

FOOD & DRINK INDUSTRIES



INDUSTRIAL PLUGS & SOCKET-OUTLETS

SAFE AND RELIABLE ELECTRICAL CONNECTIONS IDEALLY SUITED TO THE FOOD & DRINK INDUSTRIES.

MARECHAL ELECTRIC offers a range of products suited to your applications.

The Food & Drink industries require products that meet specific criteria and requirements.

To satisfy the many needs linked to this activity, MARECHAL ELECTRIC provides you with a wide range of electrical connection solutions which reduce the time and means required for operations:

- Reliability
- Speed
- Flexibility
- Quality

... always with the goal to ensure safety for staff and plants.





CONTENTS

**MARECHAL ELECTRIC
TECHNOLOGY**
P. 4



**DSN
COMPACT AND WATERTIGHT
DECONTACTOR™**
P. 6



**PNC
COMPACT AND WATERTIGHT
CONNECTORS**
P. 8

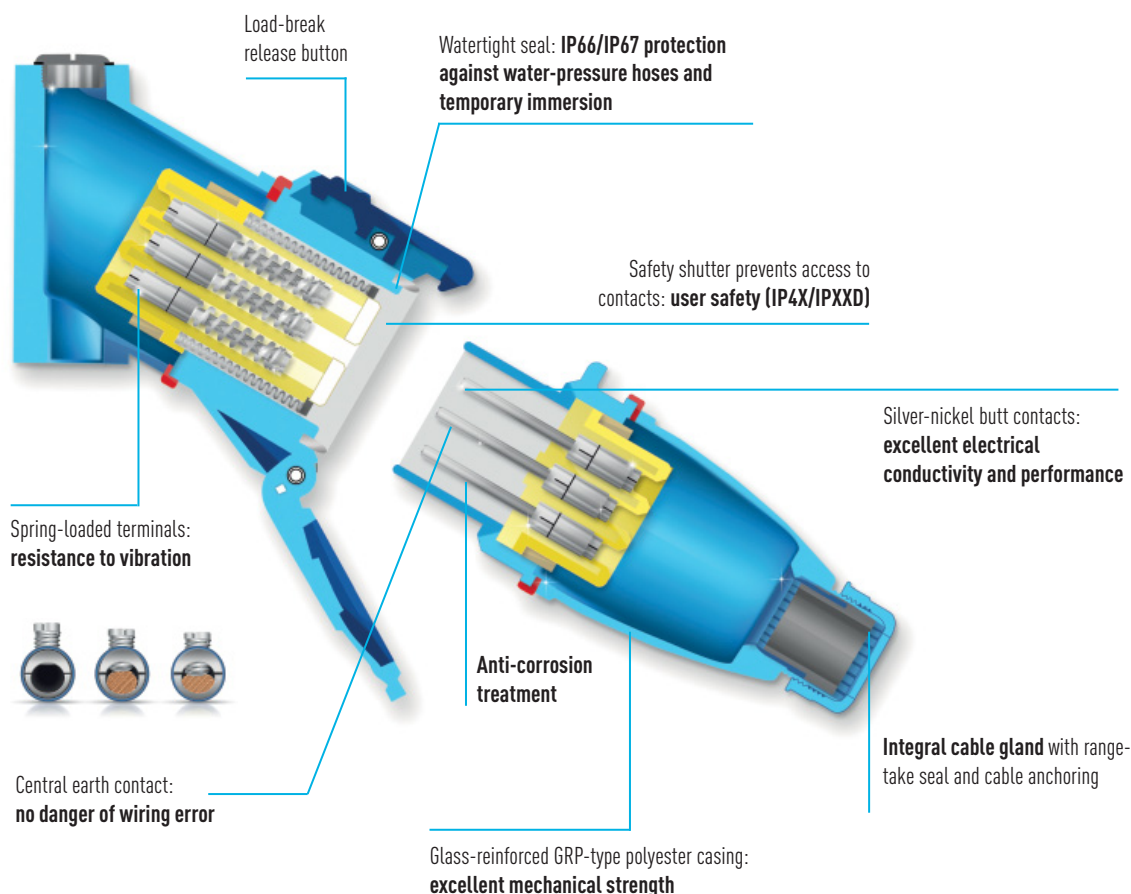


**MULTICONNECT
CONNECTORS**
P. 10



MARECHAL ELECTRIC TECHNOLOGY

The MARECHAL® industrial electrical power socket has a built-in switching function called DECONTACTOR™. This technology makes it possible to connect and disconnect motors in absolute safety, with the ease of "Plug & Play". MARECHAL® industrial electrical power sockets provide unequalled strength over time and guarantee fast and safe operation during maintenance work. They comply with the IEC EN 60309-1 standard and the European Low Voltage Directive.



