



Safety enclosures

Explosive Atmosphere (ATEX)

ATEX enclosures from 50 to 630 A



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Function

SOCOMECA **ATEX enclosures** incorporate three or four pole manually operated SIDER (ND) load break switches which make and break on load, providing emergency breaking and maintenance isolation for any low voltage electrical circuit which is in an area where there is a **risk of explosion** due to dust.

Advantages

Safety of operations

- Visible contacts and positive break indication through the operating handle and a factory fitted mechanical flag indicator, provide guaranteed position indication of the contacts.
- Double locked door when switch is in the ON position.
- Triple locking of the handle in the OFF position.

Inductive load breaking (AC23)

ATEX enclosures are designed for use with inductive loads and are able to make and break on load (AC23).

Robust design

Product has been specifically designed for industrial environments with the risk of explosion due to dust (galvanised steel, thickness 2 mm, triplex glass, S-type handle metal padlocking lever...).

Protection degree IP65

Protection degree of ATEX enclosures is IP65.

The solution for

- > Steel works.
- > Cement works.
- > Mining industries.



Strong points

- > Safety of operations.
- > Inductive load breaking (AC23).
- > Robust design.
- > Protection degree IP65.

Conformity to standards

- > Directive 94/9/CE
- > IEC 60204-1
- > IEC 61439-2
- > IEC 60947-3
- > IEC 60364
- > NF C 15-100



Other regulations

- > Decree 29.07.92: Machine safety
- > Decree n° 88-1056 from 14.11.88: protection of workers
- > Decree n°96-1010 from 19.11.96
- > Decree 11.01.93: machine compliance



Specific requests

- > SOCOMECA can offer customised solutions to meet your specific requirements. Please contact your Socomec office for further information.

General characteristics

Breaking device:

- All safety enclosures are equipped with load break switches that provide visible, reliable indication of the contacts open position.
- SIDER for 50 A, 80 A and 630 A ratings
- SIDER ND 80 A (6P) to 400 A ratings
- They make and break under load conditions and provide safety isolation for any low voltage circuit. They are factory fitted with a mechanical flag indicator (SIDER) which provides guaranteed position indication of the contacts.

Mechanical flag indicator:

- As far as I am aware this option is only possible with SIDER and not the SIDER ND. If we are utilising both switch types, and the ND cannot have a flag indicator, then we need to advise this. This is why I made the point to the right (mechanical flag indicator (SIDER)). Please just confirm this point.

Double locking:

- This function is achieved through a simple and robust mechanism using an extension shaft. Activation with the door open remains possible by authorised personnel.

Enclosure:

- Enclosures are made of a 2 mm thick galvanised steel. They are assembled by welded and deburred.
- The anti-corrosion protection is achieved using an epoxy polyester powder which polymerises in the oven at 180°. Paint coating is 60 µm minimum and colour is metallic gray.
- The chrome-plated zamak door is assembled on an invisible hinge and is locked using an 8 mm square key.
- Wall mounting is achieved using 4 fixing lugs (factory mounted).

Visible breaking:

- The contacts are visible through a triplex window, located on the enclosure door. This enables the operator to confirm the position of the contacts either during a preventative check or before an operation.

Operation handle:

- ATEX enclosures are provided with a red S-type operating handle. It is made of an insulating material and includes a metal padlocking lever. The handle can be locked in the OFF position using three padlocks.

Connection:

- Steel safety enclosures are available with bottom cable entry and exit.
- Enclosures are fitted with a top roof and a bottom closing plate in the bottom part.
- Connection is achieved by running cables to the top terminals for 50 A and 80 A ratings. For higher ratings, a copper bottom-bottom busbar enables easy connection of incoming cables.

Miscellaneous:

- Two earthing bars for connection are available in the enclosure.
- Fuse protection screen.

