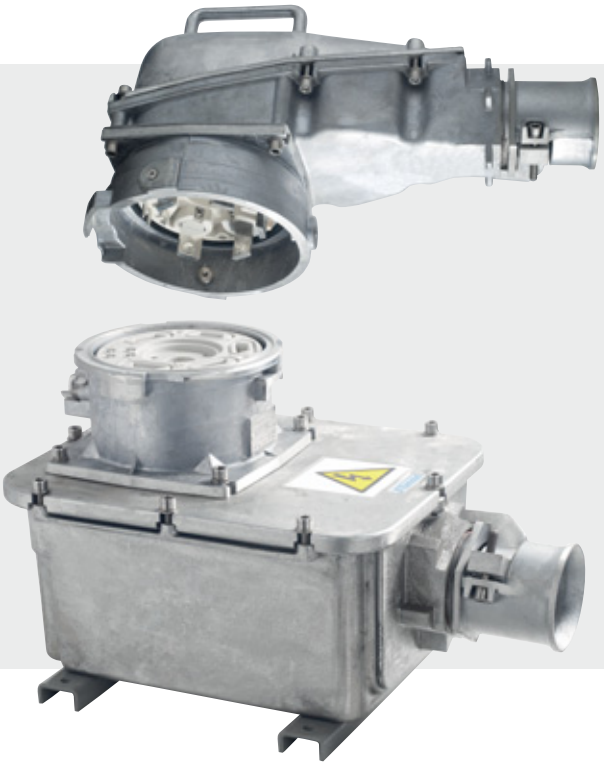
IK10 metal casing
High resistance to shocks

Electromechanical interlocking mechanism
The locking mechanism guarantees safe and watertight connection and engages the pilot contacts



Lateral spring-loaded silver butt-contacts. Silver is an excellent conductor and the plug engagement cleans contacts automatically.

Safety shutter IP4X/ IPXXD (PFQ) IP2X (PFC)



SPECIFICATION

315 to 600 A, IP66/IP67 socket-outlets with separate connection of phases and pilots (pilots first), safety shutter (IP4X/IPXXD socket-outlet) solid silver butt-contacts.

TECHNICAL FEATURES

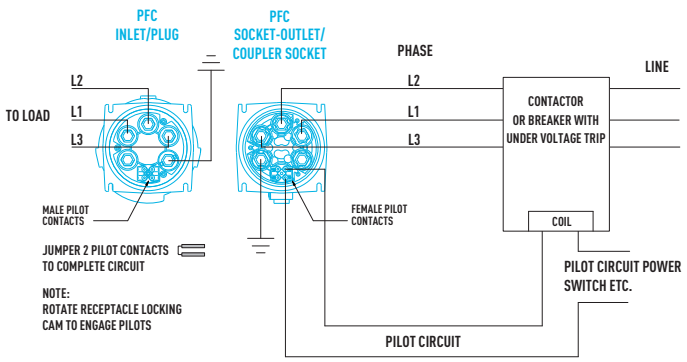
Socket-outlets that must be linked to switch/contactor via the pilot contacts.

	PFQ3	PFQ4	PFC4	PFC5	PFC6
Rated current (In)	315 A	400 A	400 A	500 A	600 A
Umax	690 V	690 V	1000 V	1000 V	1000 V
Auxiliary contacts available	6	6	2	2	2
Pilot contacts	2	2	2	2	2
Keying positions [1]	10	10	7	7	7
Ambient temperature	-40 °C to +60 °C for all PF				

[1] To distinguish between different power supplies and applications

INFO +

Line diagram of typical PF pilot control circuit



Pilot Contacts

	PFC	PFQ
Pilot contacts	2	2
Pilot Amperage	20 A	10 A
Interlocking Type	Mechanical	Mechanical
Terminal Type	Screw	Solder/crimp

Notes:
- The mechanical locking of the plug to the socket-outlet, via the rotation of a cam, closes the pilot contacts.
- Failure to use a pilot/relay system can create an electrical shock hazard.

STANDARDS ASPECTS

PF plugs ans sockets comply with:

- The European Low Voltage Directive 2006/95/CE,
- The French decree dated 20 December 2011 pertaining to the wiring and operating conditions of movable electrical apparatuses, and to NF C15-100 French standard
- The decrees relating to workers' protection in Belgium, Spain and Italy.

Also certified by UL, TR CU (GOST) and CSA (American, Russian and Canadian inspection laboratories).

PFQ3 & Q4 HIGH-CURRENT PLUGS & SOCKETS

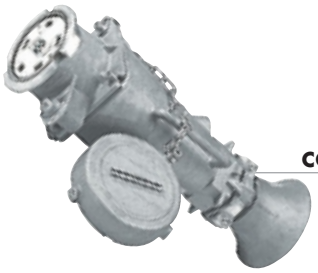
315 A and 400 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING INLET PFQ3

Box
474A023 ---

Inlet
4738017



COUPLER SOCKET PFQ3

Straight handle
474A013 ---

Socket-outlet
4734017

MAIN FEATURES

Rated current	315 A (PFQ3) / 400 A (PFQ4)	Flexible wiring (min-max)	95 - 185 mm²
Maximum voltage	690 V	Stranded wiring (min-max)	95 - 185 mm²
IP protection lid closed	IP66/IP67	Wiring for single or multi entry	
IP protection connected plug	IP66/IP67	Keying positions	10
Shock resistance	IK10	Auxiliary contacts (10 A / 400 V)	6
Ambient temperature	-40 °C to +60 °C	Pilot contacts (10 A / 400 V)	2

SOCKET-OUTLET female
PFQ3 (315 A)

INLET male
PFQ3 (315 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
380 - 440 V	3P+E	4734013	4738013
380 - 440 V	3P+N+E	4734017	4738017
660 - 690 V	3P+E	4734193	4738193
660 - 690 V	3P+N+E	4734197	4738197

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

SOCKET-OUTLET female
PFQ4 (400 A)

INLET male
PFQ4 (400 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
380 - 440 V	3P+E	4744013	4748013
380 - 440 V	3P+N+E	4744017	4748017
660 - 690 V	3P+E	4744193	4748193
660 - 690 V	3P+N+E	4744197	4748197

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

BOXES

Cable gland included

	Wiring from 95 to 150 mm²	Wiring from 150 to 185 mm²
46 - 50 mm	474A023951	474A023241
51 - 55 mm	474A023952	474A023242
56 - 60 mm	474A023953	474A023243
61 - 65 mm	474A023954	474A023244
66 - 70 mm	474A023955	474A023245
71 - 75 mm	474A023956	474A023246
76 - 80 mm	474A023957	474A023247
81 - 85 mm	474A023958	474A023248
86 - 90 mm	474A023959	474A023249

On request: boxes for installation in ducts, boxes equipped with circuit breaker, earth-leakage switch, contactor,...

HANDLES

	Straight *	Angled 90°
46 - 50 mm	474A013-50	474A913-50
51 - 55 mm	474A013-55	474A913-55
56 - 60 mm	474A013-60	474A913-60
61 - 65 mm	474A013-65	474A913-65
66 - 70 mm	474A013-70	474A913-70
71 - 75 mm	474A013-75	474A913-75
76 - 80 mm	474A013-80	474A913-80
81 - 85 mm	474A013-85	474A913-85
86 - 90 mm	474A013-90	474A913-90

* Trumpet gland available on request

INFO +

Electrical interlocking

PFC/PFQ devices are not intended for connection or disconnection under load. Electrical interlocking with a switch or a pilot controlled contactor is required. Boxes with the following equipment are available upon request:

- **circuit breaker or differential switch,**
- **contactor,**
- **fuses,**
- **loop-out enclosures,**
- **terminals for single pole cables...**

See next page: « how to wire a PF »

ACCESSORIES & OPTIONS

Key for locking and operating pilot contacts
473A824

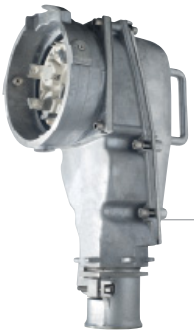
Inlet lid
474A126

PFC4, C5 & C6 HIGH-CURRENT PLUGS & SOCKETS

400 A to 600 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET PFC4



PLUG PFC4

Box
496A023 ---

Socket-outlet
4944017

Angled Handle
496A913 ---

Inlet
4948017

MAIN FEATURES

Rated current	400 A (PFC4) / 500 A (PFC5) / 600 A (PFC6)	Flexible wiring (min-max)	95 - 240 mm²
Maximum voltage	1000 V	Stranded wiring (min-max)	95 - 240 mm²
IP protection lid closed	IP66/IP67	Wiring for multi entry	
IP protection connected plug	IP66/IP67	Keying positions	7
Shock resistance	IK10	Auxiliary contacts (20 A / 400 V)	2
Ambient temperature	-40 °C to +60 °C	Pilot contacts (20 A / 400 V)	2

SOCKET-OUTLET female
PFC4 (400 A)

INLET male
PFC4 (400 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
380 - 440 V	3P+E	4944013	4948013
380 - 440 V	3P+N+E	4944017	4948017
660 - 690 V	3P+E	4944193	4948193
660 - 690 V	3P+N+E	4944197	4948197
1000 V	3P+E	4944223	4948223

SOCKET-OUTLET female
PFC5 (500 A)

INLET male
PFC5 (500 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
380 - 440 V	3P+E	4954013	4958013
380 - 440 V	3P+N+E	4954017	4958017
660 - 690 V	3P+E	4954193	4958193
660 - 690 V	3P+N+E	4954197	4958197
1000 V	3P+E	4954223	4958223

SOCKET-OUTLET female
PFC6 (600 A)

INLET male
PFC6 (600 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
380 - 440 V	3P+E	4964013	4968013
380 - 440 V	3P+N+E	4964017	4968017
660 - 690 V	3P+E	4964193	4968193
660 - 690 V	3P+N+E	4964197	4968197
1000 V	3P+E	4964223	4968223

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

BOXES

Cable gland included

	Wiring from 95 to 150 mm²	Wiring from 150 to 240 mm²
46 - 50 mm	496A023951	496A023241
51 - 55 mm	496A023952	496A023242
56 - 60 mm	496A023953	496A023243
61 - 65 mm	496A023954	496A023244
66 - 70 mm	496A023955	496A023245
71 - 75 mm	496A023956	496A023246
76 - 80 mm	496A023957	496A023247
81 - 85 mm	496A023958	496A023248
86 - 90 mm	496A023959	496A023249

On request: boxes for installation in ducts, boxes equipped with circuit breaker, earth-leakage switch, contactor,...

HANDLES

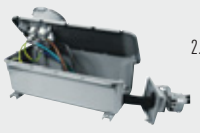
	Straight *	Angled 90°
46 - 50 mm	496A013-50	496A913-50
51 - 55 mm	496A013-55	496A913-55
56 - 60 mm	496A013-60	496A913-60
61 - 65 mm	496A013-65	496A913-65
66 - 70 mm	496A013-70	496A913-70
71 - 75 mm	496A013-75	496A913-75
76 - 80 mm	496A013-80	496A913-80
81 - 85 mm	496A013-85	496A913-85
86 - 90 mm	496A013-90	496A913-90

* Trumpet gland available on request

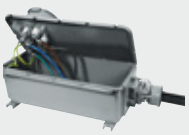
INFO +

How to wire a PF

1. The cable gland is mounted on a removable metal plate...



2. Align the conductors with the terminals for wiring



3. Slide the plate to its designated location and bolt. Close the cover.

4. Tighten the screws to make the device IP66/IP67

ACCESSORIES & OPTIONS

Inlet lid
494A126

DS4

HIGH-CURRENT CONNECTORS
400 A / 1 000 V

- UP TO 400 A / 1 000 V
- 2 PILOT CONTACTS AS STANDARD (REQUIRED)
- ELECTRICAL LOCKING SYSTEM
- INSERTION MECHANISM

The DS4 socket-outlets offer a compact solution for connections up to 400 A / 1000 V. The silver butt-contact system offers perfect current conductivity. The robust metal enclosure ensures a safe and reliable operation, even under harsh conditions. The DS4 is equipped, in standard version, with an easy inlet closing device made of stainless steel.
The DS4 socket outlets are especially suitable for the following applications: connection of drilling equipments and tunnel boring machines, cranes (e.g. in harbours), generators, quarries, large switchracks and switchboards...

INFO +

DS4 boxes / 400 A up to 1000 V

The DS4 is also available as a complete box, equipped with a contactor, LED signal lights and ON/OFF emergency pushbutton.
Please contact us for Part Numbers.

MAIN FEATURES

Rated current (with wiring according to standard)	400 A	Flexible wiring (min-max)	95 - 150 mm²
Maximum voltage	1000 V	Stranded wiring (min-max)	95 - 185 mm²
Protection	IP54 (IP66/IP67 optional)	Connectors without breaking capacity	
Shock resistance	IK09	Pilot contacts for electrical interlock	2
Ambient temperature	-40 °C to +60 °C	Mechanical interlock	as standard
Keying positions	12	Inlet closing device in stainless steel	as standard

SOCKET-OUTLET female
DS4 (400 A)

INLET male
DS4 (400 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
380-440 V	3P+E+ 2pil.	3944013172	3948013172
1000 V	3P+E+ 2pil.	3944223172	3948223172

WALL BOX
Cable gland included

SLEEVE*

HANDLE

	Wall box 70° SS	Inclined 60° metal		Straight metal with cable gland
35-48,5 mm	394A02563M	394A02768	53-57 mm	394A91557
48-65 mm	394A02575M		58-62 mm	394A91562
			62-68 mm	394A91568
			69-73 mm	394A91573

* If the socket-outlet and the inlet are mounted directly on a panel, a spacer should be used (see accessories & options)

ACCESSORIES & OPTIONS

Inlet cap	312A126
IP66/IP67 (socket & inlet)	Contact us
Spacer (68 mm)	394A12768
Spacer (115 mm)	394A127115

CS1000

SINGLE-POLE POWER CONNECTORS 400 A / 1 000 V

- UP TO 400 A / 1 000 V
- AUTOMATIC IP66/IP67 WATER- AND DUST-TIGHT
- MECHANICAL FOOL-PROOFING
- PADLOCKING RING

Perfect safety

- Socket-outlet: IP2X finger protection, without cap,
- IP66/IP67 watertightness with cap ; or upon connection,
- Locking mechanism preventing disconnection by accident.

Easy connection

- Mechanical fool-proofing system betwen phases, neutral and earth,
- Standardised colour coding (according to local regulation),
- Replacable crimping lug in case of cable damage.

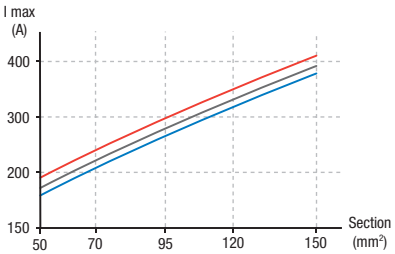
High Performance

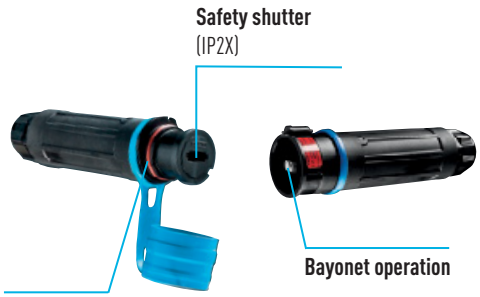
Thanks to its silver butt-contact technology the CS1000 connector withstands permanent current of 400 A / 1 000 V a.c. or 1 500 V d.c. (wiring from 50 to 150 mm²).

CS1000 electrical rating

Permanent permissible current for a H07RNF cable, at 30 °C ambient temperature

- Maximum permanent permissible current in the CS1000 after 2 000 operations depending on cable cross-section
- Maximum intensity of permanent current specified by the cable manufacturers to maintain a conductor core temperature < 85 °C
- Maximum intensity of permanent current specified bythe NFC 15-100 or the IEC 60 364-5-52 standards to maintain a conductor core temperature < 70 °C





5 mechanical keying positions

Earth | L1 | L2 / Negative | L3 / Positive | Neutral

MAIN FEATURES

Rated current (depending on the wire ø)	400 A	Shock resistance	IK08
Maximum voltage a.c.	1000 V	Ambient temperature	-40 °C to +60 °C
Maximum voltage d.c.	1500 V	Flexible wiring (min-max)	50 - 150 mm²
Short-circuit current Icc	20 kA during 250 ms	Keying positions	mechanical (5) and visual
Protection	IP66/IP67	Number of operations	2000

SOCKET-OUTLET female
CS1000 (400 A)
Without lug

INLET male
CS1000 (400 A)
Without lug

Type	European color coding*	Part no.	Part no.
L1	Brown	4534001	4538001
L2	Black	4534002	4538002
L3	Grey	4534003	4538003
Neutral	Blue	453400N	453800N
Earth	Green	453400T	453800T
Positive	Red	453400P	453800P
Negative	Black	453400M	453800M

* Part-numbers valid for Europe and Japan.
For other countries: add the suffix : P80 for the USA / P67 for Australia / P40 for UK and South-Africa

LUGS

Lug choice depends on the cable: the cross-section of the flexible cable mentioned in the table below is for information only. Please check dimensions as these may vary according to cable types and manufacturers.

Wiring (mm²)		Straight with hole	Straight threaded M12*	Internal diameter (mm)
Flexible	Stranded	Part no.	Part no.	
50	70	453A50C	453A50D	11
70	95	453A70C	453A70D	13,1
95	120	453A95C	453A95D	14,5
120	150	453A12C	453A12D	16,2
150	185	453A15C	453A15D	18

* Wiring with crimping lugs, according to NF C20-130 standard (for VDE 0220 standard, please contact us)
Crimping: Double hexagonal crimping is recommended.

PADLOCKING RING

SLEEVE**
Inclined 30° with adapter plate

ADAPTER PLATE

HANDLE
Straight

INLET CAP

453A844	453A027	453A540	M32	453A753	14-25 mm	453A126
			M40	453A783	18-32 mm	

** The inclined sleeve is recommended to reduce cable weight effect.

SP

SINGLE-POLE POWER CONNECTORS 700 A / 1 000 V

- UP TO 700 A
- AUTOMATIC IP66/IP67 WATER- AND DUST-TIGHT
- ELECTROMECHANICAL INTERLOCKING SYSTEM

The highest possible safety

- Reliable mechanical and electrical interlocking with pilot-contact circuit.
- IP2X socket-outlet when cap removed,
- Automatic IP66/IP67 watertightness when plug is connected.

An easily 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 colours,
- Screwed crimping lugs facilitate cable replacement.

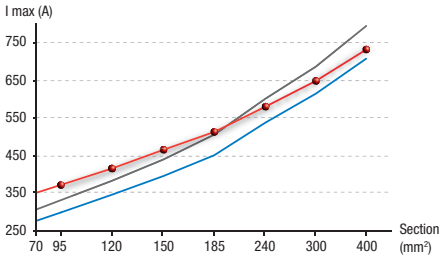
Performances

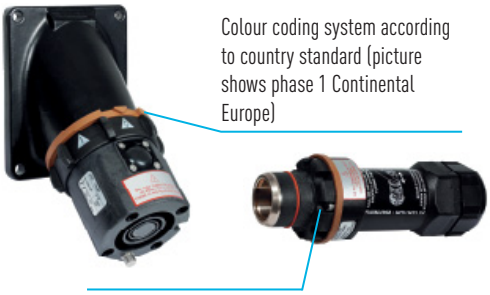
Thanks to the butt-contact principle, the SP withstands continuously up to 700A / 1000 V a.c. or 1500V d.c. (70 mm² to 400 mm² conductors), withstands at least 2000 operations.

