

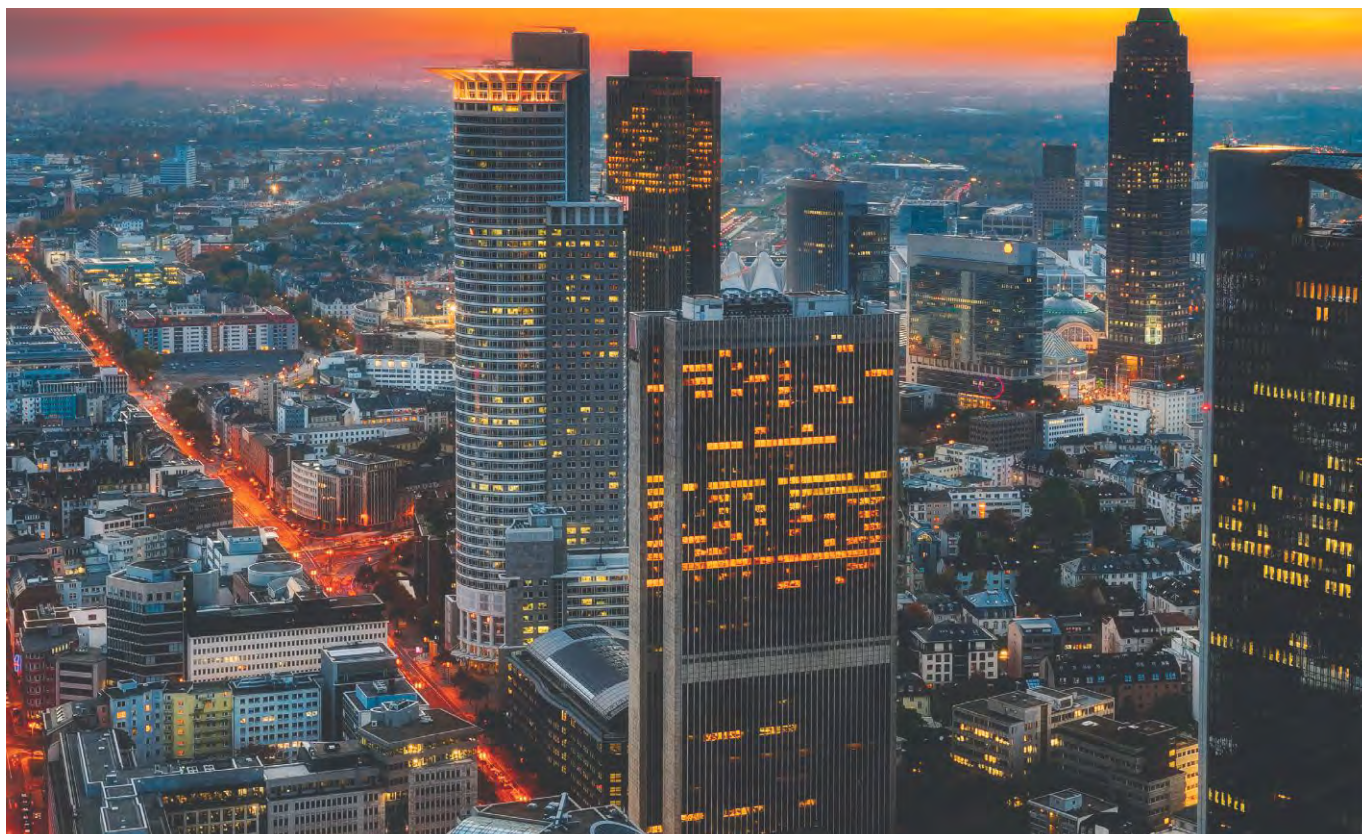


IN THE LINE OF POWER



# Catalog Fuse-Links





## The Core of Safe Power Distribution

Grown from our traditional core competence, we at EFEN offer a comprehensive range of fuse-links according to IEC/DIN standards for low-voltage and medium-voltage applications. Our innovative high-tech products protect people and investments and ensure maximum availability.



### NH Fuse-Links

Complete range of NH Fuse-links for cable, line, transformer and semiconductor protection. In addition to standard applications, the EFEN range includes various solutions for special applications. NH fuse-links by EFEN comply with national and international standards and regulations such as IEC 60269 and VDE 0636.

**Product overview page 10**



### DC Fuse-Links 10 x 38

EFEN DC fuse-links 10 x 38 have been developed especially for direct-current supplies. They combine high energy density with a compact, space-saving design.

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### D0 Fuse-Links

The D0 fuse-links offer protection within the smallest space and, thanks to state-of-the-art distribution components, perfectly integrate into future systems.

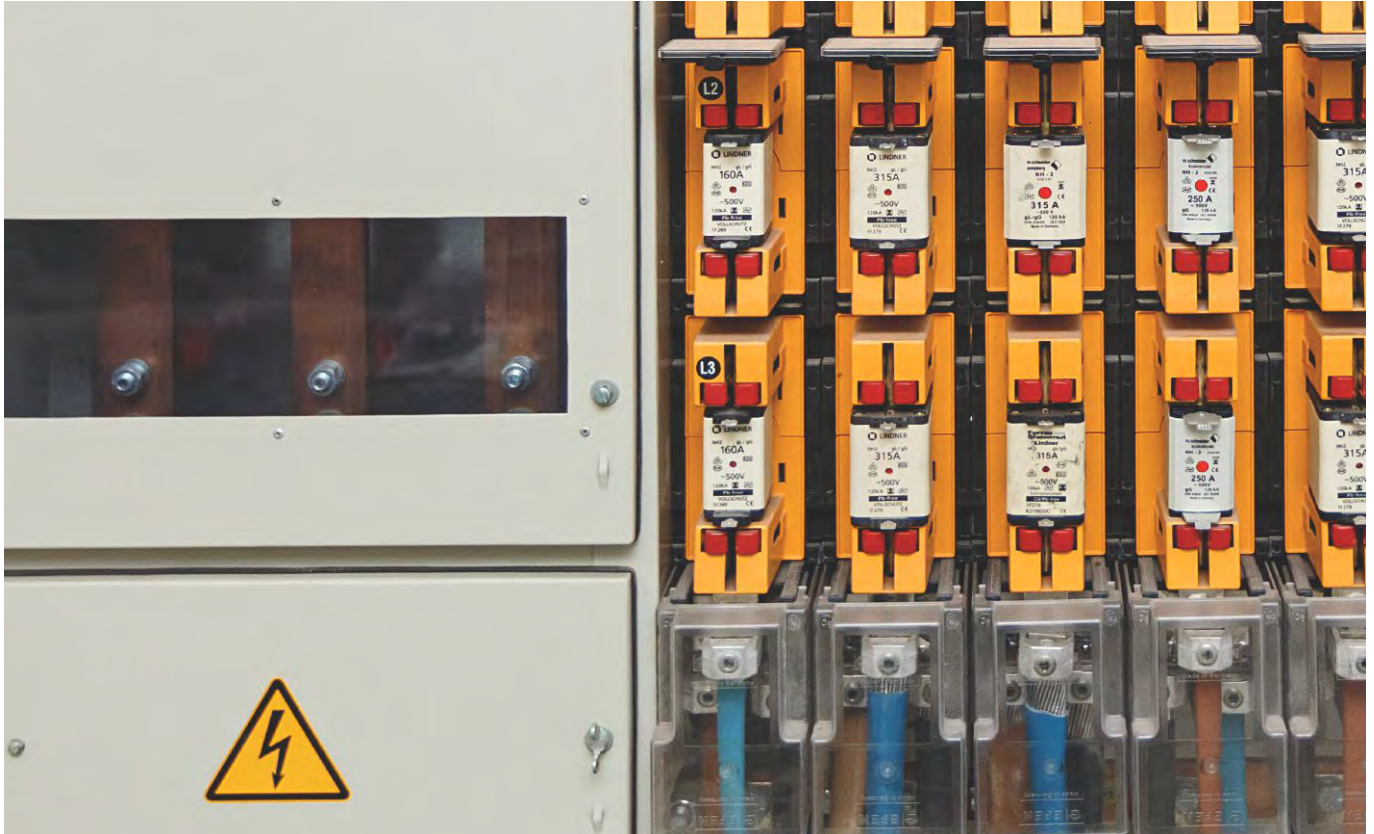
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### HV Fuse-Links

