

# Bussmann series 690 Volts gG/gL NH Fuse links

## Product description

Eaton's Bussmann series 690 V a.c. NH square bodied industrial fuse links are suitable for a wide variety of applications.

## Standard features

- Reliable dual indicator system
- Low temperature rise
- Globally compliant
- Compatible with Bussmann series PV NH base range (see data sheet 10163)



**EAT•N**

*Powering Business Worldwide*

**Catalogue symbol:**

- (amp)NHG(size)B-690 with conducting metal gripping lugs

**Fuse size:**

- 000 to 4\*

**Technical data:**

- Volts: 690 V a.c.
- Amps: 2 to 800 A
- Breaking capacity: 120 kA AC
- Operating frequency: 45-62 Hz
- Class of operation: gG/gL

**Standards/Approvals:**

- IEC 60269
- VDE 0636
- DIN 43620

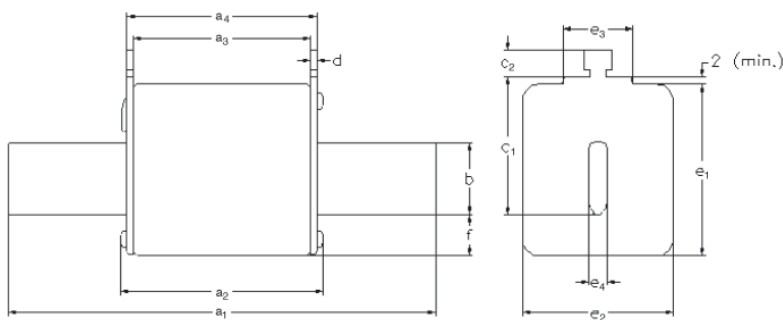
**Microswitches:**

- 170H0236
- BVL50

**Packaging:**

- Sizes 000 to 3: 3 per carton
- Size 4: 1 per carton

**Size - mm**



**Table 1. NH Sizes**

| Size | a1         | a2 (max) | a3     | a4     | b  | c1 | c2 | d       | e1 (max) | e2 (max) | e3 (max) | e4 | f (max) |
|------|------------|----------|--------|--------|----|----|----|---------|----------|----------|----------|----|---------|
| 000  | 78.5 ± 1.5 | 54       | 45±1.5 | 49±1.5 | 15 | 35 | 10 | 2±0.5   | 41       | 21       | 16       | 6  | 8       |
| 00   | 78.5 ± 1.5 | 54       | 45±1.5 | 49±1.5 | 15 | 35 | 11 | 2±0.5   | 48       | 30       | 25       | 6  | 15      |
| 1    | 135±2.5    | 75       | 62±2.5 | 68±2.5 | 20 | 40 | 11 | 2.5±0.5 | 53       | 40       | 25       | 6  | 15      |
| 2    | 150±2.5    | 75       | 62±2.5 | 68±2.5 | 25 | 48 | 11 | 2.5±0.5 | 61       | 53       | 25       | 6  | 15      |
| 3    | 150±2.5    | 75       | 62±2.5 | 68±2.5 | 32 | 60 | 11 | 3±0.5   | 75       | 70       | 25       | 6  | 18      |
| 4*   | 200±3      | 84       | 62±2.5 | 90±3   | 50 | 85 | 10 | 3±0.5   | 102      | 87       | 25       | 8  | 30      |