SP Characterisation

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

- Maximum permanent permissible current in the SP after 2 000 operations depending on cable cross-section
- Maximum intensity of permanent current specified by the cable manufacturers to maintain a conductor core temperature < 85 °C
- Maximum intensity of permanent current specified bythe NFC 15-100 or the IEC 60 364-5-52 standards to maintain a conductor core temperature < 70 °C

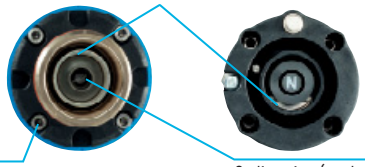




Colour coding system according to country standard (picture shows phase 1 Continental Europe)

Automatically IP66/IP67 when connected (dust and water hose down)

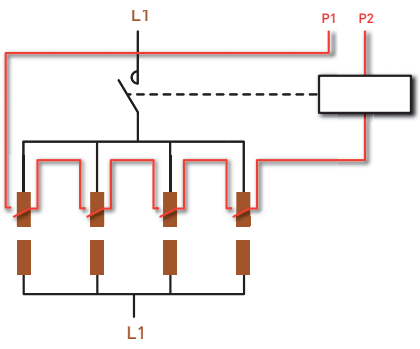
Silver-tipped butt-contact ensure perfect and durable electrical connection



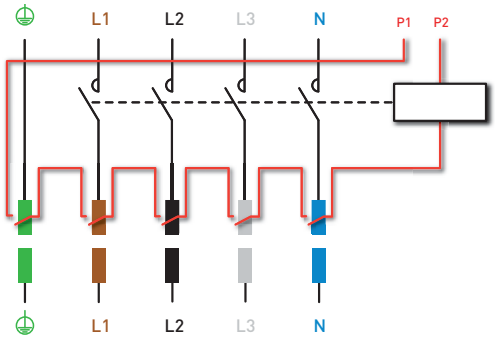
Metal retaining groove (wear resistant)

Coding ring (each phase, neutral and earth has a different diameter)

Interlocking electrical wiring diagram: increased power with parallel connection



Interlocking electrical wiring diagram: last connection close all the circuit



MAIN FEATURES

Rated current	700 A For higher current, please contact us	**Shock resistance**	IK08
		Ambient temperature	-40 °C to +60 °C
Maximum voltage a.c.	1000 V	**Flexible wiring (min-max)**	50 - 400 mm²
Maximum voltage d.c.	1500 V	**Keying positions**	mechanical (5) and visual
Short-circuit current Icc	20 kA during 250 ms	**Number of operations**	2000
IP protection lid closed	IP66/IP67	**Pre-wired pilot circuit**	6 A / 250 V

SOCKET-OUTLET female
SP (700 A)
Without lug

INLET male
SP (700 A)
Without lug

Type	European color coding*	Part no.	Part no.
L1	Brown	4544001	4548001
L2	Black	4544002	4548002
L3	Grey	4544003	4548003
Neutral	Blue	454400N	454800N
Earth	Green	454400T	454800T
Positive	Red	454400P	454800P
Negative	Black	454400M	454800M

* Part-numbers valid for Europe and Japan.
For other countries: add the suffix : P80 for the USA / P67 for Australia / P40 for UK and South-Africa

LUGS

Lug choice depends on the cable: the cross-section of the flexible cable mentioned in the table below is for information only.

Please check dimensions as these may vary according to cable types and manufacturers.

Wiring (mm²)		Straight with hole	Straight threaded M12*	Internal diameter (mm)
Flexible	Stranded	Part no.	Part no.	
50	70	454A50C	454A50D	11
70	95	454A70C	454A70D	13,1
95	120	454A95C	454A95D	14,5
120	150	454A12C	454A12D	16,2
150	185	454A15C	454A15D	18
185	240	454A18C	454A18D	20,6
240	300	454A24C	454A24D	23,1
300	400	454A30C	454A30D	26,1
400	500	454A40C	454A40D	29,2

* Wiring with crimping lugs, according to NF C20-130 standard (for VDE 0220 standard, please contact us) **Crimping:** Double hexagonal crimping is recommended.

SLEEVE* **Inclined metal 45°**

454A027

* The inclined sleeve is recommended to reduce cable weight effect.

HANDLE **Straight**

454A753	17-38 mm	M50
454A783	35-48 mm	M63

CS

SINGLE-POLE WELDING CONNECTORS 500 A

- FROM 75 TO 500 A - VERY LOW VOLTAGE (MAXIMUM 50 V)
- BAYONET CONTACT SYSTEM
- SELF-CLEANING CONTACTS
- 16 TO 150 MM² CONDUCTORS

MAIN FEATURES

Type CS	Wiring (mm²)	In rated current (A)	i max welding cycle (A)	
			5 min cycles	
			60%	30%
CS2	16	75	100	150
	25	100	125	200
	35	125	150	250
	50	150	200	300
CS3	50	150	200	300
	70	200	250	350
	95	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 min 30 s) and 70% off (i.e. 3 min 30 s).

INLET male

PLUG male

	Rated current welding cycle		CS2	CS3	CS5	CS2	CS3	CS5
Wire cross-section (mm²)	60%	30%						
16	100 A	150 A	4 2901 016			4 0201 016		
25	125 A	200 A	4 2901 030			4 0201 030		
35	150 A	250 A	4 2901 040			4 0201 040		
50	200 A	300 A	4 2901 050	4 3901 050		4 0201 050	4 0301 050	
70	250 A	350 A		4 3901 075			4 0301 075	
95	300 A	400 A		4 3901 100			4 0301 100	
120	350 A	450 A			4 5901 120			4 0501 120
150	450 A	500 A			4 5901 150			4 0501 150
with screw	200 A	300 A	4 2901 121					
with screw	300 A	400 A		4 3901 121				
with screw	450 A	500 A			4 5901 121			

			SOCKET-OUTLET female			**COUPLER-SOCKET** female		
	Rated current welding cycle		**CS2**	**CS3**	**CS5**	**CS2**	**CS3**	**CS5**
Wire cross-section (mm^2)	60%	30%						
16	100 A	150 A	4 2401 016			4 2301 016		
25	125 A	200 A	4 2401 030			4 2301 030		
35	150 A	250 A	4 2401 040			4 2301 040		
50	200 A	300 A	4 2401 050	4 3401 050		4 2301 050	4 3301 050	
70	250 A	350 A		4 3401 075			4 3301 075	
95	300 A	400 A		4 3401 100			4 3301 100	
120	350 A	450 A			4 5401 120			4 5301 120
150	450 A	500 A			4 5401 150			4 5301 150
with screw	200 A	300 A	4 2401 121					
with screw	300 A	400 A		4 3401 121				
with screw	450 A	500 A			4 5401 121			

COPPER LUGS

Lug choice depends on the cable: the cross-section of the flexible cable mentioned in the table below is for information only. Please check dimensions as these may vary according to cable types and manufacturers.

Wiring (mm^2)		**Straight threaded M10***	**Straight threaded M14***	**Straight threaded M14***	**Internal diameter (mm)**
Flexible	Stranded	**CS2**	**CS3**	**CS5**	
16	25	4 2 301 416			6,6
25	35	42 301 430			7,9
35	50	42 301 440			9,2
50	70	42 301 450	4 3301 450		11
70	95		4 3301 475		13,1
95	120		4 3301 400		14,5
120	150			4 5301 520	16,2
150	185			4 5301 550	18

* Wiring with crimping lugs, according to NF C20-130 standard (for VDE 0220 standard, please contact us)
Crimping: double hexagonal crimping is recommended.

CCH

BATTERY-CHARGER CONNECTORS 200 A

- FROM 75 TO 200 A
- WITH OR WITHOUT EARTH CONTACT
- EFFORTLESS CONNECTION
- 16 TO TO 75 MM² CONDUCTORS

MAIN FEATURES

Wiring (mm²)	In rated current (A)
16	75
25	100
35	125
50	150
70	200

INLET male
With lug

	Rated current	CCH Black Polyamide		CCH Grey Polyamide	
Wire cross-section (mm²)		2P + pilot 50 V a.c. max.*	2P+E +pilot 690 V a.c. max.**	2P + pilot 50 V a.c. max.*	2P+E +pilot 690 V a.c. max.**
16	75 A	5 0206 016	5 0207 016	5 0205 016	5 0209 016
25	100 A	5 0206 030	5 0207 030	5 0205 030	5 0209 030
35	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
70	200 A	5 0206 075	5 0207 075	5 0205 075	5 0209 075

* 120 V d.c. max.
** 1 000 V d.c. max.

SOCKET-OUTLET
female **With lug**

Wire cross-section (mm²)	Rated current	CCH Black Polyamide		CCH Grey Polyamide	
		2P + pilot 50 V a.c. max.*	2P+E +pilot 690 V a.c. max.**	2P + pilot 50 V a.c. max.*	2P+E +pilot 690 V a.c. max.**
16	75 A	5 2106 016	5 2107 016	5 2105 016	5 2109 016
25	100 A	5 2106 030	5 2107 030	5 2105 030	5 2109 030
35	125 A	5 2106 040	5 2107 040	5 2105 040	5 2109 040
50	150 A	5 2106 050	5 2107 050	5 2105 050	5 2109 050
70	200 A	5 2106 075	5 2107 075	5 2105 075	5 2109 075

* 120 V d.c. max.
** 1 000 V d.c. max.

COPPER LUGS

Lug choice depends on the cable: the cross-section of the flexible cable mentioned in the table below is for information only.

Please check dimensions as these may vary according to cable types and manufacturers.

Wiring (mm²)		Straight threaded M10*	Internal diameter (mm)
Flexible	Stranded	CCH	
16	25	4 2301 416	6,6
25	35	4 2301 430	7,9
35	50	4 2301 440	9,2
50	70	4 2301 450	11
70	95	4 3301 475 (M14)	13,1

* Wiring with crimping lugs, according to NF C20-130 standard (for VDE 0220 standard, please contact us) **Crimping:** double hexagonal crimping is recommended.

PNHT

POWER CONNECTORS

- 185° C and 240 °C
- 30 A / 500 V
- IP44

page 112

DSHT

POWER CONNECTORS

- 240° C and 400 °C
- 90 A / 690 V
- IP66

page 113

DN7C3HT

MOTOR CONNECTORS

- 135 °C
- 50 A / 415 V
- IP44

page 113

RANGE HIGH TEMPERATURE

This range of power connectors and signal & control connectors, provides excellent connection quality even with high-temperature environments.
Very robust, those connectors also resist to corrosion.

Find all information on our website:

marechal.com

Technical documentation

Product configurator

DN7C6HT

MOTOR CONNECTORS

- 135 °C
- 90 A / 415 V
- IP44

page 113

PN7CHT

MULTI-CONTACT CONNECTORS

- 240 °C
- 25 A / 50 V / 500 V
- IP44

page 113

HT

HIGH TEMPERATURE CONNECTORS

- FROM 25 TO 90 A
- FROM 135 TO 400 °C

MAIN FEATURES

	PNHT	DSHT	DN7C3HT	DN7C6HT	PN7CHT
Max. operating temperature steady	185 °C / 240 °C	240 °C / 400 °C (2h)	135 °C	135 °C	240 °C
Rated current In	30 A	90 A	50 A	90 A	25 A
Umax	500 V	690 V	415 V	415 V	50 V / 500 V
Maximum no. of contacts	3P+N+E	3P+E	6P+E	6P+E	6P+E
Protection	IP44	IP66	IP44	IP44	IP44
Robustness	IK09	IK09	IK09	IK09	IK09
Flexible wiring (min-max)	1 - 6 mm²	*	2,5 - 10 mm²	10 - 25 mm²	1 - 4 mm²
Stranded wiring (min-max)	1,5 - 10 mm²	*	2,5 - 16 mm²	10 - 35 mm²	1 - 6 mm²

* Armoured and unarmoured flexible cables, from 10 mm² up to 95 mm² via terminals box side and 6 mm², 16 mm2 & 35 mm² via crimping contacts plug side.

PNHT (30 A)
185 °C / 240 °C

SOCKET-OUTLET female

INLET male

Voltage 50 Hz	Polarity	Part no. 185 °C	Part no. 240 °C	Part no. 185 °C	Part no. 240 °C
20 - 24 V	2P	092408A185	092408A175	092808A185	092808A175
190 - 230 V	3P+E	0924033185	0924033175	0928033185	0928033175
220 - 250 V	1P+N+E	0924015185	0924015175	0928015185	0928015175
380 - 440 V	3P+E	0924013185	0924013175	0928013185	0928013175
380 - 440 V	3P+N+E	0924017185	0924017175	0928017185	0928017175

BOXES
Cable gland not included

Straight metal

Straight metal + inclined metal 45°

SLEEVE

Inclined metal 45°

HANDLE

Straight metal

Entry					
M20	092A055185	092A653185	092A027185	6-13 mm	092A963185
M25		092A672185		10-18 mm	092A674185
M32		092A673185		16-24 mm	092A675185

SPECIFICATION

High temperature connectors, silver butt-contacts with metal braid, Automatic IP44.

DSHT (90 A)
240 °C*

WALL MOUNTING SOCKET — **PLUG**

Voltage 50 Hz	Polarity	Part no.	Part no.
380 - 440 V	3P+E	3934013Zxxxx	3938013Zxxxx

* 400 ° C for 2 hours, see range BOXES AND OTHER PRODUCTS, Equipment for tunnels.
Please contact us for configurations and Part No.

DN7C3HT (50 A)
135 °C

SOCKET-OUTLET female  **INLET** male 

MOUNTING ACCESSORIES: SEE DN3 PAGE 47

Umax (V) / Imax (A)	Polarity	Part no.	Part no.
415 - 50	6P+E	1934561185	1938561185

DN7C6HT (90 A)
135 °C

SOCKET-OUTLET female  **INLET** male 

MOUNTING ACCESSORIES: SEE DN6 PAGE 49

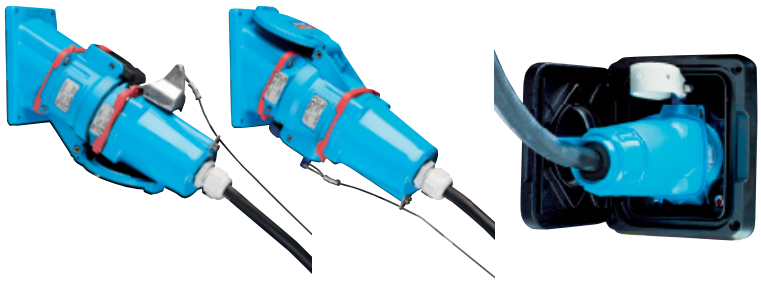
Umax (V) / Imax (A)	Polarity	Part no.	Part no.
415 - 90	6P+E	1964561185	1968561185

PN7CHT (25 A)
240 °C

SOCKET-OUTLET female  **INLET** male 

MOUNTING ACCESSORIES: SEE PNHT

Umax (V) / Imax (A)	Polarity	Part no.	Part no.
50 - 25	7P	09P4070175	09P8070175
500 - 25	6P+E	09P4061175	09P8061175



MECHANICAL EJECTION PLUGS & SOCKETS

TPM, DSN, DS & DN RANGES ON VEHICLES & MOBILE DEVICES

page 116

RANGE SELF-EJECTING

Self-ejecting systems avoid the need to disconnect electrical equipment, allowing a mobile device to be moved without unplugging it, or where equipment is located in high-risk areas. There are many applications: emergency vehicles, ambulance, road transport vehicles, electric boats, rolling heating or cooling in the food industry, canteens or hospitals, or switch boards located at vulnerable places (a toll terminal for example).

Find all information on our website:

marechal.com

Technical documentation

Product configurator

ELECTROMECHANICAL EJECTION BOXES

RETTBOX® & RETTBOX®-AIR RANGES ON EMERGENCY VEHICLES

page 118

MECHANICAL EJECTION PLUGS & SOCKETS

TPM, DSN, DS & DN RANGES ON VEHICLES & MOBILE DEVICES

TPM

ELECTRICAL INLET WITH FLAP/DSN1

- System for the electrical supply of any type of emergency vehicle.
- Chemical and food industries: Protection of connections.

Please contact us for Part Numbers

MAIN FEATURES

	BOX ALONE
Material	ABS/PC
Dimensions (LxHxD)	121 x 136 x 60 mm
Semirecessed Encl depth (d)	45 mm
Integration of one or two LEDs	- Green LED for 220 V/230 V a.c. voltage Display - Yellow LED for 12 V / 24 V d.c. charger voltage Display
	DSN1 SOCKET-OUTLET
Current	20 A
Protection (lid closed)	IP55

Total safety

- Safety for the user ensured by the high electrical and mechanical level of performances of the DSN1 decontactor.
- Safety of intervention: Interlocking system to prevent vehicle from starting
- Protection of connections in humid and dusty environments.

Compact style and and easy handling

- Direct mating and unmating
- Reduced size: Integration in the vehicle

Closed lid : IP55

DSN1 Coupler-socket:

Direct introduction

DSN-DS-DN

DECONTACTOR™ AND MULTICONTACTS PLUGS AND COUPLER SOCKETS

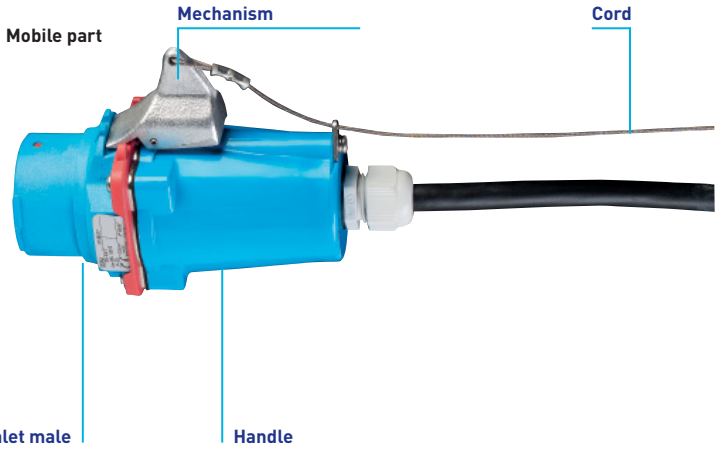
Please contact us for Part Numbers

Self-ejecting plugs: handle + inlet (male)

Mechanical self-eject systems work with a Voltage cord that activates the decontactor's latch to release the ejection force of the springs inside.

Fixed part

Mobile part

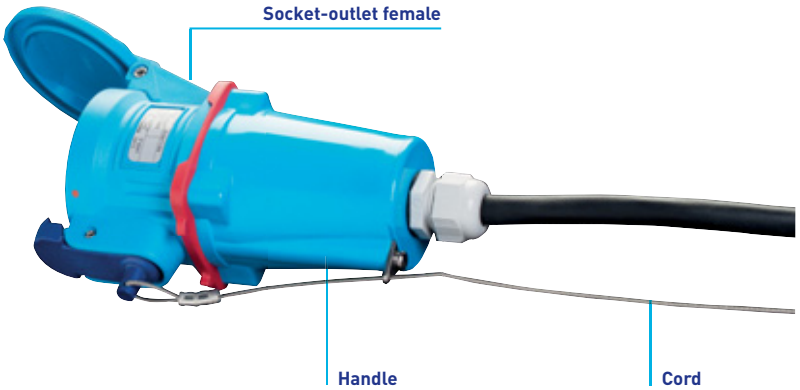


Self-ejecting coupler sockets: handle + socket-outlet (female)

A hook called «shark» is located on the connector. It is connected by a cable to the power cable. A pull on this rope actuates the hook that releases the plug.

Fixed part

Mobile part



ELECTROMECHANICAL EJECTION BOXES

RETTBOX® & RETTBOX®-AIR RANGES ON EMERGENCY VEHICLES

RETTBOX® & RETTBOX®-AIR

BOXES AND COUPLER SOCKET

The RETTBOX® is an electromagnetic self-eject system comprising coupler socket and an inlet mounted in a box. The self-ejection of the coupler socket is activated electrically via the vehicle's ignition system. The release mechanism is housed in a compact enclosure fitted into the vehicle. On ignition, a solenoid plunger lifts the socket release latch thus ejecting it from the inlet.