EFEN's general-purpose and back-up fuse-links are a reliable safety interface for transformers, capacitors and high-voltage motors. The range comprises types for indoor, outdoor and oil-submerged applications and is nationally and internationally approved.

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## NH Fuse-Links

Grow from our traditional core competence, we at EFEN offer a comprehensive range of Fuse-Links according to IEC/DIN standards for low-voltage and medium-voltage applications. Innovative high-tech products protect people and investments and ensure maximum availability.

### System

The wide range of state-of-the-art NH fuse-links grew from EFEN's traditional core competence, taking it to a leading position in the market, with high technical standards and ensuring a consistently high quality. The EFEN product range offers a wide variety of solutions for virtually any application.

### Features

EFEN NH fuse-links comply with national and international standards and regulations such as DIN, VDE and IEC. The fuse-links are available with insulated and with uninsulated gripping lugs. A full range of accessories complements the product range.





## NH Fuse-Links

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### NH Fuse-Link 400 V with twin indicator



### NH Fuse-Links for industry-specific applications, e.g. mining



### gTr Fuse-Links for transformer protection



### NH Fuse-Links up to 1500 V AC



### gR NH Fuse-Links for semiconductor protection



### Special Fuse-Links for DC applications



## NH Fuse-Links 400 V gG

- Rated voltage: AC 400 V
- Utilization category: gG acc. to VDE 0636-2 and VDE 0636-1
- IEC 60269-2 and IEC 60269-1
- Breaking capacity: 100 kA

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35404-1600

### NH Fuse-Links for cable and line protection, 400 V AC gG

#### Features:

- Twin indicator (size 3, 500 A and 630 A with center indicator)
- Non-insulated metal gripping lug
- Copper fuse element

| Designation                 | Size | Amps | PU | Product designation         | Order no.  |
|-----------------------------|------|------|----|-----------------------------|------------|
| NH-SI 000 2A GG AC400V AK   | 000  | 2    | 3  | NH-SI 000 2A GG AC400V AK   | 35401-0020 |
| NH-SI 000 4A GG AC400V AK   | 000  | 4    | 3  | NH-SI 000 4A GG AC400V AK   | 35401-0040 |
| NH-SI 000 6A GG AC400V AK   | 000  | 6    | 3  | NH-SI 000 6A GG AC400V AK   | 35401-0060 |
| NH-SI 000 10A GG AC400V AK  | 000  | 10   | 3  | NH-SI 000 10A GG AC400V AK  | 35401-0100 |
| NH-SI 000 16A GG AC400V AK  | 000  | 16   | 3  | NH-SI 000 16A GG AC400V AK  | 35401-0160 |
| NH-SI 000 20A GG AC400V AK  | 000  | 20   | 3  | NH-SI 000 20A GG AC400V AK  | 35401-0200 |
| NH-SI 000 25A GG AC400V AK  | 000  | 25   | 3  | NH-SI 000 25A GG AC400V AK  | 35401-0250 |
| NH-SI 000 32A GG AC400V AK  | 000  | 32   | 3  | NH-SI 000 32A GG AC400V AK  | 35401-0320 |
| NH-SI 000 35A GG AC400V AK  | 000  | 35   | 3  | NH-SI 000 35A GG AC400V AK  | 35401-0350 |
| NH-SI 000 50A GG AC400V AK  | 000  | 50   | 3  | NH-SI 000 50A GG AC400V AK  | 35401-0500 |
| NH-SI 000 63A GG AC400V AK  | 000  | 63   | 3  | NH-SI 000 63A GG AC400V AK  | 35401-0630 |
| NH-SI 000 80A GG AC400V AK  | 000  | 80   | 3  | NH-SI 000 80A GG AC400V AK  | 35401-0800 |
| NH-SI 000 100A GG AC400V AK | 000  | 100  | 3  | NH-SI 000 100A GG AC400V AK | 35401-1000 |
| NH-SI 00 63A GG AC400V AK   | 00   | 63   | 3  | NH-SI 00 63A GG AC400V AK   | 35402-0630 |
| NH-SI 00 80A GG AC400V AK   | 00   | 80   | 3  | NH-SI 00 80A GG AC400V AK   | 35402-0800 |
| NH-SI 00 100A GG AC400V AK  | 00   | 100  | 3  | NH-SI 00 100A GG AC400V AK  | 35402-1000 |
| NH-SI 00 125A GG AC400V AK  | 00   | 125  | 3  | NH-SI 00 125A GG AC400V AK  | 35402-1250 |
| NH-SI 00 160A GG AC400V AK  | 00   | 160  | 3  | NH-SI 00 160A GG AC400V AK  | 35402-1600 |
| NH-SI 1/16A GG AC400V AK    | 1    | 16   | 3  | NH-SI 1/ 16A GG AC400V AK   | 35403-0160 |
| NH-SI 1/20A GG AC400V AK    | 1    | 20   | 3  | NH-SI 1/ 20A GG AC400V AK   | 35403-0200 |
| NH-SI 1/25A GG AC400V AK    | 1    | 25   | 3  | NH-SI 1/ 25A GG AC400V AK   | 35403-0250 |
| NH-SI 1/32A GG AC400V AK    | 1    | 32   | 3  | NH-SI 1/ 32A GG AC400V AK   | 35403-0320 |
| NH-SI 1/35A GG AC400V AK    | 1    | 35   | 3  | NH-SI 1/ 35A GG AC400V AK   | 35403-0350 |
| NH-SI 1/40A GG AC400V AK    | 1    | 40   | 3  | NH-SI 1/ 40A GG AC400V AK   | 35403-0400 |
| NH-SI 1/50A GG AC400V AK    | 1    | 50   | 3  | NH-SI 1/ 50A GG AC400V AK   | 35403-0500 |
| NH-SI 1/63A GG AC400V AK    | 1    | 63   | 3  | NH-SI 1/ 63A GG AC400V AK   | 35403-0630 |
| NH-SI 1/80A GG AC400V AK    | 1    | 80   | 3  | NH-SI 1/ 80A GG AC400V AK   | 35403-0800 |
| NH-SI 1/100A GG AC400V AK   | 1    | 100  | 3  | NH-SI 1/ 100A GG AC400V AK  | 35403-1000 |
| NH-SI 1 125A GG AC400V AK   | 1    | 125  | 3  | NH-SI 1 125A GG AC400V AK   | 35403-1250 |
| NH-SI 1 160A GG AC400V AK   | 1    | 160  | 3  | NH-SI 1 160A GG AC400V AK   | 35403-1600 |
| NH-SI 1 200A GG AC400V AK   | 1    | 200  | 3  | NH-SI 1 200A GG AC400V AK   | 35403-2000 |
| NH-SI 1 224A GG AC400V AK   | 1    | 224  | 3  | NH-SI 1 224A GG AC400V AK   | 35403-2240 |
| NH-SI 1 250A GG AC400V AK   | 1    | 250  | 3  | NH-SI 1 250A GG AC400V AK   | 35403-2500 |
| NH-SI 2/35A GG AC400V AK    | 2    | 35   | 3  | NH-SI 2/ 35A GG AC400V AK   | 35404-0350 |
| NH-SI 2/50A GG AC400V AK    | 2    | 50   | 3  | NH-SI 2/ 50A GG AC400V AK   | 35404-0500 |
| NH-SI 2/63A GG AC400V AK    | 2    | 63   | 3  | NH-SI 2/ 63A GG AC400V AK   | 35404-0630 |
| NH-SI 2/80A GG AC400V AK    | 2    | 80   | 3  | NH-SI 2/ 80A GG AC400V AK   | 35404-0800 |
| NH-SI 2/100A GG AC400V AK   | 2    | 100  | 3  | NH-SI 2/ 100A GG AC400V AK  | 35404-1000 |
| NH-SI 2/125A GG AC400V AK   | 2    | 125  | 3  | NH-SI 2/ 125A GG AC400V AK  | 35404-1250 |
| NH-SI 2/160A GG AC400V AK   | 2    | 160  | 3  | NH-SI 2/ 160A GG AC400V AK  | 35404-1600 |
| NH-SI 2/200A GG AC400V AK   | 2    | 200  | 3  | NH-SI 2/ 200A GG AC400V AK  | 35404-2000 |
| NH-SI 2/224A GG AC400V AK   | 2    | 224  | 3  | NH-SI 2/ 224A GG AC400V AK  | 35404-2240 |
| NH-SI 2/250A GG AC400V AK   | 2    | 250  | 3  | NH-SI 2/ 250A GG AC400V AK  | 35404-2500 |
| NH-SI 2 315A GG AC400V AK   | 2    | 315  | 3  | NH-SI 2 315A GG AC400V AK   | 35404-3150 |
| NH-SI 2 355A GG AC400V AK   | 2    | 355  | 3  | NH-SI 2 355A GG AC400V AK   | 35404-3550 |
| NH-SI 2 400A GG AC400V AK   | 2    | 400  | 3  | NH-SI 2 400A GG AC400V AK   | 35404-4000 |
| NH-SI 3/250A GG AC400V AK   | 3    | 250  | 1  | NH-SI 3/ 250A GG AC400V AK  | 35405-2500 |
| NH-SI 3/300A GG AC400V AK   | 3    | 300  | 1  | NH-SI 3/ 300A GG AC400V AK  | 35405-3000 |
| NH-SI 3/315A GG AC400V AK   | 3    | 315  | 1  | NH-SI 3/ 315A GG AC400V AK  | 35405-3150 |
| NH-SI 3/400A GG AC400V AK   | 3    | 400  | 1  | NH-SI 3/ 400A GG AC400V AK  | 35405-4000 |
| NH-SI 3 500A GG AC400V MA   | 3    | 500  | 1  | NH-SI 3 500A GG AC400V Ma   | 35405-5000 |
| NH-SI 3 630A GG AC400V MA   | 3    | 630  | 1  | NH-SI 3 630A GG AC400V Ma   | 35405-6300 |

