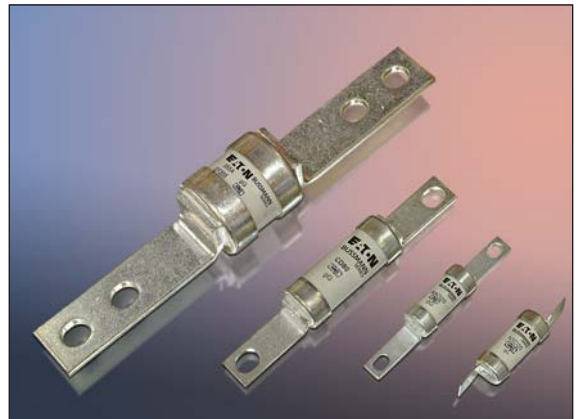


Eaton Bussmann Series

Industrial fuses - IEC standard



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Cylindrical fuses class gG

8x31 mm, 10x38 mm, 14x51 mm and 22x58 mm

Technical data



Material	Ceramic body, silver plated ferrules of copper
Rated voltage, Un	400-690 VAC, contact CHS Controls for DC applications
Operation class	gG
Rated breaking capacity	20-120 kA
Standard	IEC 60269-2
Certificate	CE, RoHS

Catalogue numbers - 8x31 mm cylindrical fuses

Rated current In, A	Rated voltage Un, VAC	Rated breaking capacity, kA	Power loss at In, W	Catalogue number Cylindrical fuse without indicator	Cylindrical fuse with visual indicator	Weight each, g	Packing size
0,5	400	20	1,2	CBC08G0-5		8	10
1	400	20	2	CBC08G1		8	10
2	400	20	0,5	CBC08G2	CBC08G2I	8	10
4	400	20	0,8	CBC08G4	CBC08G4I	8	10
6	400	20	1,1	CBC08G6	CBC08G6I	8	10
8	400	20	1,3	CBC08G8	CBC08G8I	8	10
10	400	20	1	CBC08G10	CBC08G10I	8	10
12	400	20	1,2	CBC08G12	CBC08G12I	8	10
16	400	20	1,5	CBC08G16	CBC08G16I	8	10
20	400	20	2	CBC08G20	CBC08G20I	8	10

Catalogue numbers - 10x38 mm cylindrical fuses

0,5	500	120	1,43	CBC10G0-5		10	10
1	500	120	2,77	CBC10G1	CBC10G1I	10	10
2	500	120	0,6	CBC10G2	CBC10G2I	10	10
4	500	120	0,7	CBC10G4	CBC10G4I	10	10
6	500	120	0,85	CBC10G6	CBC10G6I	10	10
8	500	120	0,75	CBC10G8	CBC10G8I	10	10
10	500	120	1	CBC10G10	CBC10G10I	10	10
12	500	120	1,3	CBC10G12	CBC10G12I	10	10
16	500	120	1,6	CBC10G16	CBC10G16I	10	10
20	500	120	2	CBC10G20	CBC10G20I	10	10
25	500	120	2,6	CBC10G25	CBC10G25I	10	10
32	400	120	2,9	CBC10G32	CBC10G32I	10	10

Catalogue numbers - 14x51 mm cylindrical fuses

Rated current In, A	Rated voltage Un, VAC	Rated breaking capacity, kA	Power loss at In, W	Catalogue number Cylindrical fuse without indicator	Cylindrical fuse with visual indicator	Cylindrical fuse with mechanical indicator	Weight each, g	Packing size
1	690	80	3,9	CBC14G1	CBC14G1I		18	10
2	690	80	0,9	CBC14G2	CBC14G2I	CBC14G2S ¹⁾	18	10
4	690	80	1	CBC14G4	CBC14G4I	CBC14G4S ¹⁾	18	10
6	690	80	1,15	CBC14G6	CBC14G6I	CBC14G6S ¹⁾	18	10
8	690	80	1	CBC14G8	CBC14G8I	CBC14G8S ¹⁾	18	10
10	690	80	1,3	CBC14G10	CBC14G10I	CBC14G10S ¹⁾	18	10
12	690	80	1,7	CBC14G12	CBC14G12I	CBC14G12S ¹⁾	18	10
16	690	80	2	CBC14G16	CBC14G16I	CBC14G16S ¹⁾	18	10
20	690	80	2,5	CBC14G20	CBC14G20I	CBC14G20S ¹⁾	18	10
25	690	80	3,3	CBC14G25	CBC14G25I	CBC14G25S ¹⁾	18	10
32	500	120	3,5	CBC14G32	CBC14G32I	CBC14G32S	18	10
40	500	120	4,75	CBC14G40	CBC14G40I	CBC14G40S	18	10
50	400	120	4,8	CBC14G50	CBC14G50I	CBC14G50S	18	10

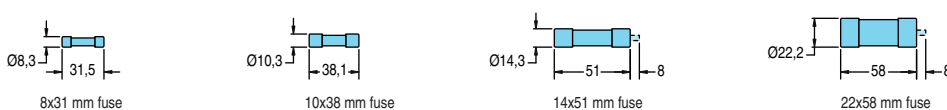
Catalogue numbers - 22x58 mm cylindrical fuses

2	690	80	1	CBC22G2	CBC22G2I		57	10
4	690	80	1,1	CBC22G4	CBC22G4I	CBC22G4S	57	10
6	690	80	1,3	CBC22G6	CBC22G6I	CBC22G6S	57	10
8	690	80	1,1	CBC22G8	CBC22G8I	CBC22G8S	57	10
10	690	80	1,5	CBC22G10	CBC22G10I	CBC22G10S	57	10
12	690	80	1,8	CBC22G12	CBC22G12I	CBC22G12S	57	10
16	690	80	2,1	CBC22G16	CBC22G16I	CBC22G16S	57	10
20	690	80	2,7	CBC22G20	CBC22G20I	CBC22G20S	57	10
25	690	80	3,3	CBC22G25	CBC22G25I	CBC22G25S	57	10
32	690	80	3,5	CBC22G32	CBC22G32I	CBC22G32S	57	10
40	690	80	4	CBC22G40	CBC22G40I	CBC22G40S	57	10
50	690	80	5,5	CBC22G50	CBC22G50I	CBC22G50S	57	10
63	690	80	6,9	CBC22G63	CBC22G63I	CBC22G63S	57	10
80	500	120	7,8	CBC22G80	CBC22G80I	CBC22G80S	57	10
100	500	120	9	CBC22G100	CBC22G100I	CBC22G100S	57	10
125	400	120	11,4	CBC22G125	CBC22G125I	CBC22G125S	57	10

Catalogue numbers - Neutral links

Size	Rated current In, A	Catalogue number Neutral link	Weight each, g	Packing size
8x31 mm	25	CB8NL	10	10
10x38 mm	32	CB10NL	12	10
14x51 mm	50	CB14NL	20	10
22x58 mm	125	CB22NL	60	10

Dimensions, mm



1) Rated voltage Un 500 VAC, rated breaking capacity 120 kA

Cylindrical fuses class aM

8x31 mm, 10x38 mm, 14x51 mm and 22x58 mm

Technical data



Material	Ceramic body, silver plated ferrules of copper
Rated voltage, Un	400-690 VAC
Operating class	aM
Rated breaking capacity	20-120 kA
Standard	IEC 60269-2
Certificate	CE, RoHS

Catalogue numbers - 8x31 mm cylindrical fuses

Rated current In, A	Rated voltage Un, VAC	Rated breaking capacity, kA	Power loss at In, W	Catalogue number Cylindrical fuse without indicator	Cylindrical fuse with visual indicator	Weight each, g	Packing size
1	400	20	0,1	CBC08M1		8	10
2	400	20	0,16	CBC08M2		8	10
4	400	20	0,25	CBC08M4		8	10
6	400	20	0,35	CBC08M6		8	10
8	400	20	0,4	CBC08M8		8	10
10	400	20	0,65	CBC08M10		8	10

Catalogue numbers - 10x38 mm cylindrical fuses

0,25	500	120	0,35	CBC10M0-25		10	10
0,5	500	120	0,49	CBC10M0-5		10	10
1	500	120	0,1	CBC10M1	CBC10M1I	10	10
2	500	120	0,18	CBC10M2	CBC10M2I	10	10
4	500	120	0,31	CBC10M4	CBC10M4I	10	10
6	500	120	0,32	CBC10M6	CBC10M6I	10	10
8	500	120	0,52	CBC10M8	CBC10M8I	10	10
10	500	120	0,55	CBC10M10	CBC10M10I	10	10
12	500	120	0,63	CBC10M12	CBC10M12I	10	10
16	500	120	0,92	CBC10M16	CBC10M16I	10	10
20	400	120	0,96	CBC10M20	CBC10M20I	10	10
25	400	120	1,4	CBC10M25	CBC10M25I	10	10

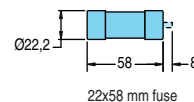
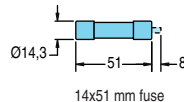
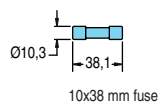
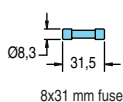
Catalogue numbers - 14x51 mm cylindrical fuses

Rated current In, A	Rated voltage Un, VAC	Rated breaking capacity, kA	Power loss at In, W	Catalogue number Cylindrical fuse without indicator	Cylindrical fuse with visual indicator	Cylindrical fuse with mechanical indicator	Weight each, g	Packing size
0,25	690	120	0,41	CBC14M0-25			18	10
0,5	690	120	0,69	CBC14M0-5			18	10
1	690	80	0,14	CBC14M1	CBC14M1I		18	10
2	690	80	0,24	CBC14M2	CBC14M2I	CBC14M2S ¹⁾	18	10
4	690	80	0,45	CBC14M4	CBC14M4I	CBC14M4S ¹⁾	18	10
6	690	80	0,42	CBC14M6	CBC14M6I	CBC14M6S ¹⁾	18	10
8	690	80	0,7	CBC14M8	CBC14M8I	CBC14M8S ¹⁾	18	10
10	690	80	0,53	CBC14M10	CBC14M10I	CBC14M10S ¹⁾	18	10
12	690	80	0,88	CBC14M12	CBC14M12I	CBC14M12S ¹⁾	18	10
16	690	80	1,16	CBC14M16	CBC14M16I	CBC14M16S ¹⁾	18	10
20	690	80	1,23	CBC14M20	CBC14M20I	CBC14M20S ¹⁾	18	10
25	690	80	1,46	CBC14M25	CBC14M25I	CBC14M25S ¹⁾	18	10
32	500	120	2,04	CBC14M32	CBC14M32I	CBC14M32S	18	10
40	500	120	2,6	CBC14M40	CBC14M40I	CBC14M40S	18	10
50	400	120	2,9	CBC14M50	CBC14M50I	CBC14M50S	18	10