MAIN FEATURES

	RETTBOX® (20A)	RETTBOX®-AIR (20A)	RETTBOX®-AIR (32A)
Front	stainless steel	stainless steel	stainless steel
Box	glassfiber reinforced polyamide	glassfiber reinforced polyamide	stainless steel
Protection mode (trapdoor closed)	IP55	IP55	IP55
Self-closing coupler socket	IP55	IP55	IP55
Front dimensions (LxH)	107 x 180	107 x 180	123 x 188
Cut-out dimensions on vehicle's frame (LxHxP)	83 x 163 x 94	83 x 163 x 94	103 x 173 x 145
Coupler socket cable supplied	4 m	4 m *	4 m *
Auxiliary contacts	optional	no	optional
Weight (excluding coupler socket)	1200 g	1200 g	3200 g
Built-in decontactor	20 A	20 A	32 A
Compressed air duct	no	up to 13 bar	up to 13 bar
Cable	flexible	ultra flexible	ultra flexible

* with duct for compressed air

RETTBOX®-air : the conductor for compressed air is integral within the electrical cable

ADDITIONAL FACILITIES

Leather pull-grip

RETTBOX®	RETTBOX®-AIR 20 A	RETTBOX®-AIR 32 A
611AZIE	611AZIE	381AZIE

Ceiling bracket

The ejecting socket is available with 5, 6, 7, 8 or 9 m of cable. A ceiling bracket made of stainless steel is available.

RETTBOX®	RETTBOX®-AIR 20 A	RETTBOX®-AIR 32 A
611AHUTRRR L	611AHUTAAA L	381AHUTAAA L

INFO +

LED control light

The 230 V and 400 V versions of Rettbox® (20 A) and Rettbox®-air (20 A) are fitted with a LED control light to indicate the presence of charging voltage.

SPECIFICATION

Battery charging connector system for rescue vehicles, comprising an inlet and enclosure. The coupler socket is automatically ejected when the ignition key is turned.

Inlet and socket use silver-nickel butt contacts with metal braid, complying with EN 60309-1.

RETTBOX® (20 A)

ENCLOSURE WITH INLET supplied with 4 m cable (other length of cable on request)

COUPLER SOCKET supplied with 4 m cable

Voltage	Polarity	Enclosure	Part no.	Part no.
230 V	1P+N+E	Rettbox with 12 V relay and male inlet	6116015**RK412U**	6113015**RK4L**
230 V	1P+N+E	Rettbox with 24 V relay and male inlet	6116015**RK424U**	6113015**RK4L**
400 V	3P+N+E	Rettbox with 12 V relay and male inlet	6116017**RK412U**	6113017**RK4L**
400 V	3P+N+E	Rettbox with 24 V relay and male inlet	6116017**RK424U**	6113017**RK4L**
230 V	1P+N+E+2aux	Rettbox with 12 V relay and male inlet	6116175**RK412U**	6113175**RK4L**
230 V	1P+N+E+2aux	Rettbox with 24 V relay and male inlet	6116175**RK424U**	6113175**RK4L**
12 V	2P d.c.*	Rettbox with 12 V relay and male inlet	6116059**RK412U**	6113059**RK4L**
24 V	2P d.c.*	Rettbox with 24 V relay and male inlet	6116089**RK424U**	6113089**RK4L**

* LED not available for these configurations

RETTBOX®-AIR (20 A)

ENCLOSURE WITH INLET supplied with 4 m cable (other length of cable on request) - compressed air conduct up to 13 bars

COUPLER SOCKET supplied with 4 m cable

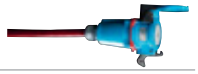
Voltage	Polarity	Enclosure	Part no.	Part no.
230 V	1P+N+E	Rettbox with 12 V relay and male inlet	6116015**AK412U**	6113015**AK4L**
230 V	1P+N+E	Rettbox with 24 V relay and male inlet	6116015**AK424U**	6113015**AK4L**
12 V	2P d.c.*	Rettbox with 12 V relay and male inlet	6116059**AK412U**	6113059**AK4L**
24 V	2P d.c.*	Rettbox with 24 V relay and male inlet	6116089**AK424U**	6113089**AK4L**

* LED not available for these configurations

RETTBOX®-AIR (32 A)

ENCLOSURE WITH INLET supplied with 4 m cable (other length of cable on request) - compressed air conduct up to 13 bars

COUPLER SOCKET supplied with 4 m cable



Voltage	Polarity	Enclosure	Part no.	Part no.
230 V	1P+N+E+3aux	Rettbox with 24 V relay and male inlet	3816187**AK424U**	3813187**AK4L**
400 V	3P+N+E+1aux	Rettbox with 24 V relay and male inlet	3816247**AK424U**	3813247**AK4L**

BM

MODULAR BOXES

- Assembly from 1 to 6 modules
- IP66/IP67 sealing
- 1 or 2 cable glands per side
- Range of protection levels available

page 122

CD

SOCKET-OUTLETS WITH PROTECTION

- From 16 up to 63 A
- RCD protection
- Inspection trap
- 1 o 2 MARECHAL® socket-outlets
- Range of protection levels available

page 124

BG

LIQUEFIED GAS TRANSFER BOXES

- Carrier safety
- 30 mA protection
- Guaranteed lorry grounding

page 126

RANGE DISTRIBUTION BOXES AND OTHER PRODUCTS

MARECHAL® offers a wide range of distribution boxes for all industrial applications and a large choice of products designed specifically for power-supply in tunnels.

Find all information on our website:

marechal.com

Technical documentation

Product configurator

CRIC

CONNECTION TERMINALS

- From 2 x 1.5 to 2 x 120 mm²
- Will not unscrew due to vibration
- Resistant to thermal shock: anti-shear capability

page 127

BRP

PORTABLE SERVICE BOXES

- From 2 to 4 outgoing lines
- From 16 A to 90 A
- 24, 230 or 400 V
- Protection on demand

page 127

TUNNELS

BOXES AND CONNECTORS

- No cable cutting
- Fire-resistant boxes
- Wall mounting socket-outlet for smoke accelerators
- Fire brigade boxes

page 128

BM MODULAR BOXES

- ASSEMBLY FROM 1 TO 6 MODULES
- IP66/IP67 SEALING
- 1 OR 2 CABLE GLANDS PER SIDE
- RANGE OF PROTECTION LEVELS AVAILABLE

BM : the benefits of modularity

The BM family of enclosures accepts PN plugs and sockets, DS and DSN decontactors.
It offers differently sized boxes which can all be fitted with terminal blocks, domestic socket-outlets, inspection windows (for easy access to fuses and circuit breakers) etc. A coupling kit can join 2 boxes with each other.

MAIN FEATURES

	BM
Material	Impact-resistant thermoplastic (IK08)
Fastenings	Captive stainless steel screws
Protection mode	IP66/IP67
Rated current	From 16 to 63 A
Wiring	2 x 1,5 mm² to 5 x 35 mm²
Wall box dimensions (HxWxD) in mm	170 x 170 x 118 (80 without lid)
Assembly	1 ou 2 cable gland per side

Wall boxes can be used alone mounting accessories to PN, DS or DSN socket-outlets and inlets to form a wall mounting socket or a wall mounting appliance inlet. These solutions are described in the PN, and DSN pages.

BOXES FITTED WITH SOCKET-OUTLETS AND PLUGS

Inclined box - 1 socket-outlet

Inclined box made of thermoplastic material (IP66/67 - IK 08), with a flat lid, including:

- A MARECHAL® socket from 16 to 63 A, polarities from 2P to 3P+N+E, voltages from 24 V to 690 V: PN / DSN1 (16 A) - DS1 (30 A) - DSN3 (32 A) - DS3 (50 A) - DSN6 (63 A)
- The box is not drilled (drilled at extra cost).
- Entries from M16 to M40.
- Earth-leakage circuit breaker protection as standard. Other types of protection (earthleakage switch, fuses etc) available on request.

Inclined box with an inspection window - 1 socket-outlet

Inclined box made of thermoplastic material (IP66/IP67 - IK 08), with an inspection window, including:

- A MARECHAL® socket from 16 to 63 A, polarities from 2P to 3P+N+E, voltages from 24 V to 690 V : PN / DSN1 (16 A) - DS1 (30 A) - DSN3 (32 A) - DS3 (50 A) - DSN6 (63 A)
- The box is not drilled (drilled at extra cost).
- Entries from M16 to M40.
- Earth-leakage circuit breaker protection as standard. Other types of protection (earthleakage switch, fuses etc) available on request.

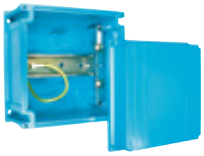
BASIC ELEMENTS

Wall box

Products	Entries	Dimensions*	Earth terminal	Part no.
PN or DSN1	for 2 from M16 to M32 per side	127 x 127 x 172	With	51AA058
DS1 or DSN3	for 2 from M16 to M32 per side	127 x 127 x 172	With	51BA058
DS3 or DSN6	for 2 from M16 to M40 per side	170 x 170 x 201	With	51CA058
DS6	for 2 from M16 to M40 per side	170 x 170 x 201	With	51DA058

Boxes are not drilled (drilled at extra cost).
* H x W x D

Box for terminal blocks + flat lid



Dimensions*	Part no.
170 x 170 x 118	509ACP2

Boxes for terminal blocks include a DIN rail and an earth terminal.
The box accommodates a 130-mm wide terminal box and can be equipped with a domestic socket-outlet (part no. 509AD40).
* H x W x D

Box with inspection window

Dimensions*	Part no.
170 x 170 x 118	509ACF2

The box is designed for 1 to 6 module assemblies.
* H x W x D

Coupling units (batch of 2)

Inside diameter	Part no.
26 mm	509AML1

These coupling units are used to connect 2 boxes together (vertically).

INFO +

These boxes are available with other circuit-breakers, fuses, decontactors and plug and sockets. Please contact us to communicate your needs..

To order plugs associated to the sockets mounted on the boxes, please see pages related to DSN1, DSN3, DSN6, DS1, DS3 and PN.

CD

SOCKET-OUTLETS WITH PROTECTION 16 A / 32 A / 63 A

- IP66/IP69K WATER- AND DUST-TIGHT
- RCD PROTECTION
- 1 OR 2 MARECHAL® SOCKET-OUTLETS

CD: security and simplicity provided

Compliant with CEI EN 61439-1 and CEI EN 61439-3, this box is composed of two parts fixed on hinges:

- a **protection** part, with a transparent window and a key locking option,
- a **terminal** part for a quick access to the connection.

Ready wired for Installation

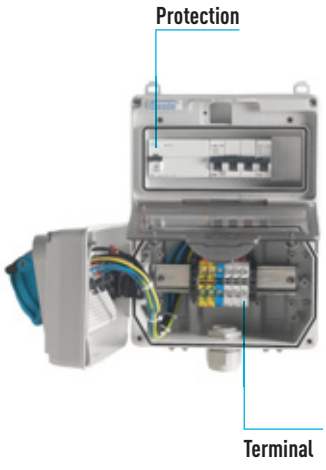
MAIN FEATURES

	CD
Material	Impact-resistant thermoplastic (IK09)
Fastenings	Captive stainless steel screws
Protection mode	IP66/IP69k - IP44 with domestic sockets
Rated current	From 16 to 63 A
Wiring capacity	2 x 1,5 mm² to 5 x 35 mm²
Cable entries	M50 max.
Housing dimensions (WxHxD) in mm	345 x 225 x 156
Assembly	10 modules max.

COMPOSITION

INSIDE BOX

	Main switch with RCD 30mA	Circuit breaker Socket 1	Circuit breaker Socket 2	Terminal	Cable gland mm
Box					
CD1		1x16A 1P+N 30mA		1P+N+E 16mm²	M25 POLY (9-18)
CD2	1x25A 1P+N	1x16A 1P+N	1x16A 1P+N	1P+N+E 16mm²	M25 POLY (9-18)
CD3		1x16A 3P+N 30mA		3P+N+E 16mm²	M25 POLY (9-18)
CD4		1x16A 3P 30mA		3P+E 16mm²	M25 POLY (9-18)
CD5	1x25A 3P+N	1x16A 3P+N	1x16A 3P+N	3P+N+E 16mm²	M25 POLY (9-18)
CD6*		+ 2 fuses 6A Gg		1P+N+E 16mm²	M25 POLY (9-18)
CD7	1x25A 1P+N	1x16A 1P+N	1x16A 1P+N	1P+N+E 16mm²	M25 POLY (9-18)
CD8		1x32A 1P+N 30mA		1P+N+E 16mm²	M32 POLY (14-25)
CD9	1x40A 1P+N	1x32A 1P+N	1x32A 1P+N	3P+N+E 16mm²	M32 POLY (14-25)
CD10		1x32A 3P+N 30mA		3P+N+E 16mm²	M32 POLY (14-25)
CD11	1X40A 3P+N	1x32A 3P+N	1x32A 3P+N	3P+N+E 16mm²	M32 POLY (14-25)
CD12	1x40A 3P+N	1x16A 1P+N	1x32A 3P+N	3P+N+E 16mm²	M32 POLY (14-25)
CD13	1x40A 3P+N	1x16A 1P+N	1x32A 3P+N	3P+N+E 35mm²	M40 POLY (18-32)
CD14	1x40A 3P+N	1x16A 1P+N	1x32A 3P+N	3P+N+E 16mm²	M32 POLY (14-25)
CD15		1x63A 3P+N 30mA		3P+N+E 16mm²	M40 POLY (18-32)
CD16*	1x25A 3P+N	+ 2 fuses 6A Gg	1x16A 3P+N	3P+N+E 16mm²	M32 POLY (14-25)



* CD6 and CD16 boxes are equipped with a 160 VA 230V/24V transformer. Maximum operating temperature: 40 ° C

PART NUMBERS

NUMBER AND TYPE OF SOCKET-OUTLET PER BOX

Type	French standard socket 16 A - 230 V	16 A socket	16 A socket			32 A socket		63 A socket	MARECHAL® DECONTACTOR™ associated*	
		24 V	220-250 V	380-440 V	220-250 V 380-440 V	220-250 V	220-250 V 380-440 V	220-250 V 380-440 V		
Box	2P+E	2P	1P+N+E	3P+E	3P+N+E	1P+N+E	3P+N+E	3P+N+E	DSN Range	DS Range
CD1			1						6114015**CD1**	3114015**CD1**
CD2			2						6114015**CD2**	3114015**CD2**
CD3					1				6114017**CD3**	3114017**CD3**
CD4				1					6114013**CD4**	3114013**CD4**
CD5					2				6114017**CD5**	3114017**CD5**
CD6		1							611408A**CD6**	311408A**CD6**
CD7	1		1						6114015**CD7**	3114015**CD7**
CD8						1			6134015**CD8**	3134015**CD8**
CD9						2			6134015**CD9**	3134015**CD9**
CD10							1		6134017**CD10**	3134017**CD10**
CD11							2		6134017**CD11**	3134017**CD11**
CD12			1				1		6134017**CD12**	3134017**CD12**
CD13			1				1		6134017**CD13**	3134017**CD13**
CD14	1						1		6134017**CD14**	3134017**CD14**
CD15								1	6164017**CD15**	
CD16		1 (PN Range)			1				6114017**CD16**	3114017**CD16**

* It is also possible to use DN range. Contact us for part numbers.

Other configurations on request. Please contact us for references.

INFOS +

The CD box can be mounted on a support.
Please contact us for part numbers.

BG - CRIC - BRP

BG : Box for transfer of liquefied gas

Safe connection box for loading and unloading liquefied gas from vehicles

This box is designed to achieve five key functions:

1° - Compliance with **the NFC 15 100 installation standard**
2° - Compliance with **users protection decrees** (workers and goods)
3° - **Mobile facilities protection**
4° - Switching off the socket on the rest position
5° - Personnel safety

MAIN FEATURES

- RCD 30 mA protection
- Truck Earth linkage warranty
- Fixation: 300 x 300 mm
- Height: 470 mm
- Depth: 250 mm
- IP68 M40 (Ø 20 to 32 mm) cable gland

	Current	Voltage	Box part number	Plug part number		
				Inlet	+	Handle
DN6	80 A	400 V	1---9 0670 A	19 68 037 Z0078	+	65 9A 013D_ _ (see DN6)
DN6	80 A	230 V	1---9 0670 B	19 68 037	+	65 9A 013D_ _ (see DN6)
DN1	16 A	400 V	1---9 0670 C	19 18 017	+	19 1A 013
DS9	100 A	400 V	3---9 0670 D	39 98 017	+	65 9A 013D_ _ (see DS9)

CRIC - Terminals from 2 x 1,5 to 2 x 120 mm²

The CRIC terminals are characterised by:

- perfectly tight: no tool required,
- a spring placed inside the terminal head compensates for strand settlement and copper yield.
- Spring-assisted tightening (even after copper yield)
- Vibration-resistant, thermal cycling-resistant and anti-shearing terminals
- Comply with the NFC 20-110 standard

Terminal		insulated with fixing part	insulated + screw with rear part	Earth with treaded hole	Earth + screw with rear part	Earth + screw with treaded hole	insulated without fixing part	Protecting cap
	Wiring							
T6	2 x 1,5 mm² to 2 x 6 mm²	6 TA 6	6 TB 6	6 TD 6	6 TE 6	6 TF 6	6 TV 6	-
T16	2 x 4 mm² to 2 x 16 mm²	6 TA 16	6 TB 16	6 TD 16	6 TE 16	6 TF 16	6 TV 16	-
T35	2 x 6 mm² to 2 x 35 mm²	6 TA 35	6 TB 35	6 TD 35	6 TE 35	6 TF 35	6 TV 35	-
B70	2 x 25 mm² to 2 x 70 mm²	6 BA 70	6 BB 70*	6 BD 70	6 BE 70	6 BF 70	-	6 C 70
B120	2 x 50 mm² to 2 x 120 mm²	6 BA 120	6 BB 120*	6 BD 120	6 BE 120	6 BF 120	-	6 C 120

* rod non insulated

BRP : Portable service boxe

IP 54 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

EQUIPMENT FOR TUNNELS

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, railroads and inland waterways...
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® boxes equipped with connectors or decontactors provide safe solutions for tunnel maintenance.

Watertightness

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

Corrosion and impact resistance
Halogene and smoke free

For optimum safety, the materials used for making MARECHAL® boxes and connectors are resistant to corrosion and impact (resistance IK09).
In case of fire, these materials emit no smoke or dangerous product.

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.

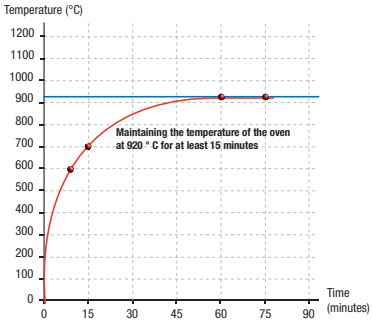
STANDARDS AND CERTIFICATIONS

Supply circuits for emergency lighting installed in tunnels must meet the following requirements:

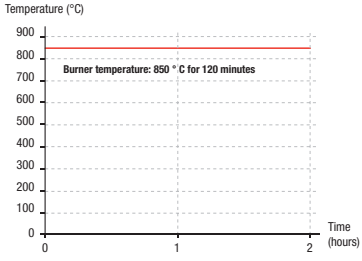
- EN 50362 European standard
- French government Directive No. 2000-63 of 25 August 2000 on safety in tunnels and national road network
- NF C 32-070 French standards
- Guides CETU defining the fire behavior of road tunnels

To meet these requirements, MARECHAL® equipments are among the only on the market to have been tested and certified by:

- C.S.T.B France - Centre Scientifique et Technique du Bâtiment
- IMQ laboratory in Italy.



