

PN

Plugs & sockets *The range*



Advantages

Features

PN - 30 A

PN HT - 30 A

Dimensions

Spare parts: see page 175

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Food processing



Tunnel equipment



Port facilities

And chemical industry,
stands as stallholders,
outdoor exhibits,
emergency vehicles ...

Standard or high-temperature compact plugs and socket-outlets

Like all Marechal industrial plugs and sockets, PN plugs and socket-outlets provide automatic IP66/67 watertightness when the plug is connected to the socket-outlet or when the socket-outlet lid is closed. They use terminals with spring assisted

tightening designed to compensate for strand settlement and copper yield. It also guarantees unloosening of terminal screws under vibrations. In brief, it definitively eliminates checking of the good tightening for connection screws!

Operation



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



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

Electrical features

- **30 Amps** - Voltage up to 500 Volts AC and up to 130 Volts DC
- Equipped with silver-nickel butt-contacts and metallic braid for added reliability and lifetime
- Active parts protected (*IP2X finger protection with open lid*)
- Unique keying system allows discrimination between 16 different power supplies (*voltage, frequency, AC and DC current*)

Mechanical features

- The most compact in size of industrial plugs and socket-outlets
- Automatic IP66/67 watertightness achieved as soon as the plug is fully inserted into the socket-outlet or when the lid of the socket-outlet is closed, without any other operation
- Bayonet locking (*see pictures above*)
- Version with self-closing lid (*IP54*) available
- Spring-assisted terminals unaffected by vibrations and thermal cycling
- Casings made of glass fibre reinforced polyester providing excellent electric insulation, high resistance to corrosive, UV and chemical agent environments and high mechanical resistance (*IK08 impact resistance*)
- Casings made of anti-corrosion treated metal providing high temperature resistance and excellent mechanical resistance (*IK09 impact resistance*).
- Ambient temperature: -25 °C to +40 °C (*for temperatures outside this range, please contact us*)
- High temperature 185°C version, available as a standard (*or 240°C upon request*): IP 44 watertightness

Regulatory features

PN plugs and socket-outlets comply with:

- The **IEC 60309-1** International standard and **EN 60309-1** European standard (*plugs and socket-outlets for industrial purposes*),
- The European Low Voltage Directive (*decree N°95-1081 dated 3rd October 1995*).

Also certified by **VERITAS LCIE**, **UL**, **AS** and **CSA** (*French, American, Australian and Canadian inspection laboratories*).



Compact plug and socket-outlet 30 A



Main features:

• (socket-outlet) IP	54 or 66/67	• Umax AC	500 V AC - 130 V DC
• (socket-outlet + inlet) IP	54 or 66/67	• Wiring (mini / maxi) flexible	1 / 6 mm ²
• IK (poly/metal)	08/09	• Wiring (mini / maxi) stranded	1.5 / 10 mm ²
• Rated currents (IEC / EN 60309-1)		30 A / 400V	20 A / 500V



Socket-outlet (female)



IP54 socket-outlet
with self-closing lid



Inlet (male)



Poly and metal
versions

Main options



Reversed interior and contacts
(male socket-outlet)



Reversed interior and contacts
(female inlet) with IP54 cap



Padlocking
(left - Padlock not supplied)
or locking by triangular screw (right)

Accessories



IP67 inlet cap

Voltage	Polarity	Material	Part #
20 - 24 V	2P	Polyester	01 N4 08A
		Metal	09 N4 08A
190 - 230 V	3P+E	Polyester	01 N4 033
		Metal	09 N4 033
220 - 250 V	1P+N+E	Polyester	01 N4 015
		Metal	09 N4 015
380 - 440 V	3P+E	Polyester	01 N4 013
		Metal	09 N4 013
Dual voltage*	3P+N+E	Polyester	01 N4 017
		Metal	09 N4 017

* see Bookmark

Other voltages, polarities: see page 8

Version with self-closing lid (IP54):

Choose from the part numbers above and change letter N for an S.

Socket-outlet options

Reversed interior and contacts	Socket # + 001
Self-returning lid *	Socket # + R
180°-opening lid	Socket # + 10
180°-opening and self-returning lid *	Socket # + 18
Padlocking (padlock 4 mm Ø) without shaft *	Socket # + 843
Locking by triangular screw *	Socket # + 22

* except for IP54 version

Voltage	Polarity	Material	Part #
20 - 24 V	2P	Polyester	01 N8 08A
		Metal	09 N8 08A
190 - 230 V	3P+E	Polyester	01 N8 033
		Metal	09 N8 033
220 - 250 V	1P+N+E	Polyester	01 N8 015
		Metal	09 N8 015
380 - 440 V	3P+E	Polyester	01 N8 013
		Metal	09 N8 013
380 - 440 V	3P+N+E	Polyester	01 N8 017
		Metal	09 N8 017

Inlet options

Reversed interior and contacts	Inlet # + 137
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Inlet accessories

IP67 cap	01 NA 126
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If you want to equip a socket with two or more options:
call us at +33 (0) 1 45 11 60 00.

