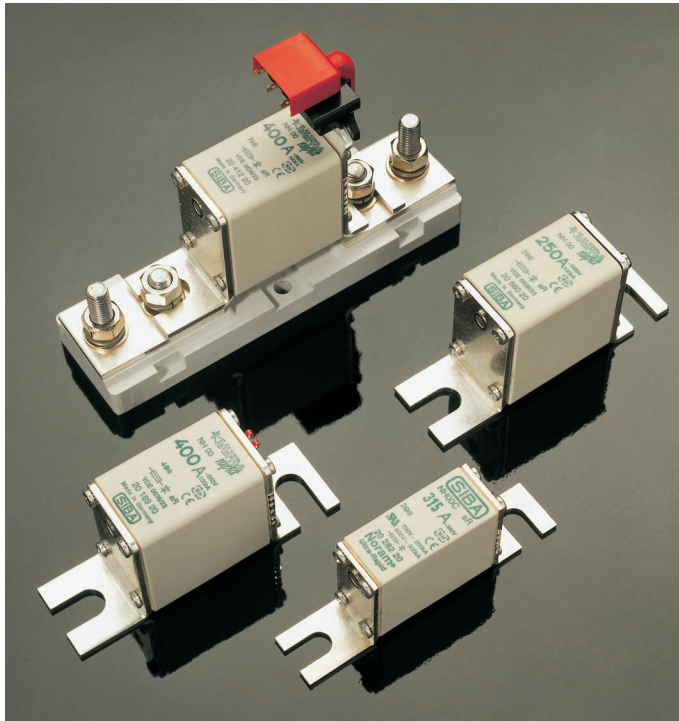



# FUSES FOR SEMICONDUCTOR PROTECTION

EUROPEAN STANDARD

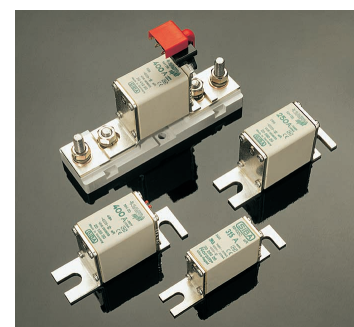
SIZES 000 AND 00



Class: aR  
 Voltage rating: AC 660 V – AC 1000 V  
 Current rating: 10 A to 400 A  
 Approvals:   
 Standards: DIN 43653  
 IEC 60269-1 and -4  
 DIN VDE 0636-40  
 UL 248-13

## Features / Benefits

- ▶ Extremely high interrupting rating 100 kA – 300 kA
- ▶ Voltage rating AC 660 V – AC 1000 V
- ▶ Protection of Power Semiconductors according to IEC 60269-1 and -4
- ▶ Complies with DIN 43653 – sizes 000 and 00 with or without Topindicator and trip microswitch
- ▶ aR class 10 A–400 A according to IEC 60269-4 and DIN VDE 0636-40
- ▶ Fuse Bases and Accessories are available



**FUSES FOR SEMICONDUCTOR PROTECTION**

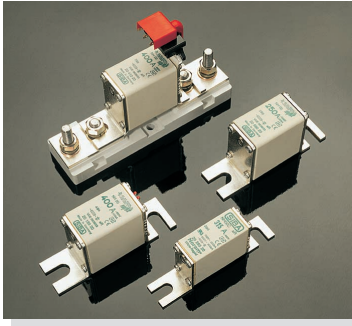
EUROPEAN STANDARD

SIZES 000 AND 00

**Selection Guide**

Size	Rated Voltage AC	Fixing Center	Indicator *	Part No. Type	Selector Guide Page	Techn. Data Page
000	660 V	3,15" (80 mm)	with Topindicator	20 282 04	URB 3	URB 10
000	660 V	3.15" (80 mm)	without Topindicator	20 282 41	URB 3	URB 10
000	660 V	3.15" (80 mm)	with microswitch fitting	20 558 04	URB 4	URB 10
000	690/700 V	3.15" (80 mm)	with Topindicator	20 282 20	URB 3	URB 11
000	690/700 V	3.15" (80 mm)	without Topindicator	20 282 21	URB 3	URB 11
000	690/700 V	3.15" (80 mm)	with microswitch fitting	20 558 20	URB 4	URB 11
00	660 V	3.15" (80 mm)	with Topindicator	20 189 04	URB 5	URB 12
00	660 V	3.15" (80 mm)	without Topindicator	20 189 41	URB 5	URB 12
00	660 V	3.15" (80 mm)	with microswitch fitting	20 412 04	URB 6	URB 12
00	690/700 V	3.15" (80 mm)	with Topindicator	20 189 20	URB 5	URB 13
00	690/700 V	3.15" (80 mm)	without Topindicator	20 189 21	URB 5	URB 13
00	690/700 V	3.15" (80 mm)	with microswitch fitting	20 412 20	URB 7	URB 13
00	1000 V	3.15" (80 mm)	with Topindicator	20 560 20	URB 8	URB 14
00	1000 V	3.15" (80 mm)	without Topindicator	20 560 21	URB 8	URB 14
00	1000 V	3.15" (80 mm)	with microswitch fitting	20 562 20	URB 9	URB 14
Fuse Base	1000 V			21 189 01		URB 15
Microswitch	250 V			28 002 05		URB 15

