FUSERBLOC BS88

Fuse load break switches
from 25 to 1250 A



The solution for

- Data centre
- Healthcare
- Industry
- Building



Strong points

- Improved safety
- High breaking capacity
- Multi-use
- Simplified use

A complete range

- Centred or left side operation, rear connections, plug-in connections. Please consult us.

Conformity to standards

- IEC 60947-3
- BS EN 60947-3
- IEC 60269-1
- IEC 60269-2

Approvals and certifications(1)

(1) Product reference on request.

Function

FUSERBLOC BS 88 units with right front-side operation are manually-operated multipole fuse load break switches. They provide make and break on load and safety isolation and protection against overcurrent for any low voltage electrical circuit. This range is available in direct and external operation, in 2, 3 and 4 poles and up to 1250 A.

Advantages

Improved safety
The double phase isolator (upstreamdownstream of the fuse) and fully visible isolation guarantee the safety of people and equipment against overcurrents.

High breaking capacity
High breaking capacity fuses (100 kA rms) provide protection against overloads and shortcircuits.

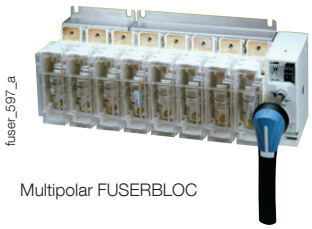
Multi-use
The unit can be equipped with front or side operation handle, mounted directly on the product, or outside, with the possibility of installing it on the door or on the side of an electrical box or cabinet).

Simplified use
The TEST position enables testing of the control circuits without turning on the power thanks to the use of U-type auxiliary contacts. In the TEST position, the cabinet door can be opened.

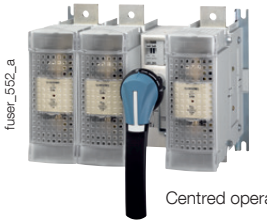
General characteristics

- For industrial fuses up to 1250 A.
- 2P, 3P or 4P available.
- Up to 690 VAC.
- Up to 100 kA.

Customised solutions



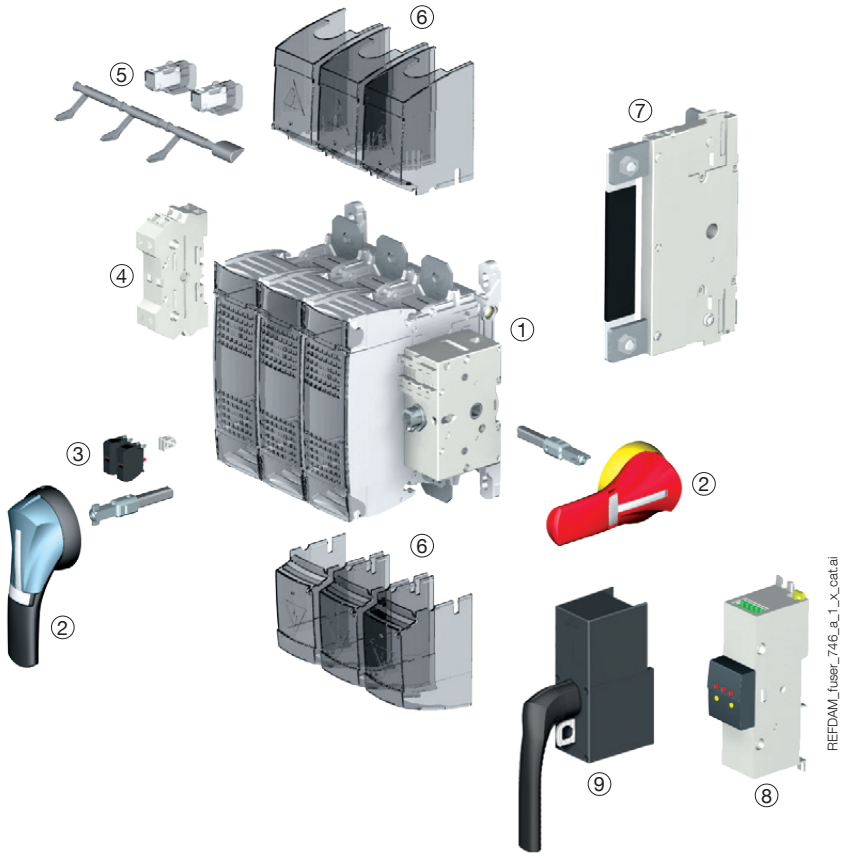
Multipolar FUSERBLOC



Centred operation

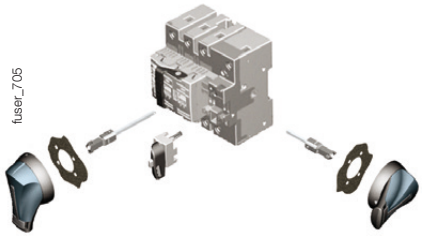
What you need to know

- In addition to the FUSERBLOC rating, product selection also depends on the fuse characteristics and functional specifications, which need to be in accordance with the application. SOCOMEC FUSERBLOC are available for utilisation with **NFC, DIN or BS88 fuses.**



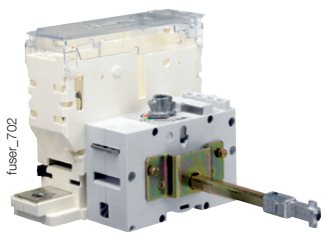
1. FUSERBLOC switch fuse
2. External front or side operation handle
3. U type auxiliary contact (pre-break and switch position signalling)
4. S and ST auxiliary equipment control and switch position signalling contacts
5. Melted fuse mechanical detection and indication device (DDMM)
6. Top and bottom terminal shrouds
7. Integrated solid neutral link
8. Electronic fuse monitoring device (FMD) detects fuse status and provides signals to operator, PLC or supervision systems. Compatible with BS88, DIN and UL fuse types.
   - LED visual indication
   - Bi-stable relay for PLC: alarm, remote device tripping, etc.
   - TEST button: provides functional product verification
   - Can be directly mounted to FUSERBLOC, alternatively it can be DIN rail, back plate or door mounted.
9. Direct control box.

Whether it is 3 pole + switched neutral or 3 pole + solid neutral, the FUSERBLOC 20 to 32 A with direct front operation and external operation is the best suited solution in compact design.



For ratings 20 to 400 A, the flat mounting kit provides a compact solution ideally suited to withdrawable applications.

Maintenance of outputs from the DC common bus.



References

BS 88 - External front and side operation - 20 to 160 A

Rating (A) Fuse size Frame size	Number of poles	Reference Switch I - 0 -TEST	External front handle I - 0	TEST External front handle I - 0 - TEST	External right side handle I - 0	Shaft extensions for handle	Terminal shrouds[3]	U type A/C [2]	Integrated solid neutral link
CD 20 A A1 0	3 P	3641 **3000**	S1 type Black IP65 1413 **2111**[1] Red/Yellow IP65 1414 **2111**	S1 type Black IP65 1413 **2115**[1] Red/Yellow IP65 1414 **2115**	S1 type Black IP65 1417 **2111**[1] Red/Yellow IP65 1418 **2111**	320 mm 1401 **0532**	2 P 3998 **2016** 3 P 3998 **3016** 4 P 3998 **4016**	1 contact NO 3999 **0701** 1 contact NC 3999 **0702**	
	3 P + switched neutral	3641 **4000**							
	3 P+solid neutral	3641 **5000**							
CD 32 A A1 0	3 P	3641 **3001**							
	3 P + switched neutral	3641 **4001**							
	3 P + solid neutral	3641 **5001**							
32 A A1 11	2 P	3841 **2003**				320 mm 1400 **1032**			3829 **9310**
	3 P	3841 **3003**							
	4 P	3841 **6003**							
63 A A2-A3 12	2 P	3841 **2006**							
	3 P	3841 **3006**							
	4 P	3841 **6006**							
100 A A4 [4] 13	2 P	3841 **2010**	S2 type Black IP65 1423 **2111**[1] Red/Yellow IP65 1424 **2111**	S2 type Black IP65 1423 **2115**[1] Red/Yellow IP65 1424 **2115**	S2 type Black IP65 1427 **2111**[1] Red/Yellow IP65 1428 **2111**				
	3 P	3841 **3010**							
	4 P	3841 **6010**							
CD 160 A A3-A4 [4] 13 A	2 P	3841 **2014**							3829 **9320**
	3 P	3841 **3014**							
	4 P	3841 **6014**							
160 A A4 14	2 P	3841 **2015**							
	3 P	3841 **3015**							
	4 P	3841 **6015**							
160 A B1-B2 14	2 P	3841 **2016**							
	3 P	3841 **3016**							
	4 P	3841 **6016**							

(1) Standard.
(2) 4 auxiliary contacts as standard; additional auxiliary contact holder provides capacity for 4 more.
(3) Top or bottom; to shroud incoming and outgoing side order quantity 2.
(4) For fuse size A4: max diameter 31 mm.

BS 88 - External front and side operation - 200 to 1250 A

Rating (A) Fuse size Frame size	Number of poles	Reference Switch I - 0 -TEST	External front handle I - 0	TEST External front handle I - 0 - TEST	External right side handle I - 0	Shaft extensions for handle	Terminal shrouds[3]	U type A/C [2]	Integrated solid neutral link
CD 200 A A3-A4 (4) 13 A	2 P	3841 **2019**	S2 type Black IP65 1423 **2111**[1] Red/Yellow IP65 1424 **2111**	S2 type Black IP65 1423 **2115**[1] Red/Yellow IP65 1424 **2115**	S2 type Black IP65 1425 **2111**[1] Red/Yellow IP65 1428 **2111**	320 mm 1400 **1032**	2 P 3998 **2016** 3 P 3998 **3016** 4 P 3998 **4016**	1 contact NO 3999 **0701** 1 contact NC 3999 **0702**	3829 **9320**
	3 P	3841 **3019**							
	4 P	3841 **6019**							
200 A B1-B2 15	2 P	3841 **2021**					2 P 3998 **2025** 3 P 3998 **3025** 4 P 3998 **4025**		3829 **9325**
	3 P	3841 **3021**							
	4 P	3841 **6021**							
250 A B1-B2-B3 15	2 P	3841 **2024**							
	3 P	3841 **3024**							
	4 P	3841 **6024**							
315 A B1-B2-B3 16	2 P	3841 **2031**					2 P 3898 **2040** 3 P 3898 **3040** 4 P 3898 **4040**		3829 **9339**
	3 P	3841 **3031**							
	4 P	3841 **6031**							
400 A B1-B2-B3-B4 16	2 P	3841 **2038**							
	3 P	3841 **3038**							
	4 P	3841 **6038**							
630 A C1-C2 17	2 P	3821 **2063**	S3 type Black IP65 1433 **3111**[1] Red/Yellow IP65 1434 **3111**		S3 type Black IP65 1437 **3111**[1] Red/Yellow IP65 1438 **3111**	320 mm 1400 **1232**	2 P 3898 **2080** 3 P 3898 **3080** 4 P 3898 **4080**		3829 **9308**
	3 P	3821 **3063**							
	4 P	3821 **6063**							
800 A C1-C2-C3 17	2 P	3821 **2080**							
	3 P	3821 **3080**							
	4 P	3821 **6080**							
1250 A D1 18	2 P	3821 **2120**	S4 type Black IP65 1443 **3111**[1]				3898 **2120**		3829 **9312**
	3 P	3821 **3120**					3898 **3120**		
	4 P	3821 **6120**					3898 **4120**		

(1) Standard.
(2) Please refer to the accessories section for auxiliary contact capacity.
(3) Top or bottom; to shroud incoming and outgoing side order quantity 2.
(4) For fuse size A4: max diameter 31 mm.
(5) Terminal shrouds: 3 P - 3998 3025, 4 P - 3998 4025.

