

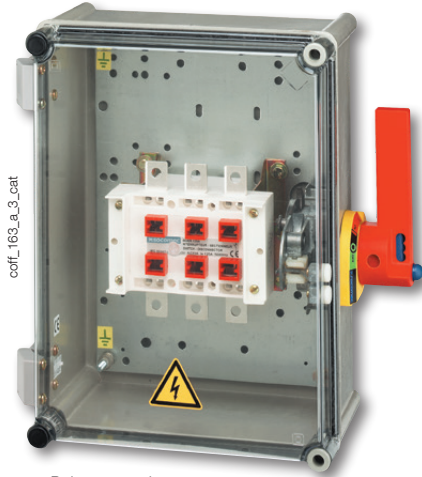
# Safety enclosures

## Normal atmospheres

polyester enclosures from 50 to 1600 A



Polyester enclosure  
with front operation handle



Polyester enclosure  
with side operation handle

### The solution for

- > Steel works
- > Cement works
- > Automotive
- > Mining industries
- > Food processing
- > Chemical industry



### Strong points

- > Operator safety
- > Inductive load breaking (AC23)
- > Robust design
- > Operating continuity

### Conformity to standards

- > IEC 60364
- > IEC 60947-3
- > IEC 60204-1
- > IEC 61439-2



### Specific requests

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

## Function

**Safety enclosures** equipped with SOCOMEC switches provide emergency breaking, breaking for mechanical maintenance and safety isolation in the vicinity of any low voltage final circuit.

## Advantages

### Operator safety

- Visible contacts and positive break indication with the possibility to add a mechanical indicator.
- Double locking system prevents the opening of the enclosure door with the switch in its ON position and the closing of the switch when the door is open.
- Triple locking of the handle in the OFF position.
- Protects operators against accidental start-up of machines
- Ease of operation without risk of error for unqualified operators.
- Maximum security for all types of simple mechanical and electrical maintenance operations.

### Robust design

Products have been designed for severe industrial conditions with chemical, pollution or atmospheric corrosion risks (Polyester enclosure: good resistance to chemicals, self-extinguishable at 960°C, etc.)

### Operating continuity

- Local disconnection: only the targeted machine is switched off, the rest of the installation can continue operating.
- Reduce costs related to production downtime.

### Inductive load breaking (AC23)

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

## General characteristics

### Breaking device

All polyester safety enclosures are equipped with SIDER load break switches and visible, reliable indication of the contacts open position. They make and break under load conditions and provide safety isolation for any low voltage circuit.

### Enclosure

Enclosures are made of glass fibre reinforced polyester and are of the following types:

- COMBIESTER from 50 to 500 A (RAL7035)
- MINIPOL from 630 to 800 A (RAL7035)

Covers on COMBIESTER enclosures are hinged and equipped with a screw locking system.

Doors on MINIPOL enclosures can be locked using a 3 mm double bar key.

These enclosures have good resistance to chemical agents and are self-extinguishing at 960 °C.

These enclosures provide a protection degree of IP55. Wall mounting is achieved using 4 fixing lugs, supplied loose.

### Visible breaking

The contacts are visible through:

- The transparent cover of COMBIESTER enclosures.
- A door-mounted triplex glass window on MINIPOL enclosures. This enables the operator to confirm the position of the contacts either during a preventative maintenance check or before an operation.

### Double locking

Double locking prevents the opening of the enclosure door with the switch in its closed position and the closing of the switch when the door is open; with the use of a tool, authorised personnel can bypass this system when the door is open for maintenance purposes.

### Operating handle

Polyester safety enclosures are available with front or side operation handles. The handle is red and made of an insulating material (emergency breaking). The handle can be locked in the OFF position using three padlocks.

