

# FUSES FOR SEMICONDUCTOR PROTECTION

## EUROPEAN-BRITISH STANDARD



Standards: IEC 60 269-4

BS 88-4

Class: aR

Voltage ratings: AC 240 V – AC 700 V

Current ratings: 5 A – 900 A

## Features / Benefits

- ▶ High interrupting rating 100 kA
- ▶ Voltage rating AC 240 V – AC 700 V
- ▶ Protection of Power Semiconductors according to IEC 60269-4
- ▶ Complies with BS 88 Standard  
with or without striker for microswitch operation
- ▶ Class aR 5 A – 900 A according to IEC 60269-4



**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

**Selection Guide**

**Fuses**

Rated Voltage AC	Size	Part No.	Selector Guide Page	Techn. Data Page
240 V	8.4 x 38	50 076 06	URE 3	URE 12
240 V	17.5 x 41.8	50 053 06	URE 4	URE 13
240 V	35 x 59	50 054 06	URE 5	URE 14
240 V	2 x 35 x 59	50 071 06	URE 6	URE 15
690 V	8.4 x 64.3	50 077 06	URE 7	URE 16
690 V	17.5 x 63.5	50 073 06	URE 8	URE 17
690 V	35 x 85	50 074 06	URE 9	URE 18
690 V	2 x 35 x 85	50 075 06	URE 10	URE 19
690/700 V	000	20 559 21	URE 11	URE 20

**Selection Guide**

**Set of mounting clips for Indicator Fuse**

Size	Part No.	Techn. Data Page
17.5 mm	58 053 04	URZ 21
35 mm	58 054 04	URZ 21

**Selection Guide**

**Indicator Fuse**

Rated Voltage	Part No.	Techn. Data Page
240 V	58 053 07	URZ 21
690 V	58 073 07	URZ 21

**Selection Guide**

**Microswitch**

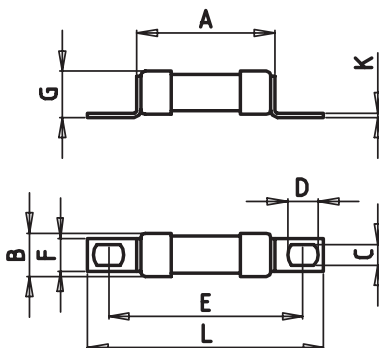
Rated Voltage	Part No.	Techn. Data Page
250 V	58 053 05.1	URZ 21



**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

<b>Size</b> 8.4 x 38 mm	<b>Rated voltage</b> AC 240 V	<b>Standard</b> BS 88-4
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Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
5 A	50 076 06		0.55	50
6 A	50 076 06		0.55	50
10 A	50 076 06		0.55	50
12 A	50 076 06		0.55	50
16 A	50 076 06		0.55	50
20 A	50 076 06		0.55	50



<b>A</b>	1.06" (27 mm)
<b>B</b>	0.33" (8.4 mm)
<b>C</b>	0.16" (4 mm)
<b>D</b>	0.24" (6 mm)
<b>E</b>	1.50" (38 mm)
<b>F</b>	0.25" (6.4 mm)
<b>G</b>	0.35" (9 mm)
<b>K</b>	0.03" (0.8 mm)
<b>L</b>	1.80" (46 mm)



**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

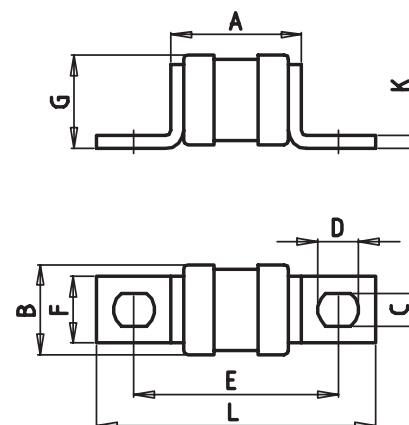
Size  
**17.5 x 41.8 mm**

Rated voltage  
**AC 240 V**

Standard  
**BS 88-4**

Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
25 A	50 053 06		3.2	10
32 A	50 053 06		3.2	10
35 A	50 053 06		3.2	10
40 A	50 053 06		3.2	10
50 A	50 053 06		3.2	10
63 A	50 053 06		3.2	10
80 A	50 053 06		3.2	10
100 A	50 053 06		3.2	10
125 A	50 053 06		3.2	10
160 A	50 053 06		3.2	10
180 A	50 053 06		3.2	10

- A** 1.02" (26 mm)
- B** 0.70" (17.5 mm)
- C** 0.25" (6.35 mm)
- D** 0.30" (8 mm)
- E** 1.57" (40 mm)
- F** 0.50" (13 mm)
- G** 0.73" (18.5 mm)
- K** 0.10" (2.5 mm)
- L** 2.17" (55 mm)

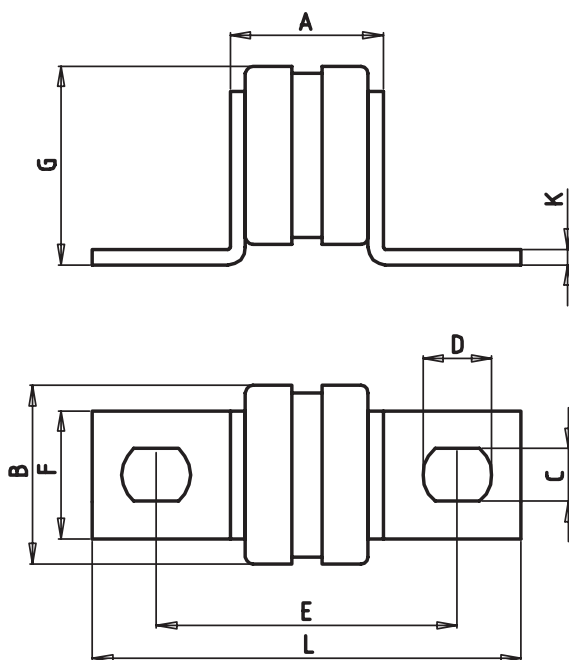




**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

<b>Size</b> <b>35 x 59 mm</b>	<b>Rated voltage</b> <b>AC 240 V</b>	<b>Standard</b> <b>BS 88-4</b>
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Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
160 A	50 054 06		15	2
200 A	50 054 06		15	2
250 A	50 054 06		15	2
315 A	50 054 06		15	2
355 A	50 054 06		15	2
400 A	50 054 06		15	2
450 A	50 054 06		15	2



<b>A</b>	<b>1.22" (31 mm)</b>
<b>B</b>	<b>1.38" (35 mm)</b>
<b>C</b>	<b>0.40" (10.3 mm)</b>
<b>D</b>	<b>0.53" (13.5 mm)</b>
<b>E</b>	<b>2.32" (59 mm)</b>
<b>F</b>	<b>0.98" (25 mm)</b>
<b>G</b>	<b>1.54" (39 mm)</b>
<b>K</b>	<b>0.12" (3 mm)</b>
<b>L</b>	<b>3.30" (84 mm)</b>

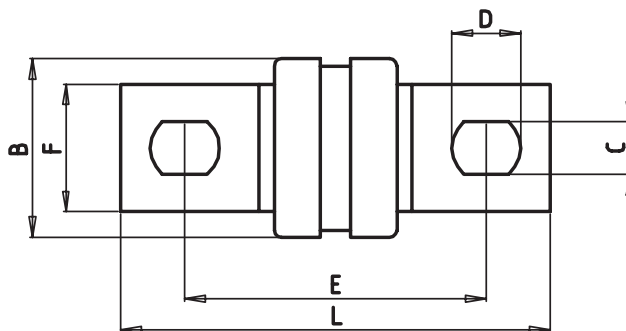
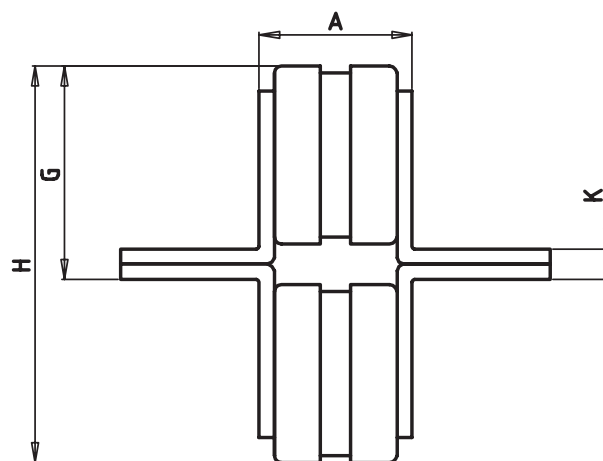