References

NFC and DIN left and centered operation - 25 to 125 A

Rating (A) Fuse size Casing size	No. of poles	Front/ right-side operation (6)	Left side operation (6)	Front centered operation (6)	Direct front handle I-0-TEST	External front handle I - 0	TEST external front handle I - 0 - TEST	External right-side handle I - 0	Shaft for handle	Auxiliary contact	Terminal shrouds	Electronic fuse blown indication (5)
CD 25 A 10 x 38 0	3 P	3631 **3002** (1)			3629 **4012**	S1 type Black IP55 1411 **2111** (2) Black IP65 1413 **2111** Red/Yellow IP65 1414 **2111**	S1 type Black IP65 1413 **2115** Red IP65 1414 **2115**	S1 type Black IP55 1415 **2111** (2) Black IP65 1417 **2111** Red/Yellow IP65 1418 **2111**	200 mm 1401 **0520** 320 mm 1401 **0532** (2)	Type U 1 contact F 3999 **0701** (3) 1 contact O 3999 **0702** (3)		
	3 P + switched neutral	3631 **4002** (1)										
	3 P + solid neutral	3631 **5002** (1)										
CD 32 A 10 x 38 0	3 P	3631 **3003**										
	3 P + NC *	3631 **4003**										
	3 P+ solid neutral*	3631 **5003**										
CD 32 A 14 x 51 0	3 P	3631 **3004** (1)										
	3 P + switched neutral	3631 **4004** (1)										
	3 P+ solid neutral	3631 **5004** (1)										
50 A 14 x 51 11	2 P	3831 **2005**										
	3 P	3831 **3005** (1)	3815 **3005**									
	4 P	3831 **6005** (1)	3815 **6005**									
63 A 00C 12	2 P	3831 **2006**			3999 **5020**	S2 type Black IP55 1421 **2111** (2) Black IP65 1423 **2111** Red IP65 1424 **2111**	S2 type Black IP65 1423 **2115** Red IP65 1424 **2115**	S2 type Black IP55 1425 **2111** (2) Black IP65 1427 **2111** Red IP65 1428 **2111**	200 mm 1400 **1020** 320 mm 1400 **1032** (2) 500 mm 1400 **1050**		2 P 3998 **2016** (4) 3 P 3998 **3016** (4) 4 P 3998 **4016** (4)	3 LEDs 155…260 VAC 3899 **3120** 3 LEDs 380 - 690 VAC 3899 **3380**
	3 P	3831 **3006** (1)	3815 **3006**									
	4 P	3831 **6006** (1)	3815 **6006**									
100 A 22 x 58 13	2 P	3831 **2010**										
	3 P	3831 **3010** (1)	3815 **3010**									
	4 P	3831 **6010** (1)	3815 **6010**									
125 A 22 x 58 13	2 P	3831 **2011**										
	3 P	3831 **3011**	3815 **3011**	3837 **3015**								
	4 P	3831 **6011**	3815 **6011**									
125 A 00 13	2 P	3831 **2012**										3 LEDs 155…260 VAC 3899 **3120** 3 LEDs 380…690 VAC 3899 **3380**
	3 P	3831 **3012**	3815 **3012**									
	4 P	3831 **6012**	3815 **6012**									

(1) Available enclosed (see "Enclosed fuse switches").
(2) Standard.
(3) Maximum 4 contacts.
(4) Top or bottom. Provide 2 terminal shrouds for complete upstream and downstream protection.
(5) Mechanical fuse blown auxiliary contact (DDMM), see "Accessories". .
(6) Switch body.

NFC and DIN front/right side, left side and centered 160 to 1250A

Rating (A) Fuse size Casing size	No. of poles	Front/ right-side operation (7)	Left side operation (7)	Front centered operation (7)	Direct front handle I-0-TEST	External front handle I - 0	TEST external front handle I - 0 - TEST	External right-side handle I - 0	Shaft for handle	Auxiliary contact	Terminal shrouds	Electronic fuse blown indication (5)
160 A 00 13	2 P	3831 **2015**			3999 **5020**	S1 type Black IP55 1411 **2111** (2) Black **IP65** 1413 **2111** Red IP65 1424 **2111**	S2 type Black IP65 1423 **2115** Red IP65 1424 **2115**	S1 type Black IP55 1425 **2111** (2) Black IP65 1427 **2111** Red IP65 1428 **2111**	200 mm 1400 **1020** 320 mm 1400 **1032** 500 mm 1400 **1050**	Type U 1 contact NC 3999 **0701** (3) 1 contact NO 3999 **0702** (3)		3 LEDs 155…260 VAC 3899 **3120** 3 LEDs 380…690 VAC 3899 **3380**
	3 P	3831 **3015**	38153**015**									
	4 P	3831 **6015**	38156**015**									
160 A 0 14	2 P	3831 **2016**										
	3 P	3831 **3016** (1)	38153**016**	38373**016**								
	4 P	3831 **6016** (1)	38156**016**									
250 A 1 15	2 P	3831 **2024**			3999 **5021**					Type U 1 contact NC 3999 **0701** (4) 1 contact NO 3999 **0702** (4)	2 P 3998 **2025** (5) 3 P 3998 **3025** (5) 4 P 3998 **4025** (5)	
	3 P	3831 **3024** (1)	38153**024**	38373**024**								
	4 P	3831 **6024** (1)	38156**024**	38376**024**								
400 A 2 16	2 P	3831 **2038**									2 P 3898 **2040** 3 P 3898 **3040** 4 P 3898 **4040**	
	3 P	3831 **3038** (1)	38153**039**	38373**039**								
	4 P	3831 **6038** (1)	38156**039**	38376**039**								
630 A 3 17	2 P	3811 **2063**			3899 **6011**	S3 type Black IP65 1433 **3111** (2) Red IP65 1434 **3111**		S3 type Black IP65 1437 **7911**	200 mm 1400 **1220** 320 mm 1400 **1232** 500 mm 1400 **1250**			
	3 P	3811 **3063** (1)	38153**063**	38173**063**							2 P 3898 **2080** (5) 3 P 3898 **3080** (5) 4 P 3898 **4080** (5)	
	4 P	3811 **6063** (1)	38156**063**	38176**063**								
800 A 3 17	2 P	3811 **2080**										
	3 P	3811 **3080**	38153**080**	38173**080**								
	4 P	3811 **6080**	38156**080**									
800 A 4 18	2 P	3811 **2081**			1141 **3011**	S4 type Black IP65 1443 **3111** (2) Red IP65 1444 **3111**					2 P 3898 **2120** (5) 3 P 3898 **3120** (5) 4 P 3898 **4120** (5)	
	3 P	3811 **3081**										
	4 P	3811 **6081**										
1250 A 4 18	2 P	3811 **2120**										
	3 P	3811 **3120**	38153**120**	38173**120**								
	4 P	3811 **6120**	38156**120**									

(1) Available enclosed (see "Enclosed fuse switches").
(2) Standard.
(3) Maximum 4 contacts.
(4) Maximum 8 contacts.
(5) Top or bottom. Provide 2 terminal shrouds for complete upstream and downstream protection.
(6) Mechanical fuse blown auxiliary contact (DDMM), see "Accessories".
(7) Switch body

Accessories

Frame front handle can be locked in position 0 for direct control

Rating (A)	Frame size	Command	Handle colour	Reference
50 - 160	11-12-13-14	I-0-TEST	Black	3999 **5020**
250 - 400	15-16	I-0-TEST	Black	3999 **5021**



Direct front-operation handle

Front operation Rating (A)	Frame size	Figure N°	Handle colour	Reference
20 - 32	0	1	Black	3629 **4012**
20 - 32	0	1	Red	3629 **4013**
630 - 800	17	2	Black	3899 **6011**
800 - 1250	18	3	Black	1141 **3011**



Fig. 1



Fig. 2



Fig. 3

External front operation handle

Padlockable handle in position 0 Rating (A)	Frame size	Handle type	Handle colour	Operation	External IP(1)	Defeatable handle	Reference
CD 25 ... 63	0/11/12	S1	Black	I - 0	IP55	Yes	1411 **2111**
CD 25 ... 63	0/11/12	S1	Black	I - 0	IP65	Yes	1413 **2111**
CD 25 ... 63	0/11/12	S1	Red/Yellow	I - 0	IP65	Yes	1414 **2111**
CD 25 ... 63	0/11/12	S1	Black	I - 0 - Test	IP65	Yes	1413 **2115**
CD 25 ... 63	0/11/12	S1	Red/Yellow	I - 0 - Test	IP65	Yes	1414 **2115**
100 ... 400	13 ... 16	S2	Black	I - 0	IP55	Yes	1421 **2111**
100 ... 400	13 ... 16	S2	Black	I - 0	IP65	Yes	1423 **2111**
100 ... 400	13 ... 16	S2	Red/Yellow	I - 0	IP65	Yes	1424 **2111**
100 ... 400	13 ... 16	S2	Black	I - 0 - Test	IP65	Yes	1423 **2115**
100 ... 400	13 ... 16	S2	Red/Yellow	I - 0 - Test	IP65	Yes	1424 **2115**
630 ... 800	17	S3	Black	I - 0	IP65	Yes	1433 **3111**
630 ... 800	17	S3	Red/Yellow	I - 0	IP65	Yes	1434 **3111**
800 ... 1250	18	S4	Black	I - 0	IP65	Yes	1443 **3111**
800 ... 1250	18	S4	Red/Yellow	I - 0	IP65	Yes	1444 **3111**

(1) IP: protection degree according to IEC 60529 standard.



S1 type handle



S2 type handle

Padlockable handle in position 0 and I Rating (A)	Frame size	Handle type	Handle colour	External IP(1)	Reference
CD 25 ... 63	0/11/12	S1	Black	IP65	1413 **2311**
100 ... 400	13 ... 16	S2	Black	IP65	1423 **2311**

(1) IP: protection degree according to IEC 60529 standard.



S3 type handle



S4 type handle

External right side operation handle

Rating (A)	Frame size	Handle type	Handle colour	External IP(1)	Reference
CD 25 … 63	0/11/12	S1	Black	IP55	1415 **2111**
CD 25 … 63	0/11/12	S1	Black	IP65	1417 **2111**
CD 25 … 63	0/11/12	S1	Red/Yellow	IP65	1418 **2111**
100 … 400	13 … 16	S2	Black	IP55	1425 **2111**
100 … 400	13 … 16	S2	Black	IP65	1427 **2111**
100 … 400	13 … 16	S2	Red/Yellow	IP65	1428 **2111**
630 … 1250	17/18	S3	Black	IP65	1437 **3111**
630 … 1250	17/18	S3	Red/Yellow	IP65	1438 **3111**

(1) IP: protection degree according to IEC 60529 standard.



S1 type handle



S3 type handle

External front operation handle with metal padlocking lever

Rating (A)	Frame size	Handle type	Handle colour	External IP(1)	Defeatable handle	Reference
CD 25 … 63	0/11/12	S1	Black	IP65	Yes	141D **2911**
CD 25 … 63	0/11/12	S1	Red/Yellow	IP65	Yes	141E **2911**
100 … 400	13 … 16	S2	Black	IP65	Yes	142D **2911**
100 … 400	13 … 16	S2	Red/Yellow	IP65	Yes	142E **2911**
600 …800	17	S3	Black	IP65	Yes	143D **3911**
600 …800	17	S3	Red/Yellow	IP65	Yes	143E **3911**
800 … 1250	18	S4	Black	IP65	Yes	144D **3911**
800 … 1250	18	S4	Red/Yellow	IP65	Yes	144E **3911**

(1) IP: protection degree according to IEC 60529 standard.



S2 type handle



S3 type handle

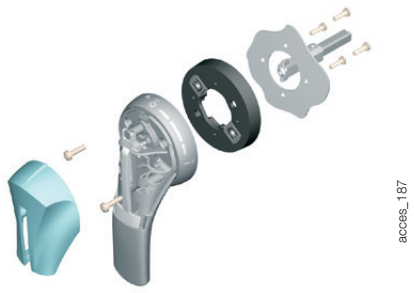
S-type handle adapter

Use
Enables S-type handles to be fitted in place of existing older style Socomec handles.
Adapter can be utilised as a spacer to increase the distance between the panel door and the handle lever.

Dimensions
Adds 12 mm to the depth of the handle.

Handle colour	To be ordered in multiples of	External IP(1)	Reference
Black	1	IP65	1493 **0000**

(1) IP: protection degree according to IEC 60529 standard.



Alternative S-type handle cover colours

Use
For single lever handles S1, S2, S3 types and double lever handle, S4 type.
Other colours: please consult us.

Handle colour	To be ordered in multiples of	Handle type	Reference
Light grey	50	S1, S2	1401 **0001**
Dark grey	50	S1, S2	1401 **0011**
Light grey	50	S4	1401 **0031**
Dark grey	50	S4	1401 **0041**



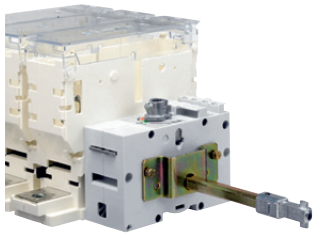
S2 type handle.

Accessories (continued)

Flat mounting kit

Use
The flat mounting providing compact solution ideally suited to withdrawable applications.
Kit to be used with a handle for flat mounting.