Oven temperature curve - standardized time
NF C 32-070 standard



Flame temperature curve - Time
NF EN 50362 standard

DERIVATION BOXES WITHOUT CUTTING MAIN CABLE - Standard lighting

Made from halogen free fiberglass reinforced polyester compound or thermoplastic, these boxes allow a service tap-off from the main through cable **without the need to strip or cut the main cable**. "Snail" type gasket allow the immediate positioning of cables with a maximum diameter of 28 mm whilst creating an IP67 seal. The box lid, fitted with a retaining cord, is fixed to the box by means of captive stainless steel screws.

MAIN FEATURES

Consult us

	POLY BOXES	ALUMINIUM BOXES
Service terminals	2 to 5 insulation-piercing.	
Service protection	By circuit breaker fitted to DIN rail	
Cables accepted	Armoured and unarmoured cables, stranded or flexible, from 2,5 mm² to 35 mm² (For conductors above 25 mm2, the main cable must be cut.)	Armoured and unarmoured cables, stranded or flexible, from 4 mm² to 35 mm²
Internal and external Earth point	Inside and outside the enclosure	
Ingress Protection	IP66 according to NF EN 60529	
Shock resistance	IK09 according to NF EN 50102	
Fire smoke class	M1F0	
Self extinguishing material	UL94-V0	
Modularity box - Options - Other equipment	• Supply of service leads fitted with MARECHAL® coupler sockets • Accessories for fixing box to cable tray or ladder. • "Power On" signal light • Alternative non-piercing terminals • Alternative Protection: single phase circuit breaker • Plate for external fixing	• Supply of service leads fitted with MARECHAL® coupler sockets • Alternative Protection: single phase circuit breaker

EXPRESS® BOX MADE FROM HALOGEN FREE FIBERGLASS REINFORCED POLYESTER COMPOUND

Type	H x L x P in mm	Distribution
91150	268 x 272 x 111	Maximum 2 tap-offs using 2 sockets Maximum 4 tap-offs using glands

EXPRESS® BOX MADE FROM HALOGEN FREE THERMOPLASTIC

Type	H x L x P in mm	Distribution
93036	190 x 522 x 121	Maximum 4 tap-offs using 2 sockets Maximum 4 tap-offs using glands

EXPRESS® BOX 1 LINE

Type	H x L x P in mm	Distribution
01N4015010E0	183 x 205 x 100	Maximum 2 tap-offs using 2 sockets Maximum 2 tap-offs using glands

EXPRESS® BOX 2 LINES

Type	H x L x P in mm	Distribution
01N4017020E0	268 x 272 x 111	Maximum 2 tap-offs using 2 sockets Maximum 2 tap-offs using glands

DISTRIBUTION BOXES FIRE RESISTANT
Emergency lighting, Signalling, Signposting

Poly boxes

Made from halogen free fiberglass reinforced polyester compound, these boxes allow a service tap-off from the main through cable **without the need to strip or cut the main cable**, known as type CR1-C1, conforms to NF C 32-070 or type FTG10(0) M1 0.6 KV conforms to EN 50362. "Snail" type gasket allow the immediate positioning of cables with a maximum diameter of 28mm whilst creating an IP67 seal. The box lid, fitted with a retaining cord, is fixed to the box by means of captive stainless steel screws.

Cast iron boxes

Made from cast iron, these boxes allow a service tap-off from the main through cable. Known as type CR1-C1, it conforms to NF C 32-070.
The main cable through the box through the cable glands and is connected to stainless steel terminals mounted on ceramic base.
The box lid is fixed to the box by means of captive stainless steel screws.

MAIN FEATURES

Consult us

	POLY BOXES	CAST IRON BOXES
Fire resistance	Electrical continuity of the main cable guaranteed: • **NF C 32-070** : oven temp. 920°C - temperature increases. • **NF EN 50362** : oven temp. 850°C - temperature increases.*	Electrical continuity of the main cable guaranteed to oven temp. 920°C - temperature increases according to **NFC 32-070** standard.
Service terminals	• 2 to 5 insulation-piercing, stainless steel connectors, fitted into a ceramic base. The whole arrangement is fitted to the wall by means of a stainless steel plate. • 2 to 5 insulation-piercing only under EN 50362	2 to 5 insulation-piercing, stainless steel connectors, fitted into a ceramic base.
Service protection	By fuse or circuit breaker fitted to DIN rail	By fuse or circuit breaker monted on ceramic base.
Cables accepted	Armoured and unarmoured cables, stranded or flexible, from 4 mm² to 35 mm². (For conductors above 25 mm², the main cable must be cut.)	Cables up to 35 mm² (Part Nr 91178) and up to 185 mm² (Part Nr 92768).
Internal and external Earth point	Inside and outside the enclosure	
Ingress Protection	IP66 according to NF EN 60529	
Shock resistance	IK09 according to NF EN 50102	
Fire smoke class	M1F0	
Self extinguishing material	UL94-V0	
Modularity box - Options - Other equipment	• Supply of service leads fitted with MARECHAL® coupler sockets • Accessories for fixing box to cable tray or ladder. • "Power On" signal light • Alternative non-piercing terminals • Alternative Protection: single phase circuit breaker • Plate for external fixing	• Supply of service leads fitted with MARECHAL® coupler sockets • Alternative Protection: single phase circuit breaker

* Only for EXPRESS® BOX Part no. 91151

EXPRESS® BOX MADE FROM HALOGEN FREE FIBERGLASS REINFORCED POLYESTER COMPOUND

Type	CSTB Certificate	IMQ Certificate	H x L x P in mm	Distribution
91151	RS10-083	AC.00646	268 x 272 x 111	Maximum 2 tap-offs using 2 sockets Maximum 4 tap-offs using glands

EXPRESS® BOX MADE FROM HALOGEN FREE THERMOPLASTIC

Type	CSTB Certificate	H x L x P in mm	Distribution
92946	RS05-172	190 x 522 x 121	Maximum 4 tap-offs using 2 sockets Maximum 4 tap-offs using glands

CAST IRON BOXES

Type	CSTB Certificate	H x L x P in mm	Distribution
91178	RS06-023A	262 x 262 x 111,5	Maximum 3 tap-offs using 2 sockets Maximum 3 tap-offs using glands

CAST IRON BOXES

Type	CSTB Certificate	H x L x P in mm
92768	RS99-133	533 x 410 x 188

F400 WALL MOUNTING SOCKET-OUTLET
Smoke accelerators

F400 Wall mounting socket-outlet

MARECHAL® F400 socket-outlet provides power to smoke accelerators simplifying maintenance while resisting the conditions of standard NF EN 12101-3.
It is also a device for disconnecting power (cf. Articles 5.3 and 5.4 of the NF EN 60204-1 standard - Machine Safety - Electrical equipment of machines - Part 1 : general rules).
Mounted on aluminium boxes, the 3P+E 63 A / 690 V 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 box lid is fixed to the box by means of captive stainless steel screws.

MAIN FEATURES

Consult us

Fire resistance	Electrical continuity of the main cable guaranteed to 400°C for 2 hours as the test program 5 of **NF EN 12101-3** standard
Breaking capacity	AC-22 according to NF EN 60947-3
Service terminals	3 terminals usually mounted on a steel base fire
Cables accepted	Armoured and unarmoured flexible cables, from 10 mm² up to 95 mm² via terminals box side and 6 mm², 16 mm² & 35 mm² via crimping contacts plug side.
Internal and external Earth point	Inside and outside the enclosure
Ingress Protection	IP66 according to NF EN 60529
Shock resistance	IK09 according to NF EN 50102
Modularity box - Options - Other equipment	• Auxiliary contacts

F400 WALL MOUNTING SOCKET-OUTLET

Type	CSTB Certificate	H x L x P in mm
3934013Zxxxx + 3938013Zxxxx	RS05-026	264 x 260 x 345

FIRE DEPARTMENT BOX
Security recess

Aluminium box

Especially developped 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.
he power of this kit is carried by cables 5G16 mm² max.
The box lid is fixed to the box by means of captive stainless steel screws.

MAIN FEATURES

Consult us

Service protection	Differential circuit breaker 30 mA.
Internal and external Earth point	Inside and outside the enclosure
Ingress Protection	IP55 according to NF EN 60529
Shock resistance	IK09 according to NF EN 50102

ALUMINIUM BOX

Type	H x L x P in mm	Distribution
91277	345 x 280 x 125	One or two MARECHAL® decontactor (DS or DN) can be fit on the inclined cover

DXN

COMPACT & WATERTIGHT DECONTACTOR™

- Ex II2 G D Ex de IIC
- IP66/IP67 water- and dust-tight
- integrated load-break switch
- Robust and compact design
- High performance poly casing

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DX

METAL DECONTACTOR™

- Ex II2 G D Ex de IIC
- IP65 water- and dust-tight
- Integrated load-break switch
- Locking in connected or disconnected position by keying axis

page 146

PNCX

COMPACT CONNECTOR

- Ex II 3 G D
- Electrical connector for harsh environments and hazardous areas (ATEX): can be used in zones 2 (gas) and 22 (dust)
- Compact and easy to use.
- IP66/IP67 watertight (IP68 according to specification).
- Long life.

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EXPLOSION-PROOF RANGE

The plugs and sockets as well as socket-outlet boxes and junction boxes in this range are meant for use in hazardous areas in compliance with the ATEX 94/9/EC Directive and as per the IECEx in zones 1 and 2 (Gas) and zones 21 and 22 (Dust).

Find all information on our website:

marechal.com

Technical documentation

Product configurator

PXN12C
DXN25C
DXN37C

MULTI-CONTACT CONNECTORS

- II2 G D Ex e IIC
- From 12 to 37 contacts
- Locking in connected or disconnected position
- Corrosion-free metal casing

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SPeX

SINGLE POLE POWER CONNECTOR

- II2 G D Ex e IIC
- IP65/IP66 water- and dust-tight
- Electromechanical interlocking system
- Mechanic and visual keying

page 160

MXBS - MXBJ
B2X

SOCKET BOXES & JUNCTION BOXES

- II2 G D Ex e IIC
- IP66 water- and dust-tight
- Combination of multi-contact connectors and socket-outlets on the same distribution box
- Glass reinforced, graphite-filled polyester resin enclosures

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Technor®
A company of MARECHAL ELECTRIC GROUP

- Lighting
- Flameproof Enclosures
- Junction Boxes
- Control stations
- Audible & Visual Signals
- Cable glands & Accessories

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EXPLOSION-PROOF PRODUCTS

INTRODUCTION

Particular standards and Directives apply when flammable gases, vapours or dusts are likely to be present in the environment and cause an explosion (referred to as «hazardous areas»).
Plugs and socket-outlets intended to operate in such environments must have obtained from a notified body (NoBo) an EC-type examination certificate, assuring that they will not cause a fire or an explosion in the surrounding atmosphere.

Directives

In Europe, two Directives apply to products for installation in hazardous atmosphere:

EUROPEAN DIRECTIVE 94/9/EC

ATEX Directive 94/9/EC is a «new approach» directive that applies to protective systems against explosions as well as all equipment used in or related to explosive atmospheres, such as electrical and non-electrical equipment, components and safety devices, control and adjustments necessary for the safe operation of this equipment and protective systems. As a «new approach» directive, the 94/9/EC Directive defines the essential requirements for the safety and health which shall be respected by all manufacturers. Devices falling within the scope of the European Directive and responding to the essential requirements for the safety and health are identified by a marking plate on which the Ex logo appears.

This Directive requires:

- For products: a type certification, a declaration of conformity and an instruction manual, allowing to affix the CE marking,
- For the manufacturers: a quality assurance system audited annually by a notified body, and the appointment of an authorised person called the ATEX Manager.

Standards

- IEC/EN 60079-0: Products for use in explosive gas atmospheres - General rules
- IEC/EN 60079-1: Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
- IEC/EN 60079-7: Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
- IEC/EN 60079-31: Explosive atmospheres - Part 31: equipment protection against ignition of dust by enclosure "t".

EUROPEAN DIRECTIVE 1999/92/EC

The 1999/92/EC Directive aims to improve the safety and health protection of workers potentially at risk from explosive atmospheres.
The site manager has the obligation:

- to prevent the formation of explosive atmospheres or if this is not possible, prevent ignition of explosive atmospheres,
- to assess the specific risks arising from explosive atmospheres and to draw up and keep up to date an explosion protection document,
- to classify places where explosive atmospheres may occur into zones,
- to mitigate the harmful effects of an explosion to protect the health and safety of workers (install appropriate equipment, take organizational measures such as staff training, ...).

Protection mode(s)

Depending on the type of product, there are several modes of protection intended to prevent explosion: increased safety "e", internal overpressure "p", oil immersion "o", flameproof chamber enclosure "d", powder filling "q", encapsulation "m", etc.
Whatever the protection mode(s), products intended to operate in potentially explosive atmospheres must:

- Prevent the formation of an arc likely to cause an explosion or contain inflammation,
- Resist shocks, to a higher degree than usually is required for normal industrial products,
- Not be likely to accumulate electrostatic charges that may generate a spark,
- Have a maximal temperature below the self ignition temperature of the surrounding atmosphere.

Protection mode for plugs and socket-outlets

Plugs and socket-outlets with integral switching include two distinct areas, that require the implementation of two different modes of protection:

- An area which contains the contacts used to establish and break the current and where arcs or sparks occur in normal operation when a plug is inserted or withdrawn. This area requires a "d" flameproof chamber in order to contain the arc, to resist the overpressure of an internal explosion and to laminate the flame of this explosion so that it does not propagate to the surrounding atmosphere,
- Areas where there are no arcs or sparks, where conductors are connected to the plug and socket-outlet terminals. These areas use the mode of protection increased safety "e", to prevent any failure.

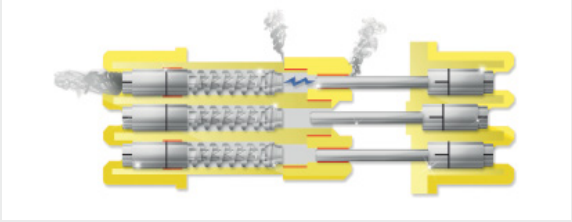
Plugs and socket-outlets without integral switching use the sole mode of protection by increased safety "e". They are fitted with a locking device and warning labels to prevent any accidental disconnection under load. The outer enclosure and seal also provide increased safety "e".

"d" FLAMEPROOF ENCLOSURE

The arc chamber that contains the contacts used to make and break the circuit must constitute an flameproof enclosure, resisting the effects of a possible internal explosion. IEC 60079-1 standard defines the characteristics of such a 'd' flameproof chamber that must:

- Resist the pressure of an explosion,
- Allow this pressure to escape through insterstice precisely rated in length and thickness, in order to extinguish the flame so that it cannot reach the outside of the enclosure.

These safety experimental maximum interstices, also called flamepath, are defined according to the explosive substance and the internal volume of the enclosure.



DXN1 plug and socket-outlet interior mouldings and contacts: the various flamepaths (in red) extinguish the flame and allow expulsion of burnt gases in case of an explosion when an arc strikes.

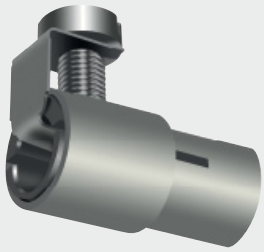
E.g.: in an environment that may contain Acetylene and with an inner volume less than to 100 cm^3, the minimum length of the cylindrical flamepath is 6 mm and the maximum interstice is 0.1 mm.

"e" increased safety

The expensive requirements of the "d" mode of protection are not necessary for the parts of the product where conductors are terminated on the plug side and socket-outlet side as well as for plugs and socket-outlets that are not likely to create a spark. Particular precautions, for increased safety "e" equipment, are anyhow required in order to:

- Provide proper termination of cables in the enclosures,
- Not to damage conductors on tightening and to prevent the loosening of terminals in case of shock, vibration, thermal cycling or conductor yielding,
- Prevent short-circuits by defining air and creepage distances larger than those required from industrial products.
- provide a degree of protection IP54 minimum.

Plugs and socket-outlets, which combine flameproof "d" chambers for the switching of contacts and increased safety for cables and conductors termination, are identified by the symbol **Ex de**.



DXN: a captive pad protrudes into the terminal chamber to protect the strands of the conductors from contact with the tightening screw

Plugs and socket-outlets whose sole mode of protection is increased safety are identified by the symbol **Ex e**.

PROTECTION MODE 'tD' AGAINST DUST

Plugs and socket-outlets intended for use in the presence of flammable dust, either in suspension or accumulated, must be protected against dust ingress. They must bear details of their maximum surface temperature, in a given range of ambient temperatures (Ta), taking into account the layer of dust that may accumulate.

Example of marking: Ex tb IIIC T66 °C Db
IP66
-40 °C ≤ Ta ≤ +60 °C.

Product Groups

Electrical products are classified in groups:

- Plugs and socket-outlets of Group I are suitable for firedamp mines (natural methane) in underground applications.
- Plugs and socket-outlets of Group II are intended for surface industry applications.
  Group II gases are divided into IIA, IIB and IIC, corresponding to a decreasing tolerance of the flame path in such a way that a IIC product is automatically suitable for groups IIA and IIB.
  - Group IIA: Accessories intended to operate in presence of the less explosive substances: industrial methane, propane, butane, benzene, kerosene, gasoline, ethanol, acetone ...
  - Group IIB: ethylene, methacrylate, cyclopropane ...
  - Group IIC: Accessories intended to operate in presence of the most explosive substances: hydrogen, acetylene, ethyl nitrate ...
- Plugs and socket-outlets of Group III are designed for dust surface explosive atmospheres.
  Group III is subdivided into IIIA, IIIB and IIIC corresponding to the characteristics of the explosive dust atmosphere. A IIIC equipment is suitable for IIIB and IIIA applications and a IIIB equipment is suitable for IIIA applications.
  - Subdividion IIIA: combustible particles in suspension.
  - Subdividion IIIB: non-conductive dust.
  - Subdividion IIIC: conductive dusts.

The marking of Ex "de" products (DXN, DX) is completed by the indication of their gas group, according to their flame path and inner volume, e.g. **Ex de IIC**.
The marking of "e" products (PXN12C, DXN25C, DXN37C, SPeX, MXBS, MXBJ) is also completed by an indication of their group. e.g. **Ex e II**. They can be used in the presence of all gases (except natural methane in mines that requires group I certified equipment).

Product categories

There are three categories of devices corresponding to six explosive areas and 6 levels of EPL, gas or dust zones:

- **Products in category 1** are intended for Zone 0 (gas) and/or Zone 20 (dust): zones with a permanent explosive atmosphere. EPL level Ga and Da. These zones cannot be equipped with socket-outlets.
- **Products in category 2** are intended for Zone 1 (gas) and/or Zone 21 (dust): zones where an explosive atmosphere is likely to appear in normal operation. EPL level Gb and Db. These zones can be equipped with Ex socket-outlets.
- **Products in category 3** are intended for Zone 2 (gas) and/or Zone 22 (dust): zones where an explosive atmosphere may only appear accidentally, in case of malfunction of the installation. EPL level Gc and Dc. These zones can also be equipped with Ex socket-outlets.

Considering the increasing risk, products of category 2 can be used where products of category 3 are required. The marking on the product is completed by the indication of their permitted zones.

