

HRC Fuse Links

**Class of Operation gL/gG, 690V ac 440V dc 6 to 630 Amps
Sizes 00 to 3**

Catalog Symbol: NH_G-690

Approvals: IEC269,VDE 0636

Description: A square bodied range of industrial fuse links
for wide variety of applications where 690V is needed.

Packaging: All fuse links are packed in 3's.

Standards: DIN43620 Part 1

Ordering Code: Rating/Type/Body Size/Category
e.g. 100NH2G-690

Technical Data:

Rated Voltage: 690V ac / 440V dc

Rated Breaking Capacity: 50kA

Rated Frequency: 50 Hz

Operating Frequency: 45 - 62 Hz

Selectivity: 1 : 1.6 up to 690V ac

1 : 1.25 up to 380V ac

Design - Insulator: Ceramic

- Metal Parts: Corrosion-proof (top plate also galvanic plated)

Contact Blades: Full contact blades,
silver plated copper.

Protection Type: IP 00 according to DIN40050

Dimensions: DIN 43620

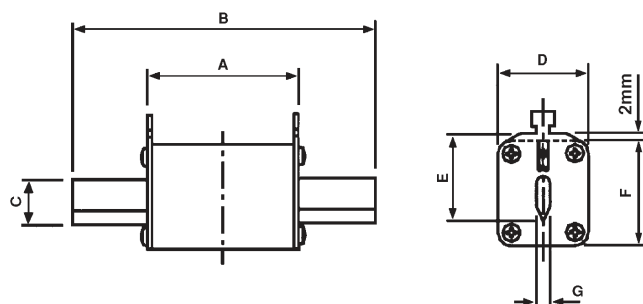
Tests: VDE 0636/21 (RS 5126-75)

Constancy of

Characteristics: Resistant to ageing.

On/Off Indicator: Spring indicator, minimum
operating voltage 10V

Mechanical Stress: Vibrations 7 up to 50 Hz
with 1 g, shocks with 5 g

**Specifications (Dimensions all in mm)**

SIZE	A	B	C min.	D	E ± 0.8	F max.	G
C00	49 ± 1.5	78.5 ± 1.5	15	21	35	41	60 ± 2.0
00	49 ± 1.5	78.5 ± 1.5	15	30	35	48	60 ± 2.0
0	68 ± ^{+1.5} _{-3.0}	125 ± 1.5	15	30	35	48	60 ± 2.0
1 (small)	68 ± 2.5	135 ± 2.5	15	30	40	48	60 ± 2.0
1	68 ± 2.5	135 ± 2.5	20	41	40	53	60 ± 2.0
2	68 ± 2.5	150 ± 2.5	25	51	48	61	60 ± 2.0
3	68 ± 2.5	150 ± 2.5	32	72	60	76	60 ± 2.0
4a	90 ± 30	200 ± 3.0	50	100	85	85	60 ± 2.0

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Technical Data

Size	00	1	2	3
Rated operational current I_e	160A	250A	400A	630A
Rated uninterrupted current with connecting knives I_u	200A	400A	630A	1000A
Rated operational voltage U_{I_e} AC	690V	690V	690V	690V
Rated insulating voltage U_i AC	1000V	1000V	1000V	1000V
Insulating class	C	C	C	C
Rated frequency	45-62 Hz	45-62 Hz	45-62 Hz	45-62 Hz
Protection category	IP20	IP20	IP20	IP20
Rated impulse withstand voltage	12kV	12kV	12kV	12kV
Utilisation Category:				
AC23B / 380V, $\cos \varphi = 0.35$	1280/960A	2000/1500A	3200/2400A	5040/3780A
AC22B / 500V, $\cos \varphi = 0.65$	480A	750A	1200A	1890A
AC21B / 660V, $\cos \varphi = 0.95$	240A	375A	600A	945A
AC23B / 660V, $\cos \varphi = 0.35^*$	-	2000/1500A*	3200/2400A*	5040/3780*
Dynamic short-circuit strength with fuse links according to VDE 0636 Part 21	120kA	120kA	120kA	120kA
Rated short time withstand current I_{cw} (with connecting knives) (1s)	>3.0kA	>10kA	>20kA	>20kA
Power dissipation of the fuse links	12W	23W	34W	48W
Standard terminal	M8	M10	M10	M12
For bus bars with max. width	20mm	30mm	40mm	50mm
For cable lug: with 1 cable lug	2.5-70mm ²	6-150mm ²	6-240mm ²	10-240mm ²
with 2 cable lugs	-	70-150mm ²	150-240mm ²	150-240mm ²
Ambient air temperature	-25 to +55 deg	-25 to +55 deg	-25 to +55 deg	-25 to +55 deg