Rating (A)	Frame size	Type	Reference
CD 25 …CD 32	0	Kit + Shaft 200 mm	1429 **7709**
50 … 400	11 … 16	Kit + Shaft 200 mm	1429 **7710**


fuser_535

Handle for flat mounting kit

Padlockable handle in position 0					
Rating (A)	**Frame size**	**Handle type**	**Handle colour**	**External IP(1)**	**Reference**
CD 25 … 63	0/11/12	S1	Black	IP55	1411 **2111**(2)
CD 25 … 63	0/11/12	S1	Red/Yellow	IP65	1414 **2111**(2)
100 … 400	13 … 16	S2	Black	IP55	1421 **2111**(2)
100 … 400	13 … 16	S2	Red/Yellow	IP65	1424 **2111**(2)

(1) IP: protection degree according to IEC 60529 standard.
(2) Defeatable handle in position I.


fuser_536

Front operation shaft support accessory

Use
This support maintains shaft position for extension shafts greater than 320 mm in length.

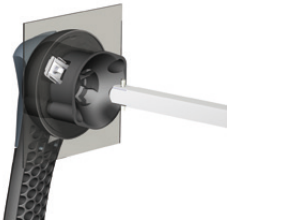
Rating (A)	Frame size	Reference
50 … 400	11 … 16	3899 **0400**


fuser_698

Shaft guide for external operation

Use
To guide the shaft extension into the external handle.
This accessory enables the handle to engage the extension shaft with a misalignment of up to 15 mm.
Required for a shaft lengths over 320 mm.

Description	Reference
Shaft guide	1429 **0000**


acces_260

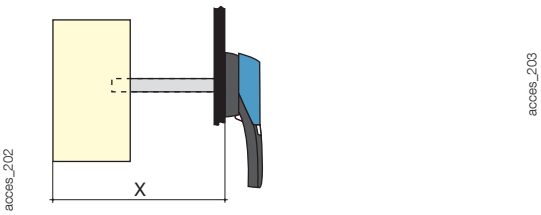
Shaft for external front operation handle

Use

Standard lengths:
- 200 mm
- 320 mm
- 400 mm
- 500 mm.

Other lengths: consult us.





Rating (A)	Frame size	Shaft length (mm)	Reference
CD 20 …CD 32	0	200	1401 **0520**
CD 20 …CD 32	0	320	1401 **0532**
CD 20 …CD 32	0	400	1401 **0540**(1)
32 … 400	11 … 16	200	1400 **1020**
32 … 400	11 … 16	320	1400 **1032**
32 … 400	11 … 16	500	1400 **1050**(2)
630 … 800	17	200	1400 **1220**
630 … 1250	17/18	320	1400 **1232**
630 … 1250	17/18	500	1400 **1250**(1)

(1) Use the shaft guide accessory for external operation.
(2) Use the front operation shaft support accessory.

Dimension X (mm) for FUSERBLOC BS88

Rating (A)	CD 20 …CD 32	32	63 … 160	CD160 … CD200	160 … 200	250 … 315	630 … 800	1250
Fuse size	**A1**	**A1**	**A2-A3/A4**	**A3-A4**	**B1-B2**	**B1-B2-B3**	**C1-C2-C3**	**D1**
Frame size	**0**	**11**	**12/13/14**	**13 A**	**14/15**	**15/16**	**17**	**18**
Shaft length (mm)								
200	102 … 245	100 … 230	125 … 230	150 … 230	135 … 230	160 … 230	270 … 304	
320	102 … 365	100 … 350	125 … 350	150 … 350	135 … 350	160 … 350	270 … 424	304 … 424
400	102 … 445							
500		100 … 530	125 … 530	150 … 530	135 … 530	160 … 530	270 … 600	304 … 600

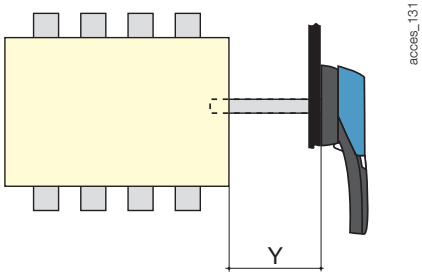
Dimension X (mm) for FUSERBLOC NFC and DIN

Rating (A)	CD 25 …CD 32	50	63	100 … 160	160	250 … 400	630 … 800	800 … 1250
Fuse size	**10x38/14x51**	**14x51**	**00C**	**22x58/00**	**0**	**1/2**	**3**	**4**
Frame size	**0**	**11**	**12**	**13**	**14**	**15/16**	**17**	**18**
Shaft length (mm)								
200	102 … 245	100 … 230	125 … 230	135 … 230	145 … 230	160 … 230	270 … 304	
320	102 … 365	100 … 350	125 … 350	135 … 350	145 … 350	160 … 350	270 … 424	304 … 424
400	102 … 445	100 … 430	125 … 430	135 … 430	145 … 430	160 … 430	270 … 504	304 … 504
500		100 … 530	125 … 530	135 … 530	145 … 530	160 … 530	270 … 604	304 … 604

Shaft extensions for external side operation

Use

Standard lengths, 200 mm.



Rating (A)	Frame size	Handle type	Dimension Y (mm)	Shaft length (mm)	Reference
CD 25 …CD 32	0	S	36 … 159	200	1401 **0520**
50 … 400	11 … 16	S	36 … 172	200	1400 **1020**
630 … 1250	17/18	S	15 … 150	200	1400 **1220**

Accessories (continued)

Integrated solid neutral link

Use

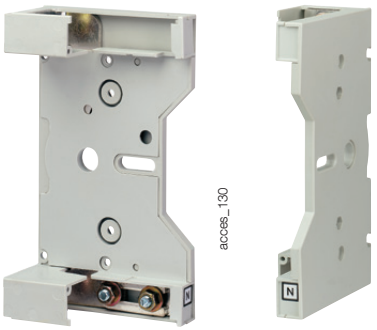
Fixing the solid neutral onto the mechanism produces a device with a solid neutral of the same size as a standard three-pole device (+ 6 mm).

BS88 for external front operation

Rating (A)	Switch body size	Bar rating (A)	Reference
32 … 100	11/12/13	125	3829 **9310**
CD 160 … CD 200	13a	200	3829 **9320**
160	14	200	3829 **9320**
200 … 250	15	250	3829 **9325**
315 … 400	16	400	3829 **9339**
630 … 800	17	800	3829 **9308**
1250	18	1250	3829 **9312**

NFC and DIN For external front operation

Rating (A)	Frame size	Bar rating (A)	Reference
50 … 125	11/12/13	125	3829 **9310**
160	13	160	3829 **9320**
160	14	200	3829 **9320**
250	15	250	3829 **9325**
400	16	400	3829 **9339**
630 … 800	17	800	3829 **9308**
800 …1250	18	1250	3829 **9312**



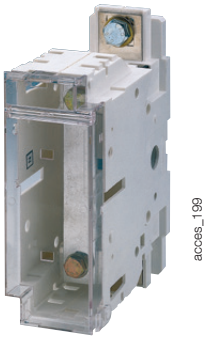
Solid neutral module

BS88 for external front operation

Rating (A)	Switch body size	I_{max} (A)	Distance (mm)	Reference
32	1/11	32	27	3629 **9227**
63	2/12	63	32	3629 **9232**
100	3/13	100	36	3629 **9236**
CD 160 … CD 200	13 a	200	36	3629 **9237**
160	4/14	160	50	3629 **9250**
200 … 250	5/15	250	60	3629 **9260**
315 … 400	6	400	66	3629 **9265**
630 … 800	17	800	94	3629 **9294**
1250	18	1250	120	3629 **9212**

NFC and DIN For external front operation

Rating (A)	Frame size	I_{max}(A)	Distance (mm)	Reference
50	1/11	50	27	3629 **9227**
63	2/12	63	32	3629 **9232**
100 … 160	3/13	160	36	3629 **9236**
160	4/14	160	50	3629 **9250**
250	5/15	250	60	3629 **9260**
400	6/16	400	60	3629 **9265**
630 … 800	17	800	94	3629 **9294**
800 … 1250	18	1250	120	3629 **9212**



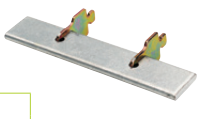
Solid links

BS88 switches

Rating (A)	Frame size	Fuse size	I_{max} (A)	Reference
32	11	A1	32	3629 **9003**
63	12	A2-A3	63	3629 **9006**
100	13	A4	160	3629 **9010**
CD 160	13a	A3-A4	160	3629 **9010**
160	14	A4	160	3629 **9010**
160	14	B1-B2	200	3629 **9016**
CD 200	13a	A3-A4	160	3629 **9010**
200	15	B1-B2	200	3629 **9016**
250	15	B1-B2-B3	315	3629 **9025**
315	16	B1-B2-B3	315	3629 **9025**
400	16	B1-B2-B3-B4	400	3629 **9040**
630 … 800	17	C1-C3	800	3629 **9063**
1250	18	D1	1250	3629 **9120**

NFC and DIN switches

Rating (A)	Frame size	Fuse size	I_{max}(A)	Reference
50	1/11	14 x 51	50	6029 **0000**
63	2/12	00C	160	6420 **0000**
100 … 125	3/13	22 x 58	125	6039 **0000**
125 … 160	3/13	00	160	6420 **0000**
160	4/14	0	160	6421 **0000**
250	5/15	1	250	6421 **0001**
400	6/16	2	400	6421 **0002**
630 … 800	17	3	800	6421 **0003**
800 … 1250	18	4	1250	6441 **0005**





A-type auxiliary contacts

Use

Pre-break and position 0 and I signalling by 1 or 2 NO /NC auxiliary contacts.
For low level use, specific auxiliary contacts: please consult us.

Connection to the control circuit

By 6.35 mm fast-on terminal.

Electrical characteristics

30 000 operations.


acces_046


acces_047

References

NO / NC auxiliary contacts			
Rating (A)	**Frame size**	**Contact(s)**	**Reference**
CD 20 … CD 32	0	1	3999 **0001**
CD 20 … CD 32	0	2	3999 **0002**
32 … 400(1)	1 … 6	1	3999 **0021**(2)
32 … 400(1)	1 … 6	2	3999 **0022**(2)

(1) Side direct operation switch only.
(2) A type auxiliary contacts cannot be mounted in conjunction with integrated solid neutral.

Characteristics

		Operating current I_e (A)			
Rating (A)	**Current nominal (A)**	**250 VAC AC-13**	**400 VAC AC-13**	**24 VDC DC-13**	**48 VDC DC-13**
CD 20 … 400	16	4	2	12	2

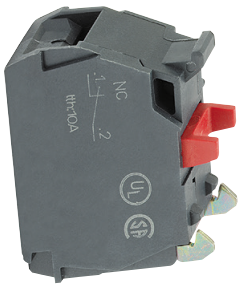
U-type auxiliary contacts(1)

Use

Compact universal type auxiliary contacts which can be configured for operation in either, or both, ON and TEST positions for CD 20 to 1250 A FUSERBLOC. Each slot can accommodate up to two interlocked A/Cs.

Connection to the control circuit

By terminals with max. section 2 x 2.5 mm².
For FUSERBLOC CD 20 to 400 A. Pre-break and signalling of positions 0, I and TEST.
For FUSERBLOC ≥ 630 A: Pre-break and position 0 and I signalling.



acces_056

References

NO auxiliary contacts			
Rating (A)	**Frame size**	**Contact(s)**	**Reference(1)**
CD 20 … 1250	0 … 18	1	3999 **0701**(2)

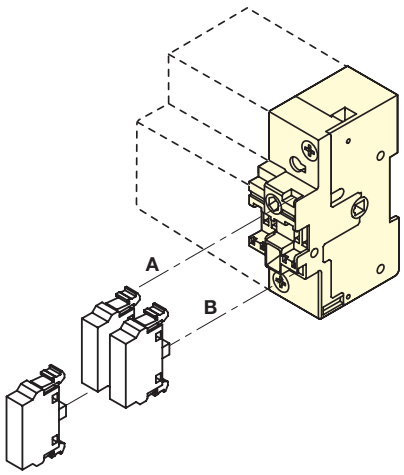
NC auxiliary contacts			
Rating (A)	**Frame size**	**Contact(s)**	**Reference(1)**
CD 20 … 1250	0 … 18	1	3999 **0702**(2)

Contact holder for additional auxiliary contacts			
Rating (A)	**Frame size**	**Contact(s)(3)**	**Reference**
CD 20 …CD 32	0	4 (2 x 2 max)	3999 **0710**
32 … 400	11 … 16	4 (2 x 2 max)	3999 **0600**

(1) Cannot be mounted in direct operation CD 20 - CD 32 switches..
(2) CD 20 - CD 200 A 4 auxiliary contacts can be fitted without additional A/C holder.
200 - 400 A 8 auxiliary contacts can be fitted without additional A/C holder.
630 - 1250 A 8 auxiliary contacts can be fitted. No additional A/C holder available.
(3) Allows an additional 4 auxiliary contacts to be fitted.