Also see:

Full range of boxes page 86
Dimensions page 68
Technical Manual page 150

Installation accessories

B

Box

Entrée

	Wall box poly 30°	Wall box straight metal	Wall box straight poly	Wall box poly 70°	Wall box metal + metal sleeve 45°
M20	01 NA 053	09 NA 055	01 NA 055	51 AA 058	09 NA 653
M25				51 AA 058	09 NA 653 418
M32				51 AA 058	09 NA 653 419

The boxes are supplied without any cable gland. The 70° boxes are not drilled (drilled at extra cost)

Sl

Sleeve

	Inclined poly 30°	Inclined metal 30°	Inclined poly 70°	Inclined metal 45°
	01 NA 027	09 NA 027	51 AA 757	09 2A 027

H

Handle

Tightening

	Straight poly	Angled poly
8 - 15 mm	01 NA 013	
8 - 17 mm		01 NA 313

Entry

		Tightening		Tightening		Entry
M20	01 NA 753	8 - 13 mm	09 NA 963	6 - 13 mm	M20	01 NA 253 417
M25	01 NA 253 25P	13 - 19 mm	09 NA 953 25M	10 - 18 mm	M25	01 NA 253 418
M32	01 NA 253 32P	17 - 25 mm	09 NA 953 32M	16 - 24 mm	M32	01 NA 253 419

* Cable gland on request. Handle for flat or steel armoured cables on request (see zoom below).

A

Industrial – Domestic adapters



Domestic socket-outlet 10/16A 230V + Marechal industrial inlet 1P+N+E, 10 A 230 V fuse protection

Type	Material	Part number
UK	Poly	01 N8 015 D40 *
	Metal	09 N8 015 D40 *
FR with safety shutter	Poly	01 N8 015 D16
	Metal	09 N8 015 D16

* All these domestic socket-outlets are available to foreign standards : replace D40 by D11 for France, D30 for Germany, D06 for Italy, D08 for Switzerland, D67 for Australia, D80 for USA etc

ZOOM

Our solutions for flat or steel armoured cables

You need a handle designed for flat or steel armoured cables? Call us at +33 (0) 1 45 11 60 00.



Handle for
flat cables





Main features:

• (socket-outlet) IP	44	• Umax AC	500 V AC - 130 V DC
• (socket-outlet + inlet) IP	44	• Wiring (mini / maxi) flexible	1 / 6 mm ²
• IK (metal)	09	• Wiring (mini / maxi) stranded	1.5 / 10 mm ²
• Rated currents (IEC / EN 60309-1)		30 A / 400V	20 A / 500V



Socket-outlet (female)



Inlet (male)



Voltage	Polarity	Material	Part #
20 - 24 V	2P	Metal	09 24 08A 185
190 - 230 V	3P+E	Metal	09 24 033 185
220 - 250 V	1P+N+E	Metal	09 24 015 185
380 - 440 V	3P+E	Metal	09 24 013 185
Dual voltage*	3P+N+E	Metal	09 24 017 185

* see Bookmark

Other voltages, polarities: see page 8

Voltage	Polarity	Material	Part #
20 - 24 V	2P	Metal	09 28 08A 185
190 - 230 V	3P+E	Metal	09 28 033 185
220 - 250 V	1P+N+E	Metal	09 28 015 185
380 - 440 V	3P+E	Metal	09 28 013 185
Dual voltage*	3P+N+E	Metal	09 28 017 185



Up to 240°C!

This high-temperature version achieves temperature resistance up to 185°C. On request, MARECHAL ELECTRIC can provide a version reaching 240°C.

Therefore, you can supply power to small pumps and low power motors in locations next to heat sources: machines, industrial facilities, steel works, metallurgy, etc.

For technical information, please call us at +33 (0) 1 45 11 60 00

Also see:

Full range of boxes page 86

Dimensions page 68

Technical Manual page 150

Installation accessories



Box



Wall box
straight metal



Wall box straight metal +
metal sleeve 45°

Entry

M20	09 2A 055 185	09 2A 653 185
M25		09 2A 672 185
M32		09 2A 673 185



Sleeve



Inclined
metal 45°

09 2A 027 185



Handle



Straight
metal

Tightening

6-13 mm	09 2A 963 185
10-18 mm	09 2A 674 185
16-24 mm	09 2A 675 185



Inclined socket



**Inclined
appliance inlet**



Plug



Coupler socket



**Wall mounting
socket**



**Wall mounting
appliance inlet**

PN range dimensions

Socket-outlet + plug

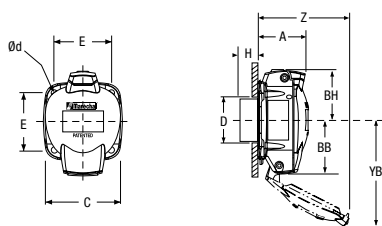
Plug

	A	B	Ø
PN (ANGLED)	100	74	8-17
PN (STRAIGHT)	118	58	8-15

Plug connected in a socket-outlet

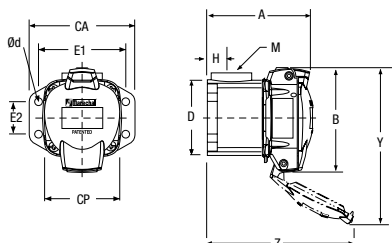
	A1	B1
PN (ANGLED)	117	76
PN (STRAIGHT)	120	76.5

