

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

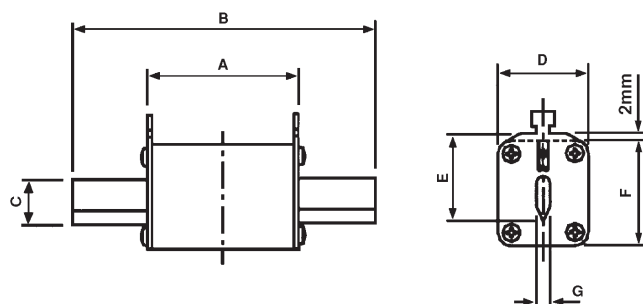
Tests: VDE 0636/21 (RS 5126-75)

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>(small)</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

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

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

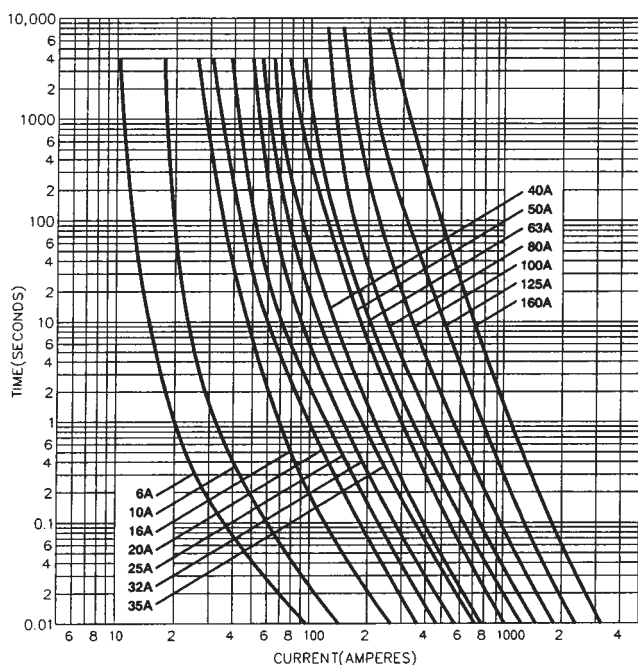
*designed with arc chambers and break roller.

HRC Fuse Links

Class of Operation gL/gG 690V ac 440V dc 6 to 630 Amps

Sizes 00 to 3

Time Current Characteristics for Size 00

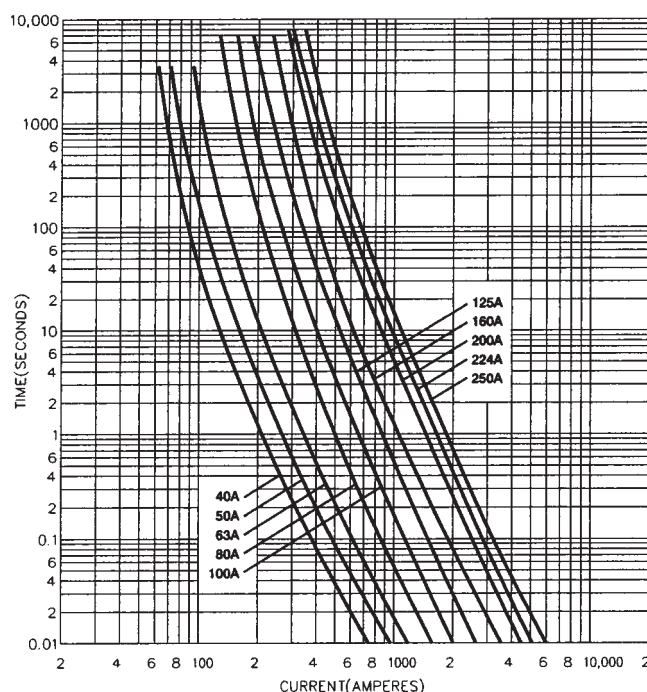


Size 00 Details:

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:

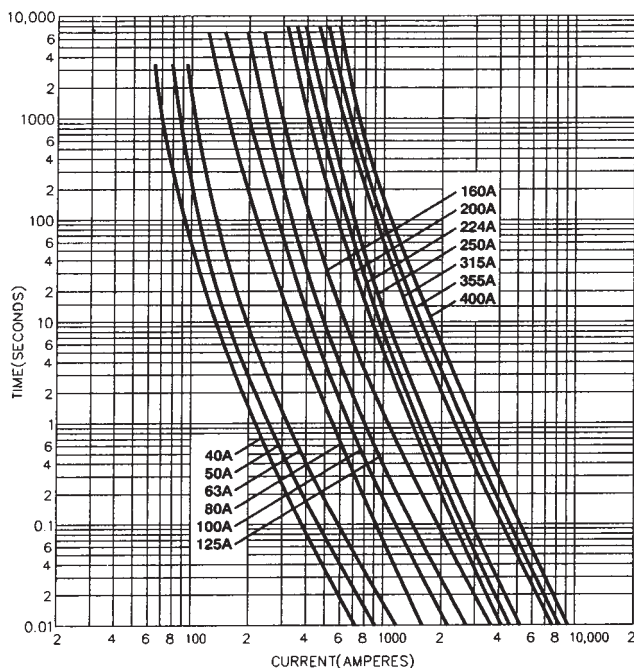
Approvals: VDE, ÖVE, KEMA, IEC, SEV
Rated Currents: 40, 50, 63, 80, 100, 125, 160, 200, 224, 250 Amps
Weight: 0.38 kg.

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	

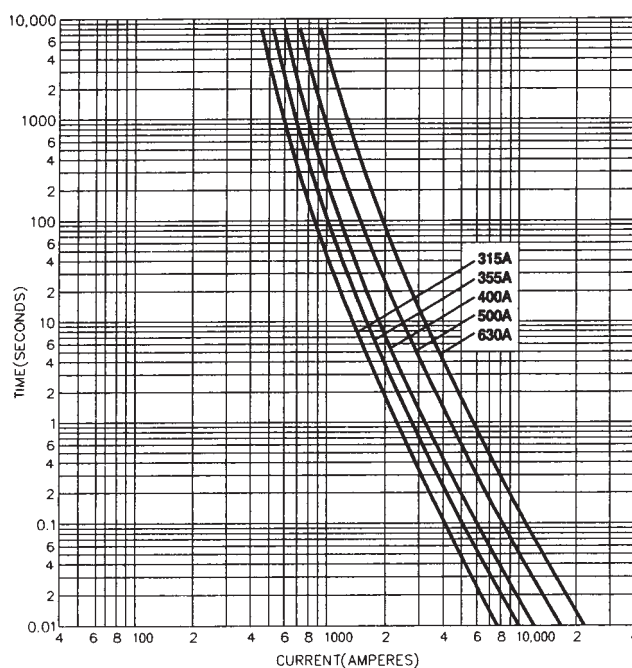
HRC Fuse Links

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

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	

The only controlled copy of this BIF document is the electronic read-only version located on the Bussmann Network Drive. All other copies of this BIF document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.