### Connection

Polyester safety enclosures are available in two versions:

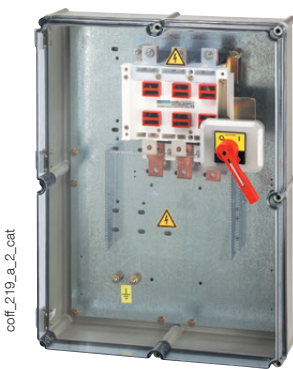
- TB version (top entry and bottom cable exit)
- BB version (bottom cable entry/exit). Connection is achieved by running cables to the top for 50 A and 80 A ratings. For higher ratings, the top set of terminals are brought down to the bottom of the enclosure with copper bars for easy connection of the incoming cables.

### Miscellaneous

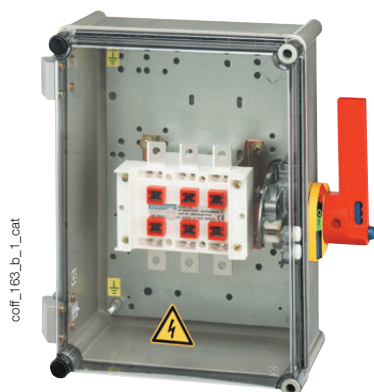
- An earthing bar for connection is available in the enclosure.
- Protection screen for live parts.

## References

### Front operation



### Side operation



Rating (A)	No. of poles	Front operation <sup>(1)(2)</sup>	
		Top/Bottom connection Reference	Bottom/Bottom connection Reference
125	3 P	3215 3012	3225 3012
125	4 P	3215 4012	3225 4012
125	6 P	3215 6012	3225 6012
200	3 P	3215 3020	3225 3020
200	4 P	3215 4020	3225 4020
200	6 P	3215 6020	3225 6020
400	3 P	3215 3040	3225 3040
400	4 P	3215 4040	3225 4040
400	6 P	3215 6040	3225 6040
500	3 P	3215 3050	3225 3050
500	4 P	3215 4050	3225 4050
630	3 P	3215 3063	3225 3063
630	4 P	3215 4063	3225 4063
800	3 P	3215 3080	3225 3080
800	4 P	3215 4080	3225 4080
1250	3 P	3215 3120	3225 3120
1250	4 P	3215 4120	3225 4120
1600	3 P	3215 3160	3225 3160
1600	4 P	3215 4160	3225 4160

Rating (A)	No. of poles	Side operation <sup>(1)(2)</sup>	
		Top/Bottom connection Reference	Bottom/Bottom connection Reference
50	3 P	3265 3005	3265 3005
50	4 P	3265 4005	3265 4005
50	6 P	3265 6005	3265 6005
80	3 P	3265 3008	3265 3008
80	4 P	3265 4008	3265 4008
80	6 P	3265 6008	3265 6008
125	3 P	3265 3012	3275 3012
125	4 P	3265 4012	3275 4012
125	6 P	3265 6012	3275 6012
200	3 P	3265 3020	3275 3020
200	4 P	3265 4020	3275 4020
200	6 P	3265 6020	3275 6020
400	3 P	3265 3040	3275 3040
400	4 P	3265 4040	3275 4040
500	3 P	3265 3050	3275 3050
500	4 P	3265 4050	3275 4050
630	3 P	3265 3063	3275 3063
630	4 P	3265 4063	3275 4063
800	3 P	3265 3080	3275 3080
800	4 P	3265 4080	3275 4080
1250	3 P	3265 3120	3275 3120
1250	4 P	3265 4120	3275 4120
1600	3 P	3265 3160	3275 3160
1600	4 P	3265 4160	3275 4160

(1) For the mechanical indicator option, replace the second digit of the enclosure reference number with the letter V. For example: 3V15 3012.

(2) Specific locking systems, terminal pre-wired/non pre-wired control auxiliary contacts, ventilation and humidity evacuation systems or cable glands are available upon request. Please consult us.