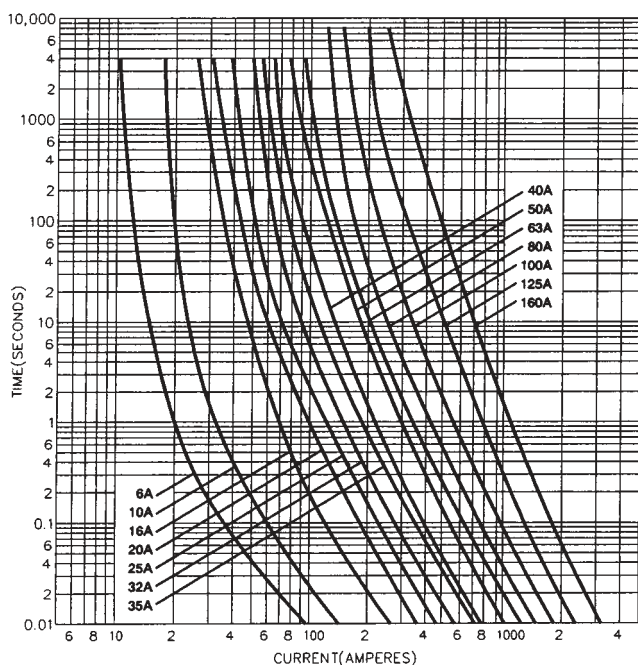
*designed with arc chambers and break roller.

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Time Current Characteristics for Size 00

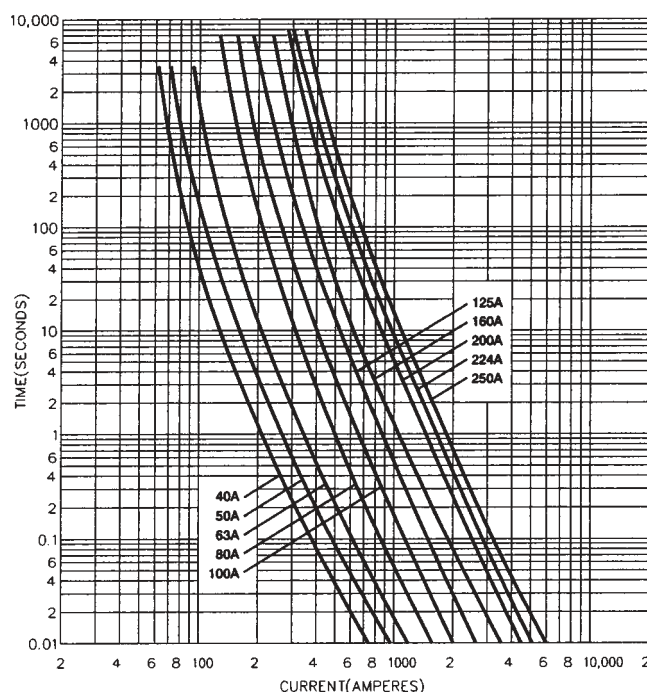


Size 00 Details:

Approvals: VDE, ÖVE, KEMA, IEC, SEV
Rated Currents: 6, 10, 16, 20, 25, 32, 35, 40, 50, 63, 80, 100, 125, and 160 A
Weight: 0.16 kg.