Characteristics

	Operating current I_e (A)			
Rating (A)	**250 VAC AC-15**	**400 VAC AC-15**	**24 VDC DC-13**	**48 VDC DC-13**
CD 20 … 1250	3	1.8	2.8	1.4



acces_043

(1) CD 20 - CD 32 : U-type auxiliary contacts cannot be mounted on switches with an integrated solid neutral or with direct operation handle.

Accessories (continued)

S and ST-type auxiliary contacts

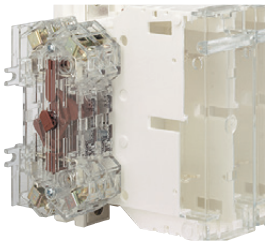
Use
For FUSERBLOCs 32 to 1250 A, position 0 and I signalling by 1 to 4 NO + NC auxiliary contacts.

Electrical principle
The NO + NC S-type auxiliary contacts can be configured as 2 NC or 2 NO.

Connection
By terminals with max. cross-section 10 mm².

Mechanical characteristics
30 000 operations.


acces_051


acces_083

References

S-type auxiliary contacts 0-I
for external front and right-side operation (Standard operation)

Rating (A)	Frame size	Contact type	S-type AC Reference	Drive shaft (optional) Reference
32 … 1250	11 … 18	NC+NO	3999 **0041**(1)	3999 **0003**

ST-type auxiliary contacts I-0-TEST
for external front and right-side operation (TEST operation)

Rating (A)	Frame size	Contact type	Description	ST-type AC Reference	Drive shaft Reference
32 … 400	11 … 16	NC+NO	TEST + ON	3999 **0141**(2)	3999 **0103**
32 … 400	11 … 16	2 O	TEST + ON	3999 **0241** (2)	3999 **0103**

(1) Drive shaft included with S-type Auxiliary Contact.
(2) Drive shaft to be ordered in addition to the ST-type Auxiliary Contact.

Characteristics

Rating (A)	Current nominal (A)	Operating current I_e (A) 250 VAC AC-13	Operating current I_e (A) 400 VAC AC-13
32 … 1250	20	10	8

Important:

> For the 400 A frame size 16, an adaptation kit reference 3999 0000 must be ordered in addition to the auxiliary contact kit.

Fuse cover interlocking

Use
On NFC and DIN, side direct operation, locking of the opening of the fuse protection cover when FUSERBLOC is engaged (position I).

Rating (A)	Frame size	Fuse size	No. of poles	Reference
CD 20 … 50	0 … 1	10 x 38 / 14 x 51	2 / 3 / 4	included
63	2	00C	2 / 3 / 4	3999 **8906**
100 … 125	3	22 x 58	2 / 3 / 4	3999 **8912**
125 … 160	3	00	2 / 3 / 4	3999 **8912**
160	4	0	2 P	3999 **8216**
160	4	0	3 P	3999 **8316**
160	4	0	4 P	3999 **8416**
250	5	1	2 P	3999 **8225**
250	5	1	3 P	3999 **8325**
250	5	1	4 P	3999 **8425**
400	6	2	2 P	3999 **8240**
400	6	2	3 P	3999 **8340**
400	6	2	4 P	3999 **8440**

Terminal shrouds

Use

Top or bottom IP20 protection (on the front) against direct contact with terminals or connection parts.

Two sets required to fully shroud both incoming and outgoing terminals.

Rating (A)	Frame size	Position	No. of poles	Reference
CD 20 … 63	0/1/2/12	top / bottom	2 / 3 / 4 P	integrated
100 … CD 200	3/4/13/14	top / bottom	2 P	3998 **2016**
100 … CD 200	3/4/13/14	top / bottom	3 P	3998 **3016**
100 … CD 200	3/4/13/14	top / bottom	4 P	3998 **4016**
200 … 400	5/6/15	top / bottom	2 P	3998 **2025**
200 … 400	5/6/15	top / bottom	3 P	3998 **3025**
200 … 400	5/6/15	top / bottom	4 P	3998 **4025**
315 … 400	16	top / bottom	2 P	3898 **2040**
315 …400	16	top / bottom	3 P	3898 **3040**
315 …400	16	top / bottom	4 P	3898 **4040**
630 … 800	17	top / bottom	2 P	3898 **2080**
630 … 800	17	top / bottom	3 P	3898 **3080**
630 … 800	17	top / bottom	4 P	3898 **4080**
800 … 1250	18	top / bottom	2 P	3898 **2120**
800 … 1250	18	top / bottom	3 P	3898 **3120**
800 … 1250	18	top / bottom	4 P	3898 **4120**


fuser_314

NFC and DIN worked fuse indication

Use

For fuse cartridge with striker (size 14 x 51 22 x 58 ; 0 ; 1 ; 2 ; 3 and 4).

Electrical principle

A NO/NC auxiliary contact detects that the fuse has blown.

Connection to the control circuit

6.35 mm fast-on terminal.

Mechanical characteristics

30 000 operations.

References

NO/NC type auxiliary contacts for 2 pole

Rating (A)	Frame size	Fuses	Contact(s)	Reference
50	11	14 x 51	1st	3994 **0405**
100 … 125	13	22 x 58	1st	3994 **0210**
160	14	0	1st	3994 **0216**
250	15/16	1-2	1st	3994 **0225**
400(1)	16	2	1st	3894 **0440**
630	17	3	1st	3894 **1206**
800 … 1250	18	4	1st	3894 **1212**

NO/NC type auxiliary contacts for 3 pole

Rating (A)	Frame size	Fuses	Contact(s)	Reference
CD 32	0	14 x 51	1st	3994 **0303**
50	11	14 x 51	1st	3994 **0405**
100 … 125	13	22 x 58	1st	3994 **0310**
160	14	0	1st	3994 **0316**
250	15/16	1-2	1st	3994 **0325**
400(1)	16	2	1st	3894 **0440**
630	17	3	1st	3894 **1306**
800 … 1250	18	4	1st	3894 **1312**
50 … 250	11		2nd	3994 **1901**
400	16	2	2nd	3994 **1902**
630 … 1250	16	-	2	3994 **1901**

NO/NC type auxiliary contacts for 4 pole or 3 pole + neutral

Rating (A)	Frame size	Fuses	Contact(s)	Reference
50	11	14 x 51	1st	3994 **0405**
100 … 125	13	22 x 58	1st	3994 **0410**
160	14	0	1st	3994 **0416**
250	15/16	1-2	1st	3994 **0425**
400(1)	16	2	1st	3894 **0440**
630	17	3	1st	3894 **1406**
800 … 1250	18	4	1st	3894 **1412**
50 … 250	11		2nd	3994 **1901**
400	16	2	2nd	3994 **1902**
630 … 1250	16	-	2	3994 **1901**

(1) For front direct and external left side operation handles, please order references 39940225 (2P), 39940325 (3P), 39940425 (4P)

Characteristics

Rating (A)	Current nominal (A)	Operating current I_e (A) 250 VAC AC-13	400 VAC AC-13	24 VDC DC-13	48 VDC DC-13
CD 32 ... 1250	16	4	3	12	2



fuser_311

DDMM for cylindrical fuses


fuser_312

DDMM for NH fuses

Accessories (continued)

Electronic fuse monitoring device (FMD)

Use

Provides fuse status monitoring and fuse blown indication even for fuse links without monitoring device strikers. Suitable for use with BS88, DIN and UL type fuses.

Principle

The Fuse Monitoring Device (FMD) detects fuse status and provides a signal via:
a relay and a bi-stable relay and 3 LEDs (FMD30).

The FMD can be DIN rail or back plate mounted close to the Fuserbloc, directly mounted on the FUSERBLOC, or it can be door mounted to provide information directly on the front of a panel.



3 LED version (FMD30)

References

For FUSERBLOC 63 to 1250A - size 000 to 4		
Nb of LEDs	**Operating voltage Ph/Ph**	**Reference**
3 (FMD30)	120 - 260 VAC	3899 **3120**
3 (FMD30)	380 - 690 VAC	3899 **3380**
Accessories		**Reference**
Kit for connection accessories	Standard	3819 **9120**
Kit for connection accessories	Door mounted	3829 **9120**

Relay characteristics

	Relay operating current I_e (A)	
Rating (A)	**AC-15**	**DC-13**
63 ... 1250	2.5 A	0.2

Important:

> For direct mounting on the 400 A frame size 16, an adaptation kit reference 3999 0000 must be ordered in addition to the FMD.

Cage terminals

Use

Connection of bare copper cables onto the terminals (without lugs).

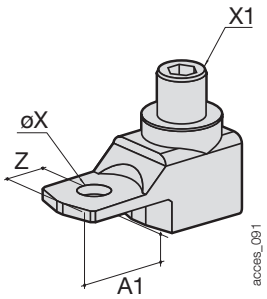


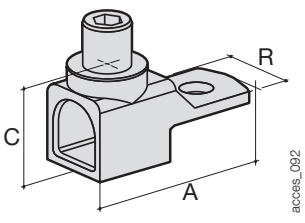
References

Rating max (A)	Frame size	No. of poles	Reference
CD 20 ... 63	0 ... 12	2 / 3 / 4 P	integrated
100 ... 160	13/14	3 P	5400 **3016**
100 ... 160	13/14	4 P	5400 **4016**
250	15	3 P	5400 **3025**
250	15	4 P	5400 **4025**
400	16	3 P	5400 **3040**
400	16	4 P	5400 **4040**

Connections

Rating (A)	Flexible cable cross-section (mm^2)	Rigid cable cross-section (mm^2)	Flexible bar width (mm)	Stripped over (mm)
100 ... 160	16 ... 95	16 ... 95	13	22
250	16 ... 185	16 ... 185	18	27
400	50 ... 240	50 ... 300	20	34





Dimensions

Rating (A)	A	A1	C	R	ØX	X1	Z
100 ... 160	47.5	22.5	25	20	8.5	M12	10
250	62	31.5	31.5	25	10.5	M16	14
400	71.5	32	38	32	10.5	M20	15

Handle key interlocking accessories

Use

Locking in position 0 of the direct, front or right side operation:

- using a padlock (not supplied) in direct right side operation: integrated into the handle,
- using a padlock (not supplied): right-side or front operation switch from 32 to 1250 A, factory integrated
- using a padlock (not supplied) in external operation.

Locking using RONIS EL 11 AP lock (not supplied)

Rating (A)	Frame size	Operation	Figure n°	Reference
CD 20 … 1250	0 … 18	external front	2	1499 **7701**
32 … 63	1/2	direct	1	3629 **7903**
100 … 400	3 …6	direct	1	3629 **7913**
630 … 1250	17 … 18	direct		3829 **7923**

Locking using K-type CASTELL lock (not supplied)

Rating (A)	Frame size	Operation	Figure n°	Reference
CD 20 … 1250	0 … 18	external front	3	1499 **7702**

Locking using FS-type CASTELL lock (not supplied)

Rating (A)	Frame size	Operation	Figure n°	Reference
CD 20 … 1250	0 … 18	external front	3	1499 **7703**

Locking using XOP (not supplied)

Rating (A)	Frame size	Operation	Reference
CD 20 … 1250	0 18	external front	1499 **7702**

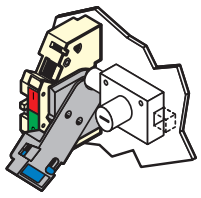


Fig. 1

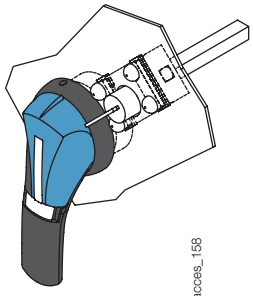


Fig.2

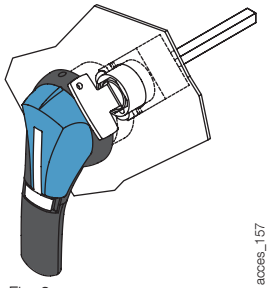


Fig. 3

Label holder

Use

Recognisable self-adhesive label allowing identification of the devices.

