



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
+44 (0) 191 410 4292
www.heatingandprocess.com

SP SINGLE-POLE POWER CONNECTORS

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



The highest possible safety

- Reliable mechanical and electrical interlocking with pilotcontact 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.

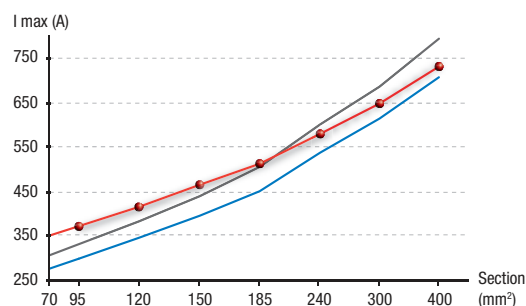
SP Characterisation

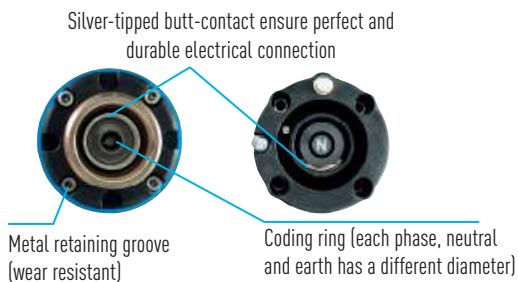
Permissible current according to conductor cross-section at 30 °C ambient temperature

- 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 by the NFC 15-100 or the IEC 60 364-5-52 standards to maintain a conductor core temperature < 70 °C

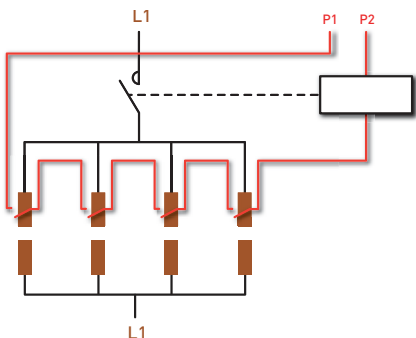
MAIN FEATURES

Rated current	700 A
For higher current, please contact us	
Maximum voltage a.c.	1000 V
Maximum voltage d.c.	1500 V
Short-circuit current I _{cc}	20 kA during 250 ms
IP protection lid closed	IP66/IP67
Shock resistance	IK08
Ambient temperature	-40 °C to +60 °C
Flexible wiring (min-max)	50 - 400 mm ²
Keying positions	mechanical (5) and visual
Number of operations	2000
Pre-wired pilot circuit	6 A / 250 V

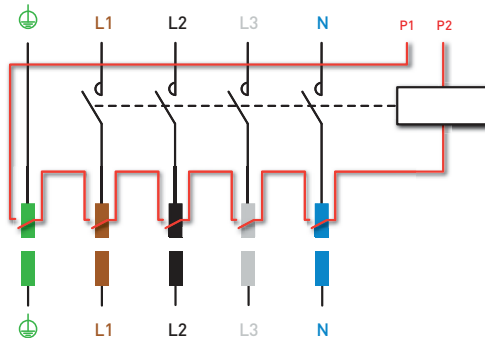




**Interlocking electrical wiring diagram:
increased power with parallel connection**



**Interlocking electrical wiring diagram:
last connection close all the circuit**



PART NO.

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 (mm ²)		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

SLEEVE*
Inclined metal 45°



454A027

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

HANDLE
Straight



454A753 17-38 mm

454A783 35-48 mm

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