DECONTACTOR™ technology: tested safety

- ▶ A socket with built-in switch in a compact unit
- ▶ Simply pressing the button once cuts off the current and eliminates all risk of electrical arcing.
- ▶ The plugs then eject automatically and the appliance is off-load.
- ▶ The safety of users is guaranteed at all times.

Connection quality and life expectancy

MARECHAL® products are fitted with spring-loaded contacts providing permanent and durable contact.

The silver-nickel tips at the end of the contacts provide exceptional connection quality and excellent resistance to wet and corrosive environments, even after years of use.

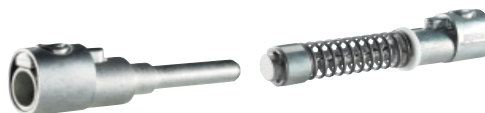
Fast and safe connection under any circumstances

The socket latch holds the plug in the socket against the force of the internal spring. This ensures the plug is watertight and that the appliance will start up properly.

When the plug is pulled out the safety shutter in the socket prevents access to the live parts.

IP66/IP67 sealing

IP66/IP67 sealing is automatic as soon as the plug is inserted or once the socket lid is closed manually.



FASTER, SAFER, EASIER.

It's watertight, it's robust, it's resistant to chemicals and it answers your need for plant safety – the DECONTACTOR™ solves your connection problems. Whether a fixed supply or for mobile machines the deconnector's simplicity of use makes the user's life easy and enhances your production.

For humid & corrosive environments : Our design uses silver-nickel butt contacts which resist corrosion even after years of operation. The automatic socket seal resists steam cleaning, water jetting and chemicals.

User operation in fatty or humid environments : Even if wearing protective gloves the operator can simply press the release button. This ejects the plug to a parked position. A quarter turn removes the now dead plug from its socket.
NB: Our in-line connections are also switched – for extra safety.

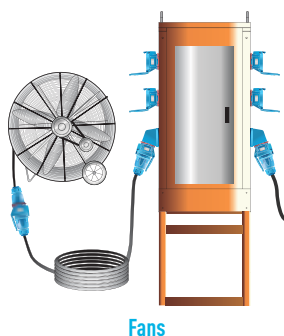
Robust requirements : The glassfibre-reinforced casings resist accidental damage (IK08) as well as operating happily at temperatures between -40°C and +60°C.

Motor connections : Acts as local isolation, padlocking available ON/OFF.

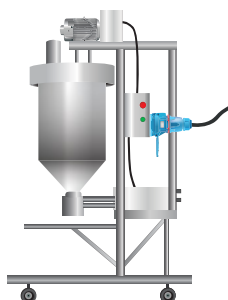
 **Hazardous areas :** Wide range of plugs and socket-outlets and boxes for explosive atmospheres in accordance with ATEX Directive 94/9/EC and used in Zones 1 and 2 (gas) and Zone 21 and Zone 22 (dust).