**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

Size **2 x 35 x 59 mm**      Rated voltage **AC 240 V**

Standard **BS 88-4**

Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
300 A	50 071 06		29	1
350 A	50 071 06		29	1
400 A	50 071 06		29	1
450 A	50 071 06		29	1
500 A	50 071 06		29	1
630 A	50 071 06		29	1
710 A	50 071 06		29	1
800 A	50 071 06		29	1
900 A	50 071 06		29	1



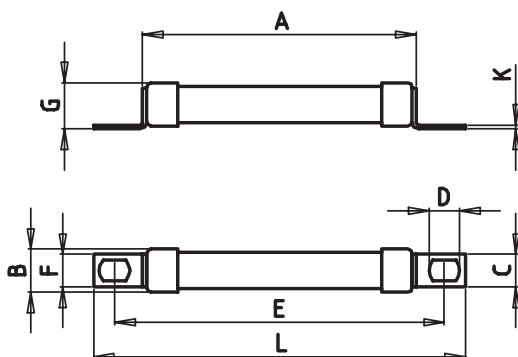
- A** 1.22" (31 mm)
- B** 1.38" (35 mm)
- C** 0.40" (10.3 mm)
- D** 0.53" (13.5 mm)
- E** 2.32" (59 mm)
- F** 1.0" (25 mm)
- G** 1.65" (42 mm)
- H** 1.65" (78 mm)
- K** 0.24" (6 mm)
- L** 3.30" (84 mm)



**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

<b>Size</b> 8.4 x 64.3 mm	<b>Rated voltage</b> AC 690 V	<b>Standard</b> BS 88-4
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Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
5 A	50 077 06		0.88	50
6 A	50 077 06		0.88	50
10 A	50 077 06		0.88	50
12 A	50 077 06		0.88	50
16 A	50 077 06		0.88	50
20 A	50 077 06		0.88	50



<b>A</b>	2.13" (54 mm)
<b>B</b>	0.33" (8.4 mm)
<b>C</b>	0.16" (4 mm)
<b>D</b>	0.24" (6 mm)
<b>E</b>	2.52" (64 mm)
<b>F</b>	0.25" (6.4 mm)
<b>G</b>	0.35" (9 mm)
<b>K</b>	0.03" (0.8 mm)
<b>L</b>	2.87" (73 mm)

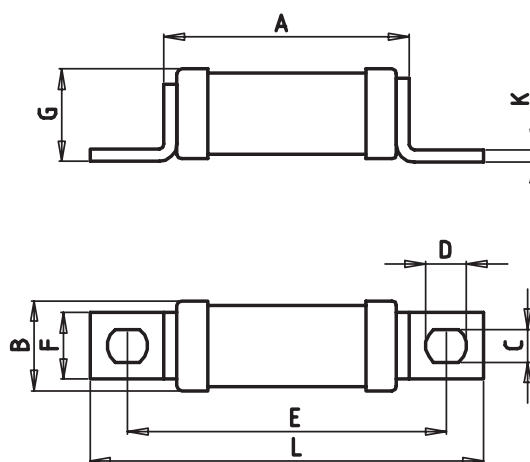


**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

Size **17.5 x 63.5 mm**      Rated voltage **AC 690 V**

Standard **BS 88-4**

Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
25 A	50 073 06		4.2	10
32 A	50 073 06		4.2	10
40 A	50 073 06		4.2	10
50 A	50 073 06		4.2	10
63 A	50 073 06		4.2	10
80 A	50 073 06		4.2	10
100 A	50 073 06		4.2	10



<b>A</b>	<b>1.90"</b> (48 mm)
<b>B</b>	<b>0.70"</b> (17.5 mm)
<b>C</b>	<b>0.25"</b> (6.35 mm)
<b>D</b>	<b>0.30"</b> (8 mm)
<b>E</b>	<b>2.48"</b> (63 mm)
<b>F</b>	<b>0.50"</b> (13 mm)
<b>G</b>	<b>0.73"</b> (18.5 mm)
<b>K</b>	<b>0.10"</b> (2.5 mm)
<b>L</b>	<b>3.03"</b> (77 mm)

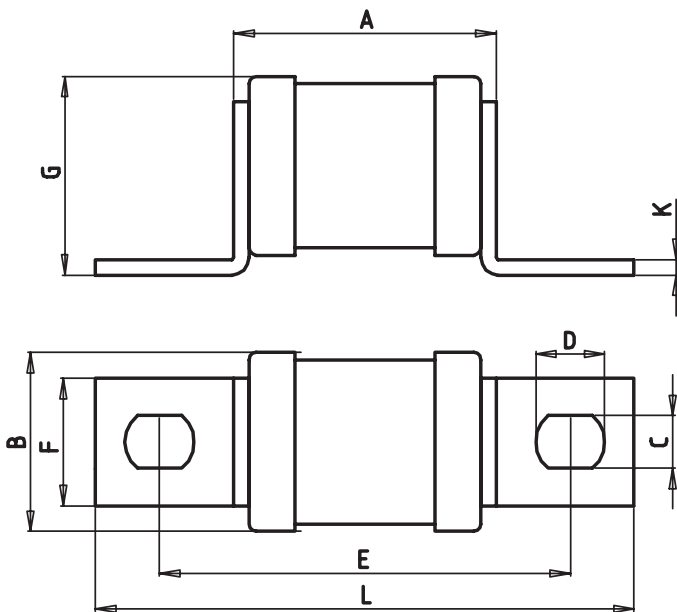




**FUSES FOR SEMICONDUCTOR PROTECTION**  
**EUROPEAN-BRITISH STANDARD**

<b>Size</b> <b>35 x 85 mm</b>	<b>Rated voltage</b> <b>AC 690 V</b>	<b>Standard</b> <b>BS 88-4</b>
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Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
100 A	50 074 06		19	3
125 A	50 074 06		19	3
160 A	50 074 06		19	3
200 A	50 074 06		19	3
250 A	50 074 06		19	3
315 A	50 074 06		19	3
355 A	50 074 06		19	3



<b>A</b>	<b>2.05" (52 mm)</b>
<b>B</b>	<b>1.38" (35 mm)</b>
<b>C</b>	<b>0.40" (10.3 mm)</b>
<b>D</b>	<b>0.53" (13.5 mm)</b>
<b>E</b>	<b>3.15" (80 mm)</b>
<b>F</b>	<b>0.98" (25 mm)</b>
<b>G</b>	<b>1.54" (39 mm)</b>
<b>K</b>	<b>0.12" (3 mm)</b>
<b>L</b>	<b>4.13" (105 mm)</b>



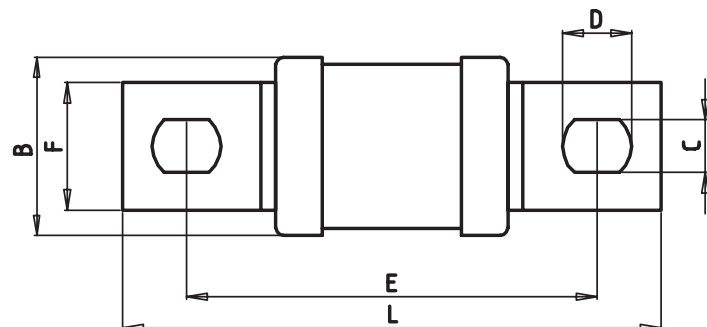
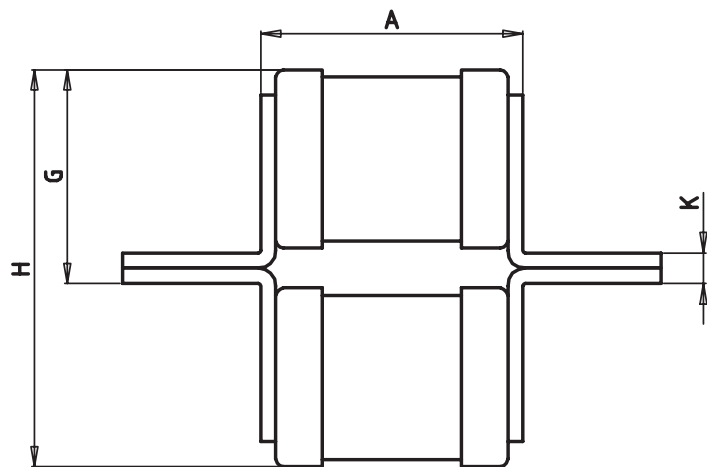
**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN-BRITISH STANDARD

Size  
**2 x 35 x 85 mm**

Rated voltage  
**AC 690 V**

Standard  
**BS 88-4**

Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
315 A	50 075 06		37	1
355 A	50 075 06		37	1
400 A	50 075 06		37	1
450 A	50 075 06		37	1
500 A	50 075 06		37	1
630 A	50 075 06		37	1
710 A	50 075 06		37	1