## NH Fuse-Links 400V gG

- Rated voltage: AC 400 V
- Utilization category: gG acc. to VDE 0636-2 and VDE 0636-1
- IEC 60269-2 and IEC 60269-1
- Breaking capacity: 100kA

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35407-1600

### NH Fuse-Links for cable and line protection, 400 V AC gG

#### Features:

- Twin indicator
- Insulated metal gripping lug
- Copper fuse element

| Designation                    | Size | Amps | PU | Product designation            | Order no.         |
|--------------------------------|------|------|----|--------------------------------|-------------------|
| NH-SI 000 2A GG AC400V LI AK   | 000  | 2    | 3  | NH-SI 000 2A GG AC400V LI AK   | <b>35406-0020</b> |
| NH-SI 000 4A GG AC400V LI AK   | 000  | 4    | 3  | NH-SI 000 4A GG AC400V LI AK   | <b>35406-0040</b> |
| NH-SI 000 6A GG AC400V LI AK   | 000  | 6    | 3  | NH-SI 000 6A GG AC400V LI AK   | <b>35406-0060</b> |
| NH-SI 000 10A GG AC400V LI AK  | 000  | 10   | 3  | NH-SI 000 10A GG AC400V LI AK  | <b>35406-0100</b> |
| NH-SI 000 16A GG AC400V LI AK  | 000  | 16   | 3  | NH-SI 000 16A GG AC400V LI AK  | <b>35406-0160</b> |
| NH-SI 000 20A GG AC400V LI AK  | 000  | 20   | 3  | NH-SI 000 20A GG AC400V LI AK  | <b>35406-0200</b> |
| NH-SI 000 25A GG AC400V LI AK  | 000  | 25   | 3  | NH-SI 000 25A GG AC400V LI AK  | <b>35406-0250</b> |
| NH-SI 000 32A GG AC400V LI AK  | 000  | 32   | 3  | NH-SI 000 32A GG AC400V LI AK  | <b>35406-0320</b> |
| NH-SI 000 35A GG AC400V LI AK  | 000  | 35   | 3  | NH-SI 000 35A GG AC400V LI AK  | <b>35406-0350</b> |
| NH-SI 000 40A GG AC400V LI AK  | 000  | 40   | 3  | NH-SI 000 40A GG AC400V LI AK  | <b>35406-0400</b> |
| NH-SI 000 50A GG AC400V LI AK  | 000  | 50   | 3  | NH-SI 000 50A GG AC400V LI AK  | <b>35406-0500</b> |
| NH-SI 000 63A GG AC400V LI AK  | 000  | 63   | 3  | NH-SI 000 63A GG AC400V LI AK  | <b>35406-0630</b> |
| NH-SI 000 80A GG AC400V LI AK  | 000  | 80   | 3  | NH-SI 000 80A GG AC400V LI AK  | <b>35406-0800</b> |
| NH-SI 000 100A GG AC400V LI AK | 000  | 100  | 3  | NH-SI 000 100A GG AC400V LI AK | <b>35406-1000</b> |
| NH-SI 00 63A GG AC400V LI AK   | 00   | 63   | 3  | NH-SI 00 63A GG AC400V LI AK   | <b>35407-0630</b> |
| NH-SI 00 80A GG AC400V LI AK   | 00   | 80   | 3  | NH-SI 00 80A GG AC400V LI AK   | <b>35407-0800</b> |
| NH-SI 00 100A GG AC400V LI AK  | 00   | 100  | 3  | NH-SI 00 100A GG AC400V LI AK  | <b>35407-1000</b> |
| NH-SI 00 125A GG AC400V LI AK  | 00   | 125  | 3  | NH-SI 00 125A GG AC400V LI AK  | <b>35407-1250</b> |
| NH-SI 00 160A GG AC400V LI AK  | 00   | 160  | 3  | NH-SI 00 160A GG AC400V LI AK  | <b>35407-1600</b> |
| NH-SI 1/ 16A GG AC400V LI AK   | 1    | 16   | 3  | NH-SI 1/ 16A GG AC400V LI AK   | <b>35408-0160</b> |
| NH-SI 1/ 20A GG AC400V LI AK   | 1    | 20   | 3  | NH-SI 1/ 20A GG AC400V LI AK   | <b>35408-0200</b> |
| NH-SI 1/ 25A GG AC400V LI AK   | 1    | 25   | 3  | NH-SI 1/ 25A GG AC400V LI AK   | <b>35408-0250</b> |
| NH-SI 1/ 32A GG AC400V LI AK   | 1    | 32   | 3  | NH-SI 1/ 32A GG AC400V LI AK   | <b>35408-0320</b> |
| NH-SI 1/ 35A GG AC400V LI AK   | 1    | 35   | 3  | NH-SI 1/ 35A GG AC400V LI AK   | <b>35408-0350</b> |
| NH-SI 1/ 40A GG AC400V LI AK   | 1    | 40   | 3  | NH-SI 1/ 40A GG AC400V LI AK   | <b>35408-0400</b> |
| NH-SI 1/ 50A GG AC400V LI AK   | 1    | 50   | 3  | NH-SI 1/ 50A GG AC400V LI AK   | <b>35408-0500</b> |