Catalogue numbers - 14x51 mm cylindrical fuses

2	690	80	0,29	CBC22M2	CBC22M2I		57	10
4	690	80	0,48	CBC22M4	CBC22M4I		57	10
6	690	80	0,47	CBC22M6	CBC22M6I		57	10
8	690	80	0,73	CBC22M8	CBC22M8I		57	10
10	690	80	0,74	CBC22M10	CBC22M10I		57	10
12	690	80	0,83	CBC22M12	CBC22M12I	CBC22M12S	57	10
16	690	80	1,21	CBC22M16	CBC22M16I	CBC22M16S	57	10
20	690	80	1,29	CBC22M20	CBC22M20I	CBC22M20S	57	10
25	690	80	1,53	CBC22M25	CBC22M25I	CBC22M25S	57	10
32	690	80	2,13	CBC22M32	CBC22M32I	CBC22M32S	57	10
40	690	80	3,4	CBC22M40	CBC22M40I	CBC22M40S	57	10
50	690	80	3,48	CBC22M50	CBC22M50I	CBC22M50S	57	10
63	690	80	4,46	CBC22M63	CBC22M63I	CBC22M63S	57	10
80	500	120	5,86	CBC22M80	CBC22M80I	CBC22M80S	57	10
100	500	120	6,61	CBC22M100	CBC22M100I	CBC22M100S	57	10
125	400	120	8,42	CBC22M125	CBC22M125I	CBC22M125S	57	10

Dimensions, mm



1) Rated voltage Un 500 VAC, rated breaking capacity 120 kA

NH fuses class gG

440-690 VAC

Technical data



Material	Fuse body of steatite, silver plated brass contact blade
Rated voltage, Un	440-690 VAC 45-62 Hz, 220-345 VDC - L/R ≤10ms
Operating class	gG
Rated breaking capacity	120 kA
Indicator	Visual indicator on the fuse body and mechanical indicator on the cover plate Size 4 have only mechanical indicator
Standard	IEC 60269-2, DIN 43620, VDE 0636
Certificate, approvals	CE, RoHS, VDE, CCC contact CHS Controls

Catalogue numbers - NH fuses 440-500 V size 000-0

Size	Rated current In, A	Rated voltage Un, VAC	Power loss at In, W	Catalogue number - NH fuse with		Weight each, g	Packing size
				Metal gripping lugs	Insulated gripping lugs		
000	2	500	3,9	CB2NHG000B	CB2NHG000BI	130	3
000	4	500	1,8	CB4NHG000B	CB4NHG000BI	130	3
000	6	500	2	CB6NHG000B	CB6NHG000BI	130	3
000	10	500	1,5	CB10NHG000B	CB10NHG000BI	130	3
000	16	500	2,3	CB16NHG000B	CB16NHG000BI	130	3
000	20	500	2,2	CB20NHG000B	CB20NHG000BI	130	3
000	25	500	3,1	CB25NHG000B	CB25NHG000BI	130	3
000	32	500	3,4	CB32NHG000B	CB32NHG000BI	130	3
000	35	500	3,7	CB35NHG000B	CB35NHG000BI	130	3
000	40	500	4	CB40NHG000B	CB40NHG000BI	130	3
000	50	500	4,9	CB50NHG000B	CB50NHG000BI	130	3
000	63	500	4,6	CB63NHG000B	CB63NHG000BI	130	3
000	80	500	6,3	CB80NHG000B	CB80NHG000BI	130	3
000	100	500	7,4	CB100NHG000B	CB100NHG000BI	130	3
00	50	500	5	CB50NHG00B		190	3
00	63	500	5	CB63NHG00B		190	3
00	80	500	7	CB80NHG00B		190	3
00	100	500	7,5	CB100NHG00B		190	3
00	125	500	10	CB125NHG00B	CB125NHG00BI	190	3
00	160	500	10	CB160NHG00B	CB160NHG00BI	190	3
0	6	500	2	CB6NHG0B		260	3
0	10	500	2	CB10NHG0B		260	3
0	16	500	3	CB16NHG0B		260	3
0	20	500	3,5	CB20NHG0B		260	3
0	25	500	3,2	CB25NHG0B		260	3
0	32	500	4,8	CB32NHG0B		260	3
0	35	500	4,7	CB35NHG0B		260	3
0	40	500	5	CB40NHG0B		260	3
0	50	500	6,3	CB50NHG0B		260	3
0	63	500	5,6	CB63NHG0B		260	3
0	80	500	7,1	CB80NHG0B		260	3
0	100	500	7,5	CB100NHG0B		260	3
0	125	500	11,8	CB125NHG0B		260	3
0	160	500	12,3	CB160NHG0B		260	3

Catalogue numbers - NH fuses 440-500 V size 01-2

Size	Rated current In, A	Rated voltage Un, VAC	Power loss at In, W	Catalogue number - NH fuse with		Weight each, g	Packing size
				Metal gripping lugs	Insulated gripping lugs		
01	6	500	2	CB6NHG01B	CB6NHG01BI		
01	10	500	2	CB10NHG01B	CB10NHG01BI	270	3
01	16	500	3	CB16NHG01B	CB16NHG01BI	270	3
01	20	500	3,4	CB20NHG01B	CB20NHG01BI	270	3
01	25	500	5	CB25NHG01B	CB25NHG01BI	270	3
01	32	500	4,8	CB32NHG01B	CB32NHG01BI	270	3
01	35	500	4,6	CB35NHG01B	CB35NHG01BI	270	3
01	40	500	5	CB40NHG01B	CB40NHG01BI	270	3
01	50	500	6,3	CB50NHG01B	CB50NHG01BI	270	3
01	63	500	5,6	CB63NHG01B	CB63NHG01BI	270	3
01	80	500	7,1	CB80NHG01B	CB80NHG01BI	270	3
01	100	500	7,7	CB100NHG01B	CB100NHG01BI	270	3
01	125	500	11,8	CB125NHG01B	CB125NHG01BI	270	3
01	160	500	12,3	CB160NHG01B	CB160NHG01BI	270	3
1	50	500	6,4	CB50NHG1B	CB50NHG1BI	390	3
1	63	500	5,6	CB63NHG1B	CB63NHG1BI	390	3
1	80	500	7,7	CB80NHG1B	CB80NHG1BI	390	3
1	100	500	8,2	CB100NHG1B	CB100NHG1BI	390	3
1	125	500	13	CB125NHG1B	CB125NHG1BI	390	3
1	160	500	12,3	CB160NHG1B	CB160NHG1BI	390	3
1	200	500	15	CB200NHG1B	CB200NHG1BI	390	3
1	224	500	18	CB224NHG1B	CB224NHG1BI	390	3
1	250	500	19	CB250NHG1B	CB250NHG1BI	390	3
1	315	440	22	CB315NHG1B	CB315NHG1BI	390	3
1	355	440	32	CB355NHG1B	CB355NHG1BI	390	3
02	35	500	4,7	CB35NHG02B	CB35NHG02BI	402	3
02	40	500	5	CB40NHG02B	CB40NHG02BI	402	3
02	50	500	6,4	CB50NHG02B	CB50NHG02BI	402	3
02	63	500	5,5	CB63NHG02B	CB63NHG02BI	402	3
02	80	500	7,3	CB80NHG02B	CB80NHG02BI	402	3
02	100	500	7,5	CB100NHG02B	CB100NHG02BI	402	3
02	125	500	12	CB125NHG02B	CB125NHG02BI	402	3
02	160	500	12	CB160NHG02B	CB160NHG02BI	402	3
02	200	500	15	CB200NHG02B	CB200NHG02BI	402	3
02	224	500	18	CB224NHG02B	CB224NHG02BI	402	3
02	250	500	19	CB250NHG02B	CB250NHG02BI	402	3
2	250	500	23	CB250NHG2B	CB250NHG2BI	630	3
2	300	500	20	CB300NHG2B	CB300NHG2BI	630	3
2	315	500	21	CB315NHG2B	CB315NHG2BI	630	3
2	355	500	27	CB355NHG2B	CB355NHG2BI	630	3
2	400	500	30	CB400NHG2B	CB400NHG2BI	630	3
2	425	500	31	CB425NHG2B	CB425NHG2BI	630	3
2	450	500	31	CB450NHG2B	CB450NHG2BI	630	3
2	500	440	37	CB500NHG2B	CB500NHG2BI	630	3

NH fuses class gG

440-690 VAC

Catalogue numbers - NH fuses 440-500 V size 03-4

Size	Rated current In, A	Rated voltage Un, VAC	Power loss at In, W	Catalogue number - NH fuse with		Weight each, g	Packing size
				Metal gripping lugs	Insulated gripping lugs		
03	250	500	20	CB250NHG03B	CB250NHG03BI	640	3
03	315	500	21	CB315NHG03B	CB315NHG03BI	640	3
03	355	500	27	CB355NHG03B	CB355NHG03BI	640	3
03	400	500	30	CB400NHG03B	CB400NHG03BI	640	3
3	315	500	22	CB315NHG3B		1050	3
3	355	500	25	CB355NHG3B		1050	3
3	400	500	30	CB400NHG3B		1050	3
3	425	500	30	CB425NHG3B		1050	3
3	450	500	33	CB450NHG3B		1050	3
3	500	500	37	CB500NHG3B		1050	3
3	630	500	47	CB630NHG3B		1050	3
3	800	440	59	CB800NHG3B		1050	3
4	500	500	37	CB500NHG4G		2200	1
4	630	500	47	CB630NHG4G		2200	1
4	800	500	68	CB800NHG4G		2200	1
4	1000	500	80	CB1000NHG4G		2200	1
4	1250	500	108	CB1250NHG4G		2200	1