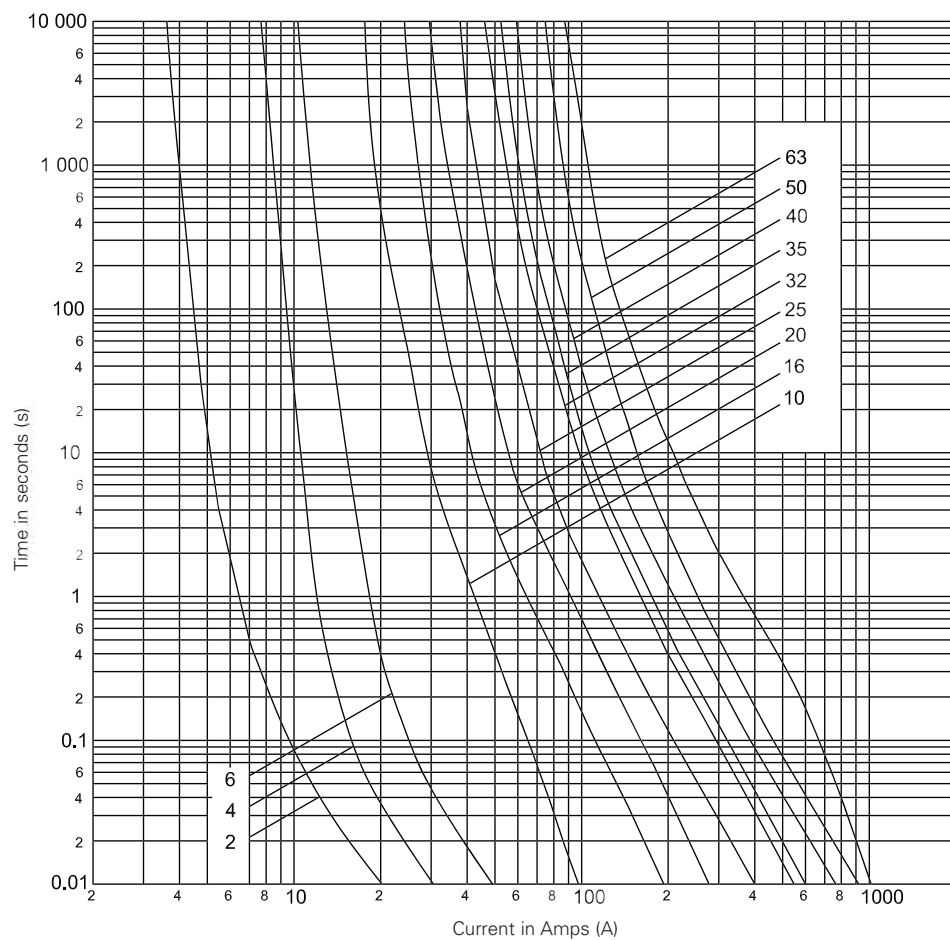
\* Single indication slotted tags

Table 2. Part numbers

| Size | Rated current (Amps) | Rated voltage (V a.c.) | gG/gL dual indicator<br>Voltage conducting metal gripping lugs | Pack quantity |
|------|----------------------|------------------------|----------------------------------------------------------------|---------------|
| 000  | 2                    | 690                    | 2NHG000B-690                                                   | 3             |
|      | 4                    |                        | 4NHG000B-690                                                   |               |
|      | 6                    |                        | 6NHG000B-690                                                   |               |
|      | 10                   |                        | 10NHG000B-690                                                  |               |
|      | 16                   |                        | 16NHG000B-690                                                  |               |
|      | 20                   |                        | 20NHG000B-690                                                  |               |
|      | 25                   |                        | 25NHG000B-690                                                  |               |
|      | 32                   |                        | 32NHG000B-690                                                  |               |
|      | 35                   |                        | 35NHG000B-690                                                  |               |
|      | 40                   |                        | 40NHG000B-690                                                  |               |
|      | 50                   |                        | 50NHG000B-690                                                  |               |
|      | 63                   |                        | 63NHG000B-690                                                  |               |
| 00   | 50                   | 660                    | 50NHG00B-690                                                   |               |
|      | 63                   |                        | 63NHG00B-690                                                   |               |
|      | 80                   |                        | 80NHG00B-690                                                   |               |
|      | 100                  |                        | 100NHG00B-690                                                  |               |
|      | 125                  |                        | 125NHG00B-690                                                  |               |
| 1    | 160                  | 690                    | 160NHG00B-660                                                  |               |