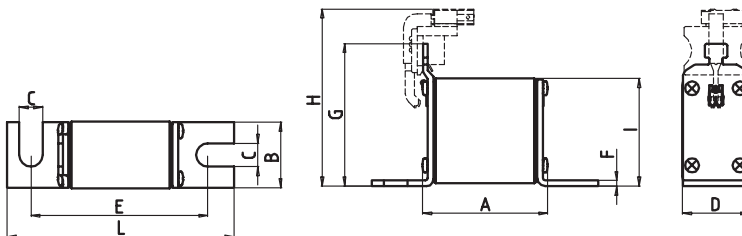
\* Minimum operating voltage for Topindicator 6.5 V



**FUSES FOR SEMICONDUCTOR PROTECTION**  
EUROPEAN STANDARD SIZES 000 AND 00

**Size 00**      **Rated voltage AC 690/700 V**      **Standard DIN 43653**

Rated current	Part No. Topindicator and fitting for microswitch	UL Rec.	Weight (kg/100)	Pack
32 A	20 412 20		21	3
35 A	20 412 20		21	3
40 A	20 412 20		21	3
50 A	20 412 20		21	3
63 A	20 412 20		21	3
80 A	20 412 20		21	3
100 A	20 412 20		21	3
125 A	20 412 20		21	3
160 A	20 412 20	✓	21	3
200 A	20 412 20	✓	21	3
250 A	20 412 20	✓	21	3
315 A	20 412 20	✓	21	3
350 A	20 412 20	✓	21	3
400 A	20 412 20		21	3

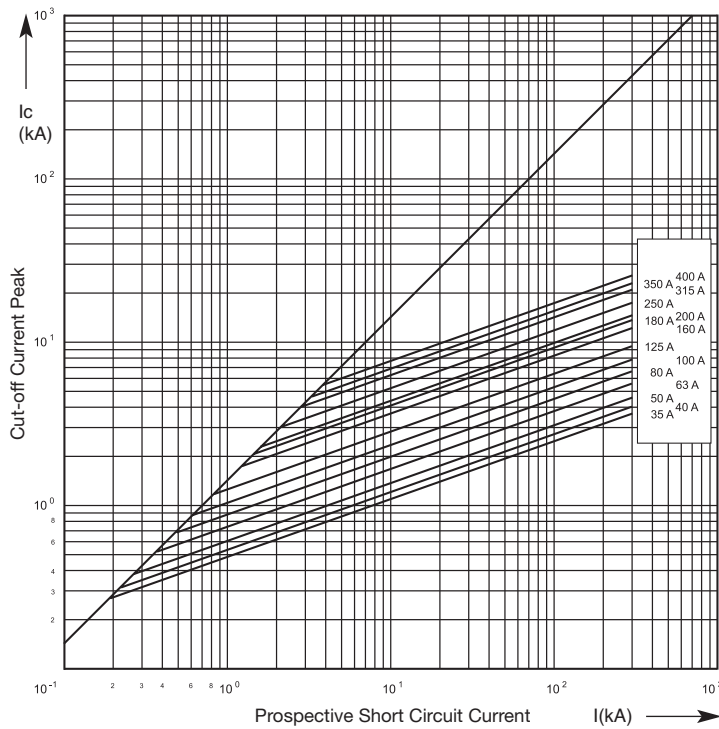


<b>A</b>	<b>2.17"</b> (55 mm)	<b>F</b>	<b>0.10"</b> (2.5 mm)
<b>B</b>	<b>1.13"</b> (28.8 mm)	<b>G</b>	<b>2.48"</b> (63 mm)
<b>C</b>	<b>0.40"</b> (10.3 mm)	<b>H</b>	<b>3.15"</b> (80 mm)
<b>D</b>	<b>1.16"</b> (29.5 mm)	<b>I</b>	<b>1.54"</b> (39 mm)
<b>E</b>	<b>3.07"</b> (78 mm)	<b>L<sub>(max)</sub></b>	<b>4.13"</b> (105 mm)