Catalogue numbers - NH fuses 660-690 V size 000-1

000	2	690	4	CB2NHG000B-690		118	3
000	4	690	2	CB4NHG000B-690		118	3
000	6	690	2	CB6NHG000B-690		118	3
000	10	690	1,5	CB10NHG000B-690		118	3
000	16	690	2,5	CB16NHG000B-690		118	3
000	20	690	2,5	CB20NHG000B-690		118	3
000	25	690	3,5	CB25NHG000B-690		118	3
000	32	690	3,5	CB32NHG000B-690		118	3
000	35	690	4	CB35NHG000B-690		118	3
000	40	690	4	CB40NHG000B-690		118	3
000	50	690	5,5	CB50NHG000B-690		118	3
000	63	690	5,5	CB63NHG000B-690		118	3
00	50	690	5	CB50NHG00B-690		182	3
00	63	690	5	CB63NHG00B-690		182	3
00	80	690	7	CB80NHG00B-690		182	3
00	100	690	7,5	CB100NHG00B-690		182	3
00	125	690	9,5	CB125NHG00B-690		182	3
00	160	660	13	CB125NHG00B-660		182	3
1	50	690	6,4	CB50NHG1B-690		380	3
1	63	690	5,6	CB63NHG1B-690		380	3
1	80	690	7,7	CB80NHG1B-690		380	3
1	100	690	8,2	CB100NHG1B-690		380	3
1	125	690	13	CB125NHG1B-690		380	3
1	160	690	13	CB160NHG1B-690		380	3
1	200	690	17	CB200NHG1B-690		380	3
1	224	690	19	CB224NHG1B-690		380	3
1	250	690	22	CB250NHG1B-690		380	3

Catalogue numbers - NH fuses 440-500 V size 2-4

Size	Rated current In, A	Rated voltage Un, VAC	Power loss at In, W	Catalogue number - NH fuse with		Weight each, g	Packing size
				Metal gripping lugs	Insulated gripping lugs		
2	200	690	18	CB200NHG2B-690		620	3
2	224	690	20	CB224NHG2B-690		620	3
2	250	690	23	CB250NHG2B-690		620	3
2	315	690	32	CB315NHG2B-690		620	3
3	250	690	21	CB250NHG3B-690		1050	3
3	315	690	22	CB315NHG3B-690		1050	3
3	355	690	25	CB355NHG3B-690		1050	3
3	400	690	37	CB400NHG3B-690		1050	3
3	425	690	35	CB425NHG3B-690		1050	3
3	500	690	43	CB500NHG3B-690		1050	3
4	630	690	44	CB630NHG4B-690		2500	1
4	800	690	61	CB800NHG4B-690		2500	1

NH fuses

Solid links

Technical data



Material
Rated voltage, Un
Standard
Certificate

Silver plated brass contact blade
690 V
DIN 43620
CE, RoHS

Catalogue numbers - Solid links

Size	Rated current In, A	Catalogue number		Weight each, g	Packing size
		Metal gripping lugs	Insulated gripping lugs		
00	160	CBSDL-00		100	3
1	250	CBSDL-1		250	3
2	400	CBSDL-2		250	3
3	630	CBSDL-3		250	3

NH fuses class aM

500-690 VAC

Technical data



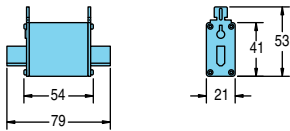
Material	Fuse body of steatite, silver plated brass contact blade
Rated voltage, Un	500-690 VAC 45-62 Hz,
Operating class	aM
Rated breaking capacity	120 kA
Indicator	Visual indicator on the fuse body and mechanical indicator on the cover plate Size 2, 315-355 A, have only mechanical indicator
Standard	IEC 60269-2, DIN 43620, VDE 0636
Certificate, approvals	CE, RoHS, VDE, CCC contact CHS Controls

Catalogue numbers - NH fuses 500-690 V size 000-0

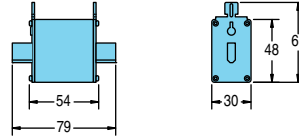
Size	Rated current In, A	Power loss at In, W	Catalogue number NH fuse with metal gripping lugs		Weight each, g	Packing size
			500 VAC	690 VAC		
000	6	0,3	CB6NHM000B	CB6NHM000B-690	118	3
000	10	0,5	CB10NHM000B	CB10NHM000B-690	118	3
000	16	0,8	CB16NHM000B	CB16NHM000B-690	118	3
000	20	0,9	CB20NHM000B	CB20NHM000B-690	118	3
000	25	1,1	CB25NHM000B	CB25NHM000B-690	118	3
000	32	2,1	CB32NHM000B	CB32NHM000B-690	118	3
000	35	2,1	CB35NHM000B	CB35NHM000B-690	118	3
000	40	2,3	CB40NHM000B	CB40NHM000B-690	118	3
000	50	2,7	CB50NHM000B	CB50NHM000B-690	118	3
00	63	3,1	CB63NHM00B	CB63NHM00B-690	186	3
00	80	4,3	CB80NHM00B	CB80NHM00B-690	186	3
00	100	5,5	CB100NHM00B	CB100NHM00B-690	186	3
1	50	3	CB50NHM1B	CB50NHM1B-690	380	3
1	63	4,4	CB63NHM1B	CB63NHM1B-690	380	3
1	80	5,6	CB80NHM1B	CB80NHM1B-690	380	3
1	100	6,7	CB100NHM1B	CB100NHM1B-690	380	3
1	125	8,8	CB125NHM1B	CB125NHM1B-690	380	3
1	160	10,5	CB160NHM1B	CB160NHM1B-690	380	3
2	125	9,7	CB125NHM2B	CB125NHM2B-690	615	3
2	160	11	CB160NHM2B	CB160NHM2B-690	615	3
2	200	14	CB200NHM2B	CB200NHM2B-690	615	3
2	224	15	CB224NHM2B	CB224NHM2B-690	615	3
2	250	17	CB250NHM2B	CB250NHM2B-690	615	3
2	315	23	CB315NHM2B	CB315NHM2B-690	615	3
2	355	28	CB355NHM2B	CB355NHM2B-690	615	3
3	315	20	CB315NHM3B	CB315NHM3B-690	1050	3
3	355	27	CB355NHM3B	CB355NHM3B-690	1050	3
3	400	28	CB400NHM3B	CB400NHM3B-690	1050	3
3	500	36	CB500NHM3B	CB500NHM3B-690	1050	3

NH fuses class gG and aM

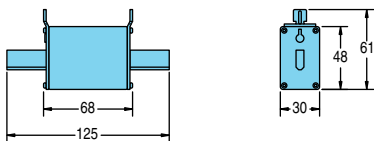
Dimensions, mm



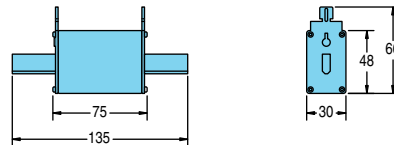
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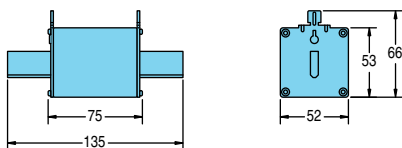
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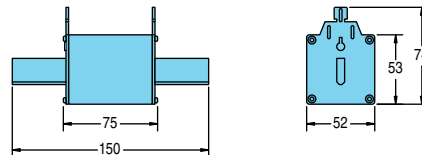
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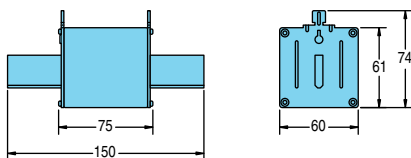
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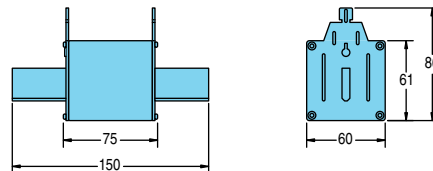
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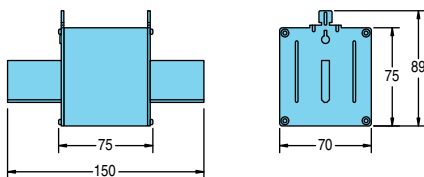
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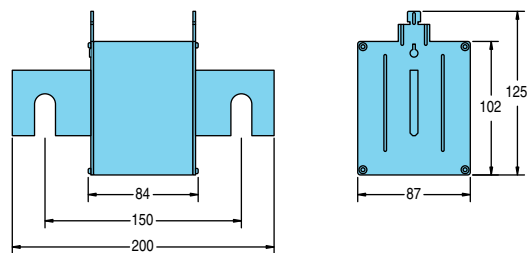
Size 2



Size 03



Size 3



Size 4

NH fuses

Micro switches

Technical data

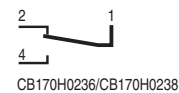
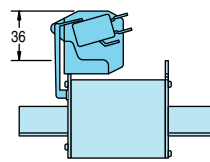
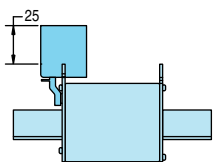


Rated voltage, Un	250 VAC
Rated current In	2/6 A
Ingress prot. IEC 60529	IP 00
Terminals	Quick connector
Certificate	CE

Catalogue numbers - Micro switches with change-over contact

Description	Rated voltage Un, VAC	Rated current In, A	Terminals Quick connector size	Catalogue number	Weight each, g	Packing size
Micro switch, all fuse sizes	250	6	2,8	CBBVL50	45	1
Micro switch, only size 000, 00, 1, 2 and 3 ¹⁾	250	2	6,3	CB170H0236	45	1
Micro switch, only size 000, 00, 1, 2 and 3 ¹⁾	250	2	2,8	CB170H0238	45	1

Dimensions, mm



1) Micro switch type CB170M0236 and CB170M0238 cannot be installed on fuses installed in fuse holders with IP 20 protection covers