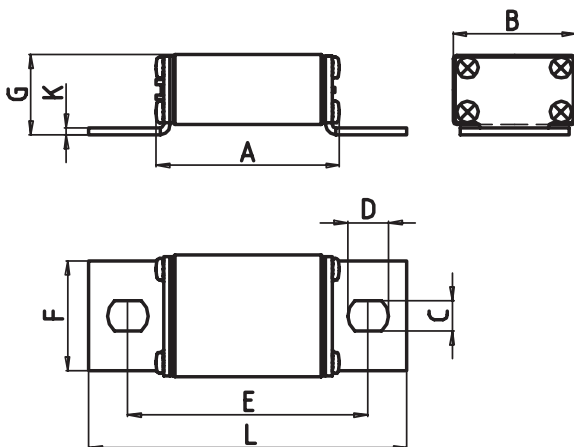
- A 2.05" (52 mm)
- B 1.38" (35 mm)
- C 0.40" (10.3 mm)
- D 0.53" (13.5 mm)
- E 3.15" (80 mm)
- F 0.98" (25 mm)
- G 1.65" (42 mm)
- H 3.07" (78 mm)
- K 0.24" (6 mm)
- L 4.12" (105 mm)



**FUSES FOR SEMICONDUCTOR PROTECTION**  
**EUROPEAN-BRITISH STANDARD**

<b>Size</b> <b>000</b>	<b>Rated voltage</b> <b>AC 660/700 V</b>	<b>Standard</b> <b>BS 88-4</b>
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Rated current	Part No.	UL Rec.	Weight (kg/100)	Pack
32 A	20 559 21		17	6
35 A	20 559 21		17	6
40 A	20 559 21		17	6
50 A	20 559 21		17	6
63 A	20 559 21		17	6
80 A	20 559 21		17	6
100 A	20 559 21		17	6
160 A	20 559 21		17	6
200 A	20 559 21		17	6
250 A	20 559 21		17	6
315 A	20 559 21		17	6

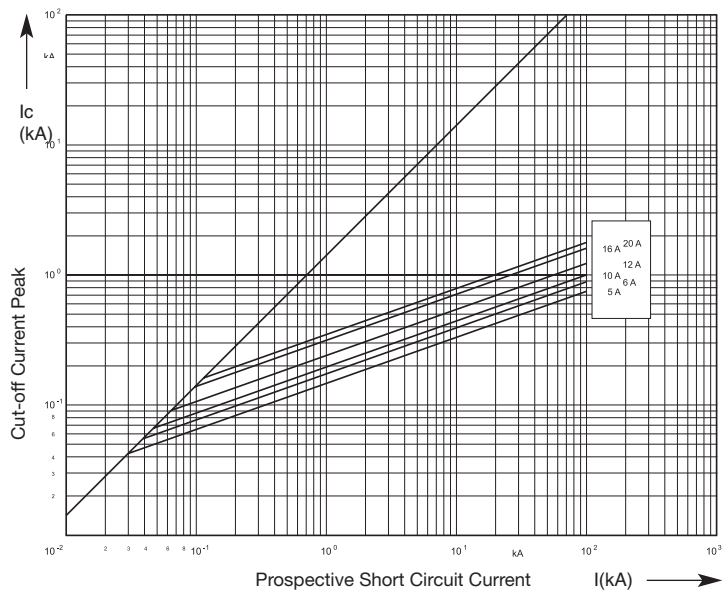


<b>A</b> max.	<b>2.13"</b> (54 mm)
<b>B</b>	<b>1.42"</b> (36 mm)
<b>C</b>	<b>0.35"</b> (9 mm)
<b>D</b>	<b>0.47"</b> (12 mm)
<b>E</b>	<b>2.76"</b> (70 mm)
<b>F</b>	<b>1.26"</b> (32 mm)
<b>G</b>	<b>0.93"</b> (23.5 mm)
<b>K</b>	<b>0.08"</b> (2 mm)
<b>L</b>	<b>3.70"</b> (94 mm)

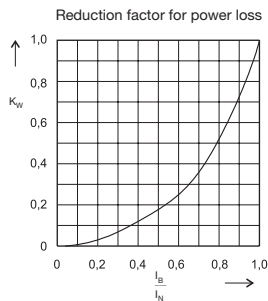
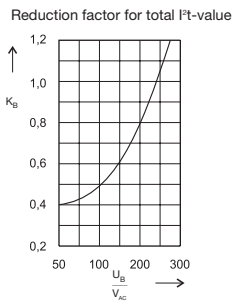
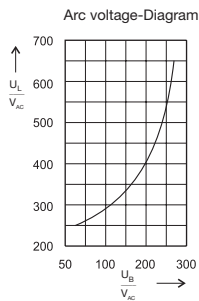
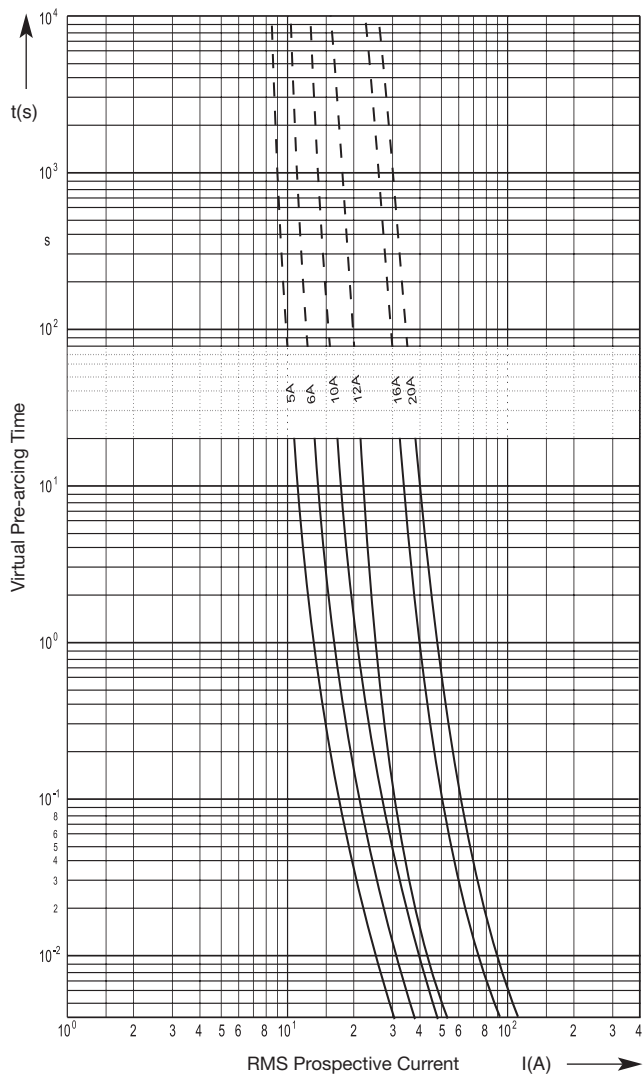
<b>Size</b> 8.4 x 38 mm	<b>Rated voltage</b> AC 240 V	<b>Operating class</b> aR	<b>Rated breaking capacity</b> 100 kA
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Rated current	Part No.	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 240 V A <sup>2</sup> s
5 A	50 076 06	1.5	1.7	9.5
6 A	50 076 06	1.7	2.9	16
10 A	50 076 06	3.3	4.2	24
12 A	50 076 06	2.0	8.0	41
16 A	50 076 06	2.4	18.0	92
20 A	50 076 06	3.3	25.0	130