| NH-SI 1/ 63A GG AC400V LI AK   | 1    | 63   | 3  | NH-SI 1/ 63A GG AC400V LI AK   | <b>35408-0630</b> |
| NH-SI 1/ 80A GG AC400V LI AK   | 1    | 80   | 3  | NH-SI 1/ 80A GG AC400V LI AK   | <b>35408-0800</b> |
| NH-SI 1/ 100A GG AC400V LI AK  | 1    | 100  | 3  | NH-SI 1/ 100A GG AC400V LI AK  | <b>35408-1000</b> |
| NH-SI 1 125A GG AC400V LI AK   | 1    | 125  | 3  | NH-SI 1 125A GG AC400V LI AK   | <b>35408-1250</b> |
| NH-SI 1 160A GG AC400V LI AK   | 1    | 160  | 3  | NH-SI 1 160A GG AC400V LI AK   | <b>35408-1600</b> |
| NH-SI 1 200A GG AC400V LI AK   | 1    | 200  | 3  | NH-SI 1 200A GG AC400V LI AK   | <b>35408-2000</b> |
| NH-SI 1 224A GG AC400V LI AK   | 1    | 224  | 3  | NH-SI 1 224A GG AC400V LI AK   | <b>35408-2240</b> |
| NH-SI 1 250A GG AC400V LI AK   | 1    | 250  | 3  | NH-SI 1 250A GG AC400V LI AK   | <b>35408-2500</b> |

## NH Fuse-Links 400V gG

- Rated voltage: AC 400V
- Utilization category: gG acc. to VDE 0636-2 and VDE 0636-1
- IEC 60269-2 and IEC 60269-1
- Breaking capacity: 100kA

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### NH Fuse-Links for cable and line protection, 400V AC gG

#### Features:

- Twin indicator (size 3, 500 A and 630 A with center indicator)
- Insulated metal gripping lug
- Copper fuse element

| Designation                   | Size | Amps | PU | Product designation           | Order no.         |
|-------------------------------|------|------|----|-------------------------------|-------------------|
| NH-SI 2/ 35A GG AC400V LI AK  | 2    | 35   | 3  | NH-SI 2/ 35A GG AC400V LI AK  | <b>35409-0350</b> |
| NH-SI 2/ 50A GG AC400V LI AK  | 2    | 50   | 3  | NH-SI 2/ 50A GG AC400V LI AK  | <b>35409-0500</b> |
| NH-SI 2/ 63A GG AC400V LI AK  | 2    | 63   | 3  | NH-SI 2/ 63A GG AC400V LI AK  | <b>35409-0630</b> |
| NH-SI 2/ 80A GG AC400V LI AK  | 2    | 80   | 3  | NH-SI 2/ 80A GG AC400V LI AK  | <b>35409-0800</b> |
| NH-SI 2/ 100A GG AC400V LI AK | 2    | 100  | 3  | NH-SI 2/ 100A GG AC400V LI AK | <b>35409-1000</b> |
| NH-SI 2/ 125A GG AC400V LI AK | 2    | 125  | 3  | NH-SI 2/ 125A GG AC400V LI AK | <b>35409-1250</b> |
| NH-SI 2/ 160A GG AC400V LI AK | 2    | 160  | 3  | NH-SI 2/ 160A GG AC400V LI AK | <b>35409-1600</b> |
| NH-SI 2/ 200A GG AC400V LI AK | 2    | 200  | 3  | NH-SI 2/ 200A GG AC400V LI AK | <b>35409-2000</b> |
| NH-SI 2/ 224A GG AC400V LI AK | 2    | 224  | 3  | NH-SI 2/ 224A GG AC400V LI AK | <b>35409-2240</b> |
| NH-SI 2/ 250A GG AC400V LI AK | 2    | 250  | 3  | NH-SI 2/ 250A GG AC400V LI AK | <b>35409-2500</b> |
| NH-SI 2 315A GG AC400V LI AK  | 2    | 315  | 3  | NH-SI 2 315A GG AC400V LI AK  | <b>35409-3150</b> |
| NH-SI 2 355A GG AC400V LI AK  | 2    | 355  | 3  | NH-SI 2 355A GG AC400V LI AK  | <b>35409-3550</b> |
| NH-SI 2 400A GG AC400V LI AK  | 2    | 400  | 3  | NH-SI 2 400A GG AC400V LI AK  | <b>35409-4000</b> |
| NH-SI 3/ 250A GG AC400V LI AK | 3    | 250  | 1  | NH-SI 3/ 250A GG AC400V LI AK | <b>35410-2500</b> |
| NH-SI 3/ 300A GG AC400V LI AK | 3    | 300  | 1  | NH-SI 3/ 300A GG AC400V LI AK | <b>35410-3000</b> |
| NH-SI 3/ 315A GG AC400V LI AK | 3    | 315  | 1  | NH-SI 3/ 315A GG AC400V LI AK | <b>35410-3150</b> |
| NH-SI 3/ 400A GG AC400V LI AK | 3    | 400  | 1  | NH-SI 3/ 400A GG AC400V LI AK | <b>35410-4000</b> |
| NH-SI 3 500A GG AC400V LI MA  | 3    | 500  | 1  | NH-SI 3 500A GG AC400V LI Ma  | <b>35410-5000</b> |
| NH-SI 3 630A GG AC400V LI MA  | 3    | 630  | 1  | NH-SI 3 630A GG AC400V LI Ma  | <b>35410-6300</b> |