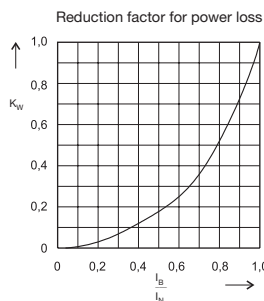
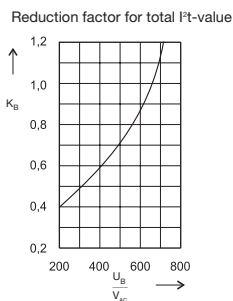
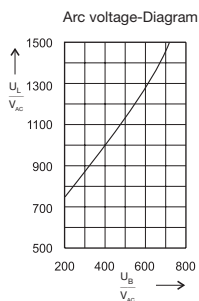
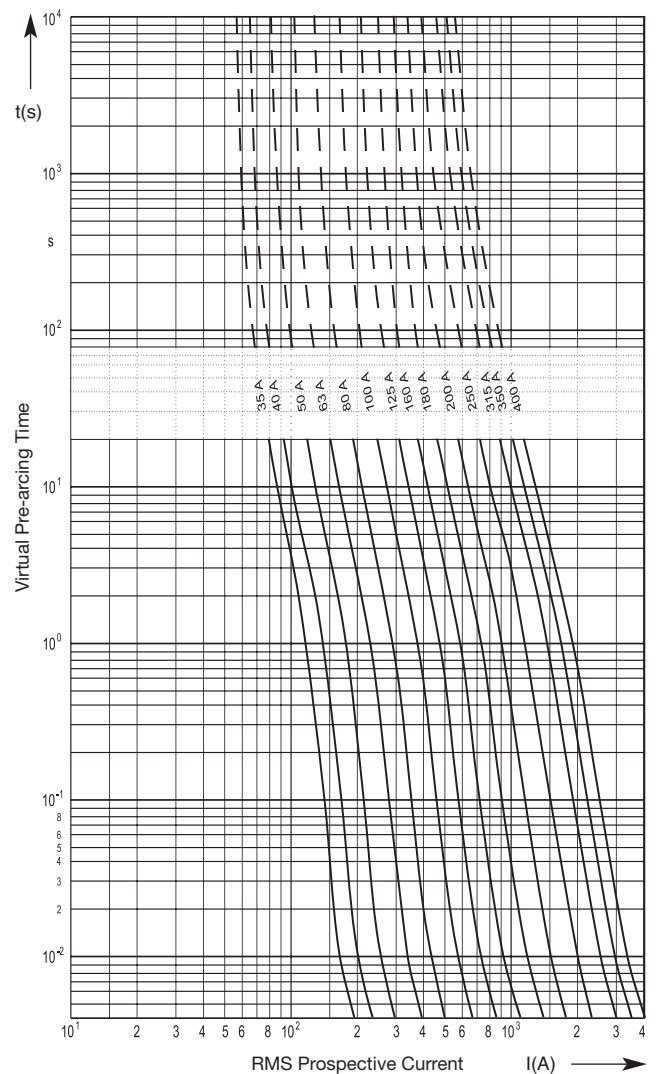
<b>Size</b> <b>00</b>	<b>Rated voltage</b> <b>AC 690/700 V</b>	<b>Operating class</b> <b>aR</b>	<b>Rated breaking capacity</b> <b>600 V / 300 kA · 700 V / 200 kA</b>
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Rated current	Part No. with Topindicator	Part No. without Topindicator	Part No. Topindicator and fitting for microswitch	Power loss W	Pre-arcing I <sup>2</sup> t-value A <sup>2</sup> s	Total I <sup>2</sup> t-value @ 660 V A <sup>2</sup> s
35 A	20 189 20	20 189 21	20 412 20	8	66	360
40 A	20 189 20	20 189 21	20 412 20	10	90	500
50 A	20 189 20	20 189 21	20 412 20	12	140	770
63 A	20 189 20	20 189 21	20 412 20	14	250	1,400
80 A	20 189 20	20 189 21	20 412 20	17	470	2,600
100 A	20 189 20	20 189 21	20 412 20	21	730	4,000
125 A	20 189 20	20 189 21	20 412 20	25	1,300	7,200
160 A	20 189 20	20 189 21	20 412 20	31	2,800	15,400
180 A	20 189 20	20 189 21	20 412 20	34	4,200	23,100
200 A	20 189 20	20 189 21	20 412 20	37	5,000	27,500
250 A	20 189 20	20 189 21	20 412 20	44	8,500	46,800
315 A	20 189 20	20 189 21	20 412 20	53	15,600	86,000
350 A	20 189 20	20 189 21	20 412 20	57	20,000	110,000
400 A	20 189 20	20 189 21	20 412 20	68	28,400	156,000