Cut-off-characteristics



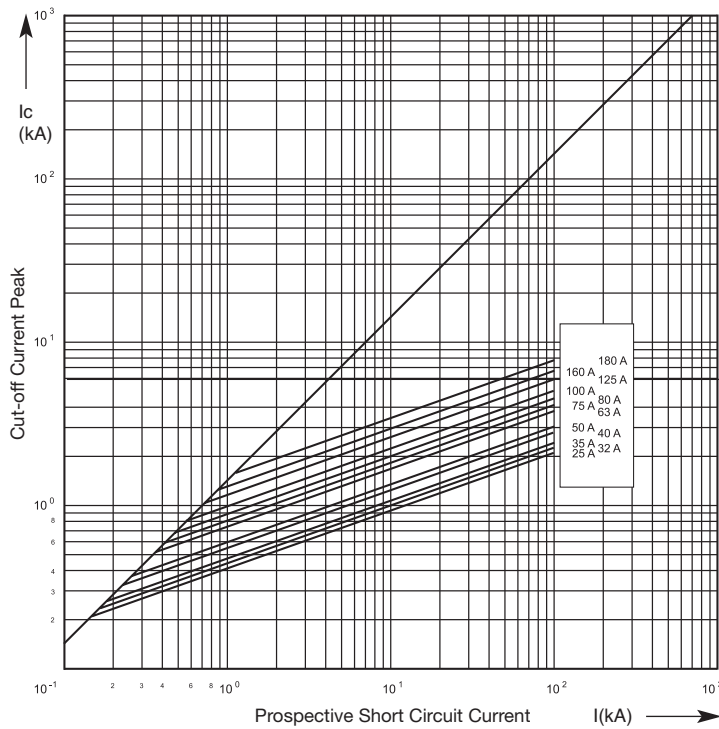
Time / Current Characteristics



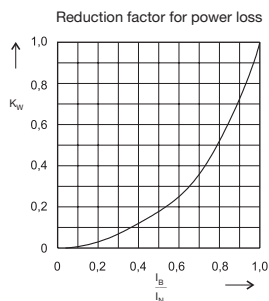
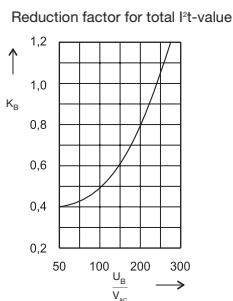
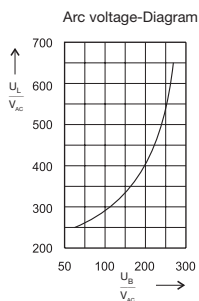
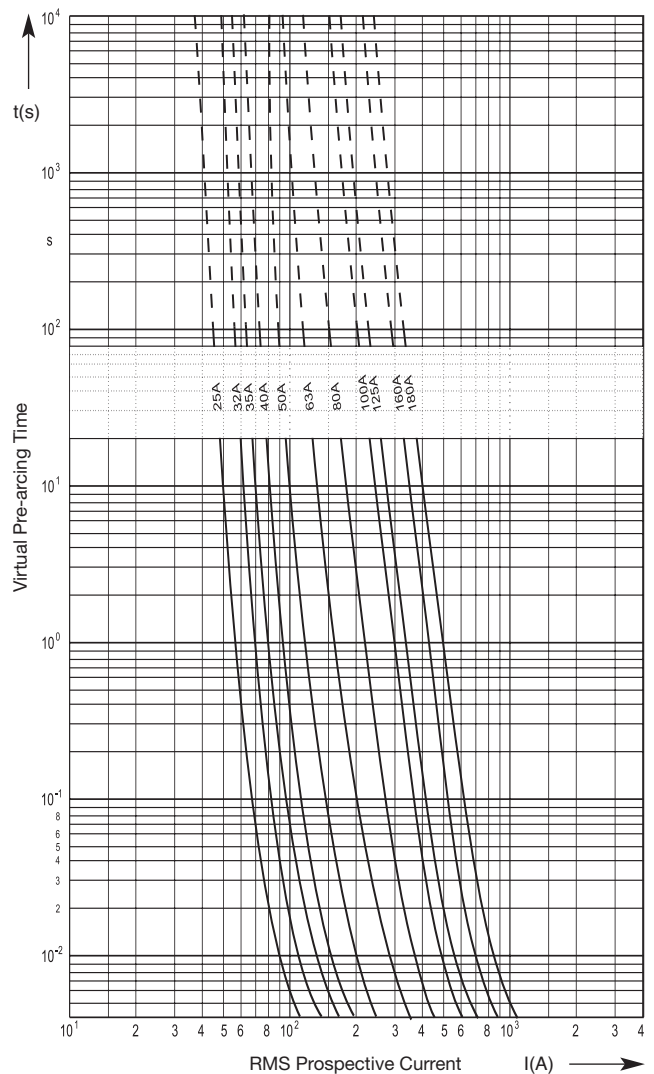
Size <b>17.5 x 41.8 mm</b>	Rated voltage <b>AC 240 V</b>	Operating class <b>aR</b>	Rated breaking capacity <b>100 kA</b>
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Rated current	Part No.	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 240 V A <sup>2</sup> s
25 A	50 053 06	3.6	39	260
32 A	50 053 06	4.5	40	270
35 A	50 053 06	5.0	63	430
40 A	50 053 06	5.3	100	700
50 A	50 053 06	6.7	130	900
63 A	50 053 06	7.7	250	1,700
75 A	50 053 06	9.4	330	2,300
80 A	50 053 06	9.7	420	2,900
100 A	50 053 06	12.7	620	4,300
125 A	50 053 06	16.0	1,000	6,800
160 A	50 053 06	22.0	1,500	10,200
180 A	50 053 06	24.0	2,300	15,700

Cut-off-characteristics



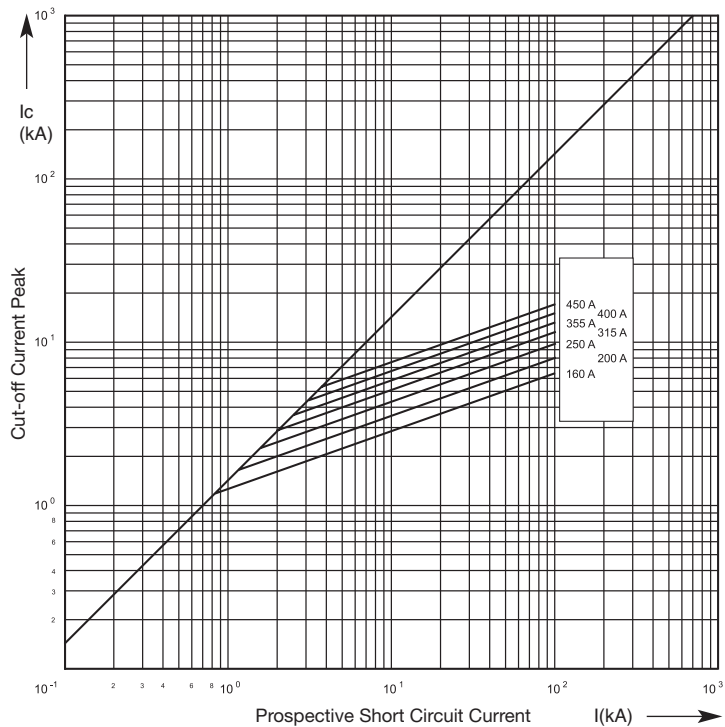
Time / Current Characteristics



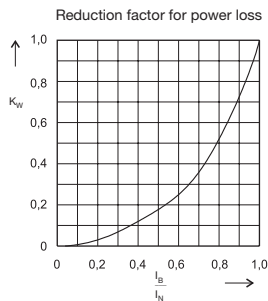
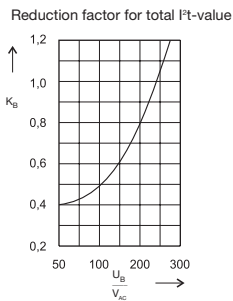
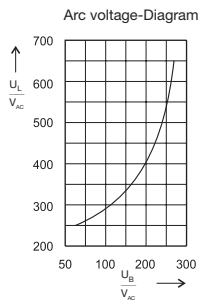
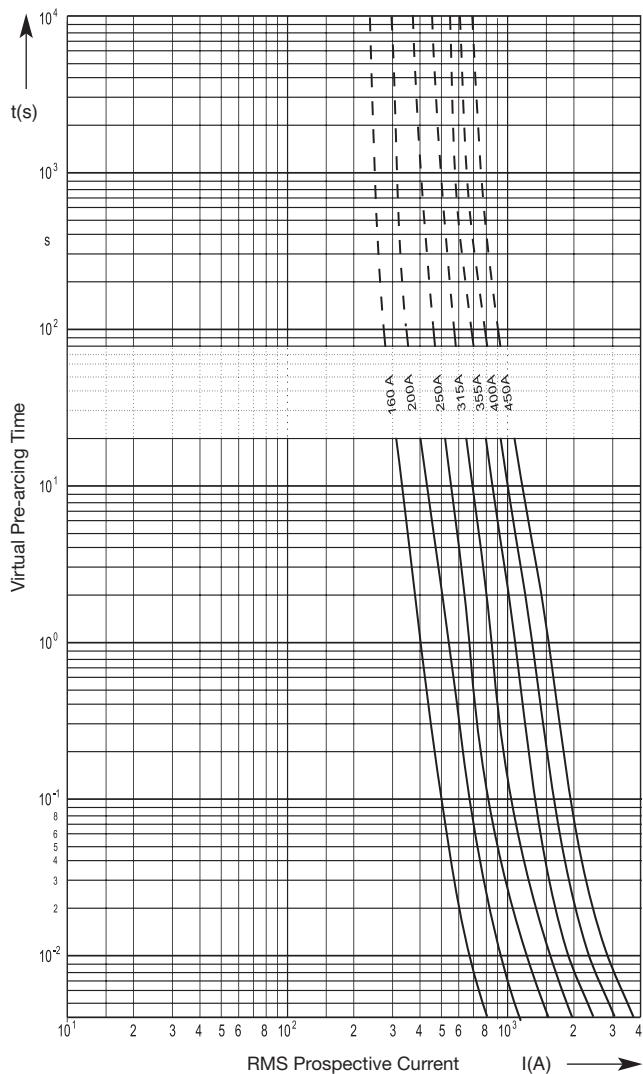
<b>Size</b> 35 x 59 mm	<b>Rated voltage</b> AC 240 V	<b>Operating class</b> aR	<b>Rated breaking capacity</b> 100 kA
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Rated current	Part No.	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 240 V A <sup>2</sup> s
160 A	50 054 06	23	1,300	8,000
200 A	50 054 06	27	2,500	15,300
250 A	50 054 06	34	4,600	28,000
315 A	50 054 06	36	7,800	48,000
355 A	50 054 06	38	11,800	72,000
400 A	50 054 06	40	18,500	113,000
450 A	50 054 06	46	26,600	163,000