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## Accessories

### Auxiliary contacts

#### Use

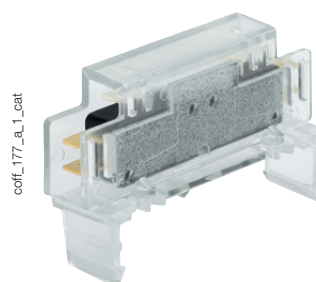
For pre-breaking and signalling of positions 0 and I of the load break switch.

#### Mounting

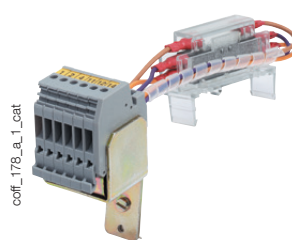
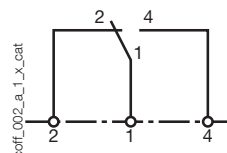
- On the double locking system.
- Possibility of factory mounting on enclosure (please provide enclosure reference when ordering).

Contact(s)	AC	Factory fitted AC	Factory fitted low level auxiliary
1 <sup>st</sup> NO/NC changeover AC front operation $\geq$ 125 A	2799 0001	2799 1001 <sup>(1)</sup>	
2 <sup>nd</sup> NO/NC changeover AC front operation $\geq$ 125 A	2799 0002	2799 1002 <sup>(1)</sup>	
2 NO/NC changeover AC side operation	2999 0012	2999 1012	
2 NO/NC changeover AC wired side operation	3290 6002	3290 6102 <sup>(1)</sup>	Please consult us

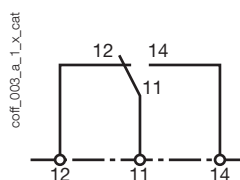
(1) Please provide the reference number of the enclosure to be equipped.



1<sup>st</sup> NO / NC AC for pre-break



2<sup>nd</sup> NO / NC AC for pre-break



### Key handle interlocking system

#### Use

Kit allowing a RONIS EL 11AP or Serv Trayvou XOP10 lock to be fitted for a SIDER 50 to 1600 A, with side operation within a steel or polyester enclosure.

Type	Locking in position 0	
	Reference	Factory option Reference
Locking using RONIS EL 11AP lock (not included)	3290 7005	Please consult us
Locking using XOP10 lock (not included)	3290 7015	
Lock RONISEL11AP	4409 8511	
Serv Trayvou XOP10 lock	4409 8601	

(1) Please provide the reference number of the enclosure to be equipped.



## Characteristics

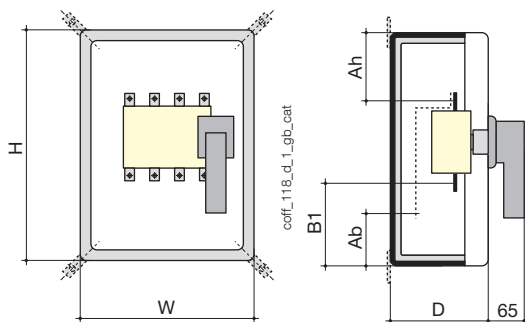
### Characteristics according to IEC 60947-3

Rating (A)		50 A	80 A	125 A	200 A	400 A	500 A	630 A	800 A	1250 A	1600 A
Rated operational currents $I_e$ (A)											
Rated voltage	Utilisation category	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
400 VAC	AC-21A	50	80	125	200	400	500	630	800	1250	1600
400 VAC	AC-22A	50	63	125	200	400	400	630	800	1250	1250
400 VAC	AC-23A	32	40	125	200	400	400	630	630	1000	1000
690 VAC	AC-21A	40	63	125	160	400	400	630	800	1000	1250
690 VAC	AC-22A	25	63	80	160	400	200	315	315	400	400
690 VAC	AC-23A	-	10	80	160	315	80	100	125	200	200
Motor power output (kW) <sup>(1)</sup>											
A 400 VAC without pre-break AC		15	22	63	110	220	220	375	375	600	600
A 690 VAC without pre-break AC		-	7,5	75	150	295	295	90	110	185	185
A 400 VAC with pre-break AC		25	33	63	110	220	220	375	475	750	750
A 690 VAC with pre-break AC		22	55	75	150	400	400	295	295	400	400

(1) The power value is given for information only; the current values vary from one manufacturer to another.