Dimensions W x H (mm)	Nb of pieces in KIT	Reference
18 x 13	5	7769 **9999**



Characteristics according to IEC 60947-3

20 to 100 A

Reference	**3641 X000**	**3631 X002**	**3631 X003**	**36X1 X004**	**3831 X003**	**3831 X005**	**38X1 X006**	**38X1 X010**
Type	**CD 20A**	**CD 25 A**	**CD 32 A**	**CD 32 A**	**Mod. 32 A**	**Mod. 50 A**	**Mod. 63 A**	**Mod. 100 A**
Frame size	**0**	**0**	**0**	**0**	**11**	**11**	**12**	**13**
Power pole pitch (mm)	-	-	-	-	27	27	32	36
Number of pole (SWN= switched neutral, SLN=solid neutral)	3, 4(SWN), 4(SLN)	3, 4(SWN), 4(SLN)	3, 4(SWN), 4(SLN)	3, 4(SWN), 4(SLN)	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4
Thermal current I_{th} (35°C)	**20 A**	**25 A**	**CD 32 A**	**CD 32 A**	**32 A**	**50 A**	**63 A**	**100 A**
Fuse size BS88 & NFC/DIN	A1 /-	-/NFC 10 x 38	-/NFC 10 x 38	A1/NFC 14 x 51	A1/-	-/NFC 14 x 51	A2-A3/NH000	A4*/NFC 22 x 58
Rated operational voltage Ue (V)	690	690	690	690	690	690	690	690
Rated insulation voltage Ui (V)	800	800	800	800	800	800	800	800
Rated impulse withstand voltage Uimp (kV)	8	8	8	8	8	8	8	8
Rated conditional short-circuit current (kA) in withstand and closing with gM/gG fuse								
Associated gM/gG fuse rating (A)	20	25	32	32	50	50	63	100
Prospective short-circuit current at Ue 400/415 VAC (kA rms)	80	100	100	100	100	100	100	100
Prospective short-circuit current at Ue 660/690 VAC (kA rms)	80	100	100	-	100	100	100	100
Dynamic withstand in Isc Ue 415 VAC (peak kA)		5.5	5.5	5.5	5.52	5.52	7.3	11.9
Dynamic withstand in Isc Ue 690 VAC (peak kA)		5.2	6.1	-	6.5	6.5	7.3	15.8
Rated operational currents I_e (A)								
Nominal voltage	**Category of use**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**
415 VAC	AC 21 A / AC 21 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
415 VAC	AC 22 A / AC 22 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
415 VAC	AC 23 A / AC 23 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
500 VAC	AC 21 A / AC 21 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
500 VAC	AC 22 A / AC 22 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
500 VAC	AC 23 A / AC 23 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
690 VAC [0]	AC 20 A / AC 20 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
690 VAC [0]	AC 21 A / AC 21 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
690 VAC [0]	AC 22 A / AC 22 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
690 VAC [0]	AC 23 A / AC 23 B	20/20	25/25	32/32	32/32	50/50	50/50	63/63	100/100
220 VDC	DC 21 A / DC 21 B	-	-/25	-/32	-/32	-	-	-/63	100/100
220 VDC	DC 22 A / DC 22 B	-	-/25	-/32	-/32	-	-	-	100/100
220 VDC	DC 23 A / DC 23 B	-	-/25 [1]	-/25 [1]	-/25 [1]	-	-	-	100/100
400 VDC	DC 21 A / DC 21 B	-	-	-	-	-	-	-/63 [3]	100 [3]/100 [3]
400 VDC	DC 22 A / DC 22 B	-	-	-	-	-	-	-	100 [3]/100 [3]
400 VDC	DC 23 A / DC 23 B	-	-	-	-	-	-	-	100 [3]/100 [3]
440 VDC	DC 21 A / DC 21 B	-	-	-	-	-	-	-/63 [3]	100 [3]/100 [3]
440 VDC	DC 22 A / DC 22 B	-	-	-	-	-	-	-	100 [3]/100 [3]
440 VDC	DC 23 A / DC 23 B	-	-	-	-	-	-	-	100 [3]/100 [3]
500 VDC	DC 21 A / DC 21 B	-	-	-	-	-	-	-/63 [3]	100 [3]/100 [3]
500 VDC	DC 22 A / DC 22 B	-	-	-	-	-	-	-	100 [3]/100 [3]
500 VDC	DC 23 A / DC 23 B	-	-	-	-	-	-	-	100 [3]/100 [3]

[1] Catégorie avec indice A = manoeuvres fréquentes / Catégorie avec indice B = manoeuvres non fréquentes.
[3] Appareil 3 pôles avec 2 pôles "+" en série et 1 pôle "-".

20 to 100 A

Rated operational power in AC-23 (kW)								
At Ue 415 VAC w/o pre-break auxiliary contact [1][5]	9/9	11/11	15/15	15/15	25/25	25/25	30/30	51/51
At Ue 690 VAC w/o pre-break auxiliary contact [1][5]	15/15	22/22	25/25	25/25	45/45	45/45	55/55	90/90
Reactive power (kvar)								
At Ue 415 VAC [5]	8	11	15	15	23	23	28	45
Power dissipation (W/pole)	3.2	3.1	4.1	4.4	7.3	7,3	8.4	14.5
Power dissipated by the fuse (W/pole)	2,5	2,4	2,9	1,8	4,6	4,6	6	9
Power dissipation by device (W/pole)	0.7	0.7	1.2	2.6	2.45	2.45	4.35	6.8
Connection capacity								
Minimum copper cable cross section (mm^2)	2,5	2.5	2.5	2.5	6	6	10	25
Maximum copper cable cross section (mm^2)	6	16	16	6	25	25	25	95
Maximum bar width (mm)	-	-	-	-	-	-	-	20
Minimum tightening torque (Nm)	2	2	2	2	3	3	3	9
Mechanical characteristics								
Durability (number of operating cycles)	10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000
Operating torque (Nm)	2.4/3	4.1	4.1	2.4/3	8.7	8.7	8.7	9.7
Weight of a non-accessorized 3-pole device (kg)	0.52	0.48	0.48	0.50	0.80	0.80	1	1.5
Weight of a non-accessorized 4-pole device (kg)	0.55	0.50	0.50	0.52	1	1	1.3	2
Weight in additional 1 P (kg)	-	-	-	-	0.2	0.2	0.3	0.5
Storage temperature (°C)	-50 …+85							
Operating temperature (°C)	-20…+70							
Normative compliance	IEC 60947-3							
Certfification	IEC, KEMA, Loyd's et CCC							
Pollution degree	3	3	3	3	3	3	3	3

[1] Catégorie avec indice A = manoeuvres fréquentes / Catégorie avec indice B = manoeuvres non fréquentes.
[5] La valeur de puissance est donnée à titre indicatif, les valeurs de courant varient d'un constructeur à l'autre.

Characteristics according to IEC 60947-3

125 to 200 A

Reference	3831 X011	3831 X012	3841 X014	3831 X015	38x1 X016	3841 X019	3841 X021
Type	**Mod. 125 A**	**Mod. 125 A**	**Mod. CD160 A**	**Mod. 160 A**	**Mod. 160 A**	**Mod. CD 200 A**	**Mod. 200 A**
Frame size	**13**	**13**	**13A**	**13**	**14**	**13A**	**15**
Power pole pitch (mm)	36	36	36	36	50	36	60
Number of pole (SWN= switched neutral, SLN=solid neutral)	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4
Thermal current I_{th} (35°C)	**125A**	**125A**	**160A**	**160A**	**160A**	**200A**	**200A**
Fuse size BS88 & NFC/DIN	-/NFC 22 x 58	-/NH00	A3-A4/-	-/NH00	A4/NH0	A3 - A4*/ -	B1-B2/-
Rated operational voltage Ue (V)	690V	690V	690V	690V	690V	415V	690V
Rated insulation voltage Ui (V)	800	800	800	800	800	800	800
Rated impulse withstand voltage Uimp (kV)	8	8	8	8	8	8	8
Rated conditional short-circuit current (kA) in withstand and closing with gM/gG fuse							
Associated gM/gG fuse rating (A)	125	125	160	160	160	200	200
Prospective short-circuit current at Ue 400/415 VAC (kA rms)	100	50	50	50	100	50	50
Prospective short-circuit current at Ue 660/690 VAC (kA rms)	100	50	50	50	50	50	50
Dynamic withstand in Isc Ue 415 VAC (peak kA)	13,6	-		18,95	22,66	5.52	7.3
Dynamic withstand in Isc Ue 690 VAC (peak kA)	20,4	10,4	-	13,5	14	6.5	7.3
Rated operational currents I_e (A)							
Nominal voltage	**Category of use**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**
415 VAC	AC 21 A / AC 21 B	125/125	125/125	160/160	160/160	160/160	-/200	200/200
415 VAC	AC 22 A / AC 22 B	125/125	125/125	160/160	160/160	160/160	-/200	200/200
415 VAC	AC 23 A / AC 23 B	125/125	125/125	160/160	160/160	160/160	200/200	200/200
500 VAC	AC 21 A / AC 21 B	125/125	125/125	160/160	160/160	160/160	-	200/200
500 VAC	AC 22 A / AC 22 B	125/125	125/125	160/160	160/160	160/160	-	200/200
500 VAC	AC 23 A / AC 23 B	125/125	125/125	160/160	160/160	160/160	-	200/200
690 VAC [0]	AC 20 A / AC 20 B	125/125	125/125	160/160	160/160	160/160	-	200/200
690 VAC [0]	AC 21 A / AC 21 B	100/100	125/125	160/160	160/160	160/160	-	200/200
690 VAC [0]	AC 22 A / AC 22 B	100/100	125/125	160/160	160/160	160/160	-	200/200
690 VAC [0]	AC 23 A / AC 23 B	100/100	125/125	125/125	125/125	160/160	-	160/160
220 VDC	DC 21 A / DC 21 B	-	128/125	160/160	160/160	-	-	-
220 VDC	DC 22 A / DC 22 B	-	125/125	160/160	160/160	-	-	-
220 VDC	DC 23 A / DC 23 B	-	125/125	125/125	125/125	-	-	-
400 VDC	DC 21 A / DC 21 B	-	125 [3]/125 [3]	160 [3]/160 [3]	160 [3]/160 [3]	-	-	-
400 VDC	DC 22 A / DC 22 B	-	125 [3]/125 [3]	160 [3]/160 [3]	160 [3]/160 [3]	-	-	-
400 VDC	DC 23 A / DC 23 B	-	125 [3]/125 [3]	125 [3]/125 [3]	125 [3]/125 (3)	-	-	-
440 VDC	DC 21 A / DC 21 B	-	125 [3]/125 [3]	160 [3]/160 [3]	160 [3]/160 [3]	-	-	-
440 VDC	DC 22 A / DC 22 B	-	125 [3]/125 [3]	160 [3]/160 [3]	160 [3]/160 [3]	-	-	-
440 VDC	DC 23 A / DC 23 B	-	125 [3]/125 [3]	125 [3]/125 [3]	125 [3]/125 [3]	-	-	-
500 VDC	DC 21 A / DC 21 B	-	-	-	-	-	-	-
500 VDC	DC 22 A / DC 22 B	-	-	-	-	-	-	-
500 VDC	DC 23 A / DC 23 B	-	-	-	-	-	-	-

Rated operational power in AC-23 (kW)

[1] Catégorie avec indice A = manoeuvres fréquentes / Catégorie avec indice B = manoeuvres non fréquentes.

[3] Appareil 3 pôles avec 2 pôles "+" en série et 1 pôle "-".

20 to 100 A

At Ue 415 VAC w/o pre-break auxiliary contact [1][5]	63/63	63/63	80/80	80/80	80/80	80/80	100/100
At Ue 690 VAC w/o pre-break auxiliary contact [1][5]	90/90	90/90	110/110	110/110	110/110	110/110	150/150
Reactive power (kvar)							
At Ue 415 VAC [5]	55	55	70	75	75	90	115
Power dissipation (W/pole)	19,9	20,3	21,6	21,6	23	21,6	37,4
Power dissipated by the fuse (W/pole)	11	12,5	12	12	15	12	14,3
Power dissipation by device (W/pole)	8,63	6	10,4	10,4	10,4	10,4	23,1
Connection capacity							
Minimum copper cable cross section (mm^2)	35	35	35	35	50	35	95
Maximum copper cable cross section (mm^2)	95	95	95	95	95	95	240
Maximum bar width (mm)	20	20	20	20	20	20	32
Minimum tightening torque (Nm)	9	9	9	9	9	9	20
Mechanical characteristics							
Durability (number of operating cycles)	10 000	10 000	10 000	10 000	10 000	10 000	10 000
Operating torque (Nm)	9.7	10.2	8,3	10.2	9.7	10.2	13
Weight of a non-accessorized 3-pole device (kg)	1.5	1.5	2,1	1.8	1.8	2,1	3,7
Weight of a non-accessorized 4-pole device (kg)	2	2	2,6	2.3	2.3	2,6	4,7
Weight in additional 1 P (kg)	0.5	0.5	0,65	0.5	0.5	0.6	1,2
Storage temperature (°C)	-50 …+85						
Operating temperature (°C)	-20…+70						
Normative compliance	IEC 60947-3						
Certfification	IEC, KEMA, Loyd's et CCC						
Pollution degree	3	3	3	3	3	3	3

[1] Catégorie avec indice A = manoeuvres fréquentes / Catégorie avec indice B = manoeuvres non fréquentes.
[5] La valeur de puissance est donnée à titre indicatif, les valeurs de courant varient d'un constructeur à l'autre.