Cut-off-characteristics



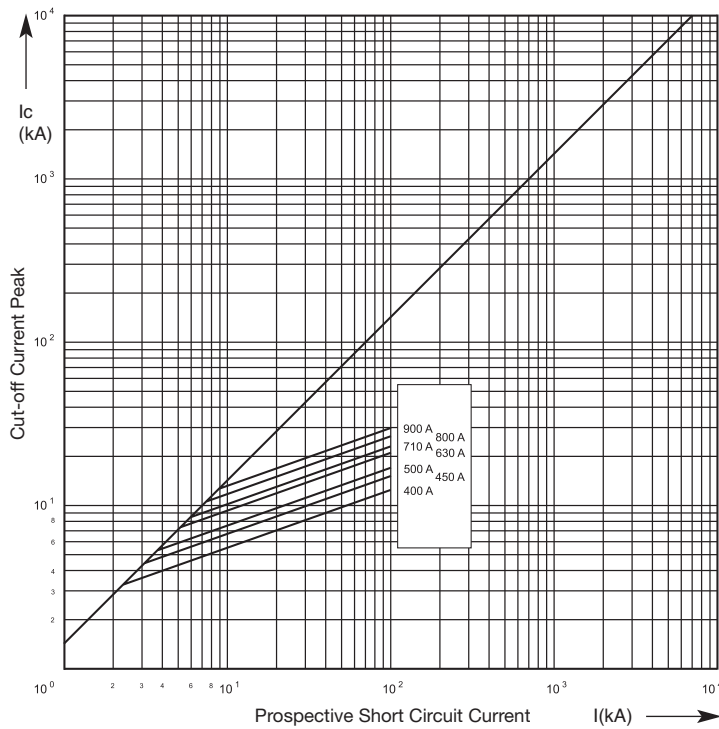
Time / Current Characteristics



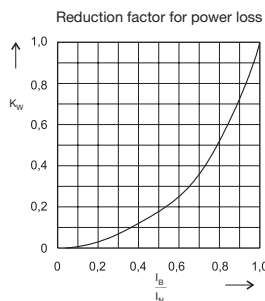
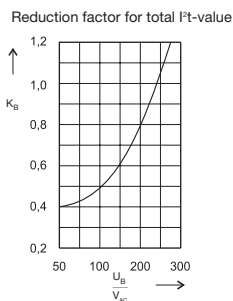
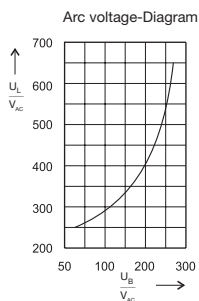
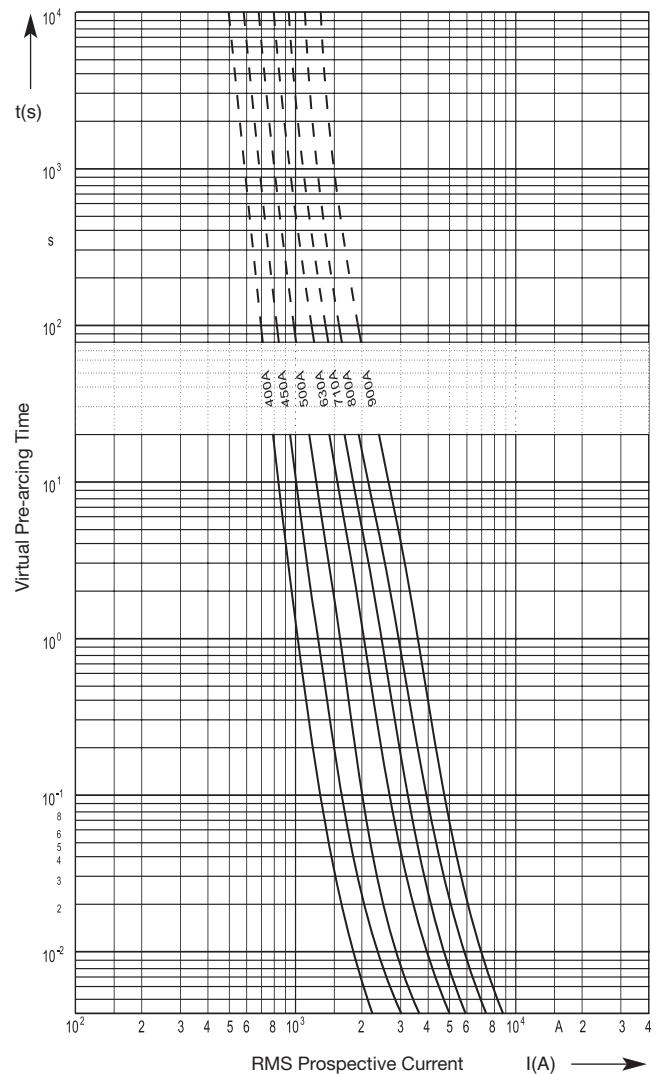
Size <b>2 x 35 x 59 mm</b>	Rated voltage <b>AC 240 V</b>	Operating class <b>aR</b>	Rated breaking capacity <b>100 kA</b>
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Rated current	Part No.	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 240 V A <sup>2</sup> s
400 A	50 071 06	55	10,000	61,000
450 A	50 071 06	56	19,000	116,000
500 A	50 071 06	59	27,000	165,000
630 A	50 071 06	62	50,000	305,000
710 A	50 071 06	72	70,000	427,000
800 A	50 071 06	74	106,000	647,000
900 A	50 071 06	90	150,000	915,000