|      | 50                   |                        | 50NHG1B-690                                                    |               |
|      | 63                   |                        | 63NHG1B-690                                                    |               |
|      | 80                   |                        | 80NHG1B-690                                                    |               |
|      | 100                  |                        | 100NHG1B-690                                                   |               |
|      | 125                  |                        | 125NHG1B-690                                                   |               |
|      | 160                  |                        | 160NHG1B-690                                                   |               |
|      | 200                  |                        | 200NHG1B-690                                                   |               |
|      | 224                  |                        | 224NHG1B-690                                                   |               |
| 2    | 250                  |                        | 250NHG1B-690                                                   |               |
|      | 200                  |                        | 200NHG2B-690                                                   |               |
|      | 224                  |                        | 224NHG2B-690                                                   |               |
|      | 250                  |                        | 250NHG2B-690                                                   |               |
| 3    | 315                  |                        | 315NHG2B-690                                                   |               |
|      | 250                  |                        | 250NHG3B-690                                                   |               |
|      | 315                  |                        | 315NHG3B-690                                                   |               |
|      | 355                  |                        | 355NHG3B-690                                                   |               |
|      | 400                  |                        | 400NHG3B-690                                                   |               |
|      | 425                  |                        | 425NHG3B-690                                                   |               |
| 4    | 500                  |                        | 500NHG3B-690                                                   | 1             |
|      | 630                  |                        | 630NHG4B-690                                                   |               |
|      | 800                  |                        | 800NHG4B-690                                                   |               |