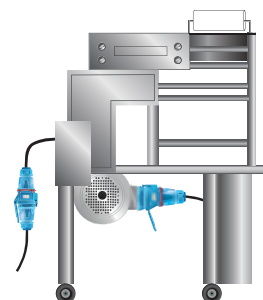
ENSURE LONG WORKING LIFE



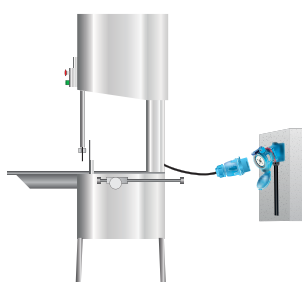
Fans



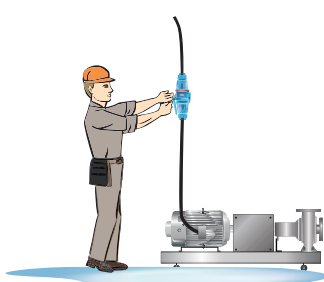
Mixers



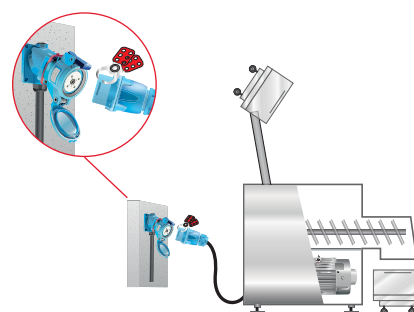
Packaging machines



Cutting machines



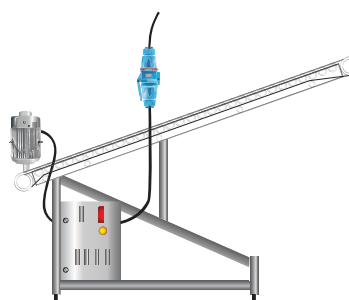
Pumps



Mincers



Wash tank



Conveyors



DSN

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

Covering sizes from 20 to 63 A, DSN DECONTACTOR™ plugs are noted for their compactness of size. The socket + plug combination is automatically IP66/IP67 as soon as the plug is inserted or once the cover is closed manually.

- ▶ Automatic IP66/IP67
- ▶ Built-in AC-22 and AC-23 switching capability complying with IEC-EN 60947-3
- ▶ Shock-resistant GRP casing

SPECIFICATION

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

MAIN FEATURES

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 (5,5 kW)	32 A / 400 V (7,5 kW)	63 A / 400 V (18,5 kW)
Auxiliary contacts	-	2	4
Keying positions ⁽¹⁾	24 for all DSN		
IP protection lid closed	IP66/IP67 for all DSN		
IP protection connected plug	IP66/IP67 for all DSN		
Ambient temperature	-40°C to +60°C for all DSN		
Shock resistance	IK08 for all DSN		
Flexible wiring [min. – max.]	1 - 2,5 mm ²	2,5 - 6 mm ²	6 - 16 mm ²
Stranded wiring [min. – max.]	1,5 - 4 mm ²	2,5 - 10 mm ²	10 - 25 mm ²
Short circuit current [Icc]	10 kA for all DSN		

⁽¹⁾ To distinguish between different power supplies and applications.

INFO +

Dual-voltage

The 230/400 V - 3P+N+E dual-voltage sockets accept 3P+N+E and 3P+E 400 V plugs, and single-phase 230 V plugs. This compatibility constitutes a real saving for the user when installing these sockets.

400V plug 3P+E



230V plug 1P+N+E

400V plug 3P+N+E



Industrial-domestic adapter with 1P+N+E 230V 10/16A domestic socket

230 / 400V socket-outlet
3P+N+E



WALL MOUNTING SOCKET DSN1



PLUG DSN1

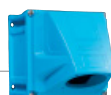
30° GRP wall box
611A053Socket-outlet
6114017Straight GRP handle
611A013Inlet
6118017SOCKET-OUTLET
femaleINLET
male

	50 Hz voltage	Polarity	Part number	Part number
DSN1 (20 A)	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
DSN3 (32 A)	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
DSN6 (63 A)	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

For other voltages, polarities, locking options and specific keying positions, please contact us.

BOXES

Cable gland
not included

30° GRP
wall boxGRP box +
70° GRP sleeve*

	Entry		
DSN1	M20	611A053	51AA058
	M25	613A083	51CA058
DSN3	M20	613A053	51BA058
DSN6	M25	616A083	51CA058

* Undrilled and without cable gland.

SLEEVES

(to incline panel mounted
sockets or inlets)

30° inclined
GRP70° inclined
GRP

DSN1	611A027	51AA757
DSN3	613A027	51BA757
DSN6	616A027	51CA757

HANDLE



Straight GRP

DSN1	9-18 mm	611A013
DSN3	5-21 mm	613A013
DSN6	10-30 mm	616A013
	10-30 mm	616A473*



* With built-in finger draw plate [recommended for inline connections].