Cut-off-characteristics



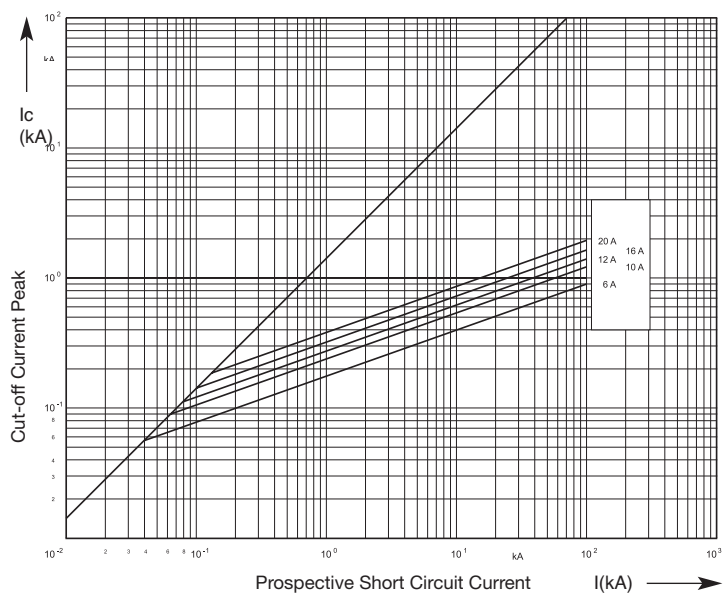
Time / Current Characteristics



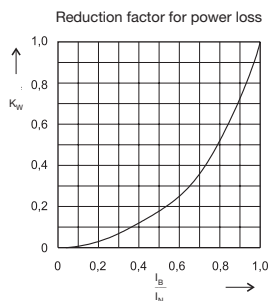
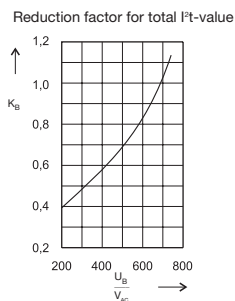
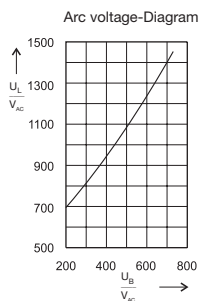
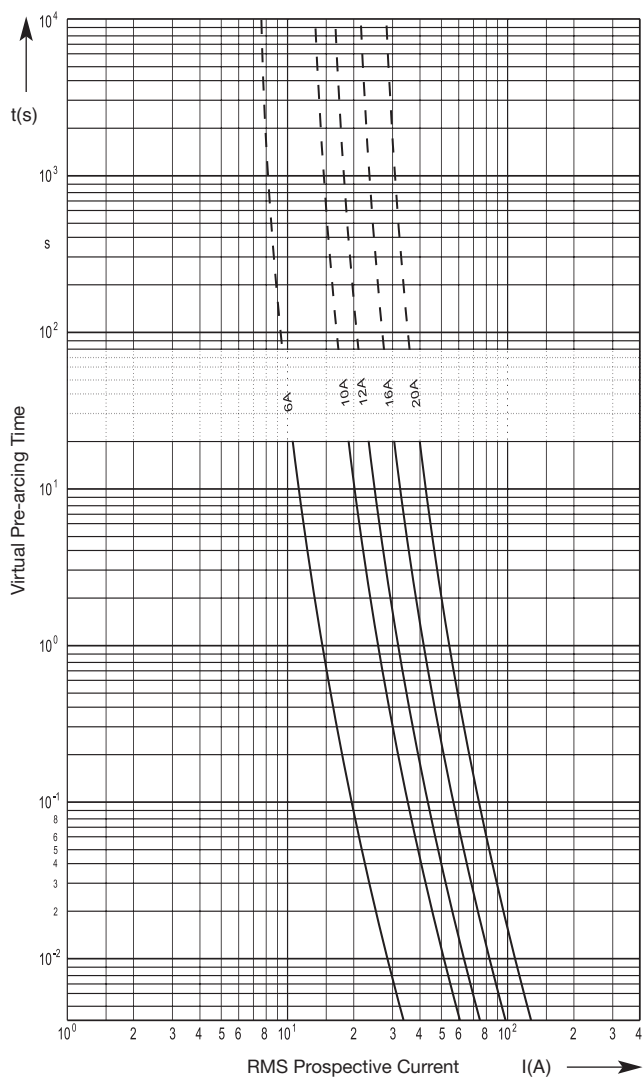
Size <b>8.4 x 64.3 mm</b>	Rated voltage <b>AC 690 V</b>	Operating class <b>aR</b>	Rated breaking capacity <b>100 kA</b>
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Rated current	Part No.	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 690 V A <sup>2</sup> s
6 A	50 077 06	3.2	3	20
10 A	50 077 06	3.7	8	53
12 A	50 077 06	3.9	11	77
16 A	50 077 06	5.5	18	120
20 A	50 077 06	7.5	32	215

Cut-off-characteristics



Time / Current Characteristics

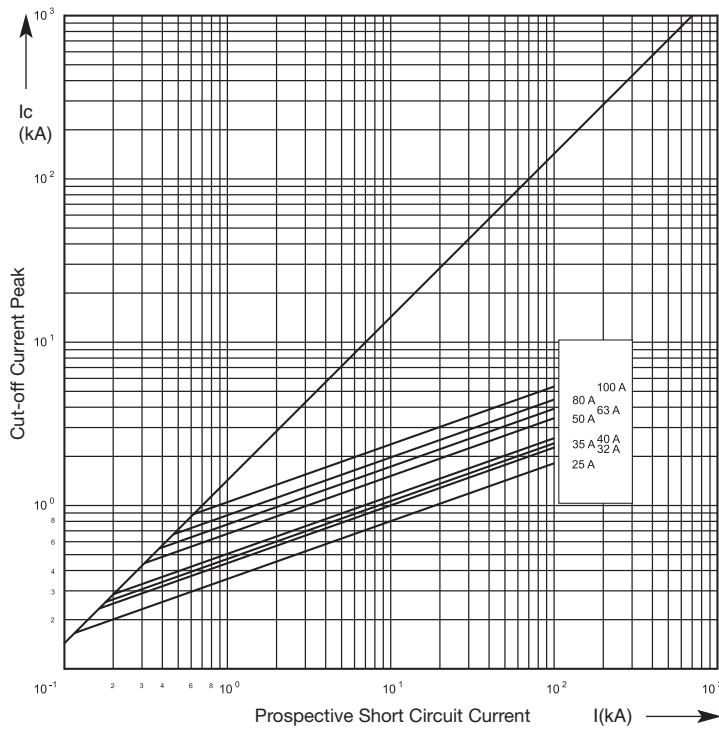




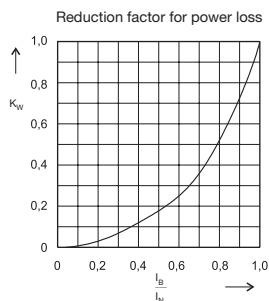
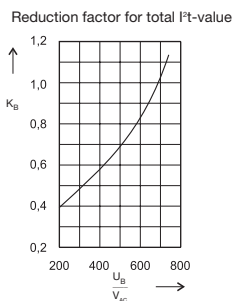
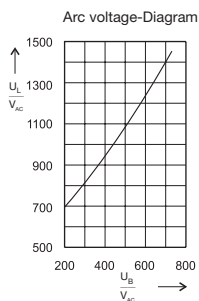
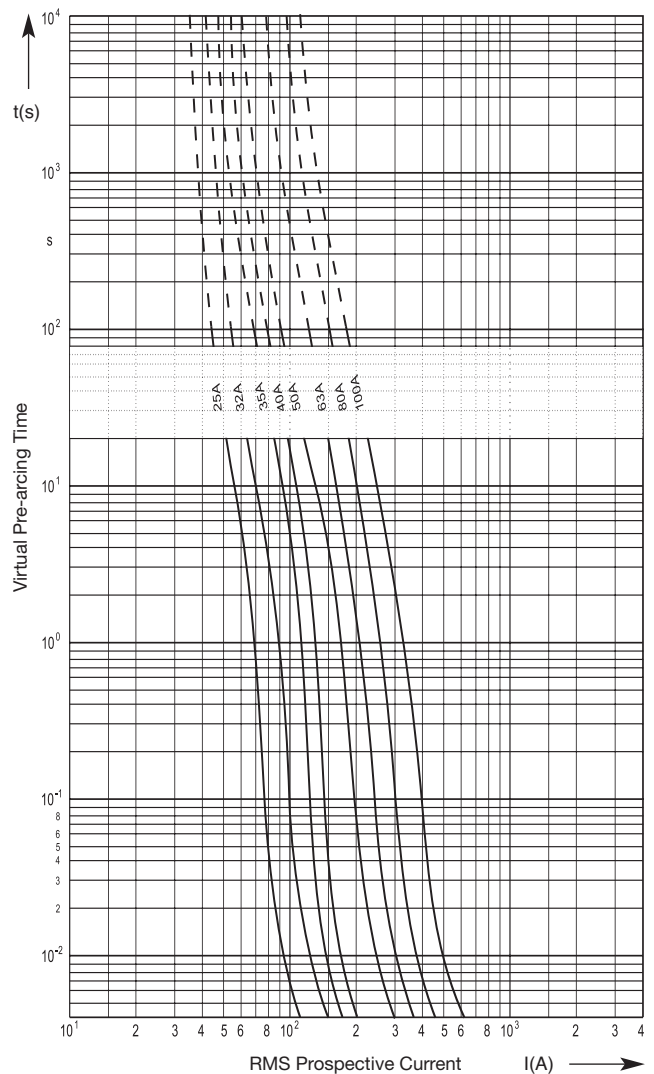
Size <b>17.5 x 63.5 mm</b>	Rated voltage <b>AC 690 V</b>	Operating class <b>aR</b>	Rated breaking capacity <b>100 kA</b>
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Rated current	Part No.	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 690 V A <sup>2</sup> s
25 A	50 073 06	7	25	110
32 A	50 073 06	9	50	210
35 A	50 073 06	10	60	260
40 A	50 073 06	11	80	330
50 A	50 073 06	12	190	780
63 A	50 073 06	15	290	1,200
80 A	50 073 06	18	420	1,700
100 A	50 073 06	23	740	3,100