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References



Rating (A)	No. of poles	Bottom/bottom connection
		Reference
50	3 P	3V41 3005
50	4 P	3V41 4005
80	3 P	3V41 3008
80	4 P	3V41 4008
80	6 P	3V41 6008
125	3 P	3V51 3012
125	4 P	3V51 4012
160	6 P	3V51 6020
200	3 P	3V51 3020
200	4 P	3V51 4020
400	3 P	3V51 3040
400	4 P	3V51 4040
630	3 P	3V51 3063
630	4 P	3V51 4063

Accessories

ATEX cable glands

Black polyamide

Diameter (mm)	Min. cable diameter (mm)	Max. cable diameter (mm)	Cable gland Reference	Locknut Reference
12	3.5	6	3240 1012	3240 3012
16	5	8	3240 1016	3240 3016
16	6	10	3240 1017	
20	8	13	3240 1020	3240 3020
20	10	15	3240 1021	
25	13	19	3240 1025	3240 3025
32	18	25	3240 1032	3240 3032
40	24	32	3240 1040	3240 3040
50	29	38	3240 1050	3240 3050



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Crude brass

Diameter (mm)	Min. cable diameter (mm)	Max. cable diameter (mm)	Cable gland Reference	Locknut Reference
12	3	6.5	3240 2012	3240 4012
16	4.5	10	3240 2016	3240 4016
20	6	13	3240 2020	3240 4020
25	10	18	3240 2025	3240 4025
32	16	24.5	3240 2032	3240 4032
40	22	32	3240 2040	3240 4040

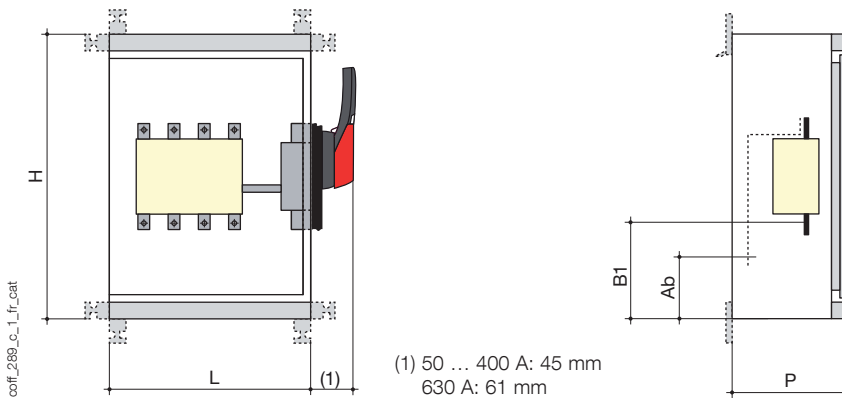


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Characteristics

Rated operational currents I_e (A)		50 A 3/4 P	80 A 3/4 P	80 A 6 P	125 A 3/4 P	160 A 6 P	200 A 3/4 P	400 A 3/4 P	630 A 3/4 P
Rated voltage	Utilisation category								
415 VAC	AC-21 A/B	50/50	63/63	/80	125/125	/160	200/200	/315	/500
415 VAC	AC-22 A/B	50/50	63/63	/80	125/125	/160	200/200	/315	/500
415 VAC	AC-23 A/B	25/25	40/40	/80	125/125	/160	200/200	/315	
Motor power output (kW)									
400/500 VAC without pre-break A/C		11/	18.5/15	40/	60/	80/	100/	160/	270/
400/500 VAC without pre-break A/C		25/	30/25	40/	60/	80/	100/	160/	

Dimensions



Rating (A)	No. of poles	H x W x D (mm)	Max. connection cross-section (mm ²)	Bottom/bottom connection		Weight (kg)
				Ab (mm)	B1 (mm)	
50	3/4 P	350 x 225 x 150	16	288	198	8.2
80	3/4 P	350 x 225 x 150	35	288	198	8.4
80	6 P	500 x 425 x 200	35	288	198	25
125	3/4 P	500 x 425 x 200	120	225		15
160	6 P	500 x 425 x 200	120	242	275	25
200	3/4 P	500 x 425 x 200	120	242	275	21.5
400	3/4 P	700 x 500 x 250	2 x 150	340	385	34.5
630	3/4 P	700 x 500 x 300	2 x 300	262	313	47