Catalog ¹ Number	I ² t (Ampere ² Seconds)					Nom. Watts Loss	Rated Voltage
	Amp Ratings	Pre-Arcing	Total at 380V	Total at 500V	Total at 690V		
6NH00G-690	6	33	100	210	450	1.3	690 ac
10NH00G-690	10	75	180	405	705	1.6	
16NH00G-690	16	350	830	1,900	3,250	2.0	
20NH00G-690	20	780	1,800	4,200	7,200	2.1	
25NH00G-690	25	1,450	3,400	7,800	12,500	2.4	
32NH00G-690	32	2,400	5,700	12,800	21,000	3.7	
35NH00G-690	35	3,600	8,500	19,300	31,500	3.8	
40NH00G-690	40	5,000	11,500	26,300	44,000	4.7	
50NH00G-690	50	8,000	18,500	43,000	69,100	6.3	
63NH00G-690	63	13,000	31,000	72,000	113,000	7.8	
80NH00G-690	80	18,200	43,000	100,000	160,000	8.5	
100NH00G-690	100	26,800	63,500	140,000	230,000	9.4	
125NH00G-690	125	40,500	96,000	215,000	350,000	12.6	
160NH00G-690	160	78,000	178,000	410,000	650,000	17.7	

Time Current Characteristics for Size 1



Size 1 Details:

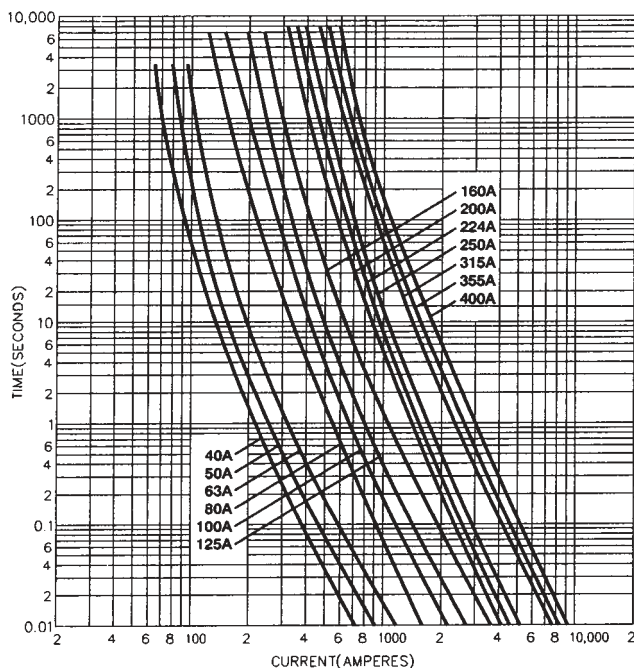
Approvals: VDE, ÖVE, KEMA, IEC, SEV
Rated Currents: 40, 50, 63, 80, 100, 125, 160, 200, 224, 250 Amps
Weight: 0.38 kg.

Catalog ¹ Number	I ² t (Ampere ² Seconds)					Nom. Watts Loss	Rated Voltage
	Amp Ratings	Pre-Arcing	Total at 380V	Total at 500V	Total at 690V		
40NH1G-690	40	5,000	11,500	26,300	44,000	4.7	690 ac
50NH1G-690	50	8,000	18,500	43,000	69,100	6.3	
63NH1G-690	63	13,000	31,000	72,000	113,000	7.8	
80NH1G-690	80	18,200	43,000	100,000	160,000	8.5	
100NH1G-690	100	26,800	63,500	140,000	230,000	9.4	
125NH1G-690	125	40,500	96,000	215,000	350,000	12.6	
160NH1G-690	160	76,500	178,000	410,000	650,000	17.7	
200NH1G-690	200	120,500	285,500	650,000	1,050,000	20.0	
224NH1G-690	224	160,500	380,500	866,000	1,360,000	23.0	
250NH1G-690	250	197,000	462,000	1,100,000	1,700,000	25.2	