E.g.: 2G = zones 1 et 2
3D = zone 22
2G D = zones 1, 2, 21 et 22

PRODUCT CATEGORY According to 94/9/CE Directive	ZONES	
	Flammable gas, vapour or mist	**Cloud of flammable dust**
Category 1: Permanent or frequent presence Ga and Da	Zone 0 No socket-outlet	Zone 20 No socket-outlet
Category 2: Occasional (normal) presence Gb and Db	Zone 1 2G or 2G D socket-outlet	Zone 21 2G or 2G D socket-outlet
Category 3: Irregular / short term presence (abnormal) Gc and Dc	Zone 2 3G or 3G D socket-outlet	Zone 22 3G or 3G D socket-outlet
Ex II2 G D means that the accessory can be used in zones 1, 2, 21 & 22		

Gas Temperature classes

All chemicals listed in the various groups have a specific self-ignition temperature.
Electrical products must bear details of their maximum temperature, in a specified maximum ambient temperature (Ta).
Indication is given by a capital "T" followed by a number from 1 to 6, in decreasing order of temperature:

Category	Maximum surface temperature
T6	≤ to 85 °C*
T5	≤ to 100 °C
T4	≤ to 135 °C
T3	≤ to 200 °C
T2	≤ to 300 °C
T1	< to 450 °C

* As an example, a T6 classification at 40 °C means that the maximum heating will be 40 K with 5 K safety margin, in an ambient temperature of 40 °C. The maximum temperature of the device must be less than the temperature of self-ignition of the gas found in the hazardous area.

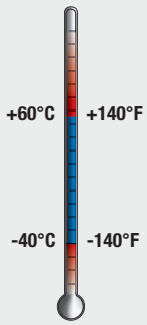
Dust surface temperature marking

Flammable dust have specific self-ignition temperatures.
Electrical products must bear the indication of their maximum surface temperature, in a specified maximum ambient temperature (Ta). This temperature takes into account the layer of dust likely to accumulate on the accessory. Indication is given by a capital "T" followed by the surface temperature in °C, to distinguish it from the gas temperature class, e.g.: T107 °C.

Example of marking for a DXN1

Listed manufacturer and production site

MARECHAL ELECTRIC MAROMME
II2 G D Ex de IIC Gb IIIC Db
-40 °C ≤ Ta ≤ +60 °C T5 T90 °C
-40 °C ≤ Ta ≤ +40 °C T6 T70 °C
IECEx LCI 09.0005X / LCIE 99 ATEX 6027 X



Ex	Product intended for explosive atmospheres
II	Product of group II = surface industry applications
2	Product of category 2 = for zones 1 and/or 21
G D	Nature of atmosphere: G: Gas and D: Dust
Ex	Protection against explosions Gas standards: IEC/EN 60079-0, -1 & -7 Dust standards: IEC/EN 60079-31, IEC/EN 61241-0 & -1
de	Combined protection mode d & e d: flameproof enclosure (IEC/EN 60079-0 & -1) e: increased safety (IEC/EN 60079-0 & -7)
IIC	Product of group IIC: (Hydrogen, acetylene, ethyl nitrate)
Gb	EPL level b for Gas (= cat 2G)
tb	Mode of protection against dust: tb = protection by enclosure
IIIC	Product of group IIIC: conductive dust
Db	EPL level b for Dust (= cat 2D)

T5/T6	Gas surface temperature T6 : ≤ 85 °C with Ta between -40 °C and +40 °C T5 : ≤ 100 °C with Ta between -40 and +60 °C
T °C	Dust surface temperature Surface T° ≤ 70 °C with Ta between -40 °C & +40 °C Surface T° ≤ 90 °C with Ta between -40 °C & +60 °C
LCIE 99 ATEX 6027 X	ATEX certificate number provided by notified body LCIE.
IECEX LCI 09.0005 X	Certificate of conformity to IEC standards (Certification scheme IECEX)
X	Indication of particular condition(s) of use, if any

This marking is completed with the following indications (e.g.: DXN3 sticker):

Type - Part number

Contact configuration – main circuit
Assigned voltage
Nominal current

CE marking = compliance with European Directives - Identification of the notified body (0081 =-Veritas LCIE)

DXN3	**2534017972**
3P+N+T	**+2AUX.**
Ue 400 V 50Hz	**550V**
Ie 32A	**5A**
CE 0081	**IP66/IP67**
	19/11

Contact configuration
secondary circuit (if any)

IP rating
Week / year of manufacture

DXN

COMPACT & WATERTIGHT DECONTACTOR™
20 A / 32 A / 63 A

- Ⓔx II2 G D Ex de IIC Gb
- IP66/IP67 WATER- AND DUST-TIGHT
- INTEGRATED LOAD-BREAK SWITCH
- ROBUST AND COMPACT DESIGN
- HIGH PERFORMANCE POLY CASING

DXN decontactors are designed for hazardous areas, with 'de' protection mode. They comply with the ATEX 94/9/CE Directive. They can be used in zones 1 & 2 (Gas) and zones 21 & 22 (Dust). They are certified according to IECEx standards.

MOUNTING: SWITCH SHOULD BE ON THE UPPER SIDE!

The decontactor is a socket-outlet with integral switching. It does not need to be interlocked with a switch. The switch button is highlit for easier identification. When installing the socket-outlet , ensure the switch button is positioned upwards.

SPECIFICATION

IP66/IP67 plugs and socket-outlets with «de» protection mode for hazardous areas (ATEX) with integral load-break switching capacity, comply with BECMA international standard.

TECHNICAL FEATURES

	DXN1	DXN3	DXN6
Rated current (In)	20 A	32 A	63 A
Umax	550 V	750 V	750 V
Auxiliary contacts (optional)	-	2	2
Keying positions [1]	24 for all DXN		
Ambient temperature	See product sticker - for all DXN		
Protection mode	«de» for all DXN		
ATEX zones	Zones 1 & 2 (gas) Zones 21 & 22 (dusts) - for all DXN		

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

DXN decontactors comply with:

- The ATEX 94/9/CE Directive,
- IEC EN 60079-0, IEC EN 60079-1, IEC EN 60079-7 and IEC EN 60079-31 international standards
- The essential safety requirements of IEC 60309-1 & IEC 60309-4 international and European standards (plugs and socket-outlets for industrial purposes),
- The switch utilization categories AC-22 and AC-23 described in IEC EN 60947-3,
- The French NF C 15-100 standard,
- The European 'Machine Directive' 2006/42/CE regarding equipment isolation,
- 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,

Also certified by VERITAS LCIE, KGS KOREA, TR CU (GOST), INMETRO and cCSAus (French, Korean, Russian, Brazilian and American-Canadian* European and international notified bodies) and by BUREAU VERITAS MARINE.

(*) for North-American markets

DXN1

DECONTACTOR™ HIGH PERFORMANCE POLY CASING

20 A
IP66/IP67

TYPICAL CONFIGURATION

WALL BOX DXN1

Wall box poly 70°
251AB58

Socket-outlet
2514017

PLUG DXN1

Straight handle poly
251A753

Inlet
2518017

MAIN FEATURES

Rated current (with wiring according to standard)	20 A	Flexible wiring (min-max)	1 - 4 mm²
Maximum voltage	550 V	Stranded wiring (min-max)	1,5 - 6 mm²
IP protection lid closed	IP66/IP67	Other wiring	on request
IP protection connected plug	IP66/IP67	Keying positions	24
Shock resistance	IK08	Protection mode	de
Ambient temperature	-40 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

Temperature rating	
Gas temperature classes	T6 : surface T° ≤ 85 °C for an ambient T° between -40 and +40 °C
	T5 : surface T° ≤ 100 °C for an ambient T° between -40 and +60 °C
Dust surface temperature classes	Surface T° ≤ 70 °C for an ambient T° between -40 and +40 °C
	Surface T° ≤ 90 °C for an ambient T° between -40 and +60 °C
Comply with EN 60309-1	20 A / 550 V

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

SOCKET-OUTLET female DXN1 (20 A)

INLET male DXN1 (20 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	251408A	251808A
190 - 230 V	3P+E	2514033	2518033
220 - 250 V	1P+N+E	2514015	2518015
380 - 440 V	3P+E	2514013	2518013
380 - 440 V	3P+N+E	2514017	2518017
480 - 500 V	3P+E	2514093	2518093
480 - 500 V	3P+N+E	2514097	2518097

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

MARECHAL ELECTRIC MAROMME

Ex II2 G D Ex de IIC T*Gb
Ex tb IIIC T*Db

* -40 °C ≤ Ta ≤ +60 °C T5 T90 °C
-40 °C ≤ Ta ≤ +40 °C T6 T70 °C

IECEx LCI 09.0005X / LCIE 99 ATEX 6027 X

BOXES

Ex poly cable gland included

Wall box poly 30°

Wall box poly 70°*

Ex cable gland				
M20	251AB53	7-14 mm	251AB58	7-14 mm
M25	251AB5325P	10-18 mm	251AB5825P	10-18 mm
M32			251AB5832P	17-24 mm

* For alternatives with Earth continuity or several entries, cable glands for armoured cable, please contact us

SLEEVES

Inclined poly 30°

Inclined poly 70°

	251A057	251A757

HANDLES

Ex cable gland included

Straight poly with poly cable gland

Straight poly with métal cable gland with Earth continuity

Ex cable gland				
M20	251A753	7-14 mm	251A25320M	8-10 mm
M25	251A25325P	10-18 mm	251A25325M	12-14 mm
M32	251A25332P	17-24 mm	251A25332M	18-24 mm

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844

Box equipped with ATEX metal entry with Earth continuity.
Consult us

Inlet cap
251A426

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18

INFO +

Compatible with DSN1 socket

Upon request, the DXN1 'de' plugs (20 A) can be connected to the industrial DSN1 (20 A) socket-outlet and coupler sockets.
Thus, you can move mobile Ex devices equipped with a DXN1 plug in and out of your Ex zones. Contact us.

INFO +

Self-ejecting DXN1

The DXN1 is available in ejection.
Thank you to consult us to define your current, voltage, polarity and assembly needs.

DXN3

DECONTACTOR™ HIGH PERFORMANCE POLY CASING

32 A
IP66/IP67

TYPICAL CONFIGURATION

WALL BOX DXN3

Wall box poly 70°
253AB58

Socket-outlet
2534017

PLUG DXN3

Straight handle poly
253A753

Inlet
2538017

MAIN FEATURES

Rated current (with wiring according to standard)	32 A	Flexible wiring (min-max)	2,5 - 10 mm²
Maximum voltage	750 V	Stranded wiring (min-max)	2,5 - 16 mm²
IP protection lid closed	IP66/IP67	Other wiring	on request
IP protection connected plug	IP66/IP67	Keying positions	24
Shock resistance	IK08	Protection mode	de
Ambient temperature	-40 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

Temperature rating	
Gas temperature classes	T6 : surface T° ≤ 85 °C for an ambient T° between -40 and +40 °C
	T5 : surface T° ≤ 135 °C for an ambient T° between -40 and +60 °C
Dust surface temperature classes	Surface T° ≤ 57 °C for an ambient T° between -40 and +40 °C
	Surface T° ≤ 77 °C for an ambient T° between -40 and +60 °C
Comply with EN 60309-1	32 A / 750 V

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

SOCKET-OUTLET female DXN3 (32 A)

INLET male DXN3 (32 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	253408A	253808A
190 - 230 V	3P+E	2534033	2538033
220 - 250 V	1P+N+E	2534015	2538015
380 - 440 V	3P+E	2534013	2538013
380 - 440 V	3P+N+E	2534017	2538017
480 - 500 V	3P+E	2534093	2538093
480 - 500 V	3P+N+E	2534097	2538097

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

MARECHAL ELECTRIC MAROMME

Ex II2 G D — Ex de IIC — T*Gb
Ex tb IIIC — T*Db

* -40 °C ≤ Ta ≤ +60 °C — T5 — T77 °C
-40 °C ≤ Ta ≤ +40 °C — T6 — T57 °C

IECEx LCI 09.0006 / LCIE 05 ATEX 6149

AUXILIARY CONTACTS

Socket-outlet with 2 auxiliary contacts (5 A / 550 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (5 A / 550 V)	Inlet no. + 972

BOXES

Ex poly cable gland included

Wall box poly 30°

Wall box poly 70°*

Ex cable gland				
M20	253AB53	7-14 mm	253AB5820P	7-14 mm
M25	253AB5325P	10-18 mm	253AB58	10-18 mm
M32			253AB5832P	17-24 mm

* For alternatives with Earth continuity or several entries, cable glands for armoured cable, please contact us

SLEEVES

Inclined poly 30°

Inclined poly 70°

	253A027	253A757

HANDLES

Ex cable gland included

Straight poly with poly cable gland

Straight poly with métal cable gland with Earth continuity

Ex cable gland				
M20	253A753	7-14 mm	253A25320M	8-10 mm
M25	253A783	10-18 mm	253A25325M	12-14 mm
M32	253A25332P	17-24 mm	253A25332M	18-24 mm
M40	253A25340P	17-31 mm		

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844

Box equipped with ATEX metal entry with Earth continuity.
Consult us

Inlet cap
253A426

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18

INFO +

Compatible with DSN3 socket

Upon request, the DXN3 'de' plugs (32 A) can be connected to the industrial DSN3 (32 A) socket-outlet and coupler sockets.
Thus, you can move mobile Ex devices equipped with a DXN3 plug in and out of your Ex zones. Consult us.

INFO +

Self-ejecting DXN3

The DXN3 is available in ejection.
Thank you to consult us to define your current, voltage, polarity and assembly needs.

DXN6

DECONTACTOR™ HIGH PERFORMANCE POLY CASING

63 A
IP66/IP67

TYPICAL CONFIGURATION

WALL BOX DXN6

Wall box poly 70°
256AB58

Socket-outlet
2564017

PLUG DXN6

Straight handle poly
256A753

Inlet
2568017

MAIN FEATURES

Rated current (with wiring according to standard)	63 A	Flexible wiring (min-max)	6 - 16 mm²
Maximum voltage	750 V	Stranded wiring (min-max)	6 - 25 mm²
IP protection lid closed	IP66/IP67	Other wiring	on request
IP protection connected plug	IP66/IP67	Keying positions	24
Shock resistance	IK09	Protection mode	de
Ambient temperature	-40 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

Temperature rating	
Gas temperature classes	T5 : surface T°≤ 100 °C for an ambient T° between -40 and +40 °C
	T4 : surface T°≤ 135 °C for an ambient T° between -40 and +60 °C
Dust surface temperature classes	surface T° ≤ 87 °C for an ambient T° between -40 and +40 °C
	surface T° ≤ 107 °C for an ambient T° between -40 and +60 °C
The essential safety requirements of IEC 60309-1	63 A / 750 V

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

SOCKET-OUTLET female DXN6 (63 A)

INLET male DXN6 (63 A)

Voltage 50 Hz	Polarity	Part no.	Part no.
20 - 24 V	2P	256408A	256808A
190 - 230 V	3P+E	2564033	2568033
220 - 250 V	1P+N+E	2564015	2568015
380 - 440 V	3P+E	2564013	2568013
380 - 440 V	3P+N+E	2564017	2568017
480 - 500 V	3P+E	2564093	2568093
480 - 500 V	3P+N+E	2564097	2568097

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

MARECHAL ELECTRIC MAROMME

Ex II2 G D — Ex de IIC T*Gb — Ex tb IIIC T*Db

* -40 °C ≤ Ta ≤ +60 °C T4 T107 °C

-40 °C ≤ Ta ≤ +40 °C T5 T87 °C

IECEx LCI 09.0007 / LCIE 05 ATEX 6150

AUXILIARY CONTACTS

Socket-outlet with 2 auxiliary contacts (5 A / 550 V)	Socket no. + 972
Inlet with 2 auxiliary contacts (5 A / 550 V)	Inlet no. + 972

BOXES

Ex poly cable gland included

Wall box poly 30°

Wall box poly 70°*

Ex cable gland				
M20			256AB5820P	7-14 mm
M25	256AB53	10-18 mm	256AB5825P	10-18 mm
M32			256AB58	17-24 mm
M40			256AB5840P	17-31 mm

* For alternatives with Earth continuity or several entries, cable glands for armoured cable, please contact us

SLEEVES

Inclined poly 30°

Inclined poly 70°

	256A027	256A757

HANDLES

Ex cable gland included

Straight poly with poly cable gland

Straight poly with métal cable gland with Earth continuity

Ex cable gland				
M20	256A25320P	7-14 mm	256A25320M	8-10 mm
M25	256A753	10-18 mm	256A25325M	12-14 mm
M32	256A25332P	17-24 mm	256A25332M	18-24 mm
M40	256A25340P	17-31 mm		

ACCESSORIES & OPTIONS

Locking with shaft for 3 padlocks ø 4 mm (padlocks not supplied)
Socket no. + 844

Box equipped with ATEX metal entry with Earth continuity.
Consult us

Inlet cap
256A426

180° opening lid	Socket no. + 10
Self-returning lid	Socket no. + R
180° opening and self-returning lid	Socket no. + 18

INFO +

DXN3 & DXN6 with 2 auxiliary contacts

2 auxiliary contacts are available for signal and control purposes, as well for auxiliary circuits such as light monitors.

INFO +

Self-ejecting DXN6

The DXN6 is available in ejection. Thank you to consult us to define your current, voltage, polarity and assembly needs.

DX METAL DECONTACTOR™

20 A / 32 A / 63 A / 125 A / 200 A

- Ⓔx II2 G D Ex de IIC
- IP65 WATER- AND DUST-TIGHT
- INTEGRATED LOAD-BREAK SWITCH
- LOCKING IN ON/OFF POSITIONS BY KEYING AXIS

DX decontactors are designed for hazardous areas, with 'de' protection mode. They comply with the ATEX 94/9/CE Directive. They can be used in zones 1 & 2 (Gas) and zones 21 & 22 (Dust). They are certified according to IECEx standards.

MECHANICAL FEATURES

- Enclosure "d": during connection and disconnection, electric arc is contained and cannot reach the outside of the enclosure.

Interior moulding in the stand-by position: Cut view of the explosion-proof chamber.

- Aluminium corrosion-free casing
- IK10 shock resistance
- External male contacts: these pins engage with the spring-loaded silver-nickel butt contacts inside the socket
- IP65 lid
- ON/OFF indicator
- Design ensures compliance with interlock standard EN 60309-4 : no live contacts.

Connection:

Socket-outlet with a plug contact engaged: Closing of the dead butt-contact(s) ; unlocking of the interior moulding.

Plug rotation: Pressure on the springs. Switch contacts close immediately.

Disconnection:

Reversed rotation of the plug: The switch contacts open immediately. Return of the plug to its "off" stand-by position.

SPECIFICATION

IP65 plug and socket-outlet with «de» protection mode for hazardous areas (ATEX) with integral load-break switching capacity, comply with BECMA international standard.

TECHNICAL FEATURES

	DX1	DX3	DX6	DX9	DX2
Rated current (In)	20 A	32 A	63 A	125 A	200 A
Umax	750 V	750 V	750 V	750 V	750 V
Keying positions [1]	12	12	12	12	12
Ambient temperature	-25 °C ≤ Ta ≤ +60 °C		-40 °C ≤ Ta ≤ +60 °C		
Protection mode	«de» for all DX				
ATEX zones	Zones 1 & 2 (gas) Zones 21 & 22 (dusts) - for all DX				

[1] To distinguish between different power supplies and applications

STANDARDS ASPECTS

DX decontactors comply with:

- The ATEX 94/9/CE Directive,
- IEC EN 60079-0, IEC EN 60079-1, IEC EN 60079-7 and IEC EN 60079-31 international standards
- The essential safety requirements of IEC 60309-1 & IEC 60309-4 international and European standards (plugs and socket-outlets for industrial purposes),
- The French NF C 15-100 standard,
- The European 'Machine Directive' 2006/42/CE regarding equipment isolation,
- 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,

Also certified by TR CU (GOST) and VERITAS LCIE (Russian and French European and international notified bodies).