ACCESSORIES AND OPTIONS

Locking with shaft for 3 padlocks - Ø 4mm
(padlocks not supplied): socket part no. + 844



Lockable plug: inlet part no. + 839

Inlet cap:

DSN1 : 611A426

DSN3 : 613A126

DSN6 : 616A126



Industrial-domestic adapters:

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

DSN1 : 6118015D11

DSN3 : 6138015D11



180° opening lid

Self-returning lid

180° opening and self-returning lid

Socket part no. + 10

Socket part no. + R

Socket part no. + 18



PNC

COMPACT AND WATERTIGHT CONNECTORS

16 A

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

- ▶ Glassfibre reinforced thermoplastic UL94 V-0
- ▶ IP66/IP67 as standard (IP68 on request)
- ▶ Long life

SPECIFICATION

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

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 to +100 °C
IP protection	IP66/IP67 (IP68 on specification)
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

EXAMPLE OF CONFIGURATION



COUPLER SOCKET **PNC**



PLUG **PNC**



Coupler socket
01E3007



Plug
01E1007

SOCKET-OUTLET
female **PNC (16 A)**



INLET male
PNC (16 A)



Umax	Polarity	Part number	Part number
480 V	5P	01E4007	01E8007

COUPLER SOCKET
female **PNC (16 A)**



PLUG male
PNC (16 A)



Umax	Polarity	Part number	Part number
480 V	5P	01E3007	01E1007

SOCKET-OUTLET
CAP **PNC (16 A)**



PLUG CAP
PNC (16 A)



Part number	Part number
01EA125	01EA126

MULTICONTACT

CONNECTORS

MARECHAL® multicontact connectors are used for signal and control applications. The solid silver-nickel contacts ensure superior conductivity, electrical performance and durability.

Also the materials used for the bodies resist extreme conditions in harsh environments.

Crimping ensures quick and easy assembly and disassembly and provide an economical and sustainable solution.

► From 7 to 37 contacts

► From 16 to 25 A

MAIN FEATURES

	PN7C	PN12C	DSN24C	DSN37C
Voltage	500 V	480 V	480 V	480 V
Impulse withstand voltage	5 kV / Pollution degree 3 for the whole range			
Contact resistance	< 2mΩ for the whole range			
Permitted current range	4-20 mA / 25 A	4-20 mA / 16 A		
Rated current/contact	16/25 A	16 A	16 A	16 A
Σ of currents (contacts)	≤ 130 A	≤ 110 A	≤ 230 A	≤ 360 A
Flexible wiring [min. – max.]	1 - 4 mm ²	1 - 2,5 mm ²	1 - 2,5 mm ²	1 - 2,5 mm ²
Wiring (terminals)	screw-type	crimped	crimped	crimped
Keying positions ⁽¹⁾	5	2	1	3
IP protection lid closed	IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67
IP protection connected plug	IP66/IP67	IP66/IP67	IP66/IP67	IP66/IP67
Shock resistance	IK08	IK08	IK08	IK08
Ambient temperature	-40°C to +60°C for the whole range			

⁽¹⁾ To distinguish between different power supplies and applications

INFO +

Crimped contacts: quick and easy assembly and disassembly

To insert contacts when they have been wired is simple. Push wired contact into rear of insulator until it stops to complete the installation.



Assembly

To remove, use the tool provided. Push tool from front onto contact until tool stops. Contact is then released at rear of insulator.



Disassembly

**WALL MOUNTING SOCKET PN12c****PLUG PN12c****30° GRP wall box**
01NA053**Socket-outlet**
01A4001**Handle Straight GRP**
01NA013**Inlet**
01A8001**SOCKET-OUTLET**
female**INLET**
male

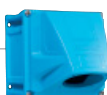
	50 Hz voltage	Polarity	Part number	Part number
PN7c (16/25 A)	500 V	6P+E	01P4061	01P8061
PN12c (16 A)	480 V	12 contacts*	01A4001	01A8001
DSN24c (16 A)	480 V	24 contacts*	61B4002	61B8002
DSN37c (16 A)	480 V	37 contacts*	61C4003	61C8003

For other voltages, polarities, locking options, please contact us.

* Each product is supplied with 1, 2 or 3 bag(s) of 13 contacts, insulation sleeves and ferrules depending on the maximum configuration. This allows you to set up the product to suit your needs.

BOXES

Cable gland
not included

**30° GRP
wall box****GRP box +
70° GRP sleeve***

	Entry		
PN7c	M20	01NA053	51AA058
PN12c	M20	01NA053	51AA058
DSN24c	M25	613A083	51BA058
DSN37c	M25	616A053	51CA058

* Undrilled and without cable gland.