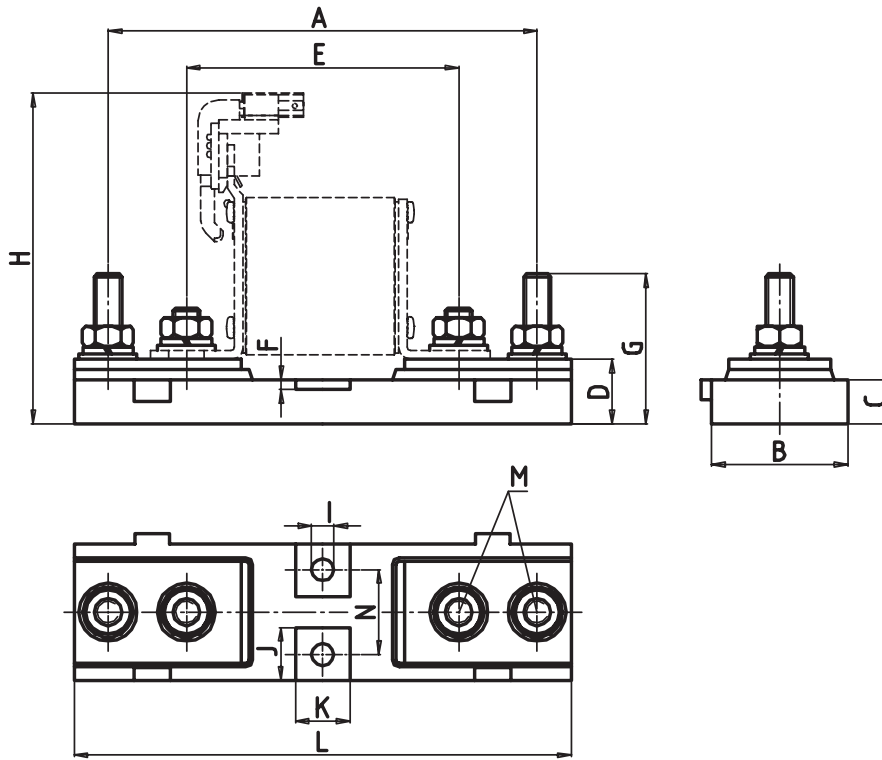
Cut-off-characteristics



Time / Current Characteristics



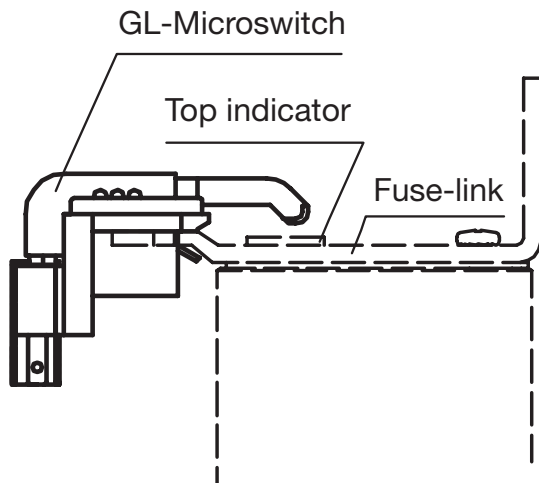
<b>Fuse Base</b> 400 A	<b>Size</b> 000 and 00	<b>Rated voltage</b> AC 1000 V	<b>Standard</b> DIN 43653
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**RU** 600 V  
 Part No. 21 189 01  
 Rated Current: 400 A  
 Rated Power Acceptance: 34 W  
 Nut Torque: 22 Nm

<b>A</b>	<b>4.96"</b> (126 mm)
<b>B</b>	<b>1.57"</b> (40 mm)
<b>C</b>	<b>0.50"</b> (13 mm)
<b>D</b>	<b>0.75"</b> (19 mm)
<b>E</b>	<b>3.15"</b> (80 mm)
<b>F</b>	<b>0.12"</b> (3 mm)
<b>G</b>	<b>1.73"</b> (44 mm)
<b>H</b>	<b>3.82"</b> (97 mm)
<b>I</b>	<b>0.26"</b> (6,5 mm)
<b>J</b>	<b>0.60"</b> (15,5 mm)
<b>K</b>	<b>0.63"</b> (16 mm)
<b>L<sub>(max)</sub></b>	<b>5.75"</b> (146 mm)
<b>M</b>	<b>M 8</b>
<b>N</b>	<b>0.98"</b> (25 mm)

<b>Microswitch</b>	<b>Rated voltage</b> AC 250 V
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Part No. 28 002 05

Rated voltage	Breaking capacity	
	non inductive Load	inductive Load
AC 250 V	5 A	5 A

Rated voltage	Breaking capacity	
	non inductive Load	inductive Load (L/R = 25 ms)
DC 60 V	500 mA	200 mA
DC 24 V	2 A	2 A