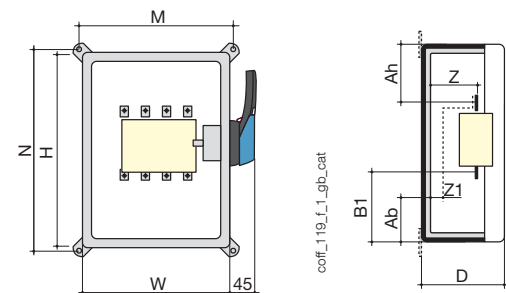
## Dimensions

### Front operation



Rating (A)	No. of poles	H x W x D (mm)	Connection cross-section (mm <sup>2</sup> )	Top/Bottom connection			Bottom/Bottom connection		
				Ah (mm)	B1 (mm)	Weight (kg)	Ab (mm)	B1 (mm)	Weight (kg)
125	3/4 P	360 x 270 x 171	50	135	110	6	-	-	-
125	3/4 P	360 x 270 x 201	50	-	-	-	167	205	6
125	6 P	360 x 540 x 171	50	135	110	8	167	205	9
200	3 P	360 x 270 x 201	95	-	-	-	145	190	8
200	3 P	540 x 270 x 201	95	260	150	7	-	-	-
200	4 P	360 x 360 x 201	95	-	-	-	145	190	8
200	4 P	540 x 360 x 201	95	257	153	9	-	-	-
200	6 P	360 x 540 x 201	95	257	153	13	145	190	15
400	3/4 P	720 x 540 x 214	185	258	257	19	330	395	24
500	3/4 P	720 x 540 x 214	185	258	257	20	330	390	26
630	3/4 P	800 x 600 x 300	2 x 300	270	270	26	330	400	36
800	3/4 P	800 x 600 x 300	2 x 300	266	267	27	330	394	40
1250	3/4 P	Please consult us	4 x 185	365	365	42	515	594	60
1600	3/4 P	Please consult us	4 x 300	360	360	47	500	580	65

### Side operation



Rating (A)	No. of poles	H x W x D (mm)	Connection cross-section (mm <sup>2</sup> )	Top/Bottom connection			Bottom/Bottom connection		
				Ah (mm)	B1 (mm)	Weight (kg)	Ab (mm)	B1 (mm)	Weight (kg)
50	3/4 P	270 x 180 x 171	16	84	116	3	-	116	3
50	6 P	270 x 360 x 201	16	84	116	5	-	116	5
80	3/4 P	270 x 180 x 171	35	73	106	3	-	106	3
80	6 P	270 x 360 x 201	35	73	106	5	-	106	5
125	3/4 P	360 x 270 x 171	50	135	110	6	167	205	6
125	6 P	360 x 540 x 171	50	135	110	9	167	205	9
200	3 P	360 x 270 x 171	95	-	-	-	145	190	7
200	3 P	540 x 270 x 171	95	260	150	8	-	-	-
200	4 P	360 x 360 x 171	95	-	-	-	145	190	8
200	4 P	540 x 360 x 171	95	257	153	9	-	-	-
200	6 P	540 x 540 x 171	95	260	150	12	145	190	11
400	3/4 P	720 x 540 x 201	185	300	215	19	370	437	24
500	3/4 P	720 x 540 x 201	185	300	215	21	330	432	26
630	3/4 P	800 x 600 x 300	2 x 300	270	270	26	390	438	36
800	3/4 P	800 x 600 x 300	2 x 300	266	267	27	370	434	40
1250	3/4 P	Please consult us	4 x 185	365	365	42	570	622	60
1600	3/4 P	Please consult us	4 x 300	360	360	47	550	608	65