\* Available upon request

Time-current curves - NH Size 000

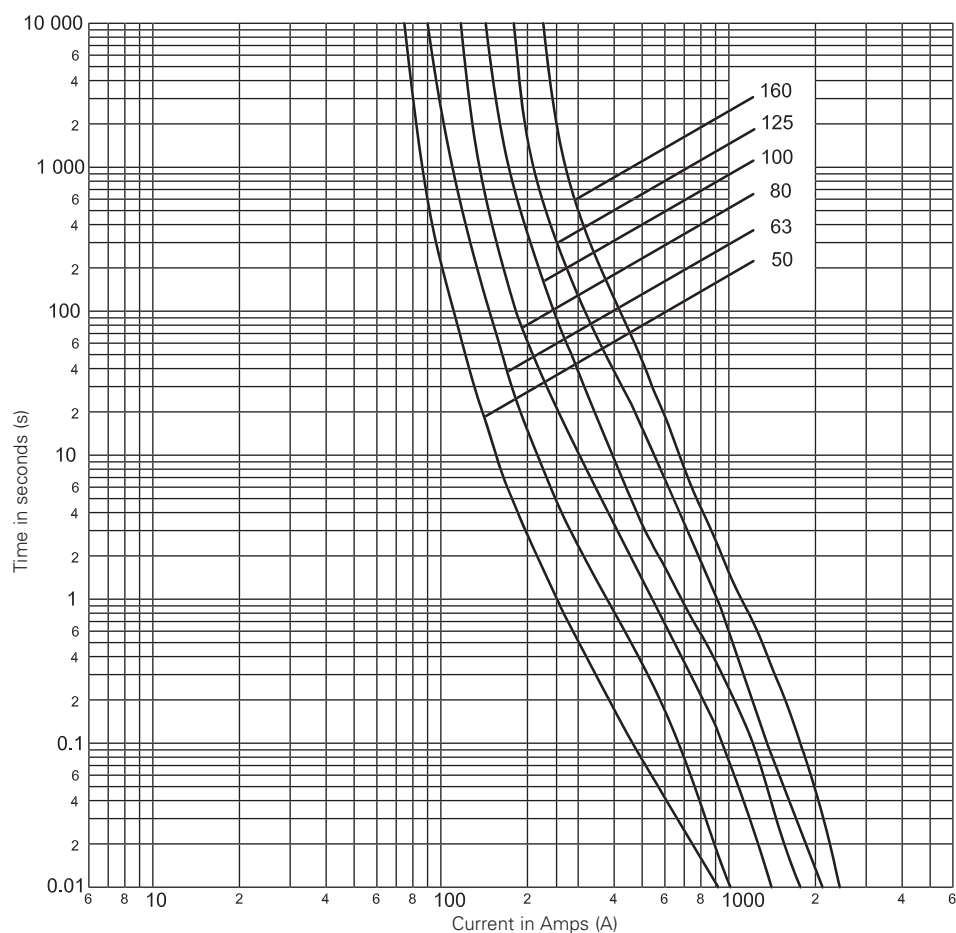


Technical data - NH size 000

| Part numbers<br>with metal<br>gripping lugs | Fuse link<br>size | Rated<br>current<br>(Amps) | Rated<br>voltage<br>(V a.c.) | I <sup>2</sup> t (Amps <sup>2</sup> Seconds) |                                        |            | Net weight<br>per fuse<br>(kg) |
|---------------------------------------------|-------------------|----------------------------|------------------------------|----------------------------------------------|----------------------------------------|------------|--------------------------------|
|                                             |                   |                            |                              | Minimum<br>pre-arcing                        | *I <sub>b</sub> 120kA<br>at 690 V a.c. | Watts loss |                                |
| 2NHG000B-690                                | 000               | 2                          | 690                          | 3.5                                          | 8                                      | 4          | 0.118                          |
| 4NHG000B-690                                |                   | 4                          |                              | 6                                            | 16                                     | 2          |                                |
| 6NHG000B-690                                |                   | 6                          |                              | 14                                           | 25                                     | 2          |                                |
| 10NHG000B-690                               |                   | 10                         |                              | 60                                           | 400                                    | 1.5        |                                |
| 16NHG000B-690                               |                   | 16                         |                              | 240                                          | 1200                                   | 2.5        |                                |
| 20NHG000B-690                               |                   | 20                         |                              | 500                                          | 2500                                   | 2.5        |                                |
| 25NHG000B-690                               |                   | 25                         |                              | 920                                          | 4400                                   | 3.5        |                                |
| 32NHG000B-690                               |                   | 32                         |                              | 1800                                         | 9600                                   | 3.5        |                                |
| 35NHG000B-690                               |                   | 35                         |                              | 2800                                         | 15,000                                 | 4          |                                |
| 40NHG000B-690                               |                   | 40                         |                              | 3300                                         | 15,000                                 | 4          |                                |
| 50NHG000B-690                               |                   | 50                         |                              | 6100                                         | 26,500                                 | 5.5        |                                |
| 63NHG000B-690                               |                   | 63                         |                              | 6500                                         | 30,500                                 | 5.5        |                                |

\*I<sub>b</sub> is the maximum breaking capacity test at rated voltage according to IEC 60269 requirements