DX1

DECONTACTOR™ METAL

20 A
IP65

TYPICAL CONFIGURATION

WALL BOX DX1

Wall box 90°
262AB53

Socket-outlet
2624017

PLUG DX1

Plug
2621017

MAIN FEATURES

Rated current (with wiring according to standard)	20 A	Flexible wiring (min-max)	2,5 - 10 mm²
Maximum voltage	750 V	Stranded wiring (min-max)	2,5 - 10 mm²
IP protection lid closed	IP65	Other wiring	on request
IP protection connected plug	IP65	Keying positions	12
Shock resistance	IK10	Protection mode	de
Ambient temperature	-25 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

SOCKET-OUTLET female **DX1 (20 A)**

INCLINED APPLIANCE INLET male **DX1 (20 A)**

PLUG male **DX1 (20 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.		Part no.
220 - 250 V	1P+N+E	2624015	2626015	8-13 mm	2621015
380 - 440 V	3P+E	2624013	2626013	8-13 mm	2621013
380 - 440 V	3P+N+E	2624017	2626017	8-13 mm	2621017

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

BOXES
Ex metal cable gland included*

Wall box metal 90°

Cable gland entry	Part no.	
M20	262AB53	8-13 mm
M25	262AB5325M	9-16 mm
M32	262AB5332M	12-21 mm

HANDLES
Ex metal cable gland included*

Straight handle metal

Cable gland entry	Part no.	
M20	262A963	8-13 mm
M25	262A95325M	9-16 mm
M32	262A95332M	12-21 mm

* For alternatives with Earth continuity, please contact us

MARECHAL ELECTRIC MAROMME
II2 G D Ex de IIC tD A21
-25 °C ≤ Ta ≤ +60 °C T5 T84 °C
-25 °C ≤ Ta ≤ +50 °C T6 T74 °C
IECEx LCI 09.0014 / LCIE 05 ATEX 6127

LOCKING

Locking position connected or disconnected by lockable shaft as standard.

DX3

DECONTACTOR™ METAL

32 A
IP65

TYPICAL CONFIGURATION

WALL BOX DX3

Wall box 90°
26 3A B53

Socket-outlet
26 34 017

PLUG DX3

Plug
26 31 017

MAIN FEATURES

Rated current (with wiring according to standard)	32 A	Flexible wiring (min-max)	2,5 - 10 mm²
Maximum voltage	750 V	Stranded wiring (min-max)	2,5 - 10 mm²
IP protection lid closed	IP65	Other wiring	on request
IP protection connected plug	IP65	Keying positions	12
Shock resistance	IK10	Protection mode	de
Ambient temperature	-25 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

SOCKET-OUTLET female **DX3 (32 A)**

INCLINED APPLIANCE INLET male **DX3 (32 A)**

PLUG male **DX3 (32 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.		Part no.
220 - 250 V	1P+N+E	2634015	2636015	9-16 mm	2631015
380 - 440 V	3P+E	2634013	2636013	9-16 mm	2631013
380 - 440 V	3P+N+E	2634017	2636017	9-16 mm	2631017

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

BOXES
Ex metal cable gland included*

HANDLES
Ex metal cable gland included*

Cable gland entry	Wall box metal 90° Part no.		Cable gland entry	Straight handle metal Part no.	
M20	263AB5320M	8-13 mm	M20	263A95320M	8-13 mm
M25	263AB53	9-16 mm	M25	263A963	9-16 mm
M32	263AB5332M	12-21 mm	M32	263A95332M	12-21 mm

* For alternatives with Earth continuity, please contact us

MARECHAL ELECTRIC MAROMME
II2 G D Ex de IIC tD A21
-25 °C ≤ Ta ≤ +60 °C T5 T84 °C
-25 °C ≤ Ta ≤ +50 °C T6 T74 °C
IECEx LCI 09.0014 / LCIE 05 ATEX 6127

LOCKING

Locking position connected or disconnected by lockable shaft as standard.

DX6 DECONTACTOR™ METAL

63 A
IP65/IP66

TYPICAL CONFIGURATION

WALL BOX DX6

Wall box 90°
266AB53

Socket-outlet
2664017

PLUG DX6

Plug
2661017

MAIN FEATURES

Rated current (with wiring according to standard)	63 A	Flexible wiring (min-max)	16 - 50 mm²
Maximum voltage	750 V	Stranded wiring (min-max)	16 - 50 mm²
IP protection lid closed	IP65	Other wiring	on request
IP protection connected plug	IP65/IP66	Keying positions	12
Shock resistance	IK10	Protection mode	de
Ambient temperature	-40 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

SOCKET-OUTLET female **DX6 (63 A)**

INCLINED APPLIANCE INLET male **DX6 (63 A)**

PLUG male **DX6 (63 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.		Part no.
220 - 250 V	1P+N+E	2664015	2666015	12-21 mm	2661015
380 - 440 V	3P+E	2664013	2666013	12-21 mm	2661013
380 - 440 V	3P+N+E	2664017	2666017	12-21 mm	2661017

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

BOXES
Ex metal cable gland included*

Wall box metal 90°

Cable gland entry	Part no.	
M25	266AB5325M	9-16 mm
M32	266AB53	12-21 mm
M40	266AB5340M	16-27 mm

HANDLES
Ex metal cable gland included*

Straight handle metal

Cable gland entry	Part no.	
M25	266A95325M	9-16 mm
M32	266A963	12-21 mm
M40	266A95340M	16-27 mm

* For alternatives with Earth continuity, please contact us

MARECHAL ELECTRIC MAROMME
Ex II2 G D Ex de IIC tD A21
-40 °C ≤ Ta ≤ +60 °C T5 T90 °C
-40 °C ≤ Ta ≤ +50 °C T6 T80 °C
IECEx LCI 09.0015 / LCIE 04 ATEX 6038

LOCKING

Locking position connected or disconnected by lockable shaft as standard.

DX9

DECONTACTOR™ METAL

125 A
IP65/IP66

TYPICAL CONFIGURATION

WALL BOX DX9

Wall box 90°
269AB53

Socket-outlet
2694017

PLUG DX9

Plug
2691017

MAIN FEATURES

Rated current (with wiring according to standard)	125 A	Flexible wiring (min-max)	50 - 70 mm²
Maximum voltage	750 V	Stranded wiring (min-max)	50 - 70 mm²
IP protection lid closed	IP65	Other wiring	on request
IP protection connected plug	IP65/IP66	Keying positions	12
Shock resistance	IK10	Protection mode	de
Ambient temperature	-40 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

SOCKET-OUTLET female **DX9 (125 A)**

INCLINED APPLIANCE INLET male **DX9 (125 A)**

PLUG male **DX9 (125 A)**

Voltage 50 Hz	Polarity	Part no.	Part no.		Part no.
380 - 440 V	3P+E	2694013	2696013	16-27 mm	2691013
380 - 440 V	3P+N+E	2694017	2696017	16-27 mm	2691017
				23-35 mm	269101350M
				23-35 mm	269101750M
				36-48 mm	269101363M
				36-48 mm	269101763M

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

BOXES
Ex metal cable gland included*

Wall box metal 90°

Cable gland entry	Part no.	
M32	269AB5332M	12-21 mm
M40	269AB53	16-27 mm
M50	269AB5350M	23-35 mm
M63	269AB5363M	36-48 mm

HANDLES
Ex metal cable gland included*

Straight handle metal

Cable gland entry	Part no.	
M32	269A95332M	12-21 mm
M40	269A963	16-27 mm
M50	269A95350M	23-35 mm
M63	269A95363M	36-48 mm

* For alternatives with Earth continuity, please contact us

LOCKING

Locking position connected or disconnected by lockable shaft as standard.

MARECHAL ELECTRIC MAROMME
II2 G D Ex de IIC tD A21
-40 °C ≤ Ta ≤ +60 °C T5 T90 °C
-40 °C ≤ Ta ≤ +50 °C T6 T80 °C
IECEx LCI 09.0015 / LCIE 04 ATEX 6038

DX2 DECONTACTOR™ METAL

200 A
IP65/IP66

TYPICAL CONFIGURATION

WALL BOX DX2

Wall box 90°
267AB53

Socket-outlet
2674017

PLUG DX2

Plug
2671017

MAIN FEATURES

Rated current (with wiring 70 mm²)	200 A	Flexible wiring	70 mm²
Maximum voltage	750 V	Stranded wiring	70 mm²
IP protection lid closed	IP65	Other wiring	on request
IP protection connected plug	IP65/IP66	Keying positions	12
Shock resistance	IK10	Protection mode	de
Ambient temperature	-40 °C to +60 °C	ATEX zones	1 & 2, 21 & 22

SOCKET-OUTLET female **DX2 (200 A)**

INCLINED APPLIANCE INLET male **DX2 (200 A)**

PLUG male **DX2 (200 A)**

EACH SOCKET OUTLET OR INLET MUST BE ASSOCIATED WITH A BOX, A SLEEVE OR A HANDLE.

Voltage 50 Hz	Polarity	Part no.	Part no.		Part no.
380 - 440 V	3P+E	2674013	2676013	36-48mm	2671013
380 - 440 V	3P+N+E	2674017	2676017	36-48mm	2671017

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

BOXES
Ex metal cable gland included

Wall box metal 90°

Cable gland entry	Part no.	
M63	267AB53	36-48 mm

HANDLES
Ex metal cable gland included

Straight handle metal

Cable gland entry	Part no.	
M63	267A963	36-48 mm

MARECHAL ELECTRIC MAROMME
Ex II2 G D Ex de IIC tD A21
-40 °C ≤ Ta ≤ +60 °C T3 T91 °C
IECEx LCI 09.0015 / LCIE 04 ATEX 6038

LOCKING

Locking position connected or disconnected by lockable shaft as standard.

PNCX

COMPACT CONNECTOR
10 A

- Ⓔx II 3 G D
- CAN BE USED IN ZONES 2 (GAS) AND 22 (DUST)
- COMPACT AND EASY TO USE
- IP66/IP67 WATERTIGHT (IP68 ACCORDING TO SPECIFICATION)
- LONG LIFE

The PNCX is a compact and rugged connector designed for all types of aggressive environments (humidity, corrosion, pollution) found in many industrial hazardous areas. The 5 contacts connection can meet all needs and applications such as lighting. The PNCX connector is both quickly assembled and put into service. Its locking ring resists vibration thus preventing accidental disconnection of the plug on load.
MARECHAL®'s technically advanced silver-nickel butt contact system assures next level performance no matter the conditions. The PNCX guarantees a long-lasting and electrically efficient connection for your industry.

ELECTRICAL FEATURES

Voltage	440 V
Impulse withstand voltage	5 kV / Pollution degree 3
Contact resistance	< 2mΩ
Permitted current range	4-20 mA / 10 A
Polarity	3P+N+E
Conductors accepted	From 0,75 mm² to 2,5 mm² Mechanical terminals
Cable diameter	From 7 to 14 mm (smaller ø available according to specification)

CLIMATIC FEATURES

Ambient temperature	-20 °C à +60 °C
IP protection Socket with cap	IP66/IP67 IP69K 100bar (1450 PSI) 80 °C
IP protection connected plug	IP66/IP67 IP68 tested at 10 meters deep for 15 days (please contact us for references) IP69K 100bar (1450 PSI) 80 °C
Salt, Fog performance	200 h minimum not connected - More than 1000 h connected
Resistance to fluids	Motor oils, petrol,fats, detergents...

MECHANICAL FEATURES

Casing & insulator	Glassfibre reinforced thermoplastic UL94 V-0
Butt contacts	Copper alloy with silver-nickel tips
Contact protection	Tinning
Load cycles	More than 2000 cycles
Shock resistance	IK08
Vibration	Frequency 5-1000 Hz, 1g (90 minutes on each critical frequency) according to IEC 60068-2-6

ATEX MARKINGS

ATEX zones	Gas zone 2 and Dust zone 22
ATEX markings	Ⓔx II3GD Ex nAc IIC Ex tc IIIC -20°C ≤ Ta ≤ +60 °C T5 T76°C -20°C ≤ Ta ≤ +50 °C T6 T66°C
Technical manual	MAR X 13.0001

STANDARDS ASPECTS

PNCX connectors comply with:
- The ATEX 94/9/CE Directive,
- The requirements of IEC 61984, IEC 60529, IEC 62262, IEC 60068-2-6, EN/IEC 60079-0, EN/IEC 60079-15 et EN/IEC 60079-31 International standards,
- The European Low Voltage Directive 2006/95/CE,
- 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.

SPECIFICATION

IP66/IP67, IP69K connector (IP68 according to specification) for hazardous areas (ATEX), Zones 2 (Gas) and 22 (Dusts), silver-nickel butt contacts, comply with BECMA international standard.

SOCKET-OUTLET female **PNCX (10 A)**

Umax	Polarity	Part no.
440 V	5P	06E4007

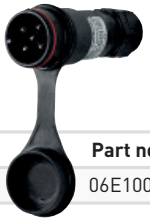
INLET male **PNCX (10 A)**

Part no.
06E8007

COUPLER SOCKET female **PNCX (10 A)**

Umax	Polarity	Part no.
440 V	5P	06E3007

PLUG male **PNCX (10 A)**



Part no.
06E1007

ADAPTER PLATE FOR DXN1 ACCESSORIES (See page 141)

Part no.
251A457-E

PXN12C
DXN25C
DXN37C

MULTI-CONTACT CONNECTORS
10 A

- Ex II2 G D Ex e ia or ib IIC
- FROM 12 TO 37 CONTACTS
- LOCKING IN CONNECTED OR DISCONNECTED POSITION
- CORROSION-FREE METAL CASING

TECHNICAL FEATURES

	PXN12C	DXN25C	DXN37C
Rated current (In)	10 A	10 A	10 A
Umax	220 V	440 V	230 V
Number of contacts	11P+E	24P+E	36P+E
IP protection lid closed	IP65/IP66	IP66/IP67	IP66/IP67
IP protection connected plug	IP65/IP66	IP66/IP67	IP66/IP67
Shock resistance	IK09 for all Multicontact connectors		
Ambient temperature	-40 °C to +55 °C	-40 °C to +60 °C	-40 °C to +55 °C
Protection mode	«e» for all Multicontact connectors		
ATEX zones	Zones 1 & 2 (gas) Zones 21 & 22 (dusts) - for all Multicontact connectors		

STANDARDS ASPECTS

PXN12C, DXN25C and DXN37C comply with:

- The ATEX 94/9/CE Directive,
- IEC EN 60079-0, IEC EN 60079-7 and IEC EN 60079-31 International standards
- The French NF C 15-100 standard,
- The decrees relating to workers' protection in Belgium, Spain and Italy,

Also certified by VERITAS LCIE and TR CU (GOST) (French and Russian European and international notified bodies).

SPECIFICATION

Multicontact connectors IP65/IP66 with increased safety «e» for hazardous areas (ATEX), comply with BECMA international standard.

PXN12C

METAL MULTI-CONTACT CONNECTORS

10 A
IP65/IP66

MAIN FEATURES

Rated current (with wiring according to standard)	10 A	Ambient temperature	-40 °C to +55 °C
Maximum voltage	220 V	Flexible wiring (min-max)	1 - 2,5 mm²
Number of contacts	11P+E	Wiring	crimping
IP protection lid closed	IP65/IP66	Protection mode	e + i
IP protection connected plug	IP65/IP66	ATEX zones	1 & 2, 21 & 22
Shock resistance	IK09	Keying positions	2

CONNECTION OR DISCONNECTION SCREW LOCKING IMPRINT BTR 2.5.

WALL MOUNTING SOCKET female PXN12C (10 A)

Ex cable gland	Part no.	
M25	06A000125M	9-16 mm
M32	06A0001	12-21 mm

PLUG male PXN12C (10 A)

Ex cable gland	Part no.	
M25	06A100125M	9-16 mm
M32	06A1001	12-21 mm

INCLINED SOCKET female PXN12C (10 A)

Part no.
06A7001

INCLINED APPLIANCE INLET male PXN12C (10 A)

Part no.
06A9001

COUPLER SOCKET female PXN12C (10 A)

Ex cable gland	Part no.	
M25	06A300125M	9-16 mm
M32	06A3001	12-21 mm

WALL MOUNTING APPLIANCE INLET male PXN12C (10 A)

Ex cable gland	Part no.	
M25	06A600125M	9-16 mm
M32	06A6001	12-21 mm

Each product is supplied with 1 bag of 13 contacts depending on the maximum configuration. This allows you to set up the product to suit your needs.

BAG OF 13 CONTACTS (SUPPLIED WITH INSULATION SLEEVES AND FERRULES)	
Female socket-outlet Part Number	01AA213
Male inlet Part Number	01AA113

ACCESSORIES & OPTIONS	
Inlet cap	06NA126
Crimping tool	61CA500
Helavia sleeve expansion tool	61CA400

MARECHAL ELECTRIC MAROMME

II2 G D Ex e IIC Gb tbIIIC Db

-40 °C ≤ Ta ≤ +55 °C T5 T69 °C

Ex ia or ib IIC T6 Gb

IECEx LCIE 14.0041X / LCIE 07 ATEX 6070X

DXN25C

METAL MULTI-CONTACT CONNECTORS

10 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DXN25C

Wall mounting socket
36D0002

PLUG DXN25C

Plug
36D1002

MAIN FEATURES

Rated current (with wiring according to standard)	10 A	Ambient temperature	-40 °C to +60 °C
Maximum voltage	440 V	Flexible wiring (min-max)	1 - 2,5 mm²
Number of contacts	24P+E	Wiring	crimped
IP protection lid closed	IP66/IP67	Protection mode	e + i
IP protection connected plug	IP66/IP67	ATEX zones	1 & 2, 21 & 22
Shock resistance	IK09	Keying positions	3

LOCKING POSITION CONNECTED OR DISCONNECTED BY LOCKABLE SHAFT.

WALL MOUNTING SOCKET female **DXN25C (10 A)**

PLUG male **DXN25C (10 A)**

Ex cable gland	Part no.		Ex cable gland	Part no.	
M32	36D000232M	12-21 mm	M32	36D100232M	12-21 mm
M40	36D0002	16-27 mm	M40	36D1002	16-27 mm

With padlocking shaft (padlock not included)

INCLINED SOCKET female **DXN25C (10 A)**

INCLINED APPLIANCE INLET male **DXN25C (10 A)**

Part no.	Part no.
36D7002	36D9002

With padlocking shaft (padlock not included)

COUPLER SOCKET female **DXN25C (10 A)**

WALL MOUNTING APPLIANCE INLET male **DXN25C (10 A)**

Ex cable gland	Part no.		Ex cable gland	Part no.	
M32	36D300232M	12-21 mm	M32	36D600232M	12-21 mm
M40	36D3002	16-27 mm	M40	36D6002	16-27 mm

With padlocking shaft (padlock not included)

Each product is supplied with 2 bags of 13 contacts depending on the maximum configuration.
This allows you to set up the product to suit your needs.

BAG OF 13 CONTACTS (SUPPLIED WITH INSULATION SLEEVES AND FERRULES)	
Female socket-outlet Part Number	01AA213
Male inlet Part Number	61CA113

ACCESSORIES & OPTIONS	
Crimping tool	61CA500
Helavia sleeve expansion tool	61CA400

MARECHAL ELECTRIC MAROMME

Ex II2 G D Ex e IIC Gbtb IIIC Db
-40 °C ≤ Ta ≤ +40 °C T6 T51 °C
-40 °C ≤ Ta ≤ +60 °C T5 T71 °C
Ex ia und ib IIC T6 Gb

DXN37C

METAL MULTI-CONTACT CONNECTORS

10 A
IP66/IP67

TYPICAL CONFIGURATION

WALL MOUNTING SOCKET DXN37C

Wall mounting socket
36C0003

PLUG DXN37C

Plug
36C1003

MAIN FEATURES

Rated current (with wiring according to standard)	10 A	Ambient temperature	-40 °C to +55 °C
Maximum voltage	230 V	Flexible wiring (min-max)	1 - 2,5 mm²
Number of contacts	36P+E	Wiring	crimping
IP protection lid closed	IP66/IP67	Protection mode	e + i
IP protection connected plug	IP66/IP67	ATEX zones	1 & 2, 21 & 22
Shock resistance	IK09	Keying positions	3

LOCKING POSITION CONNECTED OR DISCONNECTED BY LOCKABLE SHAFT.