Neozed- and Diazedsäkringar

400/500 V class gG

Technical data



Material	Ceramic fuse body, silver plated en contacts
Rated voltage, Un	400/500 VAC
Operating class	gG
Rated breaking capacity	50 kA
Standard	IEC 60269-3, DIN 49515
Certificate	CE

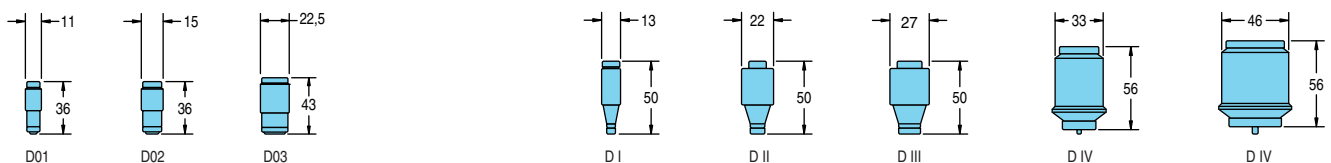
Catalogue numbers - Neozed fuses

Size	Rated current In, A	Rated voltage Un, VAC	Colour code	Catalogue number	Weight each, g	Packing size
D01	2	400	Pink	CB2NZ01	6	10
D01	4	400	Brown	CB4NZ01	6	10
D01	6	400	Green	CB6NZ01	6	10
D01	10	400	Red	CB10NZ01	6	10
D01	16	400	Grey	CB16NZ01	6	10
D02	20	400	Blue	CB20NZ02	15	10
D02	25	400	Yellow	CB25NZ02	15	10
D02	35	400	Black	CB35NZ02	15	10
D02	50	400	White	CB50NZ02	15	10
D02	63	400	Copper	CB63NZ02	15	10
D03	80	400	Silver	CB80NZ03	35	10
D03	100	400	Red	CB100NZ03	35	10

Catalogue numbers - Diazed fuse

D I	2	500	Pink	CB2D16	16	20
D I	4	500	Brown	CB4D16	16	20
D I	6	500	Green	CB6D16	16	20
D I	10	500	Red	CB10D16	16	20
D I	16	500	Grey	CB16D16	16	20
D I	20	500	Blue	CB20D16	16	20
D I	25	500	Yellow	CB25D16	16	20
D II	2	500	Pink	CB2D27	30	25
D II	4	500	Brown	CB4D27	30	25
D II	6	500	Green	CB6D27	30	25
D II	10	500	Red	CB10D27	30	25
D II	16	500	Grey	CB16D27	30	25
D II	20	500	Blue	CB20D27	30	25
D II	25	500	Yellow	CB25D27	30	25
D III	32	500	Black	CB32D33	52	25
D III	35	500	Black	CB35D33	52	25
D III	40	500	Black	CB40D33	52	25
D III	50	500	White	CB50D33	52	25
D III	63	500	Copper	CB63D33	52	25
D IV	80	500	Silver	CB80D125	109	10
D IV	100	500	Red	CB100D125	109	10
D V	125	500	Yellow	CB125D200	215	10
D V	160	500	Copper	CB160D200	215	10
D V	200	500	Blue	CB200D200	215	10

Dimensions, mm



BS 88 fuses

Offset bolted tags

Technical data



Material	Ceramic body
Rated voltage, Un	415/550 VAC
Operating class	gG, gM
Rated breaking capacity	80 kA
Standard	IEC 60269-1, BS 88-1&2
Certificate	CE, RoHS

Catalogue numbers - NITD fuses, slotted L contact blade

Rated current In, A	Rated voltage Un, VAC	Operating class	Power loss at In, W	BS 88 reference	Fixing centre, mm	Catalogue number	Weight each, g	Packing size
2	550	gG	0,9	A1	44	CBNITD2	15	20
4	550	gG	1,4	A1	44	CBNITD4	15	20
6	550	gG	1,8	A1	44	CBNITD6	15	20
10	550	gG	2,1	A1	44	CBNITD10	15	20
16	550	gG	1,8	A1	44	CBNITD16	15	20
20	550	gG	1,8	A1	44	CBNITD20	15	20
25	550	gG	2	A1	44	CBNITD25	15	20
32	550	gG	2,9	A1	44	CBNITD32	15	20
20M25	415	gM	1,6	A1	44	CBNITD20M25	15	20
20M32	415	gM	1,1	A1	44	CBNITD20M32	15	20
32M40	415	gM	1,9	A1	44	CBNITD32M40	15	20
32M50	415	gM	1,4	A1	44	CBNITD32M50	15	20
32M63	415	gM	1	A1	44	CBNITD32M63	15	20

Catalogue numbers - AAO fuses, L contact blade with 2 holes

2	550	gG	0,9	A2	73	CBAAO2	20	20
4	550	gG	1,4	A2	73	CBAAO4	20	20
6	550	gG	1,8	A2	73	CBAAO6	20	20
10	550	gG	2,1	A2	73	CBAAO10	20	20
16	550	gG	1,8	A2	73	CBAAO16	20	20
20	550	gG	1,8	A2	73	CBAAO20	20	20
25	550	gG	2,1	A2	73	CBAAO25	20	20
32	550	gG	3,1	A2	73	CBAAO32	20	20
32M40	500	gM	3	A2	73	CBAAO32M40	20	20
32M50	500	gM	2	A2	73	CBAAO32M50	20	20
32M63	500	gM	1,4	A2	73	CBAAO32M63	20	20

Catalogue numbers - BAO fuses, L contact blade with 2 holes

40	500	gG	4,7	A3	73	CBBAO40	55	20
50	500	gG	4,9	A3	73	CBBAO50	55	20
63	500	gG	5,6	A3	73	CBBAO63	55	20
63M80	500	gM	4,4	A3	73	CBBAO63M80	55	20
63M100	500	gM	3,4	A3	73	CBBAO63M100	55	20

Catalogue numbers - CEO fuses, L contact blade with 2 holes

Rated current In, A	Rated voltage Un, VAC	Operating class	Power loss at In, W	BS 88 reference	Fixing centre, mm	Catalogue number	Weight each, g	Packing size
32	500	gG	3,5	A4	94	CBCEO32	75	10
40	500	gG	4,7	A4	94	CBCEO40	75	10
50	500	gG	4,9	A4	94	CBCEO50	75	10
63	500	gG	5,6	A4	94	CBCEO63	75	10
80	500	gG	7,2	A4	94	CBCEO80	75	10
100	500	gG	8,5	A4	94	CBCEO100	75	10
100M125	415	gM	6,5	A4	94	CBCEO100M125	100	10
100M160	415	gM	5	A4	94	CBCEO100M160	100	10
100M200	415	gM	3,5	A4	94	CBCEO100M200	195	10

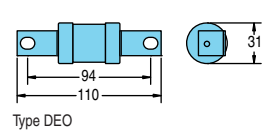
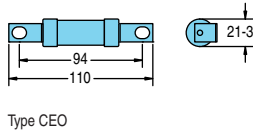
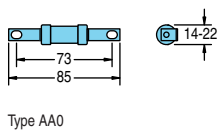
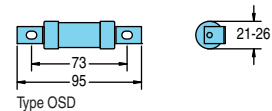
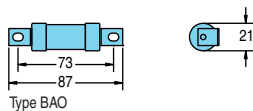
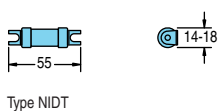
Catalogue numbers - OSD fuses, L contact blade with 2 holes

80	500	gG	7,2		73	CBOSD80	55	20
100	500	gG	8,5		73	CBOSD100	55	20
100M125	415	gM	6,5		73	CBOSD100M125	80	20
100M160	415	gM	5		73	CBOSD100M160	80	20

Catalogue numbers - DEO fuses, L contact blade with 2 holes

125	415	gG	11		94	CBDEO125	138	5
160	415	gG	13		94	CBDEO160	138	5
200	415	gG	14		94	CBDEO200	138	5
200M315	415	gM	9		94	CBDEO200M315	145	5

Dimensions, mm



BS 88 fuses

Centre bolted tags

Technical data



Material	Ceramic body
Rated voltage, Un	415/550 VAC, 250/400 VDC, some types
Operating class	gG, gM
Rated breaking capacity	80 kA at 415/550 VAC, 40 kA at 250/400 VDC
Standard	IEC 60269-1, BS 88-1&2
Certificate	CE, RoHS

Catalogue numbers - AC and BC fuses, contact blade with 2 holes

Rated current In, A	Rated voltage Un, VAC	Operating class	Power loss at In, W	BS 88 reference	Fixing centre, mm	Catalogue number	Weight each, g	Packing size
2	550	250	gG	1,2	97	CBAC2	55	20
4	550	250	gG	1,4	97	CBAC4	55	20
6	550	250	gG	1,8	97	CBAC6	55	20
10	550	250	gG	2,4	97	CBAC10	55	20
16	550	250	gG	2,9	97	CBAC16	55	20
20	550	250	gG	3,1	97	CBAC20	55	20
25	500	250	gG	3,2	97	CBAC25	55	20
32	500	250	gG	3,5	97	CBAC32	55	20
40	500	250	gG	4,7	97	CBBC40	55	20
50	500	250	gG	4,9	97	CBBC50	55	20
63	500	250	gG	5,6	97	CBBC63	55	20
63M80	500	250	gM	4,4	97	CBBC63M80	55	20
63M100	500	250	gM	3,4	97	CBBC63M100	55	20

Catalogue numbers - AD, BD and CD fuses, contact blade with 2 holes

2	550	250	gG	1,2		CBAD2	60	20
4	550	250	gG	1,4		CBAD4	60	20
6	550	250	gG	1,8		CBAD6	60	20
10	550	250	gG	2,4		CBAD10	60	20
16	550	250	gG	2,9		CBAD16	60	20
20	550	250	gG	3,1		CBAD20	60	20
25	500	250	gG	3,2		CBAD25	60	20
32	500	250	gG	3,5		CBAD32	60	20
40	500	250	gG	4,7		CBBD40	60	20
50	500	250	gG	4,9		CBBD50	60	20
63	500	250	gG	5,6		CBBD63	60	20
80	500		gG	7,2	B1	CBBD80	75	10
100	500		gG	8,5	B1	CBBD100	75	10
100M125	415		gM	11	B1	CBBD100M125	105	10
100M160	415		gM	13	B1	CBBD100M160	105	10
100M200	415		gM	14	B1	CBBD100M200	105	10