Time-current curves - NH Size 00

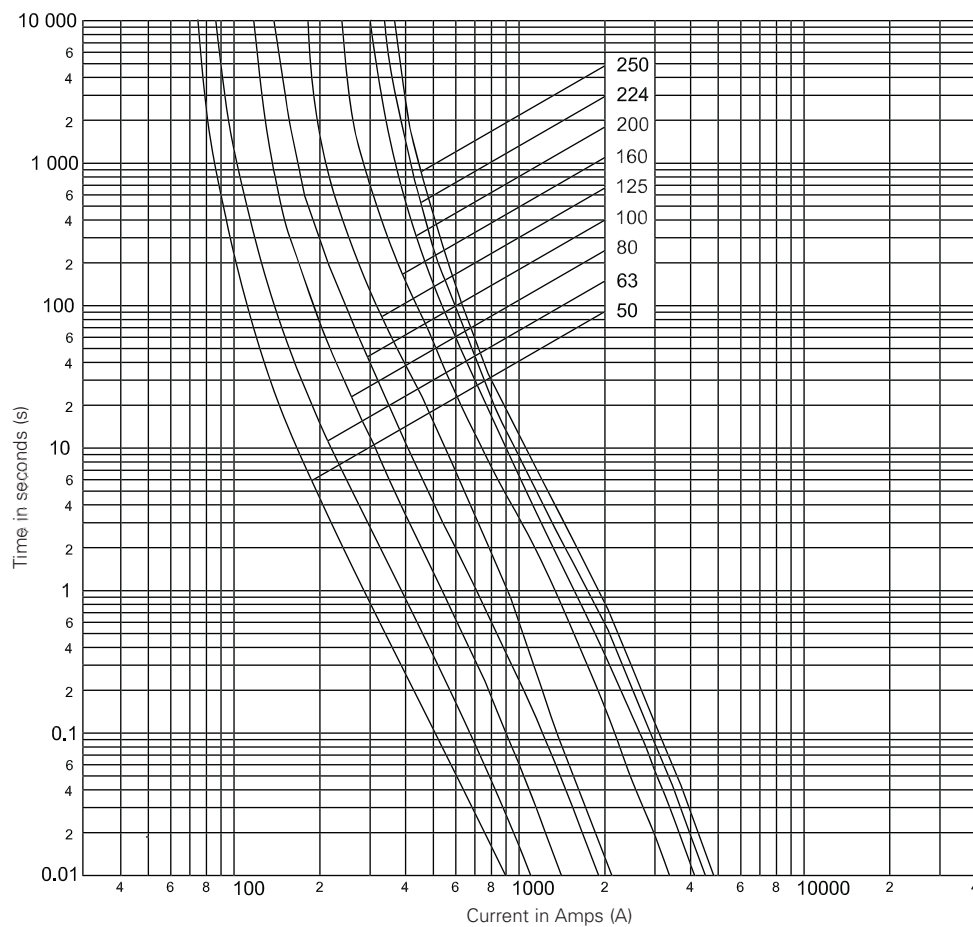


Technical data - NH size 00

| Part numbers<br>with metal<br>gripping lugs | Fuse link<br>size | Rated<br>current<br>(Amps) | Rated<br>voltage<br>(V a.c.) | I <sup>2</sup> t (Amps <sup>2</sup> Seconds) |                                        |            | Net weight<br>per fuse<br>(kg) |
|---------------------------------------------|-------------------|----------------------------|------------------------------|----------------------------------------------|----------------------------------------|------------|--------------------------------|
|                                             |                   |                            |                              | Minimum<br>pre-arcing                        | *I <sub>1</sub> 120kA<br>at 690 V a.c. | Watts loss |                                |
| 50NHG00B-690                                | 00                | 50                         | 690                          | 5800                                         | 35,000                                 | 5          | 0.182                          |
| 63NHG00B-690                                |                   | 63                         |                              | 5800                                         | 43,000                                 | 5          |                                |
| 80NHG00B-690                                |                   | 80                         |                              | 11,000                                       | 54,500                                 | 7          |                                |
| 100NHG00B-690                               |                   | 100                        |                              | 19,000                                       | 92,000                                 | 7.5        |                                |
| 125NHG00B-690                               |                   | 125                        |                              | 27,500                                       | 105,000                                | 9.5        |                                |
| 160NHG00B-660                               |                   | 160                        | 660                          | 40,500                                       | 135,000                                | 13         |                                |

\*I<sub>1</sub> is the maximum breaking capacity test at rated voltage according to IEC 60269 requirements