# NH Fuse-Links 500 V gG

- Rated voltage:  
AC 500 V
- Utilization category: gG acc. to  
VDE 0636-2 and VDE 0636-1
- IEC 60269-2

- Breaking capacity AC: 120 kA
- Breaking capacity DC:  
see technical data

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35000-0800

## NH Fuse-Links for cable and line protection, 500 V AC gG

### Features:

- Twin indicator
- Non-insulated metal gripping lug
- Copper fuse element

| Designation                 | Size | Amps | PU | Product designation         | Order no.         |
|-----------------------------|------|------|----|-----------------------------|-------------------|
| NH-SI 000 2A GG AC500V AK   | 000  | 2    | 3  | NH-SI 000 2A GG AC500V AK   | <b>35000-0020</b> |
| NH-SI 000 4,0A GG AC500V AK | 000  | 4    | 3  | NH-SI 000 4,0A GG AC500V AK | <b>35000-0040</b> |
| NH-SI 000 6A GG AC500V AK   | 000  | 6    | 3  | NH-SI 000 6A GG AC500V AK   | <b>35000-0060</b> |
| NH-SI 000 10A GG AC500V AK  | 000  | 10   | 3  | NH-SI 000 10A GG AC500V AK  | <b>35000-0100</b> |
| NH-SI 000 16A GG AC500V AK  | 000  | 16   | 3  | NH-SI 000 16A GG AC500V AK  | <b>35000-0160</b> |
| NH-SI 000 20A GG AC500V AK  | 000  | 20   | 3  | NH-SI 000 20A GG AC500V AK  | <b>35000-0200</b> |
| NH-SI 000 25A GG AC500V AK  | 000  | 25   | 3  | NH-SI 000 25A GG AC500V AK  | <b>35000-0250</b> |
| NH-SI 000 32A GG AC500V AK  | 000  | 32   | 3  | NH-SI 000 32A GG AC500V AK  | <b>35000-0320</b> |
| NH-SI 000 35A GG AC500V AK  | 000  | 35   | 3  | NH-SI 000 35A GG AC500V AK  | <b>35000-0350</b> |
| NH-SI 000 40A GG AC500V AK  | 000  | 40   | 3  | NH-SI 000 40A GG AC500V AK  | <b>35000-0400</b> |
| NH-SI 000 50A GG AC500V AK  | 000  | 50   | 3  | NH-SI 000 50A GG AC500V AK  | <b>35000-0500</b> |
| NH-SI 000 63A GG AC500V AK  | 000  | 63   | 3  | NH-SI 000 63A GG AC500V AK  | <b>35000-0630</b> |
| NH-SI 000 80A GG AC500V AK  | 000  | 80   | 3  | NH-SI 000 80A GG AC500V AK  | <b>35000-0800</b> |
| NH-SI 000 100A GG AC500V AK | 000  | 100  | 3  | NH-SI 000 100A GG AC500V AK | <b>35000-1000</b> |
| NH-SI 00 25A GG AC500V AK   | 00   | 16   | 3  | NH-SI 00 16A GG AC500V AK   | <b>35011-0050</b> |
| NH-SI 00 25A GG AC500V AK   | 00   | 20   | 3  | NH-SI 00 20A GG AC500V AK   | <b>35011-0060</b> |
| NH-SI 00 25A GG AC500V AK   | 00   | 25   | 3  | NH-SI 00 25A GG AC500V AK   | <b>35011-0070</b> |
| NH-SI 00 32A GG AC500V AK   | 00   | 32   | 3  | NH-SI 00 32A GG AC500V AK   | <b>35011-0080</b> |
| NH-SI 00 35A GG AC500V AK   | 00   | 35   | 3  | NH-SI 00 35A GG AC500V AK   | <b>35011-0090</b> |
| NH-SI 00 40A GG AC500V AK   | 00   | 40   | 3  | NH-SI 00 40A GG AC500V AK   | <b>35011-0100</b> |
| NH-SI 00 50A GG AC500V AK   | 00   | 50   | 3  | NH-SI 00 50A GG AC500V AK   | <b>35011-0110</b> |
| NH-SI 00 63A GG AC500V AK   | 00   | 63   | 3  | NH-SI 00 63A GG AC500V AK   | <b>35011-0120</b> |
| NH-SI 00 80A GG AC500V AK   | 00   | 80   | 3  | NH-SI 00 80A GG AC500V AK   | <b>35011-0130</b> |
| NH-SI 00 100A GG AC500V AK  | 00   | 100  | 3  | NH-SI 00 100A GG AC500V AK  | <b>35011-0140</b> |
| NH-SI 00 125A GG AC500V AK  | 00   | 125  | 3  | NH-SI 00 125A GG AC500V AK  | <b>35011-0150</b> |
| NH-SI 00 160A GG AC500V AK  | 00   | 160  | 3  | NH-SI 00 160A GG AC500V AK  | <b>35011-1090</b> |
| NH-SI 1/25A GG AC500V AK    | 1    | 25   | 3  | NH-SI 1/ 25A GG AC500V AK   | <b>35035-0050</b> |
| NH-SI 1/32A GG AC500V AK    | 1    | 32   | 3  | NH-SI 1/ 32A GG AC500V AK   | <b>35035-1220</b> |
| NH-SI 1/35A GG AC500V AK    | 1    | 35   | 3  | NH-SI 1/ 35A GG AC500V AK   | <b>35035-0060</b> |
| NH-SI 1/40A GG AC500V AK    | 1    | 40   | 3  | NH-SI 1/ 40A GG AC500V AK   | <b>35035-1230</b> |
| NH-SI 1/50A GG AC500V AK    | 1    | 50   | 3  | NH-SI 1/ 50A GG AC500V AK   | <b>35035-0070</b> |
| NH-SI 1/63A GG AC500V AK    | 1    | 63   | 3  | NH-SI 1/ 63A GG AC500V AK   | <b>35035-0080</b> |
| NH-SI 1/80A GG AC500V AK    | 1    | 80   | 3  | NH-SI 1/ 80A GG AC500V AK   | <b>35035-0090</b> |
| NH-SI 1/100A GG AC500V AK   | 1    | 100  | 3  | NH-SI 1/ 100A GG AC500V AK  | <b>35035-0100</b> |
| NH-SI 1/125A GG AC500V AK   | 1    | 125  | 3  | NH-SI 1 125A GG AC500V AK   | <b>35035-0110</b> |
| NH-SI 1/160A GG AC500V AK   | 1    | 160  | 3  | NH-SI 1 160A GG AC500V AK   | <b>35035-0120</b> |
| NH-SI 1 200A GG AC500V AK   | 1    | 200  | 3  | NH-SI 1 200A GG AC500V AK   | <b>35035-0130</b> |
| NH-SI 1 224A GG AC500V AK   | 1    | 224  | 3  | NH-SI 1 224A GG AC500V AK   | <b>35035-0140</b> |
| NH-SI 1 250A GG AC500V AK   | 1    | 250  | 3  | NH-SI 1 250A GG AC500V AK   | <b>35035-0150</b> |