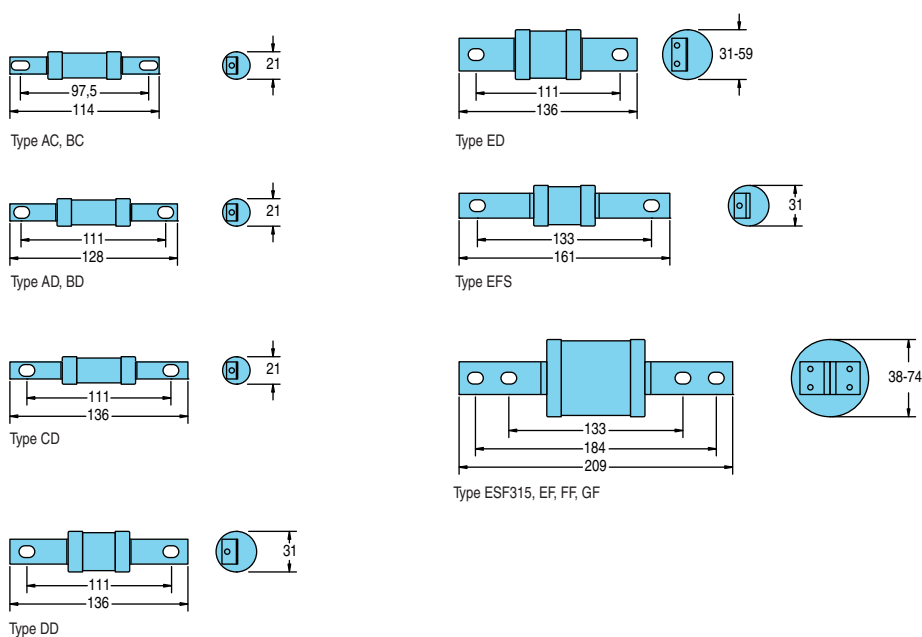
Catalogue numbers - DD and ED fuses, contact blade with 2 holes

Rated current In, A	Rated voltage Un, VAC	Operating class	Power loss at In, W	BS 88 reference	Fixing centre, mm	Catalogue number	Weight each, g	Packing size
125	415	gG	11	B2	111	CBDD125	145	5
160	415	gG	13	B2	111	CBDD160	145	5
200	415	gG	14	B2	111	CBDD200	145	5
200M250	415	gM	11	B2	111	CBDD200M250	145	5
200M315	415	gM	9	B2	111	CBDD200M315	145	5
250	415	gG	18	B3/B4	111	CBED250	300	1
315	415	gG	22	B3/B4	111	CBED315	300	1
315M400	415	gM	15	B3/B4	111	CBED315M400	300	1
355	415	gG	24	B3/B4	111	CBED355	300	1
400	415	gG	29	B3/B4	111	CBED400	300	1
400M500	415	gM	24	B3/B4	111	CBED400M500	590	1

Catalogue numbers - ESF, EF, FF and GF fuses, contact blade with 2/4 holes

125	415		gG	11		133	CBEFS125	180	1
160	415		gG	13		133	CBEFS160	180	1
200	415		gG	14		133	CBEFS200	180	1
250	415		gG	18		133	CBEFS250	180	1
315	415		gG	22		133	CBEFS315	180	1
355	415		gG	24	C1	133/184	CBEF355	380	1
400	415		gG	29	C1	133/184	CBEF400	380	1
400M500	550		gM	27	C1	133/184	CBEF400M500	380	1
450	550	400	gG	32	C2	133/184	CBFF450	1055	1
500	550	400	gG	38	C2	133/184	CBFF500	1055	1
560	550	400	gG	43	C2	133/184	CBFF560	1055	1
630	550	400	gG	50	C2	133/184	CBFF630	1055	1
710	550	250	gG	53	C3	133/184	CBGF710	2600	1
800	550	250	gG	64	C3	133/184	CBGF800	2600	1

Dimensions, mm



BS 88 fuses

Offset blade tags

Technical data



Material	Ceramic body
Rated voltage, Un	240/415/550 VAC
Operating class	gG, gM
Rated breaking capacity	SSD 33 kA, NSD/ESD 80 kA
Standard	IEC 60269-1, BS 88-6
Certificate	CE, RoHS

Catalogue numbers - SSD fuses, solid offset blade

Rated current In, A	Rated voltage Un, VAC	Operating class	Power loss at In, W	BS 88 reference	Catalogue number	Weight each, g	Packing size
2	240	gG	0,5	E1	CBSSD2	10	20
4	240	gG	1	E1	CBSSD4	10	20
6	240	gG	1,6	E1	CBSSD6	10	20
10	240	gG	1,2	E1	CBSSD10	10	20
16	240	gG	1,5	E1	CBSSD16	10	20
20	240	gG	1,7	E1	CBSSD20	10	20
25	240	gG	1,8	E1	CBSSD25	10	20
32	240	gG	2,4	E1	CBSSD32	10	20

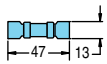
Catalogue numbers - NSD fuses, solid offset blade

2	550	gG	0,9	F1	CBNSD2	15	20
4	550	gG	1,4	F1	CBNSD4	15	20
6	550	gG	1,8	F1	CBNSD6	15	20
10	550	gG	2,1	F1	CBNSD10	15	20
16	550	gG	1,8	F1	CBNSD16	15	20
20	550	gG	1,8	F1	CBNSD20	15	20
25	550	gG	2	F1	CBNSD25	15	20
32	550	gG	2,9	F1	CBNSD32	15	20
20M25	415	gM	1,2	F1	CBNSD20M25	15	20
20M32	415	gM	0,95	F1	CBNSD20M32	15	20
20M36	415	gM	0,88	F1	CBNSD20M36	25	20
32M36	415	gM	2,4	F1	CBNSD32M36	25	20
32M40	415	gM	1,9	F1	CBNSD32M40	25	20
32M50	415	gM	1,4	F1	CBNSD32M50	25	20
32M63	415	gM	1	F1	CBNSD32M63	25	20

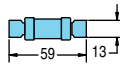
Catalogue numbers - ESD fuses, solid offset blade

Rated current In, A	Rated voltage Un, VAC	Operating class	Power loss at In, W	BS 88 reference	Catalogue number	Weight each, g	Packing size
2	550	gG	0,9	F2	CBESD2	20	20
4	550	gG	1,4	F2	CBESD4	20	20
6	550	gG	1,8	F2	CBESD6	20	20
10	550	gG	2,1	F2	CBESD10	20	20
16	550	gG	1,8	F2	CBESD16	20	20
20	550	gG	1,8	F2	CBESD20	20	20
25	550	gG	2	F2	CBESD25	20	20
32	550	gG	2,9	F2	CBESD32	20	20
40	415	gG	3,2	F2	CBESD40	30	20
50	415	gG	3,9	F2	CBESD50	30	20
63	415	gG	4,6	F2	CBESD63	30	20
63M80	415	gM	3,4	F2	CBESD63M80	40	20
63M100	415	gM	2,5	F2	CBESD63M100	40	20

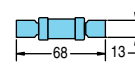
Dimensions, mm



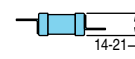
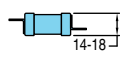
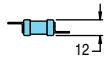
Type SSD



Type NSD



Type ESD



Off-load fuse disconnectors for cylindrical fuses

10x38 mm fuses

Technical data



Material	Polyester, UL 94V0
Rated voltage, Un	IEC 690 V/1000 VDC, UL 600 V/1000 VDC
Short circuit current, SCCR	690 VAC: 120 kA, 1000 VDC: 33 kA, UL 600 V 200 kA
Terminal	Box terminal, 1-16 mm ²
Ingress protection, IEC 60529	IP 20
Standard	IEC 60269-1&2, UL 4248-1 (1000 VDC UL 4248-19)
Certificate, approval	CE, cUR file E14853, not neutral, 1000 VDC E348242

Catalogue numbers - Off-load fuse disconnectors, DIN-rail mounting

Description	Rated voltage IEC, Un	Rated current In, A	Max power loss/pole, W	Catalogue numbers - fuse disconnector		Weight each, g	Packing size
				without indicator	with lamp indicator		
1 pole	690 V	32	3	CBCHM1DU	CBCHM2DIU	53	1
2 pole	690 V	32	3	CBCHM2DU	CBCHM2DIU	106	1
3 pole	690 V	32	3	CBCHM3DU	CBCHM3DIU	159	1
4 pole	690 V	32	3	CBCHM4DU	CBCHM4DIU	212	1
Neutral	690 V	32	3	CBCHM1DXU		60	1
1 pole + neutral	690 V	32	3	CBCHM1DNU	CBCHM1DNIU	115	1
3 pole + neutral	690 V	32	3	CBCHM3DNU	CBCHM3DNIU	220	1

Off-load fuse disconnectors for cylindrical fuses

14x51 mm fuses

Technical data



Material	Polyester, UL 94V0
Rated voltage, Un	IEC 690 V/750 VDC, 1500 VDC, UL 700 VAC 1500 VDC
Short circuit current, SCCR	690 VAC: 120 kA, 1500 VDC 10 kA, UL 700 VAC 200 kA
Terminal	Box terminal, 1,5-50 mm ²
Ingress protection, IEC 60529	IP 20
Standard	IEC 60269-1&2, UL 4248-1 (1500 VDC UL 4248-19)
Certificate, approval	CE, cUR file E14853, not neutral, 1500 VDC E348242

Catalogue numbers - Off-load fuse disconnectors, DIN-rail mounting/panel mounting

Description	Rated voltage IEC, Un	Rated current In, A	Max power loss/pole, W	Catalogue numbers - fuse disconnector			Weight each, g	Packing size
				without indicator	with lamp indicator	with micro switch		
1 pole	690 V	50	5	CBCH141DU	CBCH141DIU	CBCH141DMSU-F	89	1
2 pole	690 V	50	5	CBCH142DU	CBCH142DIU		178	1
3 pole	690 V	50	5	CBCH143DU	CBCH143DIU	CBCH143DMSU-F	267	1
4 pole	690 V	50	5	CBCH144DU	CBCH144DIU		356	1
Neutral	690 V	50	5	CBCH141DNXU			100	1
1 pole + neutral	690 V	50	5	CBCH141DNU	CBCH141DNIU		185	1
3 pole + neutral	690 V	50	5	CBCH143DNU	CBCH143DNIU	CBCH143DNMSU-F	365	1