Time-current curves - NH Size 1

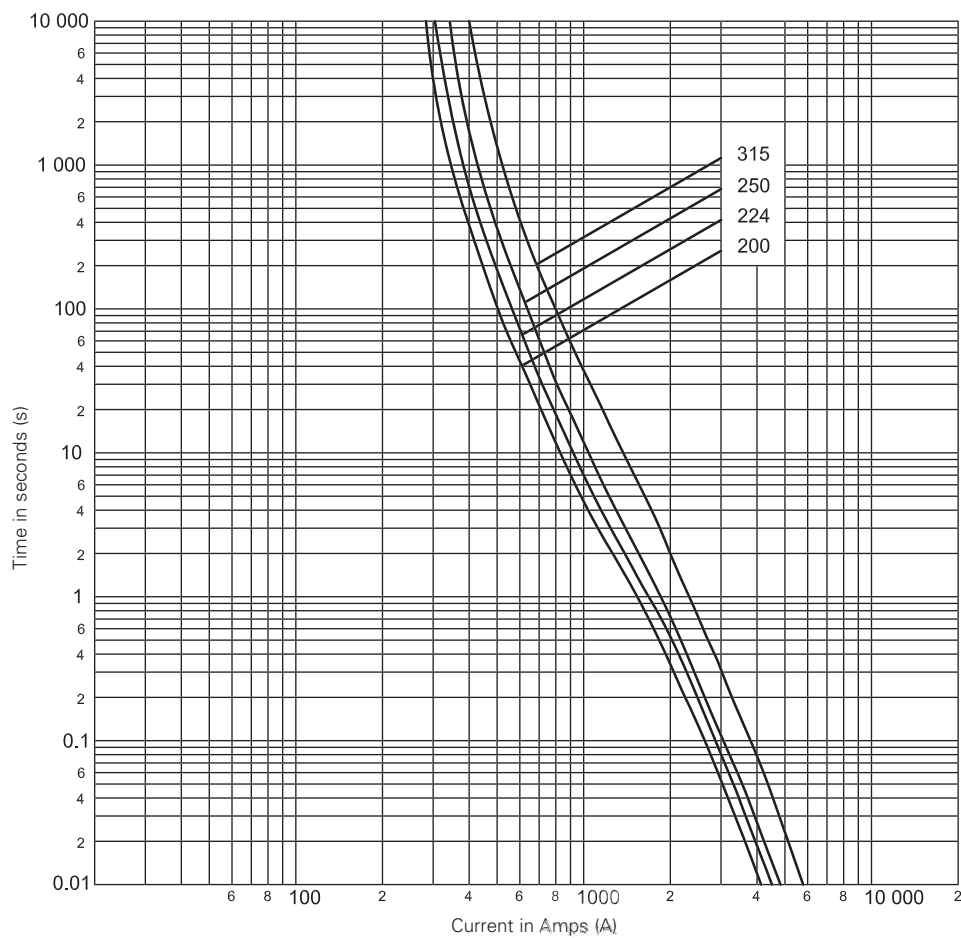


Technical data - NH size 1

| Part numbers<br>with metal<br>gripping lugs | Fuse link<br>size | Rated<br>current<br>(Amps) | Rated<br>voltage<br>(V a.c.) | I <sup>2</sup> t (Amps <sup>2</sup> Seconds) |                                        |            | Net weight<br>per fuse<br>(kg) |
|---------------------------------------------|-------------------|----------------------------|------------------------------|----------------------------------------------|----------------------------------------|------------|--------------------------------|
|                                             |                   |                            |                              | Minimum<br>pre-arcing                        | *I <sub>1</sub> 120kA<br>at 690 V a.c. | Watts loss |                                |
| 50NHG1B-690                                 | 1                 | 50                         | 690                          | 6350                                         | 26,500                                 | 6.4        | 0.38                           |
| 63NHG1B-690                                 |                   | 63                         |                              | 6800                                         | 36,000                                 | 5.6        |                                |
| 80NHG1B-690                                 |                   | 80                         |                              | 10,500                                       | 47,500                                 | 7.7        |                                |
| 100NHG1B-690                                |                   | 100                        |                              | 22,000                                       | 105,000                                | 8.2        |                                |
| 125NHG1B-690                                |                   | 125                        |                              | 29,000                                       | 120,000                                | 13         |                                |
| 160NHG1B-690                                |                   | 160                        |                              | 71,000                                       | 240,000                                | 13         |                                |
| 200NHG1B-690                                |                   | 200                        |                              | 105,000                                      | 350,000                                | 17         |                                |
| 224NHG1B-690                                |                   | 224                        |                              | 120,000                                      | 430,000                                | 19         |                                |
| 250NHG1B-690                                |                   | 250                        |                              | 150,000                                      | 520,000                                | 22         |                                |

\*I<sub>1</sub> is the maximum breaking capacity test at rated voltage according to IEC 60269 requirements