## NH Fuse-Links 500 V gG

- Rated voltage:  
AC 500 V
- Utilization category: gG acc. to  
VDE 0636-2 and VDE 0636-1
- IEC 60269 -2
- Breaking capacity AC: 120 kA
- Breaking capacity DC:  
see technical data

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35054-0150

### NH Fuse-Links for cable and line protection, 500 V AC gG

#### Features:

- Twin indicator (size 4a with center indicator)
- Non-insulated metal gripping lug
- Copper fuse element

| Designation               | Size | Amps | PU | Product designation        | Order no.         |
|---------------------------|------|------|----|----------------------------|-------------------|
| NH-SI 2/25A GG AC500V AK  | 2    | 25   | 3  | NH-SI 2/ 25A GG AC500V AK  | <b>35054-0010</b> |
| NH-SI 2/35A GG AC500V AK  | 2    | 35   | 3  | NH-SI 2/ 35A GG AC500V AK  | <b>35054-0020</b> |
| NH-SI 2/50A GG AC500V AK  | 2    | 50   | 3  | NH-SI 2/ 50A GG AC500V AK  | <b>35054-0030</b> |
| NH-SI 2/63A GG AC500V AK  | 2    | 63   | 3  | NH-SI 2/ 63A GG AC500V AK  | <b>35054-0040</b> |
| NH-SI 2/80A GG AC500V AK  | 2    | 80   | 3  | NH-SI 2/ 80A GG AC500V AK  | <b>35054-0050</b> |
| NH-SI 2/100A GG AC500V AK | 2    | 100  | 3  | NH-SI 2/ 100A GG AC500V AK | <b>35054-0060</b> |
| NH-SI 2/125A GG AC500V AK | 2    | 125  | 3  | NH-SI 2/ 125A GG AC500V AK | <b>35054-0070</b> |
| NH-SI 2/160A GG AC500V AK | 2    | 160  | 3  | NH-SI 2/ 160A GG AC500V AK | <b>35054-0080</b> |
| NH-SI 2/200A GG AC500V AK | 2    | 200  | 3  | NH-SI 2/ 200A GG AC500V AK | <b>35054-0090</b> |
| NH-SI 2/224A GG AC500V AK | 2    | 224  | 3  | NH-SI 2/ 224A GG AC500V AK | <b>35054-0100</b> |
| NH-SI 2/250A GG AC500V AK | 2    | 250  | 3  | NH-SI 2/ 250A GG AC500V AK | <b>35054-0110</b> |
| NH-SI 2 300A GG AC500V AK | 2    | 300  | 3  | NH-SI 2 300A GG AC500V AK  | <b>35054-0120</b> |
| NH-SI 2 315A GG AC500V AK | 2    | 315  | 3  | NH-SI 2 315A GG AC500V AK  | <b>35054-0130</b> |
| NH-SI 2 355A GG AC500V AK | 2    | 355  | 3  | NH-SI 2 355A GG AC500V AK  | <b>35054-0140</b> |
| NH-SI 2 400A GG AC500V AK | 2    | 400  | 3  | NH-SI 2 400A GG AC500V AK  | <b>35054-0150</b> |
| NH-SI 3/63A GG AC500V AK  | 3    | 63   | 3  | NH-SI 3/ 63A GG AC500V AK  | <b>35078-0340</b> |
| NH-SI 3/80A GG AC500V AK  | 3    | 80   | 3  | NH-SI 3/ 80A GG AC500V AK  | <b>35078-0350</b> |
| NH-SI 3/100A GG AC500V AK | 3    | 100  | 3  | NH-SI 3/ 100A GG AC500V AK | <b>35078-0360</b> |
| NH-SI 3/125A GG AC500V AK | 3    | 125  | 3  | NH-SI 3/ 125A GG AC500V AK | <b>35078-0370</b> |
| NH-SI 3/160A GG AC500V AK | 3    | 160  | 3  | NH-SI 3/ 160A GG AC500V AK | <b>35078-0380</b> |
| NH-SI 3/200A GG AC500V AK | 3    | 200  | 3  | NH-SI 3/ 200A GG AC500V AK | <b>35078-0390</b> |
| NH-SI 3/224A GG AC500V AK | 3    | 224  | 3  | NH-SI 3/ 224A GG AC500V AK | <b>35078-0400</b> |
| NH-SI 3/250A GG AC500V AK | 3    | 250  | 3  | NH-SI 3/ 250A GG AC500V AK | <b>35078-0410</b> |
| NH-SI 3/300A GG AC500V AK | 3    | 300  | 3  | NH-SI 3/ 300A GG AC500V AK | <b>35078-0190</b> |
| NH-SI 3/315A GG AC500V AK | 3    | 315  | 3  | NH-SI 3/ 315A GG AC500V AK | <b>35078-0010</b> |
| NH-SI 3/355A GG AC500V AK | 3    | 355  | 3  | NH-SI 3/ 355A GG AC500V AK | <b>35078-0020</b> |
| NH-SI 3/400A GG AC500V AK | 3    | 400  | 3  | NH-SI 3/ 400A GG AC500V AK | <b>35078-0030</b> |
| NH-SI 3 500A GG AC500V AK | 3    | 500  | 3  | NH-SI 3 500A GG AC500V AK  | <b>35078-0050</b> |
| NH-SI 3 630A GG AC500V AK | 3    | 630  | 3  | NH-SI 3 630A GG AC500V AK  | <b>35078-0060</b> |
| NH-SI 4A 400A GG AC500V   | 4a   | 400  | 3  | NH-SI 4A 400A GG AC500V    | <b>35097-0120</b> |
| NH-SI 4A 500A GG AC500V   | 4a   | 500  | 3  | NH-SI 4A 500A GG AC500V    | <b>35097-0010</b> |
| NH-SI 4A 630A GG AC500V   | 4a   | 630  | 3  | NH-SI 4A 630A GG AC500V    | <b>35097-0020</b> |
| NH-SI 4A 800A GG AC500V   | 4a   | 800  | 1  | NH-SI 4A 800A GG AC500V    | <b>35097-0030</b> |
| NH-SI 4A 1000A GG AC500V  | 4a   | 1000 | 1  | NH-SI 4A 1000A GG AC500V   | <b>35097-0040</b> |
| NH-SI 4A 1250A GG AC500V  | 4a   | 1250 | 1  | NH-SI 4A 1250A GG AC500V   | <b>35097-0050</b> |
| NH-SI 4A 1600A GG AC500V  | 4a   | 1600 | 1  | NH-SI 4A 1600A GG AC500V   | <b>35097-0110</b> |

## NH Fuse-Links 500 V gG

- Rated voltage:  
AC 500 V
- Utilization category: gG acc. to  
VDE 0636-2 and VDE 0636-1
- IEC 60269 -2