Off-load fuse disconnectors for cylindrical fuses

22x58 mm fuses

Technical data



Material	Polyester, UL 94V0
Rated voltage, Un	IEC 690 V/1000 VDC, UL 700 VAC
Short circuit current, SCCR	690 VAC: 120 kA, 1000 VDC: 50 kA, UL: 200 kA
Terminal	Box terminal, 2,5-70 mm ²
Ingress protection, IEC 60529	IP 20
Standard	IEC 60269-1&2, UL 4248-1
Certificate, approval	CE, cUR file E14853, not neutral

Catalogue numbers - Off-load fuse disconnectors, DIN-rail mounting

Description	Rated voltage IEC, Un	Rated current In, A	Max power loss/pole, W	Catalogue numbers - fuse disconnector			Weight each, g	Packing size
				without indicator	with lamp indicator	with micro switch		
1 pole	690 V	125/100	9,5	CBCH221DU	CBCH221DIU	CBCH221DMSU-F	158	1
2 pole	690 V	125/100	9,5	CBCH222DU	CBCH222DIU		316	1
3 pole	690 V	125/100	9,5	CBCH223DU	CBCH223DIU	CBCH223DMSU-F	488	1
4 pole	690 V	125/100	9,5	CBCH224DU	CBCH224DIU		632	1
Neutral	690 V	125/100	9,5	CBCH221DNXU			168	1
1 pole + neutral	690 V	125/100	9,5	CBCH221DNU	CBCH221DNIU		326	1
3 pole + neutral	690 V	125/100	9,5	CBCH223DNU	CBCH223DNIU	CBCH223DNMSU-F	642	1

Off-load fuse disconnector for cylindrical fuses, accessories

10x38 mm, 14x51 mm and 22x58 mm fuses

Catalogue numbers - 10x38 mm off-load fuse disconnectors accessories

Description	Catalogue number	Weight each, g	Packing size
Single phase busbar 600 VAC/1000 VDC 100 A, 6 pins, SCCR 10 kA	CBBB1P100M6	0,05	1
Single phase busbar 600 VAC/1000 VDC 100 A, 9 pins, SCCR 10 kA	CBBB1P100M9	0,075	1
Single phase busbar 600 VAC/1000 VDC 100 A, 12 pins, SCCR 10 kA	CBBB1P100M12	0,1	1
Single phase busbar 600 VAC/1000 VDC 100 A, 15 pins, SCCR 10 kA	CBBB1P100M15	0,125	1
Single phase busbar 600 VAC/1000 VDC 100 A, 57 pins, cuttable, SCCR 10 kA	CBBB1P100M57	0,45	1
Three phase busbar 600 VAC 100 A, 3x3 pins, SCCR 10 kA	CBBB3P100M9	0,225	1
Three phase busbar 600 VAC 100 A, 4x3 pins, SCCR 10 kA	CBBB3P100M12	0,3	1
Three phase busbar 600 VAC 100 A, 5x3 pins, SCCR 10 kA	CBBB3P100M15	0,375	1
Three phase busbar 600 VAC 100 A, 19x3 pins, cuttable, SCCR 10 kA	CBBB3P100M57	1,35	1
Power feed terminal for single phase busbar, 1 pole 1000 V 115 A, 35 mm ²	CBPWR1PLP	0,03	10
Power feed terminal for three phase busbar, 1 pole 1000 V 115 A, 35 mm ²	CBPWR35MM	0,03	10
Direct feed power terminal for single/three phase busbar, 1 pole 1000 V 115 A, 50 mm ²	CBPWR50MM	0,075	10
Pin safety cover 1000 V, kit for 5 pins	CBFSCVR	0,001	10

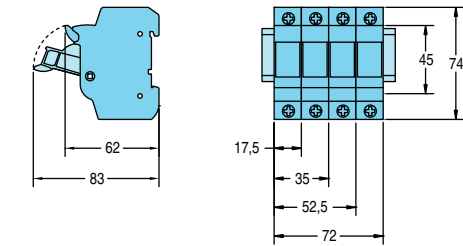
Catalogue numbers - 14x51 mm and 22x58 mm off load fuse disconnectors accessories

Description	Catalogue no, fuse disconnector		Weight each, g	Packing size
	14x51 mm	22x58 mm		
Terminal cover, to be used with conductors < 10 mm ² , 12 pcs	CBCH14-CTP	CBCH22-CTP	20	1
Micro switch for 1 pole fuse disconn. change-over contact, 250 V, 5 A, remote fuse trip ind.	CBCH14-SPS	CBCH22-SPS	40	1
Micro switch for 3 pole fuse disconn. change-over contact, 250 V, 5 A, remote fuse trip ind.	CBCH14-TPS	CBCH22-TPS	170	1

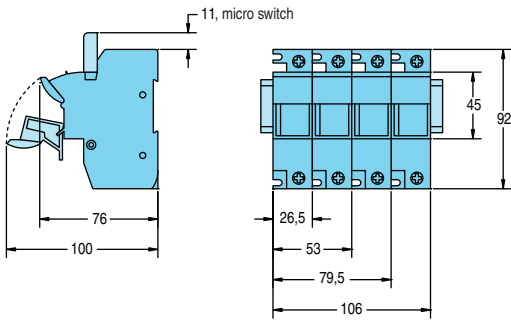
Off-load fuse disconnecter for cylindrical fuses

10x38 mm, 14x51 mm and 22x58 mm fuses

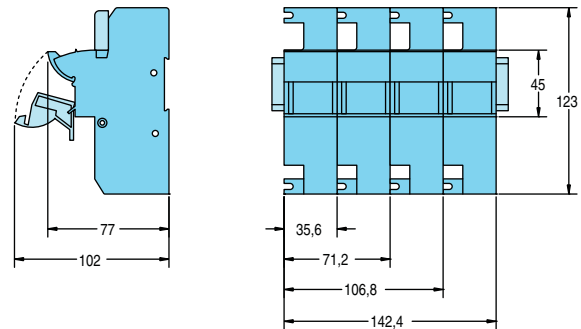
Dimensions, mm



Off-load fuse disconnecter for 10x38 mm fuses



Off-load fuse disconnecter for 14x51 mm fuses



Off-load fuse disconnecter for 22x58 mm fuses

Fuse holders

NH fuses

Technical data



Material	Glass filled PBT, silver plate copper contacts
Rated voltage, Un	690 V
Short circuit current, SCCR	120 kA
Terminal	Screw
Installation	DIN-rail mount/panel mount, size 4 panel mount only
Ingress protection, IEC 60529	IP 00/20
Standard	IEC 60269-1&2, IEC 60068-2-6, DIN 43620
Certificate	CE

Catalogue numbers - Square body solid blade fuses, IP 00

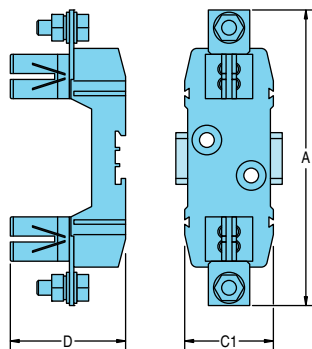
Fuse size	Rated current		Max power loss/pole, W	Catalogue number		Weight each, g		Packing size
	In, A	Terminal		1 pole	3 pole	1 pole	3 pole	
Fuse size 000/00, modular	160	M8 screw	12	CBSD00-D	CBTD00-D	115	390	1
Fuse size 000/00, integrated	160	M8 screw	12		CBTD00-DI		380	1
Fuse size 1	250	M10 screw	32	CBSD1-D	CBTD1-D	320	1190	1
Fuse size 2	400	M10 screw	45	CBSD2-D	CBTD2-D	375	1400	1
Fuse size 2, double contact clips	400	M10 screw	45	CBSD2-DD	CBTD2-DD	430	1600	1
Fuse size 3	630	M12 screw	60	CBSD3-D	CBTD3-D	540	2135	1
Fuse size 4	1250	M16 screw	110	CBSD4-S		2800		1
Fuse size 4	1600	M16 screw	145	CBSD4-S1600		3100		1

2 phase barriers included with 3 pole fuse holders

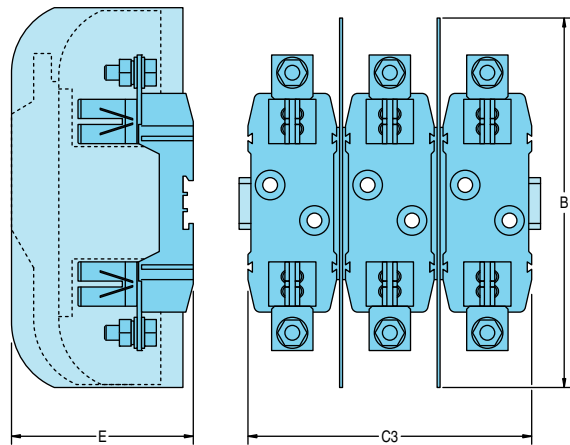
Catalogue numbers - IP 20 protection kits

Description	Catalogue number	Weight each, g	Packing size
Protection kit, size 000/00 fuse holders, modular, 6 terminal covers, 3 fuse covers, 2 phase barriers	CBTD00-IP20	0,15	1
Protection kit, size 000/00 fuse holders, integrated, terminal covers	CBTD00-IP20I	0,1	1
Protection kit, size 000/00 fuse holders, integrated, terminal covers, fuse covers	CBTD00-IP20IC	0,15	1
Protection kit, size 1 fuse holders, modular, 6 terminal covers, 3 fuse covers, 2 phase barriers	CBTD1-IP20	0,2	1
Protection kit, size 2 fuse holders, modular, 6 terminal covers, 3 fuse covers, 2 phase barriers	CBTD2-IP20	0,2	1
Protection kit, size 3 fuse holders, modular, 6 terminal covers, 3 fuse covers, 2 phase barriers	CBTD3-IP20	0,25	1
Phase barriers for fuse holders size 000/00, 2 pcs	CBSD00-PB	0,1	1
Phase barriers and ganging links for fuse holders size 1/2, 2 pcs	CBSD12-PB	0,2	1
Phase barriers and ganging links for fuse holders size 3, 2 pcs	CBSD3-PB	0,2	1