Characteristics according to IEC 60947-3

125 to 200 A

Reference	**38X1 X024**	**3841 X031**	**3831 X03X**	**3811 X063**	**3811 X080**	**3811 X081**	**3811 X120**
Type	**Mod. 250 A**	**Mod. 315 A**	**Mod. 400 A**	**Mod. 630 A**	**Mod. 800 A**	**Mod. 800 A**	**Mod. 1250 A**
Frame size	**15**	**16**	**16**	**17**	**17**	**18**	**18**
Power pole pitch (mm)	60	66	66	94	94	120	120
Number of pole (SWN= switched neutral, SLN=solid neutral)	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4
Thermal current I_{th} (35°C)	**250A**	**315A**	**400A**	**630A**	**800A**	**800A**	**1250A**
Fuse size BS88 & NFC/DIN	B1-B2-B3/NH1	B1-B2-B3/-	B1-B2-B3-B4/ NH2	C1-C2NH3	C1-C2-C3NH3	NH4	D1/NH4
Rated operational voltage Ue (V)	690V	690V	690V	690V	690V	415V	415V
Rated insulation voltage Ui (V)	800	800	1000	1000	1000	1000	1000
Rated impulse withstand voltage Uimp (kV)	8	8	12	12	12	12	12
Rated conditional short-circuit current (kA) in withstand and closing with gM/gG fuse							
Associated gM/gG fuse rating (A)	250	315	400	630	800	800	1250
Prospective short-circuit current at Ue 400/415 VAC (kA rms)	100	50	50	100	100	100	100
Prospective short-circuit current at Ue 660/690 VAC (kA rms)	50	50	50	100	100	-	-
Dynamic withstand in Isc Ue 415 VAC (peak kA)	23,9		33,5	48	54,18	50,8	53,2
Dynamic withstand in Isc Ue 690 VAC (peak kA)	29		29,9	58,7	58,7	-	-
Rated operational currents I_e (A)							
Nominal voltage	**Category of use**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**	**A/B[1]**
415 VAC	AC 21 A / AC 21 B	250/250	315/315	400/400	-/630	-/800	-/800	-/1250
415 VAC	AC 22 A / AC 22 B	250/250	315/315	400/400	-/630	-/800	-/800	-/1250
415 VAC	AC 23 A / AC 23 B	250/250	315/315	400/400	-/630	-/800	-/800	-/1250
500 VAC	AC 21 A / AC 21 B	250/250	315/315	-/400	-/630	-/800	-/800	-/1250
500 VAC	AC 22 A / AC 22 B	250/250	315/315	-/400	-/630	-/800	-/800	-/1250
500 VAC	AC 23 A / AC 23 B	250/250	315/315	-	-	-	-	-
690 VAC [0]	AC 20 A / AC 20 B	250/250	315/315	400/400	630/630	800/800	800/800	1250/1250
690 VAC [0]	AC 21 A / AC 21 B	250/250	315/315	-/400	-/630	-/800	-/800	-/1250
690 VAC [0]	AC 22 A / AC 22 B	250/250	315/315	-/400	-/630	-/800 (6)	-/800	-/1250
690 VAC [0]	AC 23 A / AC 23 B	160/160	315/315	250/315	-	-	-	-
220 VDC	DC 21 A / DC 21 B	250/250	-	-	-	-	-	-
220 VDC	DC 22 A / DC 22 B	250/250	-	-	-	-	-	-
220 VDC	DC 23 A / DC 23 B	200/200	-	-	-	-	-	-
400 VDC	DC 21 A / DC 21 B	250 [3]/250 [3]	-	-/250 [1]	-	-	-	-
400 VDC	DC 22 A / DC 22 B	250 [3]/250 [3]	-	-/350 [3]	-	-	-	-
400 VDC	DC 23 A / DC 23 B	200 [3]/200 [3]	-	-	-	-	-	-
440 VDC	DC 21 A / DC 21 B	250 [3]/250 [3]	-	-	-	-	-	-
440 VDC	DC 22 A / DC 22 B	250 [3]/250 [3]	-	-	-	-	-	-
440 VDC	DC 23 A / DC 23 B	200 [3]/200 [3]	-	-	-	-	-	-
500 VDC	DC 21 A / DC 21 B	250 [3]/250 [3]	-	-	-	-	-	-
500 VDC	DC 22 A / DC 22 B	250 [3]/250 [3]	-	-	-	-/800 [5]		-/1250 [5]
500 VDC	DC 23 A / DC 23 B	200 [3]/200 [3]	-	-	-	-	-	-

[1] Catégorie avec indice A = manoeuvres fréquentes / Catégorie avec indice B = manoeuvres non fréquentes.
[3] Appareil 3 pôles avec 2 pôles "+" en série et 1 pôle "-".
[5] La valeur de puissance est donnée à titre indicatif, les valeurs de courant varient d'un constructeur à l'autre.

20 to 100 A

Rated operational power in AC-23 (kW)							
At Ue 415 VAC w/o pre-break auxiliary contact [1][5]	132/132	160/160	220/220	355/355	450/450	450/450	560/560
At Ue 690 VAC w/o pre-break auxiliary contact [1][5]	220/220	220/295	220/295	295/400	400/400	400/400	400/475
Reactive power (kvar)							
At Ue 415 VAC [5]	115	145	185	290	365	355	460
Power dissipation (W/pole)	41,1	48,9	65,6	122	134		264
Power dissipated by the fuse (W/pole)	23	19,28	33	60	65	70	110
Power dissipation by device (W/pole)	19	29,6	29,6	61	68		154
Connection capacity							
Minimum copper cable cross section (mm^2)	95	1x185	1x185	2 x 150	2 x 185		
Maximum copper cable cross section (mm^2)	240	1x185	1x240	2 x 300	2 x 300	4 x 185	4 x 185
Maximum bar width (mm)	32	45	45	63	63	80	80
Minimum tightening torque (Nm)	20	20	20	40	40	40	40
Mechanical characteristics							
Durability (number of operating cycles)	10 000	10 000	10 000	5 000	8 000	3 000	3 000
Operating torque (Nm)	13	17	17	56	57	62	62
Weight of a non-accessorized 3-pole device (kg)	3.2	4	4.7	16	17	25	25
Weight of a non-accessorized 4-pole device (kg)	4.5	8,2	5,9	20	21.5	30	30
Weight in additional 1 P (kg)	1.3	2	1.4	5	5,4	3	3
Storage temperature (°C)	-50 …+85						
Operating temperature (°C)	-20…+70						
Normative compliance	IEC 60947-3						
Certfification	IEC, KEMA, Loyd's et CCC						
Pollution degree	3	3	3	3	3	3	3

[1] Catégorie avec indice A = manoeuvres fréquentes / Catégorie avec indice B = manoeuvres non fréquentes.
[5] La valeur de puissance est donnée à titre indicatif, les valeurs de courant varient d'un constructeur à l'autre.

Characteristics according to IEC 60947-3 (continued)

250 to 1250 A

Thermal current I_{th} (40°C)		**250 A**	**315 A**	**400 A**	**630 A**	**800 A**	**800 A**	**1250 A**
NFC/DIN fuse size		B1-B2-B3/1	B1-B2-B3/-	B1-B2-B3-B4/2	C1-C2/3	C1-C2-C3/3	-/4	D1/4
Frame size for direct operation		5	6	6	17	17	18	18
Switch body size for front and side operation		15	16	16	17	17	18	18
Rated insulation voltage U_i (V)		800	1000(800*)	1000(800*)	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV)		8	12(8*)	12(8*)	12	12	12	12
Rated operational currents Ie (A)								
Rated voltage	**Utilisation category**	**A/B(1)**	**A/B(1)**	**A/B(1)**	**A/B(1)**	**A/B(1)**	**A/B(1)**	**A/B(1)**
400 VAC	AC-22 A / AC-22 B	250/250	315/315	400/400	630/630	800/800	800/800	1250/1250
400 VAC	AC-23 A / AC-23 B	250/250	315/315	400/400	630/630	800/800	800/800	1000/1250
690 VAC	AC-22 A / AC-22 B	250(2)/250(2)	315(2)/315(2)	400/400	500/630	800/800	800/800	800/1250
690 VAC	AC-23 A / AC-23 B	250(2)/250(2)	315(2)/315(2)	315/400	315/400	630/630	800/800	800/1250
220 VDC	DC-20 A / DC-20 B	250/250	315/315	400/400	630/630	800/800	800/800	1250/1250
220 VDC	DC-21 A / DC-21 B	200/200	315/315	315/315	630/630	800/800	800/800	1250/1250
440 VDC	DC-22 A / DC-22 B	250(3) / 250(3)	315(3) / 315(3)	315(3)/315(3)	400(3)/630(3)	800(3) / 800(3)	800/800	1250(3) / 1250(3)
440 VDC	DC-23 A / DC-23 B	200(3) / 200(3)	250(3) / 315(3)	250(3) / 315(3)	400(3)/630(3)	800(3) / 800(3)	800/800(3)	1000(3) / 1000(3)
Operational power in AC-23 (kW)								
At 400 VAC without pre-break in AC(1)(4)		132/132	160/160	220/220	355/355	450/450	450/450	560/560
At 690 VAC without pre-break in AC(1)(4)		220/220	220/295	220/295	295/400	400/400	400/400	400/475
Reactive power (kvar)								
At 400 VAC(4)		115	145	185	290	365	355	460
Fuse protected short-circuit withstand (kA rms prospective)								
Prospective short-circuit (kA rms)(5)		80/100	80/-	80/50	80/100	80/100	-/100	-/100
Associated fuse rating (A)(5)		250/250	315/-	400/400	630/630	800/800	-/800	-/1250
Short-circuit capacity								
Rated peak withstand current (kA peak)(5)		32.5	40	40	70	80	80	90
Fuse selection (maximum fuse size)**								
SOCOMEC BS88		6B20 0250	6B30 0315	6B40 0400	6C20 0630	6C30 0800		
SOCOMEC BS88		6B2M 3015	6B3M 0400	6B4M 0500				
SOCOMEC DIN		6712 0250		6722 0400	6732 0400		6746 0800	6746 1200
SOCOMEC DIN		6713 0250		6723 0400	6733 0400		6747 0800	6747 1200
BUSSMANN		ED 250	ED 315	ED 400	FF 630	GF 800		
BUSSMANN		DD 200M315	ED 315M400	ED 400M500				
LAWSON		TKF 250	TKF 315	TMF 400	TTM 630	TLM 800		
LAWSON		TF 200M315	TKF 315M400	TMF 400M500				
GE		TKF 250	TKF 315	TMF 400	TTM 630	TLM 800		
GE		TF 200M315	TKF 315M355	TMF 400M450				
Connection								
Minimum Cu cable cross-section (mm^2)		95	185	185	2 x 150	2 x 185		
Maximum Cu cable cross-section (mm^2)		240	240	240	2 x 300	2 x 300	4 x 185	4 x 185
Maximum busbar width (mm)		32	45	45	63	63	80	80
Tightening torque min (Nm)		20/26	20/26	20/26	40/45	40/45	40/45	40/45
Mechanical characteristics								
Durability (number of operating cycles)		10 000	10 000	10 000	8 000	8 000	5 000	5 000
Weight of 3 P switch (kg)		3.2	4.8	4.8	16	17	25	25
Weight of 4 P switch (kg)		4.5	6.1	6.1	20	21.5	30	30
Weight of 1 P extra (kg)		1.3	1.3	1.3			3	3
Frame pitch (mm)		60	66	66	94	94	120	120

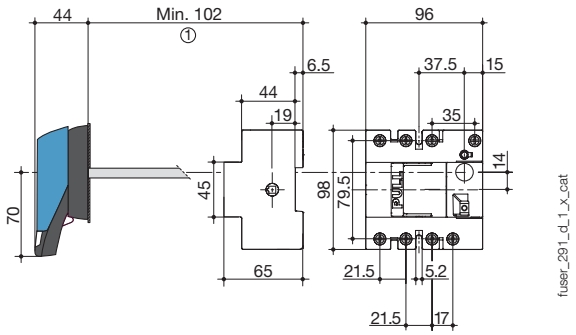
(1) Category with index A = frequent operation - Category with index B = infrequent operation.
(2) With terminal shrouds or terminal screen.
(3) 4-pole device with 2 pole in series by polarity.
(4) The power value is given for information only, the current values vary from one manufacturer to another.
(5) For a rated operational voltage U_e = 400 VAC.
** Direct operation switch.*
*** Please ensure that fuse let through current does not exceed short-circuit capacity of the switch (kA peak).*

Dimensions

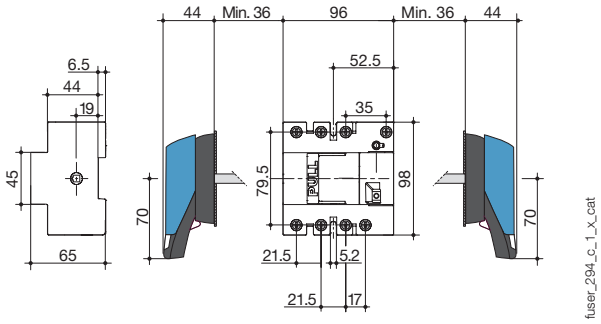
External operation

NFC and DIN CD 25 to CD 32 A in size 10 x 38

External front operation



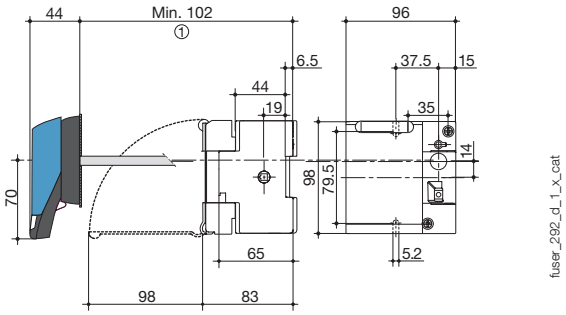
External side operation



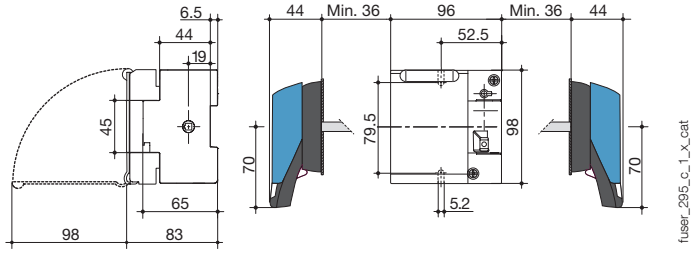
1. With 1 U-type AC: 130 mm.
With 2 U-type AC: 155 mm.