Cut-off-characteristics



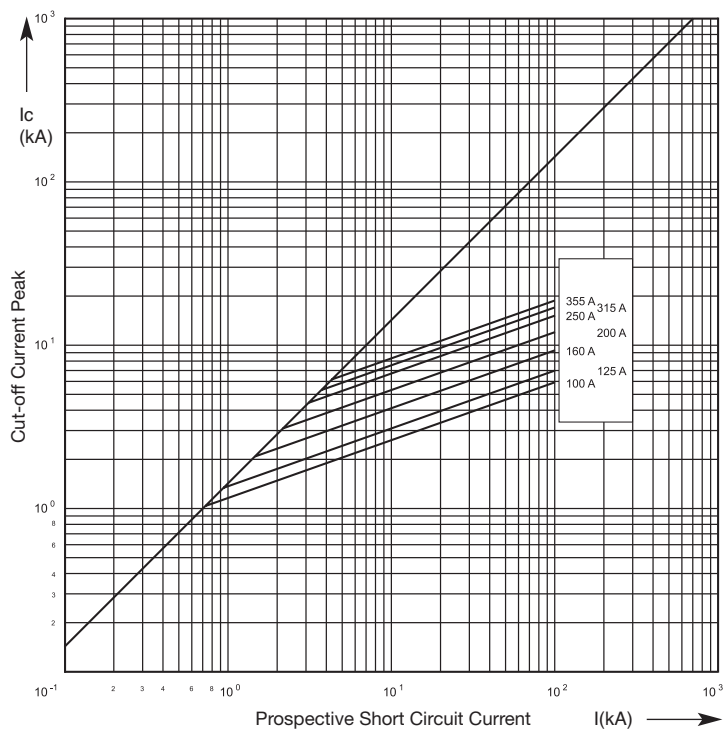
Time / Current Characteristics



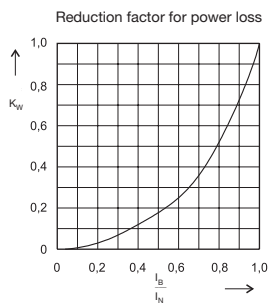
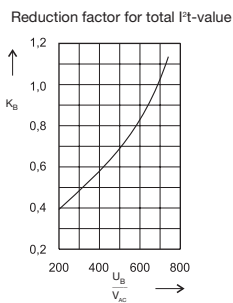
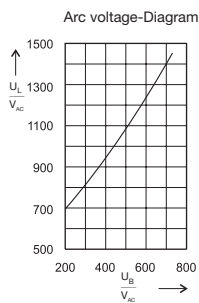
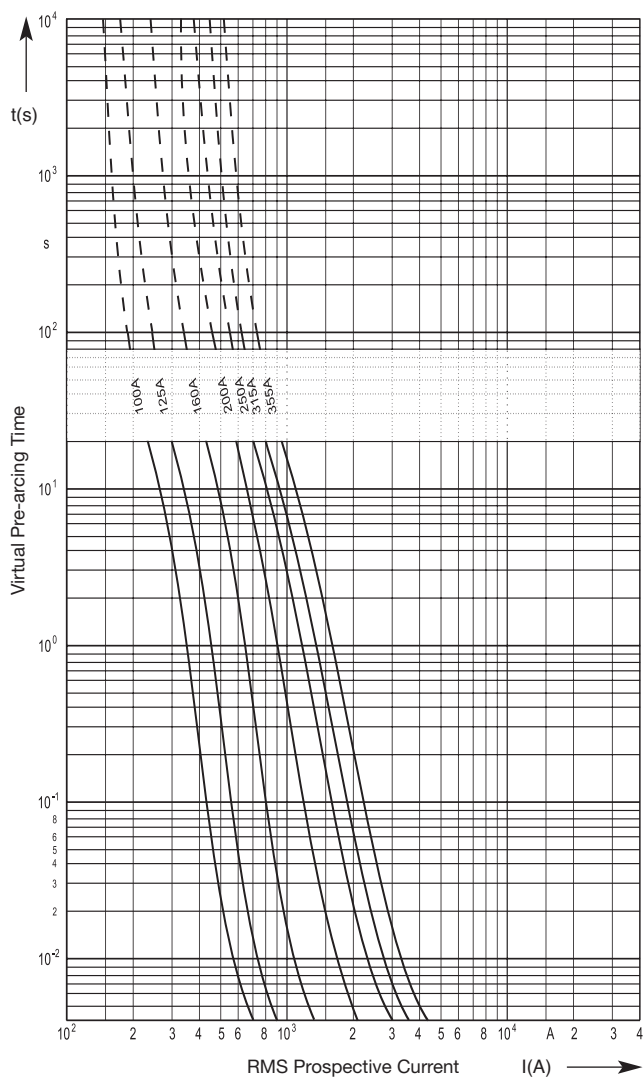
Size <b>35 x 85 mm</b>	Rated voltage <b>AC 690 V</b>	Operating class <b>aR</b>	Rated breaking capacity <b>100 kA</b>
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Rated current	Part No.	Power loss W	Pre-arcing $I^2t$ -value A <sup>2</sup> s	Total $I^2t$ -value @ 690 V A <sup>2</sup> s
100 A	50 074 06	22	1,000	6,500
125 A	50 074 06	29	1,700	11,000
160 A	50 074 06	30	4,000	26,000
200 A	50 074 06	31	9,000	58,000
250 A	50 074 06	40	18,000	116,000
315 A	50 074 06	44	27,000	173,000
355 A	50 074 06	56	36,000	231,000

Cut-off-characteristics



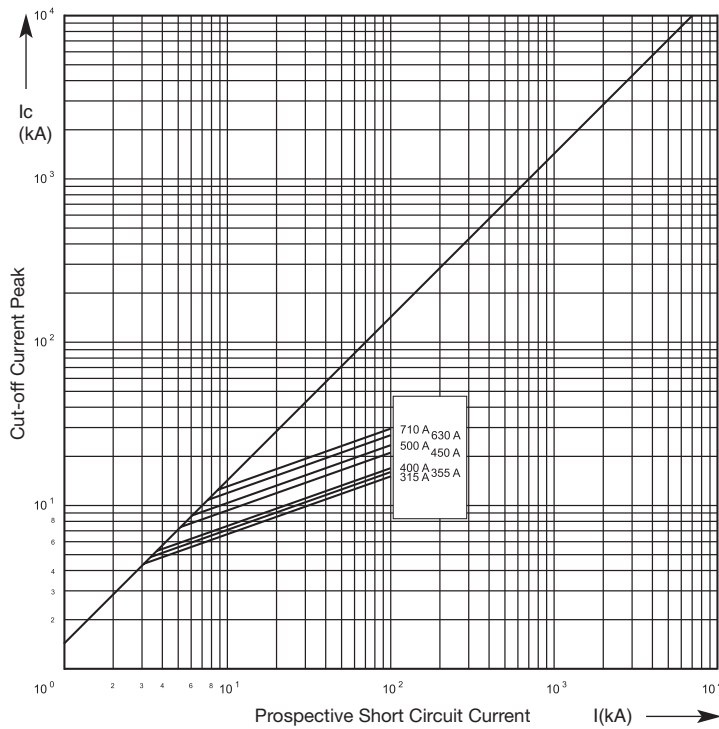
Time / Current Characteristics



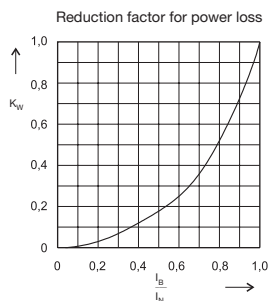
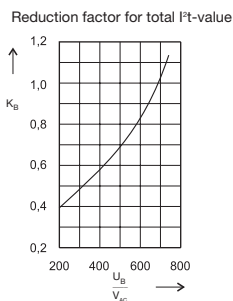
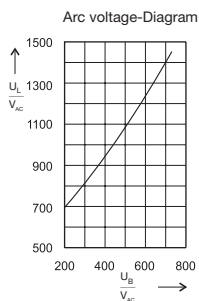
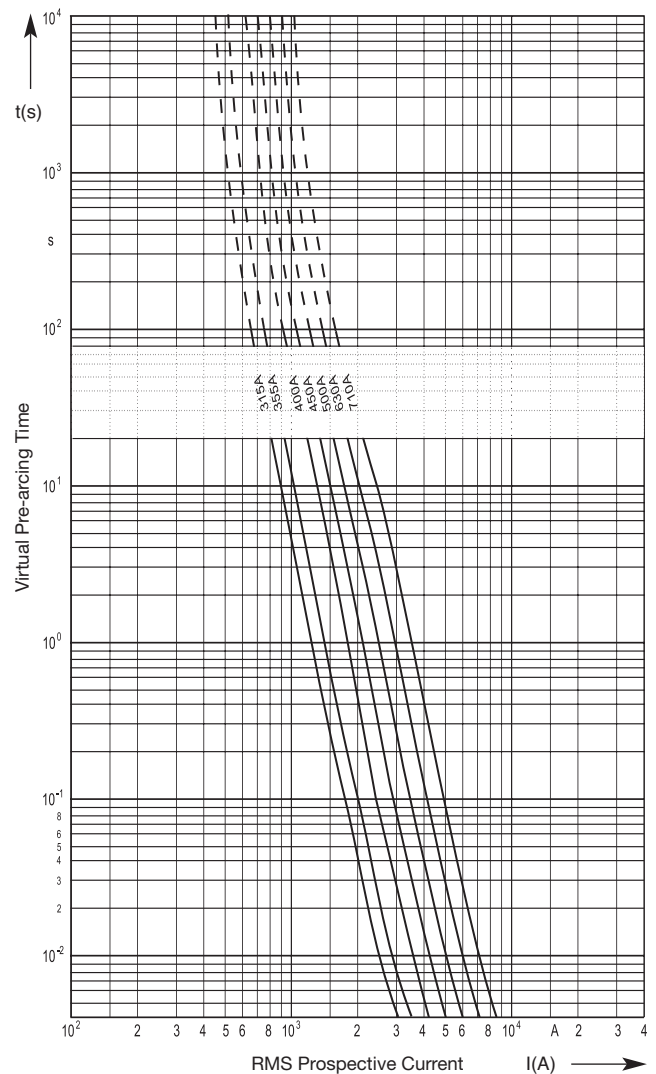
Size <b>2 x 35 x 85 mm</b>	Rated voltage <b>AC 690 V</b>	Operating class <b>aR</b>	Rated breaking capacity <b>100 kA</b>
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Rated current	Part No.	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 690 V A <sup>2</sup> s
315 A	50 075 06	48	18,500	119,000
355 A	50 075 06	55	22,300	143,000
400 A	50 075 06	58	26,100	167,000
450 A	50 075 06	63	52,300	335,000
500 A	50 075 06	68	70,100	449,000
630 A	50 075 06	87	106,000	679,000
710 A	50 075 06	104	145,000	928,000