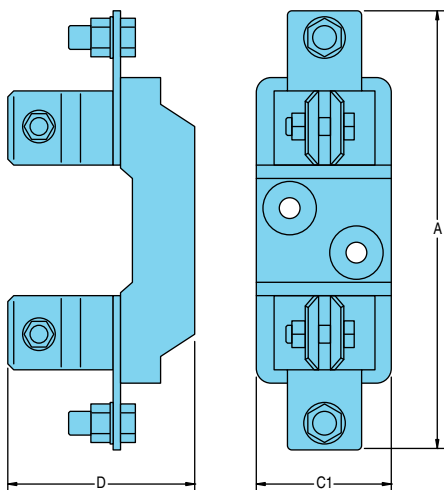
Dimensions, mm



1 pole fuse holder size 00-3



3 pole fuse holder size 00-3



1 pole fuse holder size 4

Fuse size	A	B	C1	C3	D	E
000/00, modular	120	146	35,5	104	51	89
000/00, integrated	120	146		97	51	90
1	199	245	56	188	78	126
2	224	245	56	188	86	126
3	239	260	56	221	88	138
4, 1250 A	295		90		122	
4, 1600 A	295		90		125	

Fuse holders for BS 88 fuses

Offset bolted tags - Camaster

Technical data



Material	Polyamid, cam action opening for 20-100 A fuse holders
Rated voltage, Un	690 VAC
Short circuit current, SCCR	80 kA
Terminal	Front connected with pressure plate terminal, back stud terminal
Installation	On 35 mm DIN rail or panel mount
Ingress prot., IEC 60529	Fuse holder with pressure plate terminals IP 20, other IP 00
Standard	IEC 60269, BS 88
Certificate	CE

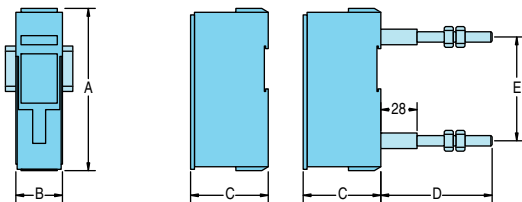
Catalogue numbers - Camaster fuse holders

Fuse type	Rated current In, A	Terminal		Catalogue number 1 pole fuse holder	Weight each, g	Packing size
		Top	Bottom			
NITD	20	Press. plate 0,5-16 mm ²	Press. plate 0,5-16 mm ²	CBCM20F	130	10
NITD	32	Press. plate 0,5-16 mm ²	Press. plate 0,5-16 mm ²	CBCM32FC	130	10
AAO	32	Press. plate 1,5-16 mm ²	Press. plate 1,5-16 mm ²	CBCM32F	158	10
BAO	63	Press. plate 1,5-70 mm ²	Press. plate 1,5-70 mm ²	CBCM63F	210	10
OSD	100	Press. plate 1,5-70 mm ²	Press. plate 1,5-70 mm ²	CBCM100F	210	5

Accessories for Camaster fuse holders

Description	Catalogue number	Weight each, g	Packing size
Back M6 stud for CBCM20F/CBCM32FC, 1-2 pcs required for one fuse holder	CB32BSC	23	10
Back M6 stud for CBCM32F, 1-2 pcs required for one fuse holder	CB32BS	40	10
Back M8 stud for CBCM63F/CBCM100F, 1-2 pcs required for one fuse holder	CB63-100BS	68	5
Neutral link for CBCM20F/CBCM32FC, 32 A	CB32CMLC	15	10
Neutral link for CBCM32F, 32 A	CB32CML	15	1
Neutral link for CBCM63F/CBCM100F, 63/100 A	CB63-100CML	25	1
Neon indicator, tripped fuse, 90-415 V	CBNI	8	3

Dimensions, mm



Fuse holder	A	B	C	D	E
CBCM20F	94	26	62	66	58
CBCM32FC	94	26	62	66	58
CBCM32F	118	32	62	66	74
CBCM63F	125	36	62	87	81
CBCM100F	125	36	62	87	81

Fuse holders BS 88 fuses

Offset blade tags - Safeloc

Technical data



Material	Polyamid, snap-in cover
Rated voltage, Un	550 VAC
Short circuit current, SCCR	80 kA
Terminal	Front connected with pressure plate terminal, back stud terminal
Installation	On 35 mm DIN rail or panel mount
Ingress prot., IEC 60529	Fuse holder with pressure plate terminals IP 20, other IP 00
Standard	IEC 60269, BS 88
Certificate	CE

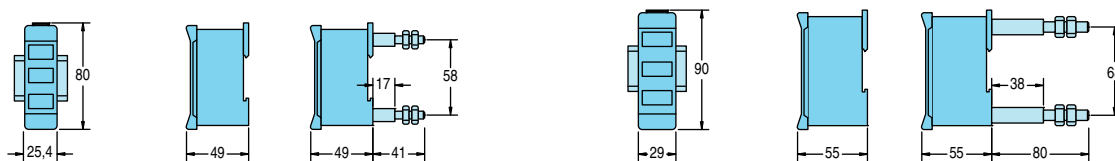
Catalogue numbers - Safeloc fuse holder

Fuse type	Rated current In, A	Rated voltage VAC	Terminal		Catalogue number 1 pole fuse holder	Weight each, g	Packing size
			Top	Bottom			
NSD	32	550	Press. plate 0,5-16 mm ²	Press. plate 0,5-16 mm ²	CB32NNSF	100	10
NSD	32	550	Back M6 stud	Back M6 stud	CB32NNSBS	132	10
NSD	32	550	Press. plate 0,5-16 mm ²	Back M6 stud	CB32NNSFBS	120	10
ESD	63	415	Press. plate 1,5-35 mm ²	Press. plate 1,5-35 mm ²	CB63ENSF	200	5
ESD	63	415	Back M8 stud	Back M8 stud	CB63ENSBS	280	5
ESD	63	415	Press. plate 1,5-35 mm ²	Back M8 stud	CB63ENSFBS	240	5

Accessories for Safeloc fuse holders

Description	Catalogue number	Weight each, g	Packing size
Neutral link for 32 A fuse holders	CB32NNL	20	10
Neutral link for 63 A fuse holders	CB63ENL	40	10

Dimensions, mm



Application guide

Fuses for cable and motor protection to IEC

Eaton Bussmann Series cylindrical fuses, NH fuses, Neozed and Diazed fuses and fuses in accordance with BS 88 are intended for general industrial applications. The fuses comply with IEC 60269 and are available for a wide range of voltages and currents.

Fuse construction

Fuses for general industrial applications consist of

- The fuse body, manufactured of an insulation material, normally ceramic
- One or more fuse elements
- Quartz sand densely packed around the fuse elements
- Trip indication system, not available on all types
- Terminals, contact blades or ferrules

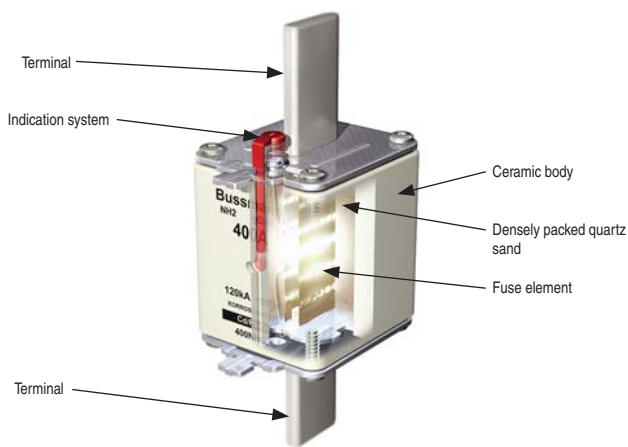


Fig 1. Fuse construction, NH solid blade fuse size 2. The illustration shows the fuse in operation, arcs occur in the fuse element restrictions, the indication wire has burned off, the trip indication system shows that the fuse has tripped.

The function of the fuse body is to provide a good mechanical protection, to withstand high temperatures and to act as electrical insulation.

The fuse elements are the heart of the fuse. The fuse consists of one or more elements. The fuse elements are made of material with good conductivity, usually of silver or silver plated copper. The fuse element is provided with a number of restrictions - shape, size and location determine the fuse characteristics. Should the fuse also protect for overload conditions, the fuse element is also equipped with one restriction of metal with lower melting point. The technique is called "M-effect."

The fuse can also be equipped with a fuse tripping indication system. The system consists of a small conductor positioned parallel to the fuse elements, the conductor will hold a spring-loaded indicator in location. This melts the same time with the elements, a spring releases and the trip indication system shows that the fuse has tripped. The system can provide visual or mechanical indication.

The terminals are made of materials with good conductivity and designed so that they achieve proper contact with the fuse holder.

Fuse operation

During overload or short circuit the temperature increases in the fuse element until it melts off, the higher the current, the faster the heating. When the metallic connection in the restriction points or in point of M-effect breaks, several arcs light and bridge the interruption points. The heat of the arc is burning and vaporizes the fuse element, the heat is absorbed by the

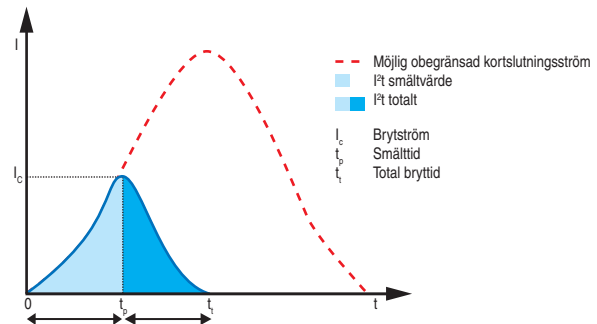


Fig 2. Short circuit interrupting. During the pre-arcing time the fuse elements are heated up until they melt, several arcs occur inside the fuse and the short circuit current begins to be interrupted - the released energy during this stage is called I^2t pre-arc. The arcs inside the fuses are interrupted by the sand and the circuit is interrupted. The total let-through energy is called I^2t total.

quartz sand, which also melts and forms a glass-like insulating substance - fulgurite. The arc is extinguished and the circuit is isolated - the fuse has done its job. The entire process takes place in a sealed compartment, no ionized gases are emitted in the equipment.