- Breaking capacity AC: 120 kA
- Breaking capacity DC:  
see technical data

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35001-1000

### NH Fuse-Links for cable and line protection, 500 V AC gG

#### Features:

- Twin indicator
- Insulated metal gripping lug
- Copper fuse element

| Designation                    | Size | Amps | PU | Product designation            | Order no.         |
|--------------------------------|------|------|----|--------------------------------|-------------------|
| NH-SI 000 2A GG AC500V LI AK   | 000  | 2    | 10 | NH-SI 000 2A GG AC500V LI AK   | <b>35001-0020</b> |
| NH-SI 000 4,0A GG AC500V LI AK | 000  | 4    | 10 | NH-SI 000 4,0A GG AC500V LI AK | <b>35001-0040</b> |
| NH-SI 000 6A GG AC500V LI AK   | 000  | 6    | 10 | NH-SI 000 6A GG AC500V LI AK   | <b>35001-0060</b> |
| NH-SI 000 10A GG AC500V LI AK  | 000  | 10   | 10 | NH-SI 000 10A GG AC500V LI AK  | <b>35001-0100</b> |
| NH-SI 000 16A GG AC500V LI AK  | 000  | 16   | 10 | NH-SI 000 16A GG AC500V LI AK  | <b>35001-0160</b> |
| NH-SI 000 20A GG AC500V LI AK  | 000  | 20   | 10 | NH-SI 000 20A GG AC500V LI AK  | <b>35001-0200</b> |
| NH-SI 000 25A GG AC500V LI AK  | 000  | 25   | 10 | NH-SI 000 25A GG AC500V LI AK  | <b>35001-0250</b> |
| NH-SI 000 32A GG AC500V LI AK  | 000  | 32   | 10 | NH-SI 000 32A GG AC500V LI AK  | <b>35001-0320</b> |
| NH-SI 000 35A GG AC500V LI AK  | 000  | 35   | 10 | NH-SI 000 35A GG AC500V LI AK  | <b>35001-0350</b> |
| NH-SI 000 40A GG AC500V LI AK  | 000  | 40   | 10 | NH-SI 000 40A GG AC500V LI AK  | <b>35001-0400</b> |
| NH-SI 000 50A GG AC500V LI AK  | 000  | 50   | 10 | NH-SI 000 50A GG AC500V LI AK  | <b>35001-0500</b> |
| NH-SI 000 63A GG AC500V LI AK  | 000  | 63   | 10 | NH-SI 000 63A GG AC500V LI AK  | <b>35001-0630</b> |
| NH-SI 000 80A GG AC500V LI AK  | 000  | 80   | 10 | NH-SI 000 80A GG AC500V LI AK  | <b>35001-0800</b> |
| NH-SI 000 100A GG AC500V LI AK | 000  | 100  | 10 | NH-SI 000 100A GG AC500V LI AK | <b>35001-1000</b> |
| NH-SI 00 25A GG AC500V LI AK   | 00   | 25   | 3  | NH-SI 00 25A GG AC500V LI AK   | <b>35165-0070</b> |
| NH-SI 00 32A GG AC500V LI AK   | 00   | 32   | 3  | NH-SI 00 32A GG AC500V LI AK   | <b>35165-0080</b> |
| NH-SI 00 35A GG AC500V LI AK   | 00   | 35   | 3  | NH-SI 00 35A GG AC500V LI AK   | <b>35165-0090</b> |
| NH-SI 00 40A GG AC500V LI AK   | 00   | 40   | 3  | NH-SI 00 40A GG AC500V LI AK   | <b>35165-0100</b> |
| NH-SI 00 50A GG AC500V LI AK   | 00   | 50   | 3  | NH-SI 00 50A GG AC500V LI AK   | <b>35165-0110</b> |
| NH-SI 00 63A GG AC500V LI AK   | 00   | 63   | 3  | NH-SI 00 63A GG AC500V LI AK   | <b>35165-0120</b> |
| NH-SI 00 80A GG AC500V LI AK   | 00   | 80   | 3  | NH-SI 00 80A GG AC500V LI AK   | <b>35165-0130</b> |
| NH-SI 00 100A GG AC500V LI AK  | 00   | 100  | 3  | NH-SI 00 100A GG AC500V LI AK  | <b>35165-0140</b> |
| NH-SI 00 125A GG AC500V LI AK  | 00   | 125  | 3  | NH-SI 00 125A GG AC500V LI AK  | <b>35165-0150</b> |
| NH-SI 00 160A GG AC500V LI AK  | 00   | 160  | 3  | NH-SI 00 160A GG AC500V LI AK  | <b>35165-0160</b> |
| NH-SI 1/ 25A GG AC500V LI AK   | 1    | 25   | 3  | NH-SI 1/ 25A GG AC500V LI AK   | <b>35204-0050</b> |
| NH-SI 1/ 32A GG AC500V LI AK   | 1    | 32   | 3  | NH-SI 1/ 32A GG AC500V LI AK   | <b>35204-0160</b> |
| NH-SI 1/ 35A GG AC500V LI AK   | 1    | 35   | 3  | NH-SI 1/ 35A GG AC500V LI AK   | <b>35204-0060</b> |
| NH-SI 1/ 40A GG AC500V LI AK   | 1    | 40   | 3  | NH-SI 1/ 40A GG AC500V LI AK   | <b>35204-0170</b> |
| NH-SI 1/ 50A GG AC500V LI AK   | 1    | 50   | 3  | NH-SI 1/ 50A GG AC500V LI AK   | <b>35204-0070</b> |
| NH-SI 1/ 63A GG AC500V LI AK   | 1    | 63   | 3  | NH-SI 1/ 63A GG AC500V LI AK   | <b>35204-0080</b> |
| NH-SI 1/ 80A GG AC500V LI AK   | 1    | 80   | 3  | NH-SI 1/ 80A GG AC500V LI AK   | <b>35204-0090</b> |
| NH-SI 1/ 100A GG AC500V LI AK  | 1    | 100  | 3  | NH-SI 1/ 100A GG AC500V LI AK  | <b>35204-0100</b> |
| NH-SI 1 125A GG AC500V LI AK   | 1    | 125  | 3  | NH-SI 1 125A GG AC500V LI AK   | <b>35204-0110</b> |
| NH-SI 1 160A GG AC500V LI AK   | 1    | 160  | 3  | NH-SI 1 160A GG AC500V LI AK   | <b>35204-0120</b> |
| NH-SI 1 200A GG AC500V LI AK   | 1    | 200  | 3  | NH-SI 1 200A GG AC500V LI AK   | <b>35204-0130</b> |
| NH-SI 1 224A GG AC500V LI AK   | 1    | 224  | 3  | NH-SI 1 224A GG AC500V LI AK   | <b>35204-0140</b> |
| NH-SI 1 250A GG AC500V LI AK   | 1    | 250  | 3  | NH-SI 1 250A GG AC500V LI AK   | <b>35204-0150</b> |
| NH-SI 2/ 63A GG AC500V LI AK   | 2    | 63   | 3  | NH-SI 2/ 63A GG AC500V LI AK   | <b>35116-0040</b> |
| NH-SI 2/ 80A GG AC500V LI AK   | 2    | 80   | 3  | NH-SI 2/ 80A GG AC500V LI AK   | <b>35116-0050</b> |
| NH-SI 2/ 100A GG AC500V LI AK  | 2    | 100  | 3  | NH-SI 2/ 100A GG AC500V LI AK  | <b>35116-0060</b> |
| NH-SI 2/ 125A GG AC500V LI AK  | 2    | 125  | 3  | NH-SI 2/ 125A GG AC500V LI AK  | <b>35116-0070</b> |
| NH-SI 2/ 160A GG AC500V LI AK  | 2    | 160  | 3  | NH-SI 2/ 160A GG AC500V LI AK  | <b>35116-0080</b> |
| NH-SI 2/ 200A GG AC500V LI AK  | 2    | 200  | 3  | NH-SI 2/ 200A GG AC500V LI AK  | <b>35116-0090</b> |
| NH-SI 2/ 224A GG AC500V LI AK  | 2    | 224  | 3  | NH-SI 2/ 224A GG AC500V LI AK  | <b>35116-0100</b> |
| NH-SI 2/ 250A GG AC500V LI AK  | 2    | 250  | 3  | NH-SI 2/ 250A GG AC500V LI AK  | <b>35116-0110</b> |
| NH-SI 2 300A GG AC500V LI AK   | 2    | 300  | 3  | NH-SI 2 300A GG AC500V LI AK   | <b>35116-0120</b> |
| NH-SI 2 315A GG AC500V LI AK   | 2    | 315  | 3  | NH-SI 2 315A GG AC500V LI AK   | <b>35116-0130</b> |
| NH-SI 2 355A GG AC500V LI AK   | 2    | 355  | 3  | NH-SI 2 355A GG AC500V LI AK   | <b>35116-0140</b> |
| NH-SI 2 400A GG AC500V LI AK   | 2    | 400  | 3  | NH-SI 2 400A GG AC500V LI AK   | <b>35116-0150</b> |