WALL MOUNTING SOCKET female
DXN37C (10 A)

PLUG male
DXN37C (10 A)

Ex cable gland	Part no.		Ex cable gland	Part no.	
M32	36C000332M	12-21 mm	M32	36C100332M	12-21 mm
M40	36C0003	16-27 mm	M40	36C1003	16-27 mm

With padlocking shaft (padlock not included)

INCLINED SOCKET female
DXN37C (10 A)

INCLINED APPLIANCE INLET
male **DXN37C (10 A)**

Part no.	Part no.
36C7003	36C9003

With padlocking shaft (padlock not included)

COUPLER SOCKET female
DXN37C (10 A)

WALL MOUNTING APPLIANCE INLET
male **DXN37C (10 A)**

Ex cable gland	Part no.		Ex cable gland	Part no.	
M32	36C300332M	12-21 mm	M32	36C600332M	12-21 mm
M40	36C3003	16-27 mm	M40	36C6003	16-27 mm

With padlocking shaft (padlock not included)

Each product is supplied with 3 bags of 13 contacts depending on the maximum configuration.
This allows you to set up the product to suit your needs.

BAG OF 13 CONTACTS (SUPPLIED WITH INSULATION SLEEVES AND FERRULES)	
Female socket-outlet Part Number	01AA213
Male inlet Part Number	61CA113

ACCESSORIES & OPTIONS	
Crimping tool	61CA500
Helavia sleeve expansion tool	61CA400

MARECHAL ELECTRIC MAROMME

Ex II2 G D Ex e IIC Gbtb IIIC Db

-40 °C ≤ Ta ≤ +40 °C T6 T56 °C

-40 °C ≤ Ta ≤ +55 °C T5 T76 °C

Ex ia und ib IIC T6 Gb

SPeX

SINGLE POLE POWER CONNECTOR 680 A

- Ex II2 G D Ex e IIC
- IP65/IP66 WATER- AND DUST-TIGHT
- ELECTROMECHANICAL INTERLOCKING SYSTEM
- MECHANIC AND VISUAL KEYING

The highest possible safety

- Reliable mechanical and electrical interlocking,
- IP2X socket-outlet when cap removed,
- Automatic IP65/IP66 when plug is connected.

An simple-to-use connector

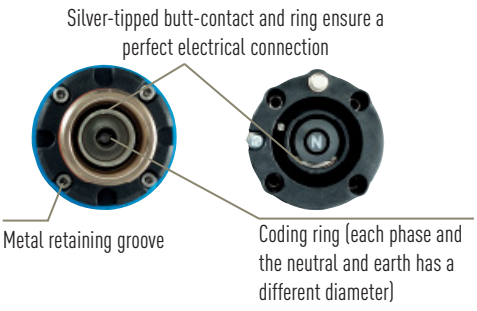
- Straight insertion of the plug into the socket-outlet,
- Different mechanical keying for L1, L2, L3, N and E, positive and negative (d.c.)
- Visual identification by standard colours,

Performances

With 240 mm² wiring, the SPeX accepts a permanent current up to 570 A / 1000 V a.c. with T5 ATEX classification at 40 °C ambient temperature.

SPeX ATEX classification according to cable cross-section and Ta (ambient Temperature)

	-20°C ≤ Ta ≤ +40°C G D T5 / T56°C	-20°C ≤ Ta ≤ +40°C G D T6 / T56°C	-20°C ≤ Ta ≤ +60°C G D T5 / T76°C
70 mm²	290 A	235 A	235 A
95 mm²	415 A	335 A	335 A
120 mm²	456 A	376 A	376 A
150 mm²	493 A	415 A	415 A
185 mm²	530 A	450 A	450 A
240 mm²	570 A	497 A	497 A
300 mm²	620 A	540 A	540 A
400 mm²	680 A	600 A	600 A

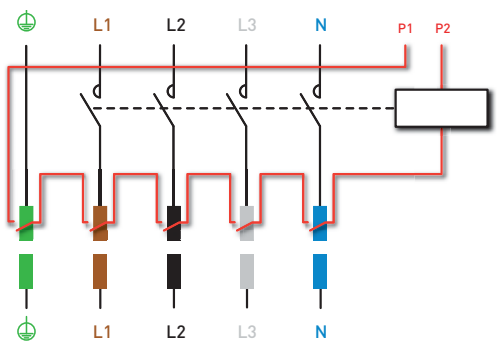


Energy distribution system with separate connection of contacts

The pilot contact breaks the circuit in conformity with ATEX Directive (increased safety "e").

The breaking system is not supplied

Pilot wiring is mandatory to break and make on load



SPECIFICATION

IP65/IP66 single pole power connector with increased safety «e» for hazardous areas (ATEX), comply with BECMA international standard.

MAIN FEATURES

Rated current	according to category and cable	Ambient temperature	see table
Maximum voltage a.c.	1000 V	Wiring (min - max)	see table
Maximum voltage d.c.	1500 V	Keying position	mechanical (5) and visual
Short-circuit current Icc	20 kA during 250 ms	Protection mode	e
IP protection - lid closed	IP65/IP66	ATEX zones	1 & 2, 21 & 22
IP protection - connected plug	IP65/IP66	Number of operations	2000
Shock resistance	IK08	Pre-wired pilot circuit	6 A / 250 V

SOCKET-OUTLET female
SPeX (680 A)
without lug

INLET male
SPeX (680 A)
without lug

Type	European color coding*	Part no.	Part no. 17 to 24 mm	Part no. 17 to 31 mm	Part no. 24,5 to 37 mm	Part no. 34 to 47 mm
L1	Brown	4647001	464100132P	464100140P	464100150P	464100163P
L2	Black	4647002	464100232P	464100240P	464100250P	464100263P
L3	Grey	4647003	464100332P	464100340P	464100350P	464100363P
Neutral	Blue	464700N	464100N32P	464100N40P	464100N50P	464100N63P
Earth	Green	464700T	464100T32P	464100T40P	464100T50P	464100T63P
Positive	Red	464700P	464100P32P	464100P40P	464100P50P	464100P63P
Negative	Black	464700M	464100M32P	464100M40P	464100M50P	464100M63P

* Part-numbers valid for Europe and Japan.
For other countries, replace the prefix 46 by : 42 for the USA / 43 for Australia / 44 for UK and South-Africa.

LUGS

Lug choice depends on the cable: the cross-section of the flexible cable mentioned in the table below is for information only. Please check dimensions as these may vary according to cable types and manufacturers.

Wiring (mm²)		Straight with hole	Straight threaded M12*	Internal diameter (mm)
Flexible	Stranded	Part no.	Part no.	
50	70	454A50C	454A50D	11
70	95	454A70C	454A70D	13,1
95	120	454A95C	454A95D	14,5
120	150	454A12C	454A12D	16,2
150	185	454A15C	454A15D	18
185	240	454A18C	454A18D	20,6
240	300	454A24C	454A24D	23,1
300	400	454A30C	454A30D	26,1
400	500	454A40C	454A40D	29,2

* Wiring with crimping lugs, according to NF C20-130 standard (for VDE 0220 standard, please contact us) **Crimping:** Double hexagonal crimping is recommended.

MARECHAL ELECTRIC MAROMME
Ex II2 G D Ex e IIC Gb Ex tb IIIC Db
IECEx LCI 12.0005X / LCIE 07 ATEX 6073 X

MXBS SOCKET-OUTLET COMBINATION BOXES 63 A

- Ex II2 G D Ex e ia OR ib IIC
- IP66 WATER- AND DUST-TIGHT
- UP TO 24 SOCKET-OUTLETS
- ASSEMBLY OF MULTI-CONTACT CONNECTORS AND SOCKET-OUTLETS ON THE SAME ENCLOSURE

Equipped with 20 to 63 A decontactors and/or 10 A multicontact connectors, these reinforced polyester resin fiberglass and graphite loaded socket-outlet combination boxes are designed for making electrical connections in hazardous areas, offering from 12 to 37 contacts. They provide increased safety and intrinsic safety, allowing them to be used in zones 1 & 2 (gas), 21 & 22 (dust). This comprehensive range is also ideal for wet environments – such as food and beverage or chemical industries – thanks to their corrosion resistance.
It is possible to mount both socket-outlets and multicontact connectors on the same box, with some models able to accommodate up to 24 socket-outlets or connectors.

TECHNICAL FEATURES

ASSOCIATED MARECHAL® PRODUCTS	
Decontactors	DXN1, DXN3 and DXN6
Multicontact connectors	PXN12C, DXN25C and DXN37C
ELECTRICAL FEATURES	
Maximum voltage*	750 V
Maximum nominal current*	63 A
Stranded wiring (min-max)*	1,5 - 25 mm^2
Flexible wiring (min-max)*	1,5 - 16 mm^2
* depending on the socket-outlet	
Junction	Terminal blocks. Feed through and loop-in loop-out connection
Cable entries and glands	M12 to M63 depending on the size of the box / Polyamide cable gland for unarmoured cable Nickel plated brass cable gland for unarmoured cable and armoured cable (with plate or washer bonding inside the box)
THERMAL SPECIFICATION	
Temperature range and ratings	From -40 °C to +60 °C From -40 °C ≤ Ta ≤ +40 °C T6 to T4* From -40 °C ≤ Ta ≤ +55 °C T5 to T4* From -40 °C ≤ Ta ≤ +60 °C T4 * depending on the internal components and socket mix (consult us)
MECHANICAL FEATURES	
Degree of protection	IP66
Shock resistance	IK09 according to IEC and EN 62 262.
Material	Enclosure made of polyester resin reinforced with fibreglass and graphite loaded for boxes. Casing made of High performance Poly for DXN1, DXN3 and DXN6 decontactors Casing made of Metal for PXN12C, DXN25C and DXN37C multicontact connectors Stainless steel screw
ATEX MARKINGS	
ATEX zones	Gas and Dust : zones 1 & 2, 21 & 22
ATEX markings	Ex II 2 G D Ex e II T4 to T6 Ex tD A21 increased safety Ex 2 G D Ex ia IIC T6 tD A21 or Ex II 2 G D Ex ib IIC T6 tD A21 intrinsically safety Ex 2 G D Ex e ia IIC T6 tD A21 or Ex II 2 G D Exe e ib IIC T6 tD A21 increased safety and intrinsic safety
Standards compliance	IEC EN 60079-0, 60079-1, 60079-7, 60079-11 and 60079-31
Certificates	Certificates IECEx N° IECEx LCI 11.0042 and ATEX N° LCIE 11 ATEX 3047

SPECIFICATION

Socket boxes IP66 for hazardous areas (ATEX), comply with BECMA international standard.

MAXIMUM NUMBER OF SOCKET-OUTLETS PER BOX (T6 at +40 °C ambient temperature)

Type	DXN1			DXN3			DXN6			PXN12C	DXN25C	DXN37C
Box	1P+N+E	3P+E	3P+N+E	1P+N+E	3P+E	3P+N+E	1P+N+E	3P+E	3P+N+E			
MXBS1	3	3	3	1	1	1	-	-	-	3	1	1
MXBS2	4	4	3	1	1	1	1*	1*	1*	3	1	1
MXBS3	7	4	3	2	2	2	1*	1*	1*	7	2	2
MXBS4	7	6	4	2	2	2	1*	1*	1*	4	1	1
MXBS5	13	9	6	4	4	4	1*	1*	1*	5	2	1
MXBS6	11	7	5	11	7	5	1	1	1	5	2	1
MXBS7	14	9	7	13	9	6	1	1	1	6	3	2
MXBS8	12	8	6	12	8	6	2	2	2	5	2	1
MXBS9	19	12	9	18	12	9	2	2	2	8	4	2
MXBS10	24	16	12	24	16	12	2	2	2	11	5	3

* T5 at = 40 °C

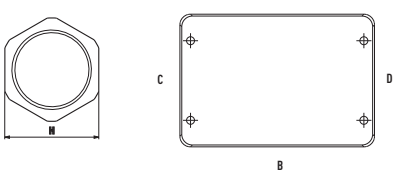
Note : Special configurations, wiring terminal blocks and a mixture of socket outlets are available. Please contact us.

MAXIMUM NUMBER OF POLY CABLE GLANDS PER SIDE (For metal cable gland for armoured cable contact us)

		M12	M16	M20	M25	M32	M40	M50	M63
Box	Side	(H = 15 mm)	(H = 22 mm)	(H = 24 mm)	(H = 33 mm)	(H = 42 mm)	(H = 53 mm)	(H = 60 mm)	(H = 70 mm)
MXBS1	A/B	15	6	6	2	2	-	-	-
	C/D	5	2	1	1	1	-	-	-
MXBS2	A/B	12	5	4	2	1	1	-	-
	C/D	12	5	4	2	1	1	-	-
MXBS3	A/B	32	14	12	6	3	2	-	-
	C/D	12	5	4	2	1	1	-	-
MXBS4	A/B	26	14	9	6	3	2	2	-
	C/D	18	8	6	3	2	1	1	-
MXBS5	A/B	72	38	26	16	7	5	4	-
	C/D	18	8	6	3	2	1	1	-
MXBS6	A/B	69	32	24	12	8	4	3	3
	C/D	51	24	18	10	7	3	3	2
MXBS7	A/B	117	56	42	21	14	7	5	5
	C/D	50	22	18	10	6	3	2	2
MXBS8	A/B	108	52	36	18	12	6	4	4
	C/D	50	24	18	10	7	3	3	2
MXBS9	A/B	117	56	42	21	14	7	5	5
	C/D	95	46	36	18	13	6	5	4
MXBS10	A/B	215	102	81	43	26	18	11	10
	C/D	256	158	123	65	40	27	18	14

ACCESSORIES ON REQUEST

- Inclined sleeve
- Earth stud
- Earth bar
- Hinges
- Mounting brackets



MXBJ JUNCTION BOXES 350 A

- Ex II2 G D Ex e ia OR ib IIC
- IP66 WATER- AND DUST-TIGHT
- GLASS REINFORCED, GRAPHITE-FILLED POLYESTER RESIN ENCLOSURES

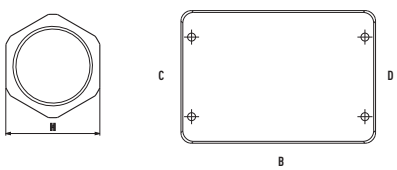
These junction boxes are designed with reinforced polyester resin with fibreglass and graphite loaded, and are designed for making electrical connections in hazardous areas. They provide increased safety and intrinsic safety, allowing them to be used in zones 1 & 2 (gas), 21 & 22 (dust). This comprehensive range is also ideal for wet environments – such as food and beverage or chemical industries – thanks to their corrosion resistance.

TECHNICAL FEATURES

ELECTRICAL FEATURES	
Maximum voltage*	750 V
Maximum nominal current*	350 A
Flexible or stranded wiring (min - max)*	0,2 - 240 mm^2
* depending on the type of terminal connection	
Cable entries	M12 to M63
THERMAL SPECIFICATION	
Temperature range and ratings	From -55 °C to +60 °C From -55 °C to +40 °C (T6 = 85 °C surface temperature) From -55 °C to +55 °C (T5 = 100 °C surface temperature) From -55 °C to +60 °C (T4 = 135 °C surface temperature)
MECHANICAL FEATURES	
Degree of protection	IP66
Shock resistance	IK09 according to IEC and EN 62 262.
Material	Casing made of polyester resin reinforced with fibreglass and graphite loaded Stainless steel screws
ATEX MARKINGS	
ATEX zones	Gas and Dust : zones 1 & 2, 21 & 22
ATEX markings	Ex II 2 G D Ex e II T4 to T6 Ex tD A21 increased safety Ex 2 G D Ex ia IIC T6 tD A21 or Ex II 2 G D Ex ib IIC T6 tD A21 intrinsic safety Ex 2 G D Ex e ia IIC T6 tD A21 or Ex II 2 G D Exe e ib IIC T6 tD A21 increased safety and intrinsic safety
Standards compliance	IEC EN 60079-0, 60079-1, 60079-7, 60079-11 and 60079-31
Certificates	Certificates IECEx N° IECEx LCI 11.0026 and ATEX N° LCIE 11 ATEX 3028

ACCESSORIES ON REQUEST

- **Earth stud**
- **Earth bar**
- **Shield bar**
- **Junction bar**
- **Hinges**
- **Mounting brackets**



SPECIFICATION

Junction boxes IP66 for hazardous areas (ATEX).

CONDUCTORS CROSS-SECTION : NUMBER OF TERMINALS / In MAX (A)

	1.5 mm²		2.5 mm²		4 mm²		6 mm²		10 mm²		16 mm²	
Box	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**
MXBJ1	14 10	13 A 15 A	14 7	15 A 20 A	11 5	18 A 25 A	-	-	-	-	-	-
MXBJ2	19 11	12 A 15 A	15 9	15 A 20 A	15 7	17 A 25 A	13 6	22 A 32 A	10 4	31 A 45 A	7 3	43 A 65 A
MXBJ3	42 11	8 A 15 A	34 9	10 A 20 A	34 7	11 A 25 A	29 6	15 A 32 A	22 4	21 A 45 A	17 3	28 A 65 A
MXBJ4	28 15	11 A 15 A	23 11	14 A 20 A	23 9	15 A 25 A	19 7	20 A 32 A	14 6	29 A 45 A	11 4	39 A 65 A
MXBJ5	76 17	7 A 15 A	61 14	9 A 20 A	61 12	11 A 25 A	51 11	14 A 32 A	39 8	21 A 45 A	31 5	28 A 65 A
MXBJ6	102 16	6 A 15 A	82 13	8 A 20 A	82 12	9 A 25 A	70 12	12 A 32 A	52 8	17 A 45 A	42 5	23 A 65 A
MXBJ7	170 20	5 A 15 A	138 17	7 A 20 A	138 15	8 A 25 A	116 13	11 A 32 A	86 11	16 A 45 A	35 7	30 A 65 A
MXBJ8	264 17	4A 15 A	214 15	5 A 20 A	214 14	6 A 25 A	180 12	8 A 32 A	136 10	12 A 45 A	54 7	23 A 65 A
MXBJ9	255 27	5 A 15 A	207 24	6 A 20 A	207 11	8 A 25 A	174 19	10 A 32 A	129 15	15 A 45 A	70 10	25 A 65 A
MXBJ10	402 35	4 A 15 A	324 30	6 A 20 A	324 28	7 A 25 A	273 25	9 A 32 A	136 20	17 A 45 A	110 14	23 A 65 A

	25 mm²		35 mm²		50 mm²		70 mm²		95 mm²		120 mm²	
Box	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**
MXBJ4	7 3	62 A 85 A	7 2	71 A 105 A	-	-	-	-	-	-	-	-
MXBJ5	21 5	43 A 85 A	21 2	47 A 105 A	6 3	105 A 130 A	5 2	123 A 170 A	-	-	-	-
MXBJ6	14 5	51 A 85 A	12 3	60 A 105 A	10 4	89 A 130 A	-	-	-	-	-	-
MXBJ7	23 7	46 A 85 A	23 5	50 A 105 A	18 6	80 A 130 A	9 3	105 A 170 A	-	-	-	-
MXBJ8	36 6	36 A 85 A	36 5	39 A 105 A	28 5	58 A 130 A	9 3	102 A 170 A	6 2	140 A 205 A	-	-
MXBJ9	23 9	55 A 85 A	22 7	61 A 105 A	18 9	93 A 130 A	16 4	93 A 170 A	-	-	-	-
MXBJ10	27 13	59 A 85 A	35 10	57 A 105 A	28 9	80 A 130 A	25 6	88 A 170 A	22 5	105 A 205 A	18 5	149 A 235 A

	150 mm²		185 mm²		240 mm²	
Box	**Nr**	**In Max**	**Nr**	**In Max**	**Nr**	**In Max**
MXBJ10	18 4	150 A 265 A	15 4	197 A 305 A	10 5	254 A 350 A

MAXIMUM NUMBER OF POLYESTER CABLE GLANDS PER SIDE : idem MXBS

B2x JUNCTION BOXES

- II2 G D Ex e IIC
- UP TO 750 V
- IP66/IP67 WATER- AND DUST-TIGHT
- EQUIPPED WITH TERMINALS AND/OR SOCKET-OUTLETS

This range is equipped with CRIC increased safety 'e' terminal blocks and cable glands and complies with the 94/9/CE Directive. All external fastening accessories are in stainless steel.