Cut-off-characteristics



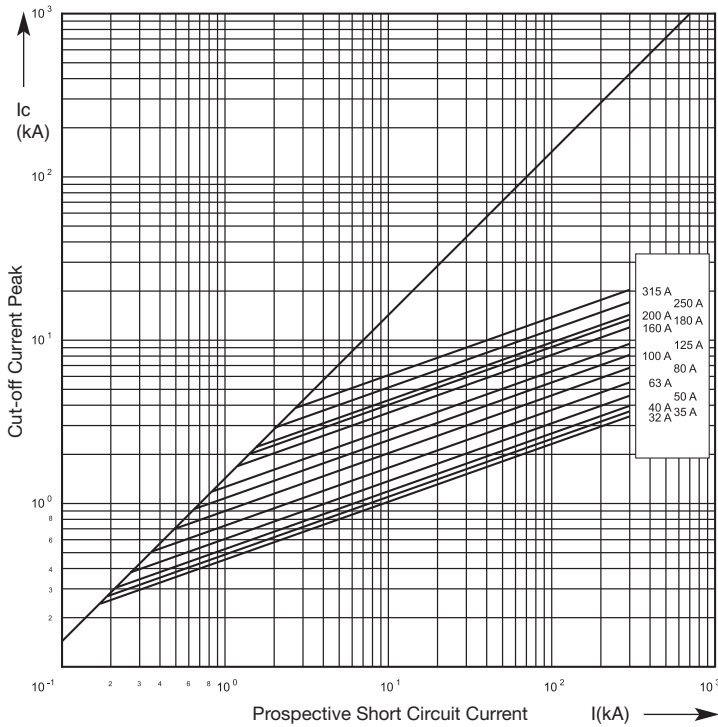
Time / Current Characteristics



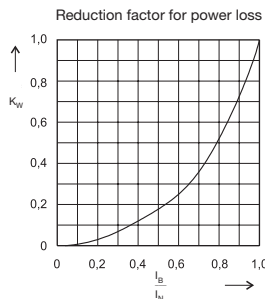
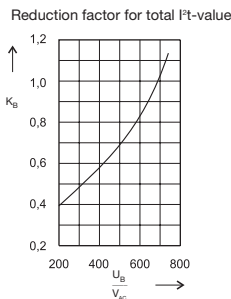
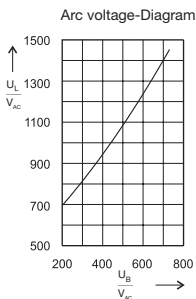
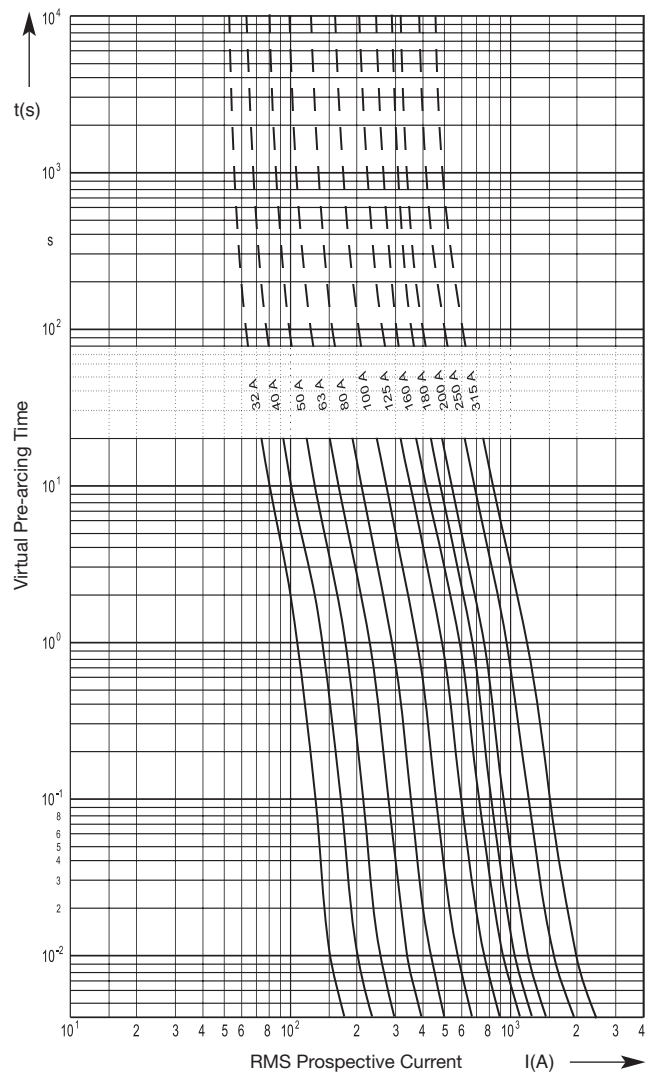
<b>Size</b> <b>000</b>	<b>Rated voltage</b> <b>AC 690/700 V</b>	<b>Operating class</b> <b>aR</b>	<b>Rated breaking capacity</b> <b>600 V/300 kA · 700 V/200 kA</b>
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Rated current	Part No.	Part No. without indicator	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value A <sup>2</sup> s
32 A	20 559 20	20 559 21	8	52	290
35 A	20 559 20	20 559 21	9	66	360
40 A	20 559 20	20 559 21	10	90	500
50 A	20 559 20	20 559 21	12	140	770
63 A	20 559 20	20 559 21	14	250	1,400
80 A	20 559 20	20 559 21	18	470	2,600
100 A	20 559 20	20 559 21	22	730	4,000
125 A	20 559 20	20 559 21	26	1,300	7,200
160 A	20 559 20	20 559 21	21	2,800	15,400
180 A	20 559 20	20 559 21	35	3,700	20,400
200 A	20 559 20	20 559 21	39	4,500	25,000
250 A	20 559 20	20 559 21	47	8,000	44,000
315 A	20 559 20	20 559 21	58	14,000	77,000

Cut-off-characteristics



Time / Current Characteristics



**Sets for Indicator fuses with microswitch**

Part No. fuse links	I Set of clips for indicator fuse	II indicator fuse	III Microswitch	H	I	J
50 053 06	58 053 04	58 053 07	58 053 05.1	0.98" (25 mm)	0.87" (22 mm)	0.94" (24 mm)
50 054 06	58 054 04	58 053 07	58 053 05.1	1.60" (41 mm)	1.46" (37 mm)	1.54" (39 mm)
50 073 06	58 053 04	58 073 07	58 053 05.1	0.98" (25 mm)	0.87" (22 mm)	0.94" (24 mm)
50 074 06	58 054 04	58 073 07	58 053 05.1	1.60" (41 mm)	1.46" (37 mm)	1.54" (39 mm)
50 071 06	58 053 07	58 053 07	58 053 05.1	0.98" (25 mm)	0.87" (22 mm)	0.94" (24 mm)
50 075 06	58 073 07	58 073 07	58 053 05.1	1.60" (41 mm)	1.46" (37 mm)	1.54" (39 mm)