Time-current curves - NH Size 2

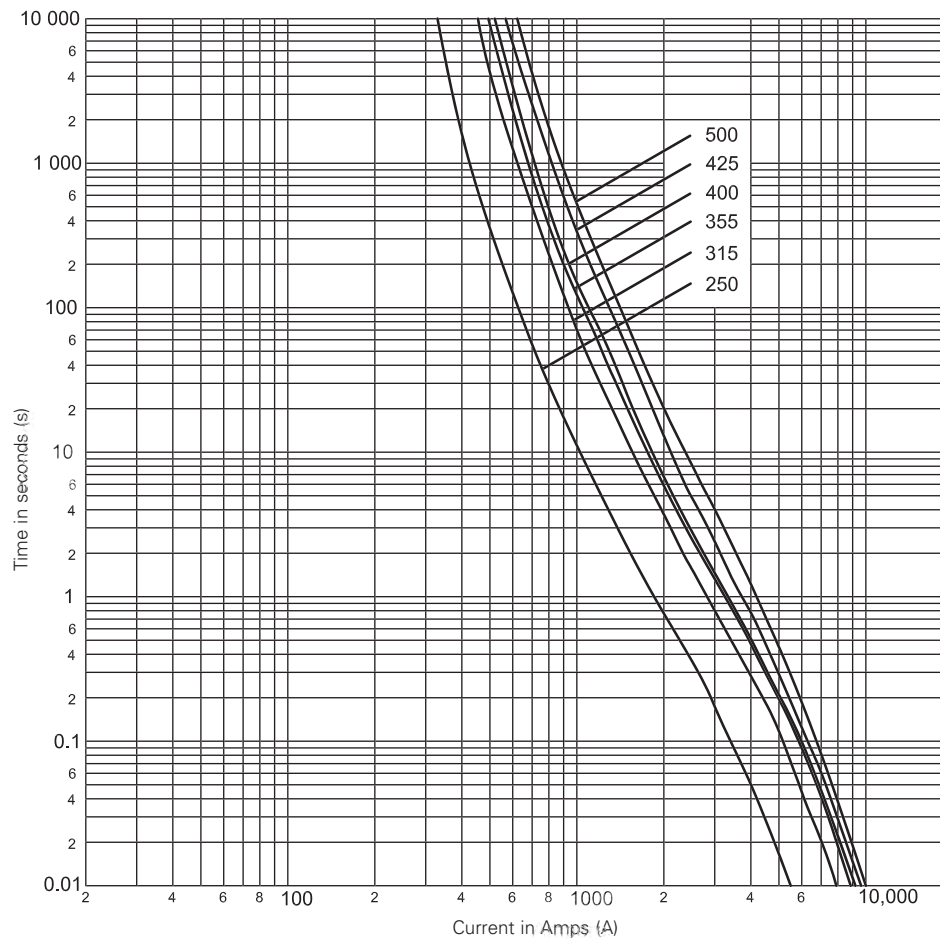


Technical data - NH size 2

| Part numbers<br>with metal<br>gripping lugs | Fuse link<br>size | Rated<br>current<br>(Amps) | Rated<br>voltage<br>(V a.c.) | I <sup>2</sup> t (Amps <sup>2</sup> Seconds) |                                        |            | Net weight<br>per fuse<br>(kg) |
|---------------------------------------------|-------------------|----------------------------|------------------------------|----------------------------------------------|----------------------------------------|------------|--------------------------------|
|                                             |                   |                            |                              | Minimum<br>pre-arcing                        | *I <sub>1</sub> 120kA<br>at 690 V a.c. | Watts loss |                                |
| 200NHG2B-690                                | 2                 | 200                        | 690                          | 99,000                                       | 385,000                                | 18         | 0.62                           |
| 224NHG2B-690                                |                   | 224                        |                              | 130,000                                      | 485,000                                | 20         |                                |
| 250NHG2B-690                                |                   | 250                        |                              | 170,000                                      | 625,000                                | 23         |                                |
| 315NHG2B-690                                |                   | 315                        |                              | 295,000                                      | 760,000                                | 32         |                                |

\*I<sub>1</sub> is the maximum breaking capacity test at rated voltage according to IEC 60269 requirements