BS88 CD 20 to CD 32 A in size A1 - NFC and DIN 32 A in size 14 x 51

External front operation



External side operation

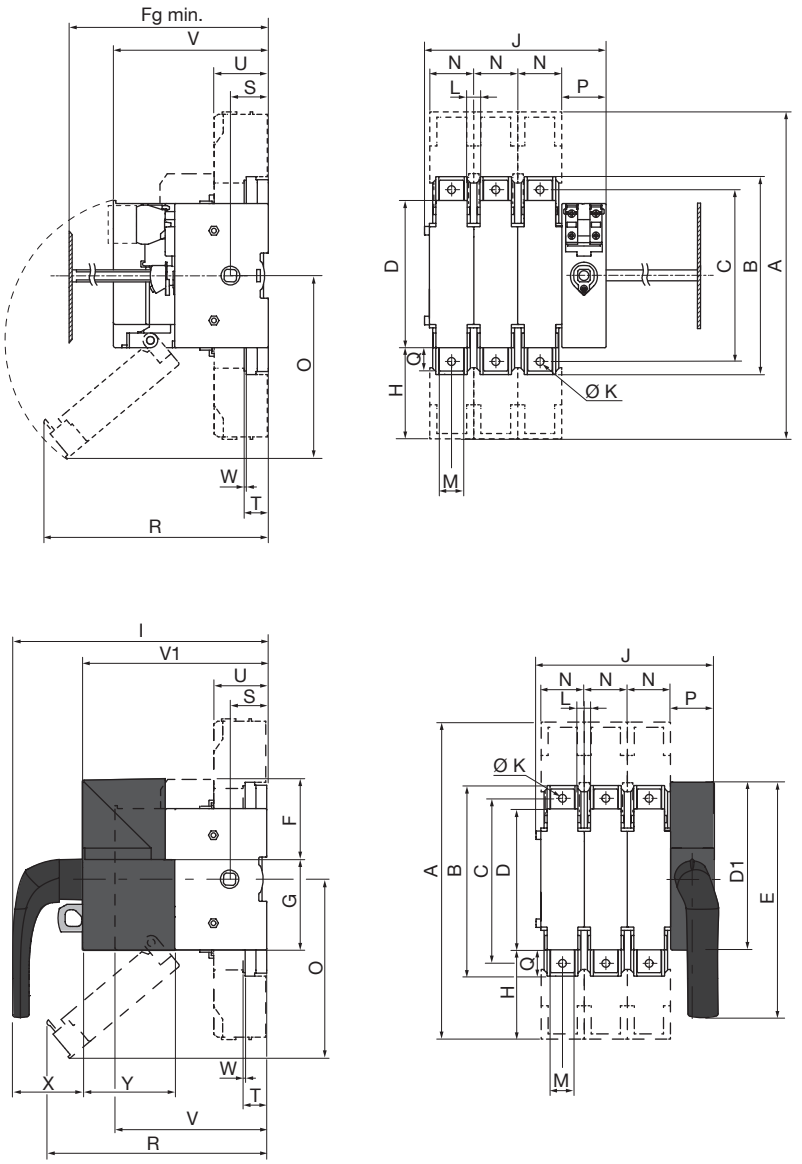


1. With 1 U-type AC: 130 mm.
With 2 U-type AC: 155 mm.

Dimensions for front and right side operation

32 - 200 A

32 - 63 : cage connexion
100 - 200 : terminal connexion



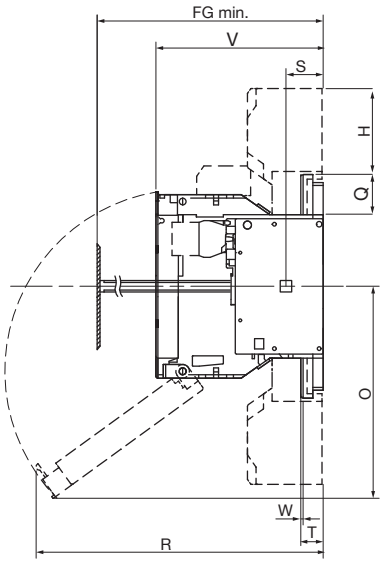
fuser_751_a_1_x_cat.ai

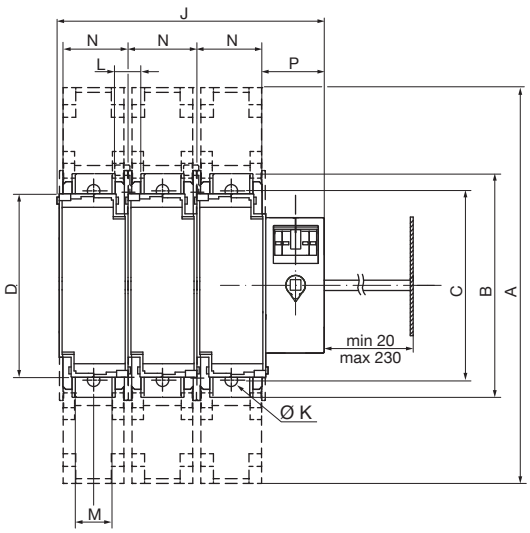
fuser_752_a_1_x_cat.ai

Rating (A)	NFC/ DIN fuse size	BS88 fuse size	Frame size	Fg min	A	B	C	D	D1	E	F	G	H	I	J		K	L	M	N	O	P	Q	R	S	T	U	V	V1	W	X	Y
															3P	4P																
32	-	A1	11	100		118		106	143	200	67,5	75,5		212,1	121	148	6,2	15	12	27	85	36,8	15	153	31			87	153,6	2	58,5	77
50	14 x 51	-	11	100		118		106	143	200	67,5	75,5		212,1	121	148	6,2	15	12	27	85	36,8	15	153	31			87	153,6	2	58,5	77
63	00C	A2-A3	12	125		118		106	143	200	67,5	75,5		212,1	136	168	6,2	20	12	32	159	36,8	15	145	31			116	153,6	2	58,5	77
100	22x58	A4	13	135	268	162	141	127	143	200	67,5	75,5	75	212,1	148	184	8,5	16	20	36	141	36,8	41	187	31	19,5	43,5	116	153,6	2,5	58,5	77
125	22x58	-	13	135	268	162	141	127	143	200	67,5	75,5	75	212,1	148	184	8,5	16	20	36	141	36,8	41	179	31	19,5	43,6	116	153,6	2,5	58,5	77
125	NH00	-	13	135	268	162	141	127	143	200	67,5	75,5	75	212,1	148	184	8,5	16	20	36	141	36,8	41	193	31	19,5	43,7	126	153,6	2,5	58,5	77
160	NH00	-	13	135	268	162	141	127	143	200	67,5	75,5	75	212,1	148	184	8,5	16	20	36	141	36,8	41	193	31	19,5	43,8	126	153,6	2,5	58,5	77
CD160	-	A3-A4	13A	135	268	162	141	127	143	200	67,5	75,5	75	212,1	148	184	8,5	16	20	36	141	36,8	41	193	31	19,5	43,8	126	153,6	2,5	58,5	77
CD200	-	A3-A4	13A	135	268	162	141	127	143	200	67,5	75,5	75	212,1	148	184	8,5	16	20	36	141	36,8	41	193	31	19,5	43,8	126	153,6	2,5	58,5	77
160	NH0	A4-B1-B2	14	145	268	162	141	140	143	200	67,5	75,5	75	212,1	190	240	8,5	20	20	50	174	36,8	41	229	31	19,5	43,9	136	153,6	2,5	58,5	77

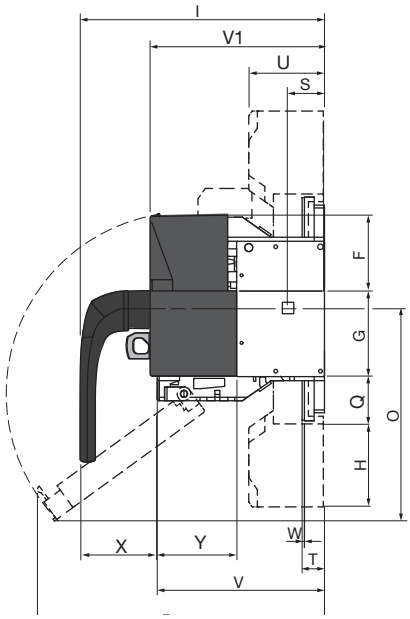
Dimensions for direct front/right side operation (continued)