SLEEVES

(to incline panel mounted
sockets or inlets)

**30° inclined
GRP****70° inclined
GRP**

PN7c	01NA027	51AA757
PN12c	01NA027	51AA757
DSN24c	613A027	51BA757
DSN37c	616A027	51CA757

HANDLE**Straight GRP**

PN7c	9-18 mm	01NA013
PN12c	9-18 mm	01NA013
DSN24c	5-21 mm	613A013
	10-30 mm	616A013
DSN37c	10-30 mm	616A473*



* With built-in finger draw plate [recommended for inline connections].

ACCESSORIES AND OPTIONS

Locking with shaft for 3 padlocks
(padlocks not supplied): socket part no. + 844



Lockable plug: inlet part no. + 839

Inlet cap:

PN7C : 01NA126
PN12C : 01NA126
DSN24C : 613A126
DSN37C : 616A126



180° opening lid

Self-returning lid

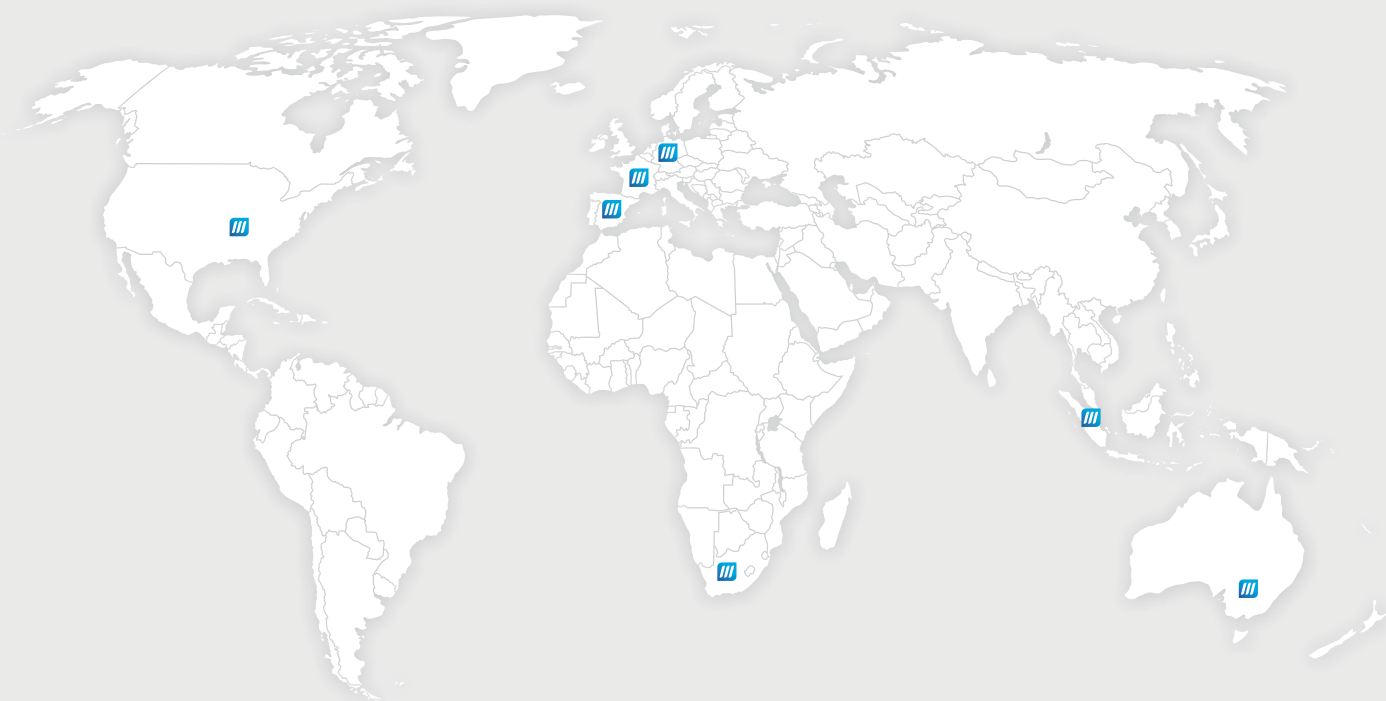
180° opening and self-returning lid
Crimping tool

Socket part no. + 10

Socket part no. + R

Socket part no. + 18
61CA500

MARECHAL ELECTRIC GROUP



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