Time-current curves - NH Size 3

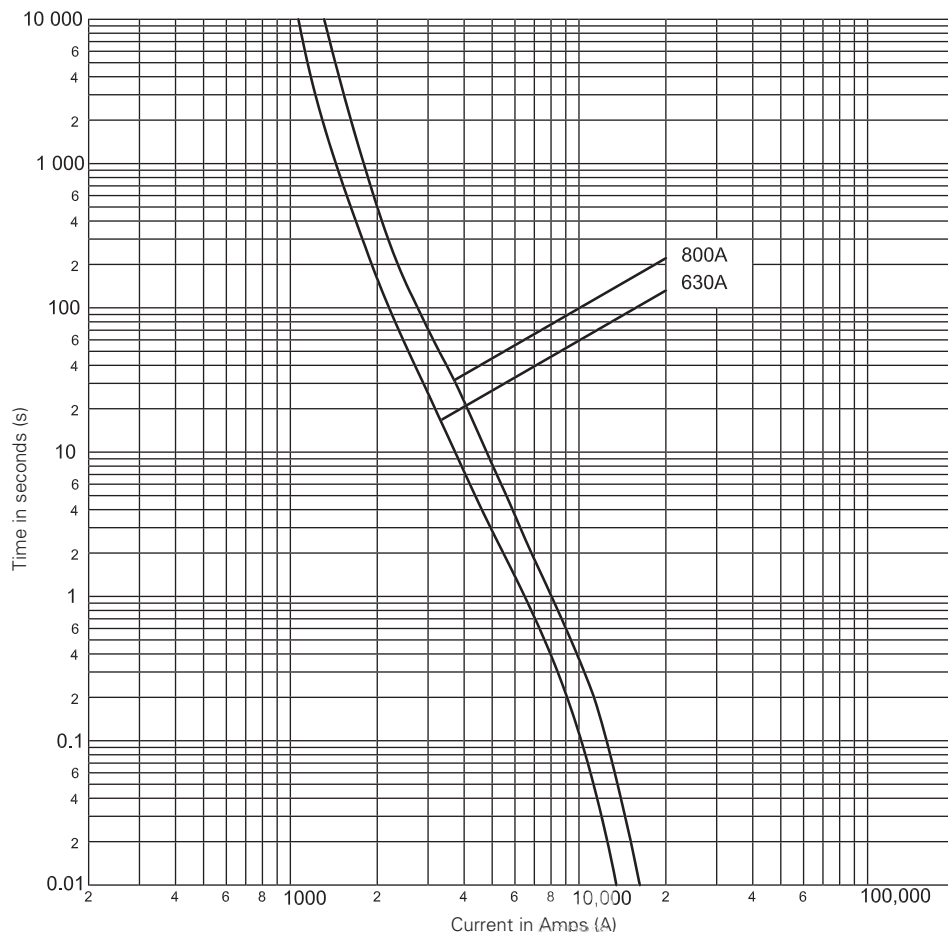


Technical data - NH size 3

| Part numbers<br>with metal<br>gripping lugs | Fuse link<br>size | Rated<br>current<br>(Amps) | Rated<br>voltage<br>(V a.c.) | I <sup>2</sup> t (Amps <sup>2</sup> Seconds) |                                        |            | Net weight<br>per fuse<br>(kg) |
|---------------------------------------------|-------------------|----------------------------|------------------------------|----------------------------------------------|----------------------------------------|------------|--------------------------------|
|                                             |                   |                            |                              | Minimum<br>pre-arcing                        | *I <sub>1</sub> 120kA<br>at 690 V a.c. | Watts loss |                                |
| 250NHG3B-690                                | 3                 | 250                        | 690                          | 160,000                                      | 715,000                                | 21         | 0.38                           |
| 315NHG3B-690                                |                   | 315                        |                              | 375,000                                      | 1,400,000                              | 22         |                                |
| 355NHG3B-690                                |                   | 355                        |                              | 400,000                                      | 1,650,000                              | 25         |                                |
| 400NHG3B-690                                |                   | 400                        |                              | 475,000                                      | 1,600,000                              | 37         |                                |
| 425NHG3B-690                                |                   | 425                        |                              | 630,000                                      | 1,700,000                              | 35         |                                |
| 500NHG3B-690                                |                   | 500                        |                              | 856,000                                      | 2,480,000                              | 43         |                                |

\*I<sub>1</sub> is the maximum breaking capacity test at rated voltage according to IEC 60269 requirements

Time-current curves - NH Size 4 Single indication slotted tags



Technical data - NH size 4

| Part numbers<br>with metal<br>gripping lugs | Fuse link<br>size | Rated<br>current<br>(Amps) | Rated<br>voltage<br>(V a.c.) | I <sup>2</sup> t (Amps <sup>2</sup> Seconds) |                                        | Watts loss | Net weight<br>per fuse<br>(kg) |
|---------------------------------------------|-------------------|----------------------------|------------------------------|----------------------------------------------|----------------------------------------|------------|--------------------------------|
|                                             |                   |                            |                              | Minimum<br>pre-arcing                        | *I <sub>1</sub> 120kA at<br>690 V a.c. |            |                                |
| 630NHG4B-690                                | 4                 | 630                        | 690                          | 1,730,000                                    | 6,550,000                              | 44         | 2.5                            |
| 800NHG4B-690                                |                   | 800                        |                              | 3,330,000                                    | 11,000,000                             | 61         |                                |

\*I<sub>1</sub> is the maximum breaking capacity test at rated voltage according to IEC 60269 requirements

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