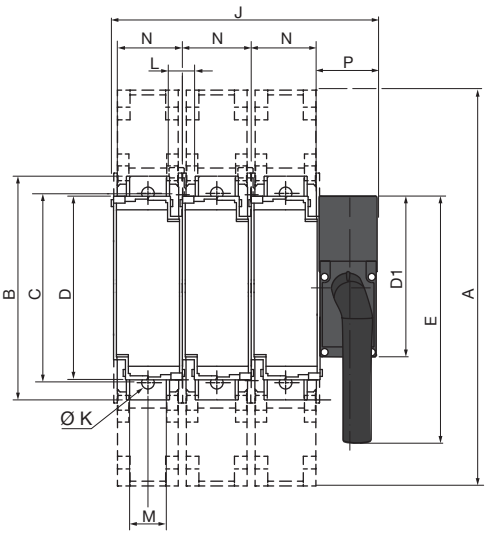
200 - 250 A





fuser_748_a_1_X_cat.ai



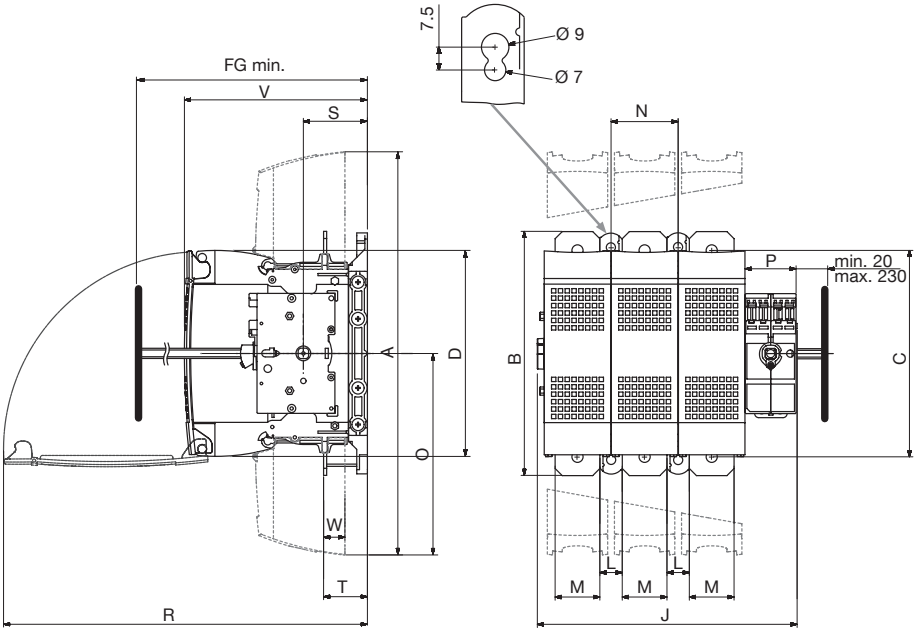


fuser_749_a_1_X_cat.ai

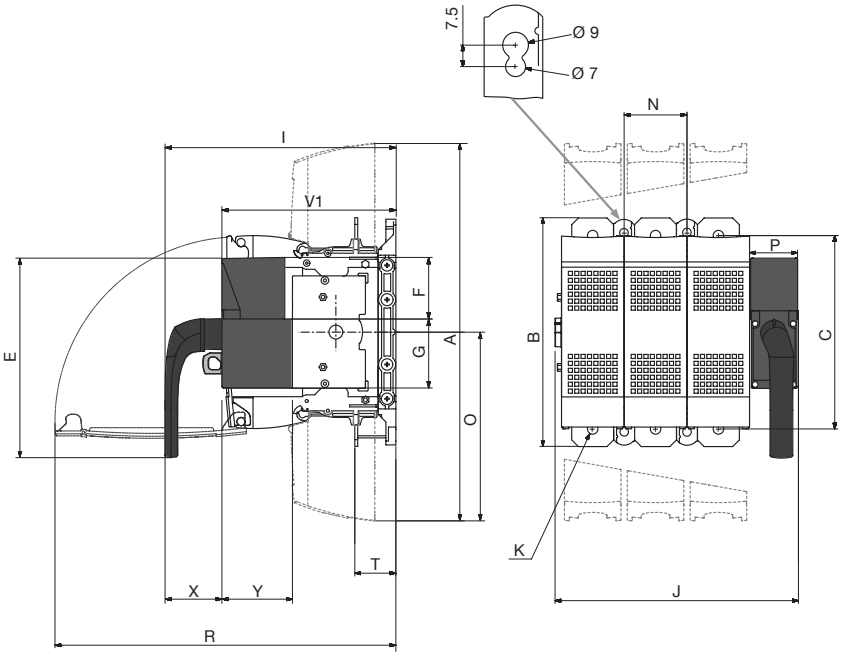
Rating (A)	NFC/ DIN fuse size	BS88 fuse size	Frame size	Fg min.	A	B	C	D	D1	E	F	G	H	I	J		K	L	M	N	O	P	Q	R	S	T	U	V	V1	W	X	Y
																4P																
200			15	154	345	195	166	162	143	220	67,5	75,5	110	212,1	234	294	8,5	28	32	60	185	51,6	52	251	31	19,5	65	146	142	2,5	58,5	77
250	NH1		15	154	345	195	166	162	143	220	67,5	75,5	110	212,1	234	294	8,5	28	32	60	185	51,6	52	251	31	19,5	65	146	142	2,5	58,5	77

Dimensions for direct front/right side operation (continued)

315 - 400 A



fuser_733_c_1_x_cat.ai

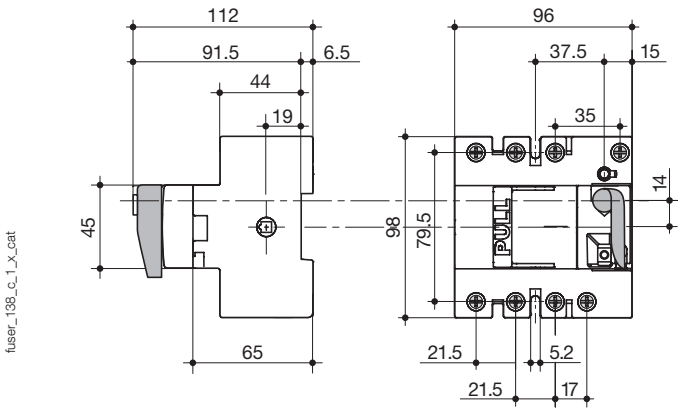


fuser_750_a_1_x_cat.ai

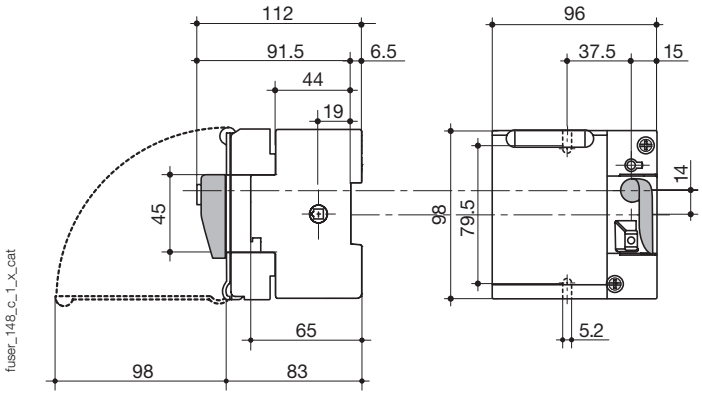
Rating (A)	NFC/DIN fuse size	BS88 fuse size	Frame size	Fg min.	A	B	C	D	D1	E	F	G	I	J		K	L	M	N	O	P	R	S	T	V	V1	W	X	Y
														3P	4P														
315	-	B1-B2-B3	16	188	397	240	203	203	143	220	67,5	75,5	239	256	321	11	34	32	66	199	50	360	63	43	180	184	3	58,5	77
400	NH2	B1-B2-B3-B4	16	188	397	240	203	203	143	220	67,5	75,5	239	256	321	11	34	32	66	199	50	360	63	43	180	184	3	58,5	77

Direct operation

NFC CD 25 to CD 32 A in frame size 0 / fuse size 10 x 38

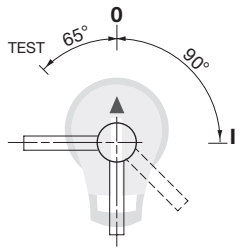
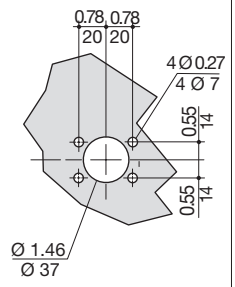
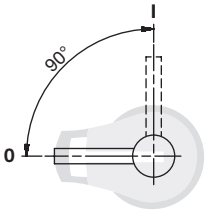
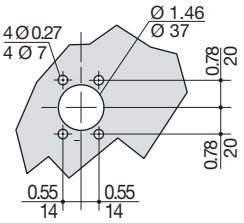


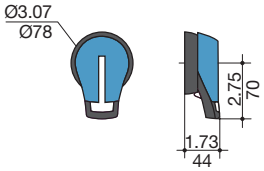
BS88 CD 20 to CD 32 A in frame size 0 / fuse size A1 - NFC CD 32 A in frame size 0 / fuse size 14 x 51



Dimensions for external operation handles

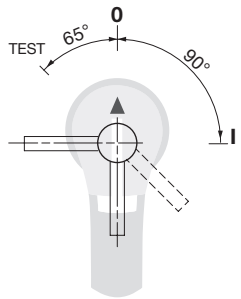
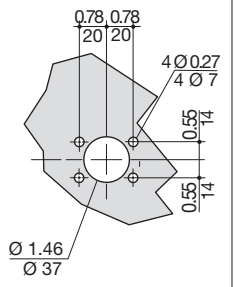
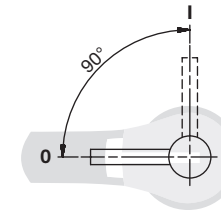
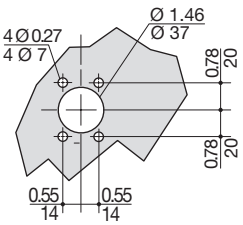
BS88 - 32 to 63 A - NFC and DIN - 25 to 63 A

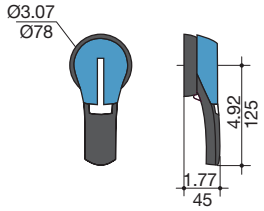
Handle type	Front operation		Right and left side operation	
	Direction of operation	Door drilling	Direction of operation	Door drilling
S1 type Box size 0				



fuser_712_a_1_gb_cat

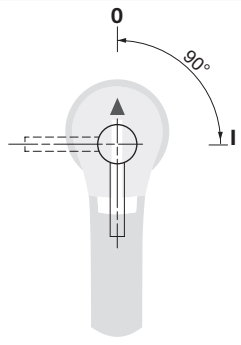
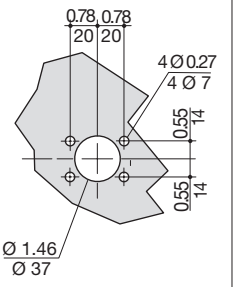
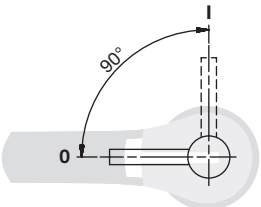
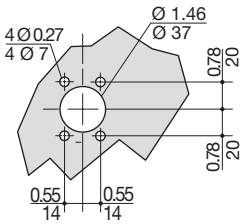
BS88 / NFC and DIN - 100 to 400 A

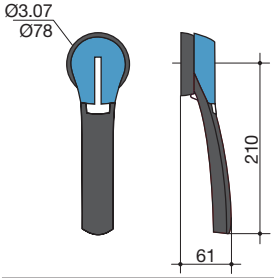
Handle type	Front operation		Right and left side operation	
	Direction of operation	Door drilling	Direction of operation	Door drilling
S2 type Box size 11-16				



fuser_713_a_1_gb_cat

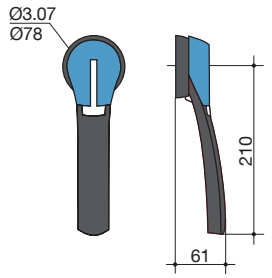
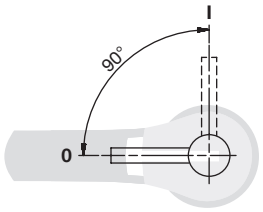
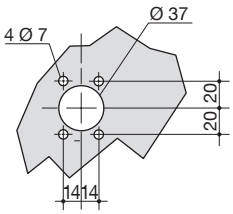
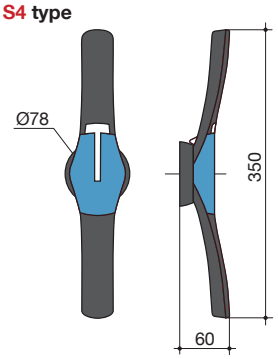
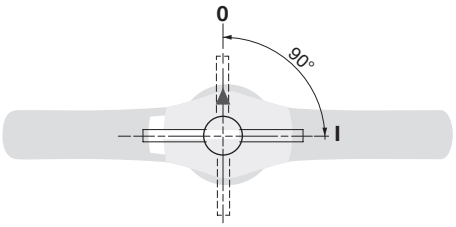
BS88 / NFC and DIN - 630 to 800 A

Handle type	Front operation		Right and left side operation	
	Direction of operation	Door drilling	Direction of operation	Door drilling
S3 type Box size 17				



fuser_714_a_1_gb_cat

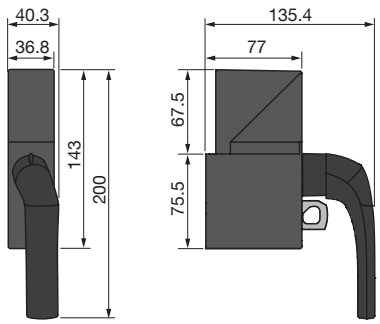
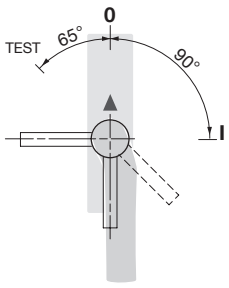
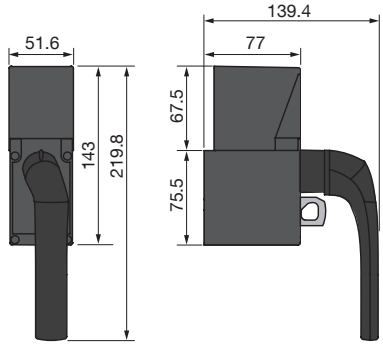
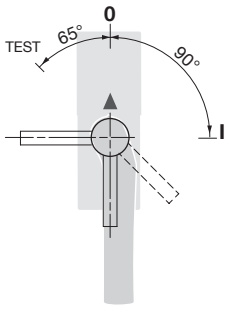
BS88 / NFC and DIN - 800 to 1250 A

Handle type	Front operation Direction of operation	Right and left side operation Direction of operation	Door drilling
S3 type Box size 18 			
S4 type 			

fuser_715_a_1_gb_cat

Dimensions for direct-control casings

32 to 400 A

Case handle type	Direct control Operating direction
50 to 160 A Case 11 to 14 	
250 to 400 A Case 15 to 16 	

<Sans lien d'intersection>