The fuse interrupting process is divided into two phases, melting time and arcing time. Fuse clearing time is the sum of these. At high fault currents - short circuits - the fuse will clear the fault before the first zero crossing, thus limiting the fault current peak value, the fuse is current limiting.

Fuses only intended for short-circuit protection, partial range protection do not protect against overloads, a specified minimum breaking current shall not be exceeded. Exposing this type of fuse for overload for longer time increases dramatically the operating temperature which may cause damages to the ceramic body as well on other equipment like the fuse holder.

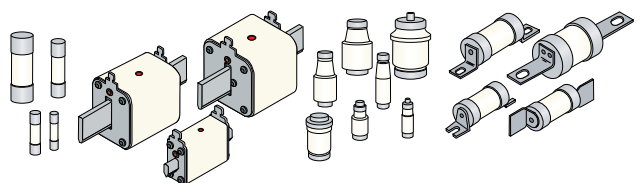


Fig 3. Fuse types according to IEC 60269, from left cylindrical fuses, NH solid blade fuses, Neozed and Diazed fuses and fuses according to BS 88-2 and BS 88-6.

Power losses

Fuses generate heat and must be cooled. The normal cooling method is convection from the terminals and the fuse body. Eaton Bussmann Series fuses are designed to ensure that the power losses are kept to a minimum. The power loss is given at rated current, normally the fuse is not operating up to rated current, therefore in practice the power losses are lower.

IEC 60269 - Low voltage fuses, 1000 VAC/1500 VDC

IEC 60269 is the overall standard for low voltage fuses. The fuses are available in various designs, for example

- Cylindrical fuses
- NH solid blade fuses
- Neozed and Diazed fuses, D0/D fuses
- Fuses according to BS 88-2 and BS 88-6

Regardless of design the time/current characteristics are equivalent. It is possible to replace an NH fuse with a BS 88 fuse, provided that the fuse rated voltage and breaking capacity are higher than in the circuit.

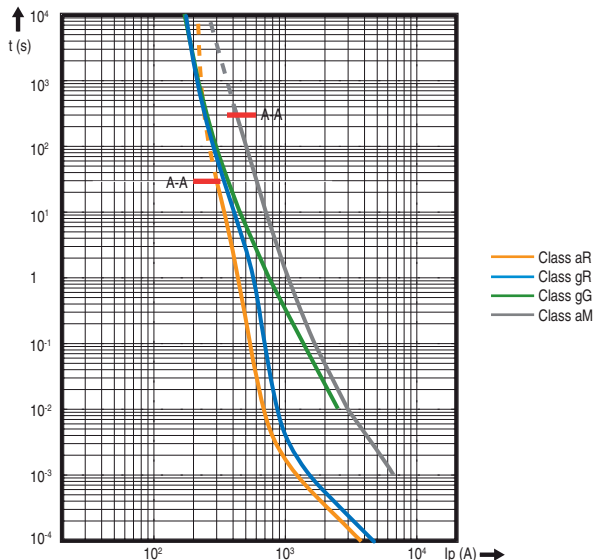


Fig 4. Time/current curves for square body solid blade fuses size 00, 125 A, from left class aR, gR, gG and aM. Class aR and aM are fuses for partial protection, minimum breaking current is defined by the red A-A line, the fuse will not protect for faults above the line, the curve is dashed.

Operation classes according to IEC 60269

A operation class is denoted with two letters, the first refers to usage class, and the second to the object to be protected.

Usage class “g” is originated from the German word “Ganzbereich sicherung” and means full range protection.

Usage class “a” is denoted from the English words “Accompanied fuse” which means back-up protection. The fuse is used for short circuit protection in combination with an overcurrent protective device, for example an overload relay protecting for in the lower overcurrent range.

Protective objects are defined according to IEC 60269

- G - General Purpose
- M - Motors
- Tr - Transformers
- R - Semiconductors

gG fuses

Current limiting fuse designed for cable, line and general protection, full range protection. The fuse has a time lag in the lower overcurrent range and is quick acting in the short circuit range. Replaces older gL fuses.

aM fuse

Current limiting fuse designed for motor short circuit protection, partial range protection. The motor circuit must have an additional protective device for the lower overcurrent range, for example a thermal overload relay.

gM fuse

Current limiting fuse designed for motor protection, full range protection. Only available designed according to BS 88-2 and BS 88-6. Rated current is stated in dual values, thermal current rating and a higher value that relates to the fuse’s ability to withstand starting currents. A fuse with rated current 63M100 can carry up to 63 A continuously and withstand starting currents corresponding to a 100 A class gG fuse.

gTr fuse

Current limiting fuse designed for overload protection of power transformers and short circuit protection of bus bar systems. The fuse is coordinated for discrimination with the high voltage fuses of the power transformer.

aR/gR/gS/gPV fuses

High speed fuses for protection of semiconductors, for example thyristors and diodes. See separate catalogue.

Discrimination

Discrimination in a distribution system means that fuses installed in series are coordinated in a way that only the fuse immediately upstream the fault trips. The condition for discrimination is that clearing time (melting+arcing time) of the smaller fuse is shorter compared to the melting time of the larger fuse further upstream.

Class gG fuses offer discrimination to other gG fuses with a ratio 1,6:1 ie rated current for upstream fuse must be 1,6 times larger.

Cylindrical fuses

Eaton Bussmann Series cylindrical fuses are designed to IEC 60269-2. Physical dimensions are in accordance with French standard, NFC and UNE. The line consists of four physical sizes, current range 0,5 - 125 A. Versions with tripped fuse indicator are available.

NH fuses

Eaton Bussmann Series offers a complete line of NH fuses in sizes 000 - 4, for 2 - 1250 A according to IEC 60296-2-1, VDE 0636 and DIN 43620. Some fuses in size 1-3 are manufactured in a compact design - the fuse body is smaller - and are designated 01, 02 and 03. Most fuses are available in two versions, with metal gripping lugs or insulated gripping lugs. Dual indication system, visual and mechanical, simplify identification of a tripped fuse. The fuses can also be equipped with micro switch for remote trip indication.

Neozed and Diazed fuses

Neozed and Diazed fuses are also called D0 and D fuses. The fuses are designed to IEC 60269-3 as well as to DIN 49360, DIN 49515 and DIN 49522. The fuse body is “bottle formed”, the diameter of the “bottle neck” ferrule is dependant on the fuse’s rated current - smaller diameter lower current. The bottom of the fuse holder is equipped with a gauge piece. The gauge piece centre hole diameter varies, which restricts the possibility to install a too large fuse in the circuit.

Fuses according to BS 88-2 and BS 88-6

Fuses according to BS 88-2 and BS 88-6 are available in several designs. The fuse body is round and equipped with contact blades type

- Offset Bolted Tags - L-contact blade, slotted or with holes
- Centre Bolted Tags - contact blade with 2/4 holes
- Offset Blade Tags - solid contact blade
- Special Tags - versions for specific applications

Fuses for cable protection - sizing

Class gG fuses are used for cable protection. The fuses shall be sized according to local safety regulations. The fuse's rated voltage and rated breaking capacity must be larger compared to corresponding values for the circuit. According to IEC 60364, a class gG fuse shall be sized in a manner that below listed conditions are met.

$$I_B \leq I_n \leq I_Z$$

$$I_2 \leq 1,45 \times I_Z$$

where

- I_B Operating current for the circuit
- I_n Rated current for the fuse
- I_Z Current carrying capacity of the cable
- I_2 The current that ensures a safe function for the overcurrent protective device - the fuse. Eaton Bussmann Series class gG fuses are designed to continuously carry the rated current, I_n , according to IEC 60269.

Fuses for motor protection - sizing

In motor circuits the fuse has to withstand the starting current of the motor. Other factors that affect sizing are starting time and number of starts per hour. Normally class aM fuses in combination with a separate overload relay are used. Class aM fuses are partial range fuses and protect only for short circuits. Class gG fuses can also be used, contact CHS Controls for application assistance.

Fuses class gM, designed according to BS 88-2 and BS 88-6 are mainly intended for motor protection. Rated current is stated in dual values, thermal current rating and a higher value that relates to the fuse's ability to withstand starting currents. Contact CHS Controls for application assistance.

To achieve Type 2 co-ordination in accordance with IEC 60947-4-1, the fuse must clear the fault before the starter is damaged and cannot be re-used. To give the desirable Type 2 co-ordination, the fuse shall be sized according to the starting equipment manufacturer's recommendations. For electronic starters like soft starters and AC variable speed drives high speed fuses are normally required, see separate catalogue covering high speed fuses.

Fuses for transformer protection - sizing

Low voltage transformers are normally protected both on the primary and secondary side. Primary fuses must be sized to withstand the transformer inrush current, which can be as high as 40 times the full load current during 10 ms. Primary fuses are only protecting against short circuits, secondary fuses are protecting against overloads.

Capacitor protection - sizing

Class gG fuses are normally used for capacitor protection. Consideration must be taken to the high transient inrush current and to circuit harmonics. The service voltage may also increase during overload, it is therefore recommended that the rated voltage of the fuse is 1,3 times higher compared to the rated voltage of the capacitor. Rated current of the fuse used to protect power factor correction capacitors should be 1,5 times the rated current of the capacitors. Contact the equipment manufacturer or CHS Controls for application assistance.

DC circuits

Compared to AC circuits, the absence of natural voltage zero in a DC circuit makes it more difficult for a fuse to interrupt the current at fault. It is especially notable in circuits with high time constant. Most fuses can be used in DC circuits, see technical data. Contact CHS Controls for application assistance.

Environmental factors

High ambient temperature, above 40°C, altitudes above 2000 m, cyclical loading, temporary overloads etc must be taken into consideration, contact CHS Controls for correction factors.

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