SPECIFICATION

Junction boxes IP66/IP67 with increased safety «e» for hazardous areas (ATEX), comply with BECMA international standard.

MAIN FEATURES

Maximum voltage a.c.	750 V
Ambient temperature	-40 °C to +60 °C
Protection mode	e
Protection	IP66/IP67
ATEX zones	1 & 2, 21 & 22
Dimensions (H x L x P)	173 x 173 x 118 mm

This box can be equipped with:
- Two DXN1 with 30° inclined sleeve, or
- One DXN1 and one DXN3 with 30° inclined sleeves.

Standards compliance
- The European ATEX 94/9/CE Directive
- IEC EN 60079-0, IEC EN 60079-7 and IEC EN 60079-31

Junction
Three kinds of increased safety 'e' terminal blocks are available:
- 20 A : 3 x 4 mm2 max. per terminal block
- 40 A : 3 x 10 mm2 max. per terminal block
- 70 A : 3 x 25 mm2 max. per terminal block

(one M40 cable gland maximum per side)

Boxes fitted with terminals only

MARECHAL ELECTRIC MAROMME
II2 G D Ex e II tD A21
-40 °C ≤ Ta ≤ +60 °C T6 T85 °C
LCIE 05 ATEX 6128

Boxes fitted with terminals + DXN

MARECHAL ELECTRIC MAROMME
II2 G D Ex e II tD A21
-40 °C ≤ Ta ≤ +60 °C T4 T130 °C
LCIE 05 ATEX 6128

Technor®
A company of MARECHAL ELECTRIC GROUP

A WIDE RANGE OF TECHNOLOGICALLY ADVANCED PRODUCTS

- SAFETY OF PEOPLE
- EQUIPMENT AND INFRASTRUCTURE IN POTENTIALLY EXPLOSIVE ATMOSPHERE

TECHNOR is a worldwide technology company of MARECHAL ELECTRIC GROUP, with operational businesses in Italy, United Arab Emirates and Singapore. TECHNOR has a high level of experience in developing and designing Ex equipment for most applications.
The company main markets are within Oil & Gas and Petrochemical Industries.
Products enable safe transport and application of electric signals and power in potentially explosive atmospheres.
The core business is in the electrical, instrumentation and electronics fields.
All the equipment for use in explosive atmosphere satisfy the requirements of international and national regulations (Atex, IECEx and TR CU (GOST) and each individual systems' component is certified in accordance with specific Ex-certification requirements.

LIGHTING

RMS... SERIES — IP66/IP67, Ex-nA, Ex-de Fluorescent Lights

Ideal for Onshore and Offshore, Marine applications and for all kinds of industry where a high level of corrosion resistance is required. Stainless steel AISI-304 or AISI-316L body, glass tempered window and glass-frame done in one unit without welding.

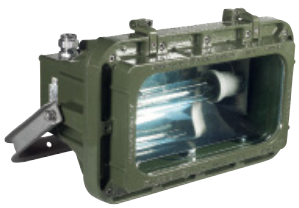
EVF-P — Ex-de, Ex-em Fluorescent Lights

Fluorescent luminaries manufactured with cylindrical polycarbonate lamp housing and two end-cups in Copper free aluminium. The high resistance polycarbonate light housing is made of 3 different layers extrusion with UV filter to grant the best possible protection against direct sun heating and radiation effects. Shape has been designed to minimize wind resistance. Suitable for marine enviroment conditions.

EVde... — Ex-de, Discharge Lighting Fixtures

Range of buit in control gear HID lighting fixtures, for general lighting applications, providing Ex-e junction box, adjustable SS AISI 304 mounting bracket suitable for universal installation, facilitate mounting and maintenance. Compact design in aluminium grade body, for onshore and offshore applications.

FL... — Ex-de, Discharge Floodlights



HID floodlight, for general lighting application, platform installation, cranes, providing integral looping facility Ex-e junction box, stainless steel adjustable fixing bracket, built in ballast, internal anti condensation paint, compact design in aluminum grade body as well as stainless steel, for onshore and offshore installation.

FLAMEPROOF ENCLOSURES

GUB..., EJB... Ex-d IIB, IIB+H2 and IIC Enclosure

Large range of enclosures manufactured in Copper free aluminium, Cast Iron or Stainless steel. Ideal for instrument housing, control, check, connection, automation, interruption and/or protection use. They can be equipped with pushbuttons, pilot lamps and selector switches. Enclosures can be customized project by project to get control panel, lighting distribution boards, heat tracing distribution boards, motor starters, as well as, assembled together, or mounted on a self supporting frame, generate switch-rack for onshore and offshore applications.

JUNCTION BOXES

AQ-AR... Ex-e and Ex-ia Enclosure

The AQ/AR range of stainless steel AISI-316L enclosure used as instrument and electrical terminal boxes, as well as control panels equipped with push button and switches, all designed for use in any environment where an explosive atmosphere may be present and are especially recommended for chemical agent environments, sea-water corrosion resistance and extremis of low and high temperature, offshore and onshore oriented.

CONTROL STATIONS

CP... /EF... Ex-d, Ex-e, Ex-de, Ex-dem Control Station

Range of GRP, Copper free aluminium or Stainless Steel control stations designed to offer a flexible, light weight and cost effective solution tailor made upon customer request. To be assembled with Ex-de operators in case EF.. Ex-de version and with PL.. operators in case of CP.. Ex-d version.

VISUAL SIGNAL

AWL... SERIES EV-de Ex-d, Ex-de IIC Warning Lights

The top of technology among Aircraft Warning Lights, LIOL, MIOL with LED technology, reliable long life and maintenance saving products, in compliance with ICAO and FAA, along with signalization unit like beacons, flashing unit, rotating light.

CABLE GLANDS & ACCESSORIES

P..., Ex-d/e Cable Glands

Single seal, double seals cable glands, suitable for unarmored and armored cables. Nickel-chrome plated brass, stainless steel and aluminum made, hexagon shape, anti-ageing EPDM oil resistant gaskets. These cable glands are used in classified Area Zone 1 & 2 and Zone 21 & 22.

OUR REFERENCES

FOOD INDUSTRY

- **ECKES GRANINI** - FRANCE • Fruit juice
- **NESTLE' ITALIANA SPA** - ITALY • Frozen pizzas
- **PEPSICO** - TURKEY • Soft drinks, fruit juice, salted biscuits and cereals
- **HEINZ** - SOUTH AFRICA • Sauces
- **NESTLE ICE CREAM** - ISRAEL • Ice cream

WATER TREATMENT

- **SIAAP** - FRANCE • Wastewater treatment
- **SMAT** - ITALY • Wastewater treatment
- **WATERSCHAP** - NETHERLANDS • Wastewater treatment
- **ABWASSERVER BÄNDE** - GERMANY • Wastewater treatment
- **OHL EE.UU.** - SPAIN • Wastewater treatment

CHEMICAL INDUSTRY

- **ARKEMA** - FRANCE • Basic chemicals
- **TESA SE** - GERMANY • Adhesive tape
- **OCP (OFFICE CHÉRIFIEN DES PHOSPHATES)** - MOROCCO • Phosphate treatment
- **EVYAP** - TURKEY • Soaps, hygiene and care products

HEAVY INDUSTRY

- **ARCELOR MITTAL** - FRANCE • Metallurgy
- **VOLKSWAGEN GROUP OF AMERICA** - USA • Automobile assembly plant
- **TATA STEEL** - NETHERLANDS • Metallurgy
- **SIDERAR (TERNIUM GROUP)** - ARGENTINA • Steel industry
- **U.P.M. THE BIOFORE COMPANY** - URUGUAY • Paper mill

INFRASTRUCTURES

- **TUNNEL DU MONT BLANC** - FRANCE
- **KEPPEL CORPORATION LIMITED** - SINGAPORE • Shipyards
- **INFRABEL** - BELGIUM • Infrastructure manager for the Belgian rail network

TRANSPORT

- **AIR FRANCE INDUSTRIES** - FRANCE • Aeronautics - Hangars maintenance
- **AENA** - SPAIN • Spanish airports
- **BOEING** - USA • Aeronautics - Producing 787 Dreamliner aircraft
- **THE PEARL** - QATAR • Marina
- **OTOKAR** - TURKEY • Military vehicles and armored vehicles

ENERGY

- **EDF** - FRANCE • Nuclear power plant
- **AREVA** - FRANCE • Uranium enrichment site
- **DRILLMEC** - ITALY • Oil, gas and water drilling rigs
- **SPALDING POWER STATION** - UK • Power plant
- **ATWOOD MAKO / PPL SHIPYARD** - SINGAPORE • Offshore platform
- **MEGA GROUP** - RUSSIA • Oil & waste oil treatment plant

MEDIA AND ENTERTAINMENT

- **VIEILLES CHARRUES** - FRANCE • Musical festival
- **SANTIAGO BERNABÉU** - SPAIN • Real Madrid stadium
- **UNIVERSAL STUDIOS** - SINGAPORE • Amusement park
- **INFINITE FILMING STUDIO** - SINGAPORE • Integrated Media Entertainment and Creative Services company

CONFIGURATOR & CATALOGUE

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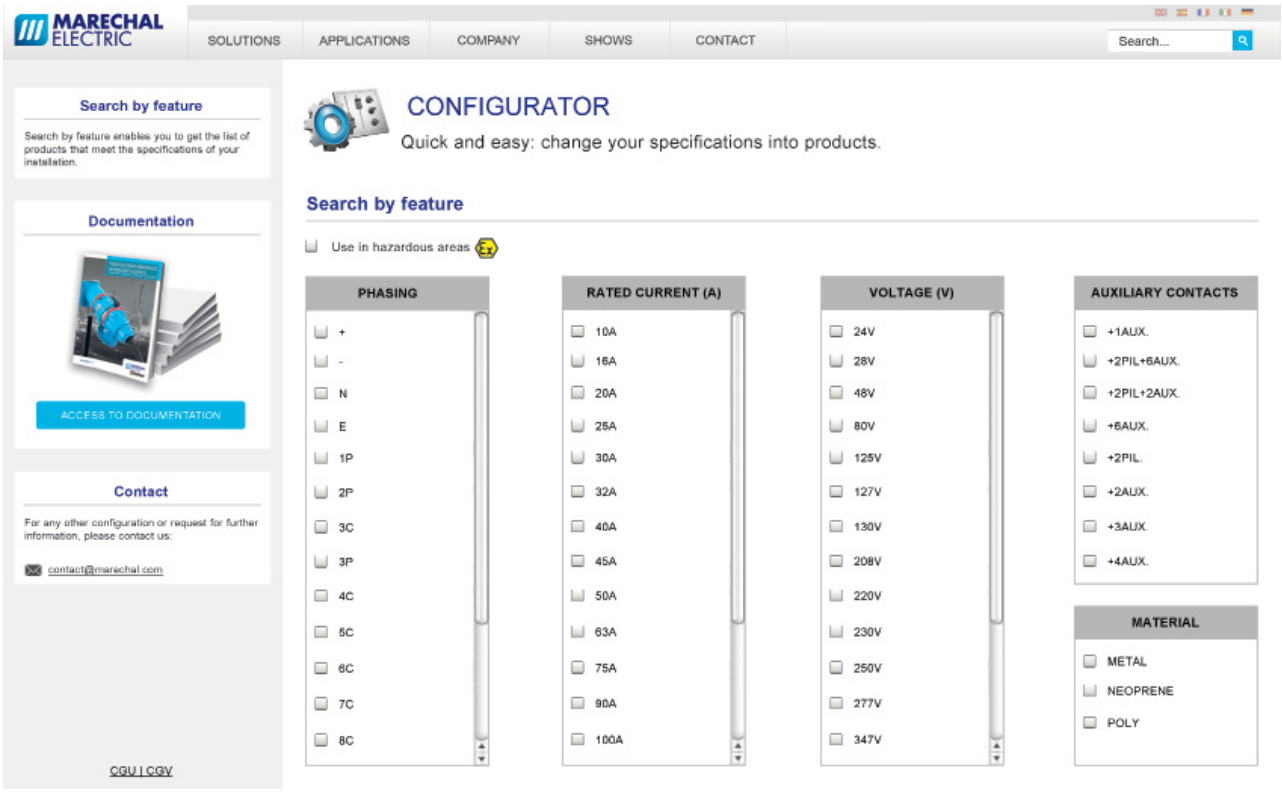

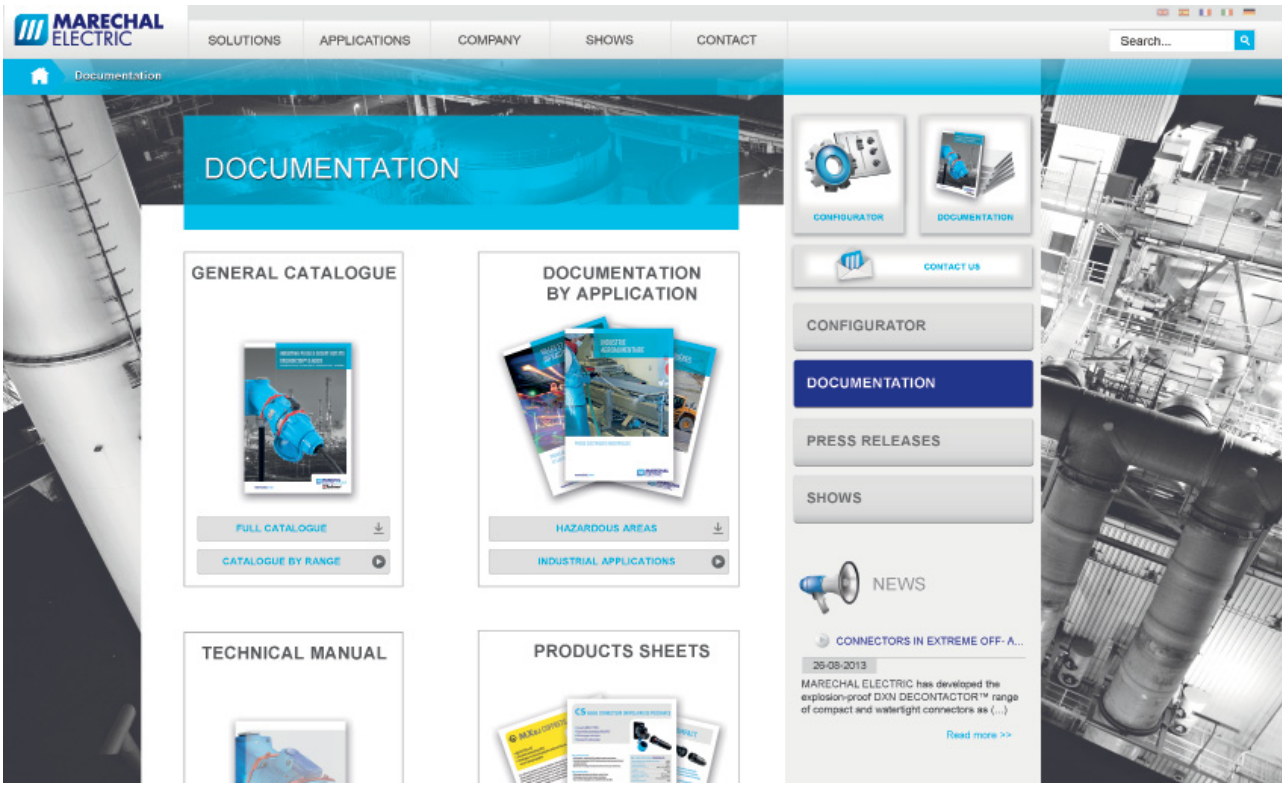

NON CONTRACTUAL DOCUMENT AND PICTURES

All the indications appearing in this catalogue are indicative and could not constitute a commitment on our part.
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For your information, the most updated version is the one of our website **marechal.com**.

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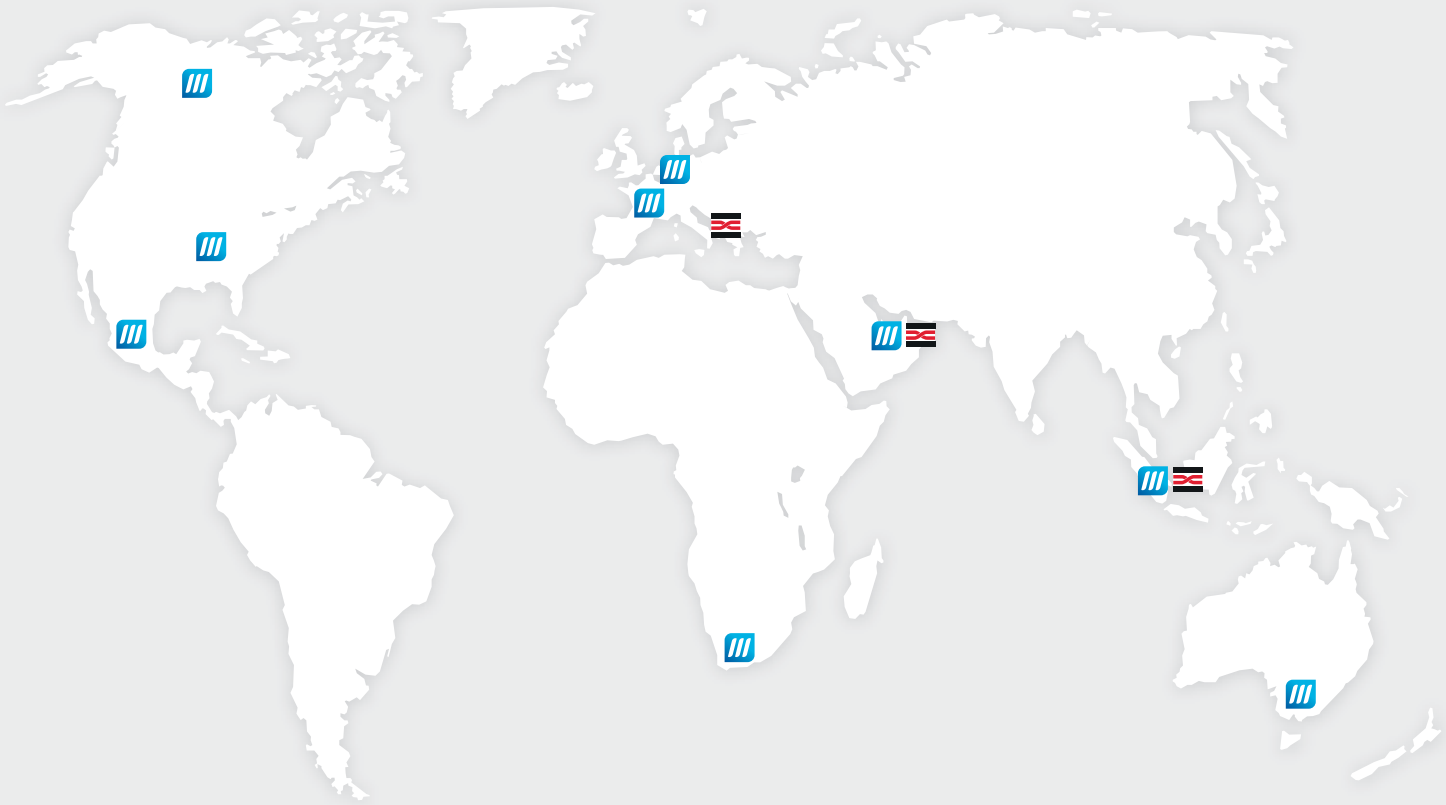

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