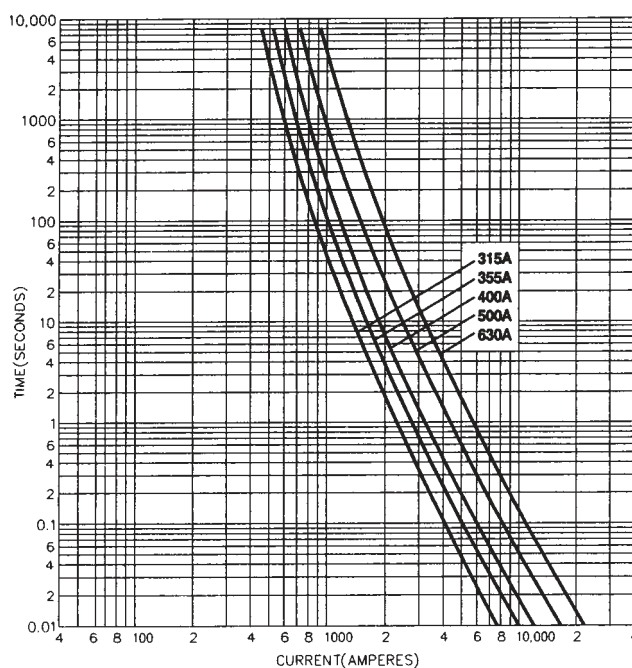
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Time Current Characteristics for Size 2



Time Current Characteristics for Size 3



Size 2 Details:

Approvals: VDE, ÖVE, KEMA, IEC, SEV
Rated Currents: 40, 50, 63, 80, 100, 125, 160, 200, 224, 250, 315, 355, 400 Amps
Weight: 0.59 kg.

Size 3 Details:

Approvals: CEBC
Rated Currents: 315, 355, 400, 425, 500, and 630 Amps
Weight: 1.0 kg.

Catalog ¹ Number	I ² t (Ampere ² Seconds)					Nom. Watts Loss	Rated Voltage
	Amp Ratings	Pre-Arcing	Total at 380V	Total at 500V	Total at 690V		
40NH2G-690	40	5,000	11,500	26,300	44,000	4.7	690 ac
50NH2G-690	50	8,000	18,500	43,000	69,100	6.3	
63NH2G-690	63	13,000	31,000	72,000	113,000	7.8	
80NH2G-690	80	18,200	43,000	100,000	160,000	8.5	
100NH2G-690	100	26,800	63,500	140,000	230,000	9.4	
125NH2G-690	125	40,500	96,000	215,000	350,000	12.6	
160NH2G-690	160	76,500	178,000	410,000	650,000	17.7	
200NH2G-690	200	120,500	285,500	650,000	1,050,000	20.0	
224NH2G-690	224	160,500	380,500	866,000	1,360,000	23.0	
250NH2G-690	250	197,000	462,000	1,100,000	1,700,000	25.2	
315NH2G-690	315	330,000	800,000	1,780,000	2,800,000	30.0	
355NH2G-690	355	405,000	960,000	2,230,000	3,500,000	35.8	
400NH2G-690	400	600,000	1,400,000	3,300,000	5,000,000	41.5	

Catalog ¹ Number	I ² t (Ampere ² Seconds)					Nom. Watts Loss	Rated Voltage
	Am Ratings	Pre-Arcing	Total at 380V	Total at 500V	Total at 690V		
315NH3G-690	315	330,000	800,000	1,780,000	2,800,000	30.0	690 ac
355NH3G-690	355	405,000	960,000	2,230,000	3,500,000	35.8	
400NH3G-690	400	600,000	1,400,000	3,300,000	5,000,000	41.5	
500NH3G-690	500	1,000,000	2,400,000	5,400,000	8,310,000	43.0	
630NH3G-690	630	1,700,000	4,100,000	9,200,000	15,000,000	47.4	

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