Socket-outlet



PN	A	BB	BH	C	D	E	H	YB	Z	Ød
PN	37	38.5	35.75	56	42.7	42	16	93	42	4.5

Wall mounting socket



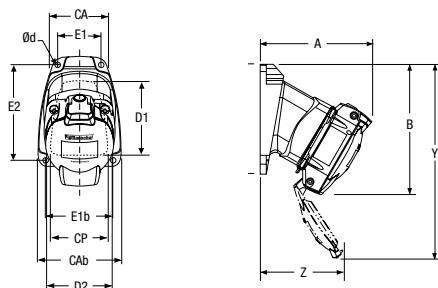
PN	A	B	CA	CP	D	E1	E2	H	Y	Z	Ød
PN	75.5	76.4	78	55	60.6	64	24	17.5	128	114	5.5

Plug connected in a wall mounting socket

YB: 180° OPENING LID

	A1	B1	Y
PN (ANGLED)	136	79	85
PN (STRAIGHT)	162	76.5	85

30° inclined socket



PN	A	B	CA	CAB	CP	D	D1	D2	E1	E1B	E2	Y	Z	Ød
PN	89	101	45	68	57	90	75	50	36	56	78	160	40	4.5

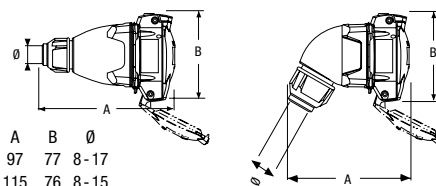
Plug connected in a 30° inclined socket

	A1	B1	Y
PN (ANGLED)	126	142	158
PN (STRAIGHT)	105	141	158

Coupler socket + inlet

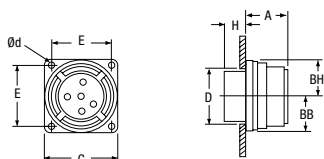
Coupler socket

PN (ANGLED)
PN (STRAIGHT)



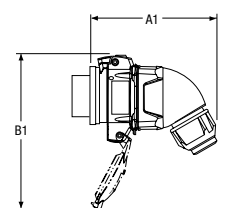
A	B	Ø
97	77	8-17
115	76	8-15

Inlet

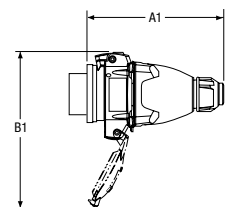


PN	A	BB	BH	C	D	E	H	Ød
PN	27	29	28	56	43	42	12	4.5

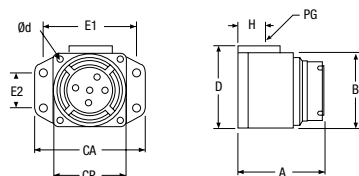
Coupler socket connected in an inlet



	A1	B1
PN (ANGLED)	112	81
PN (STRAIGHT)	121	76.5

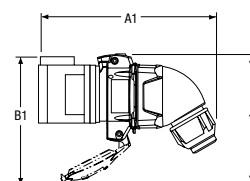


Wall mounting appliance inlet

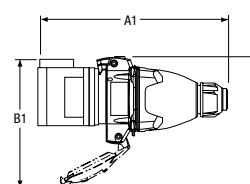


PN	A	B	CA	CP	D	E1	E2	H	Ød
PN	66	55	78	55	60.6	64	24	17.5	5.5

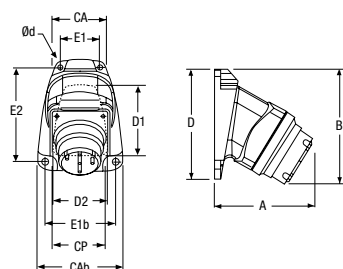
Coupler socket connected in a wall mounting appliance inlet



	A1	B1	Y
PN (ANGLED)	161	91	123
PN (STRAIGHT)	153	70	123

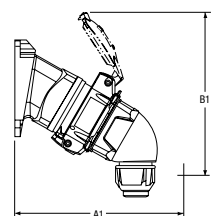


30° inclined appliance inlet



PN	A	B	CA	CAB	CP	D	D1	D2	E1	E1b	E2	Ød
PN	72	87	45	68	57	90	75	50	36	56	78	4.5

Coupler socket connected in a 30° inclined appliance inlet



	A1	B1
PN (ANGLED)	105	146
PN (STRAIGHT)	144	125