## NH Fuse-Links 500 V gG

- Rated voltage:  
AC 500 V
- Utilization category: gG acc. to  
VDE 0636-2 and VDE 0636-1
- IEC 60269-2
- Breaking capacity AC: 120 kA
- Breaking capacity DC:  
see technical data

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35001-1000

### NH Fuse-Links for cable and line protection, 500 V AC gG

#### Features:

- Twin indicator
- Insulated metal gripping lug
- Copper fuse element

| Designation                   | Size | Amps | PU | Product designation           | Order no.         |
|-------------------------------|------|------|----|-------------------------------|-------------------|
| NH-SI 3/ 100A gG AC500V LI AK | 3    | 100  | 3  | NH-SI 3/ 100A gG AC500V LI AK | <b>35420-1000</b> |
| NH-SI 3/ 125A gG AC500V LI AK | 3    | 125  | 3  | NH-SI 3/ 125A gG AC500V LI AK | <b>35420-1250</b> |
| NH-SI 3/ 160A gG AC500V LI AK | 3    | 160  | 3  | NH-SI 3/ 160A gG AC500V LI AK | <b>35420-1600</b> |
| NH-SI 3/ 200A gG AC500V LI AK | 3    | 200  | 3  | NH-SI 3/ 200A gG AC500V LI AK | <b>35420-2000</b> |
| NH-SI 3/ 224A gG AC500V LI AK | 3    | 224  | 3  | NH-SI 3/ 224A gG AC500V LI AK | <b>35420-2240</b> |
| NH-SI 3/ 250A gG AC500V LI AK | 3    | 250  | 3  | NH-SI 3/ 250A gG AC500V LI AK | <b>35420-2500</b> |
| NH-SI 3/ 300A gG AC500V LI AK | 3    | 300  | 3  | NH-SI 3/ 300A gG AC500V LI AK | <b>35420-3000</b> |
| NH-SI 3/ 315A GG AC500V LI AK | 3    | 315  | 3  | NH-SI 3/ 315A GG AC500V LI AK | <b>35420-3150</b> |
| NH-SI 3/ 355A GG AC500V LI AK | 3    | 355  | 3  | NH-SI 3/ 355A GG AC500V LI AK | <b>35420-3550</b> |
| NH-SI 3/ 400A GG AC500V LI AK | 3    | 400  | 3  | NH-SI 3/ 400A GG AC500V LI AK | <b>35420-4000</b> |
| NH-SI 3 425A GG AC500V LI AK  | 3    | 425  | 3  | NH-SI 3 425A GG AC500V LI AK  | <b>35420-4250</b> |
| NH-SI 3 425A GG AC500V LI AK  | 3    | 425  | 3  | NH-SI 3 425A GG AC500V LI AK  | <b>35420-5000</b> |
| NH-SI 3 630A GG AC500V LI AK  | 3    | 630  | 3  | NH-SI 3 630A GG AC500V LI AK  | <b>35420-6300</b> |

## NH Fuse-Links 500 V gL

- Rated voltage: AC 500 V / DC 440 V\*
- Utilization category: gL acc. to VDE 0636-21 and VDE 0636-1
- IEC 60269-2
- Breaking capacity AC: 120 kA
- Breaking capacity DC: see technical data

► Technical data, page 36



35207-0130

### NH Fuse-Links for cable and line protection, AC 500 V gL

#### Features:

- Striker pin for fuse monitoring
- Non-insulated metal gripping lug
- Copper fuse element

| Designation         | Size | Amps | PU | Product designation        | Order no.         |
|---------------------|------|------|----|----------------------------|-------------------|
| NH-Si 00 6A gL SM   | 00   | 6    | 10 | NH-Si 00 6A GL AC500V SM   | <b>35207-0010</b> |
| NH-Si 00 10A gL SM  | 00   | 10   | 10 | NH-Si 00 10A GL AC500V SM  | <b>35207-0020</b> |
| NH-Si 00 16A gL SM  | 00   | 16   | 10 | NH-Si 00 16A GL AC500V SM  | <b>35207-0030</b> |
| NH-Si 00 20A gL SM  | 00   | 20   | 10 | NH-Si 00 20A GL AC500V SM  | <b>35207-0040</b> |
| NH-Si 00 25A gL SM  | 00   | 25   | 10 | NH-Si 00 25A GL AC500V SM  | <b>35207-0050</b> |
| NH-Si 00 32A gL SM  | 00   | 32   | 10 | NH-Si 00 32A GL AC500V SM  | <b>35207-0060</b> |
| NH-Si 00 35A gL SM  | 00   | 35   | 10 | NH-Si 00 35A GL AC500V SM  | <b>35207-0070</b> |
| NH-Si 00 40A gL SM  | 00   | 40   | 10 | NH-Si 00 40A GL AC500V SM  | <b>35207-0080</b> |
| NH-Si 00 50A gL SM  | 00   | 50   | 10 | NH-Si 00 50A GL AC500V SM  | <b>35207-0090</b> |
| NH-Si 00 63A gL SM  | 00   | 63   | 10 | NH-Si 00 63A GL AC500V SM  | <b>35207-0100</b> |
| NH-Si 00 80A gL SM  | 00   | 80   | 10 | NH-Si 00 80A GL AC500V SM  | <b>35207-0110</b> |
| NH-Si 00 100A gL SM | 00   | 100  | 10 | NH-Si 00 100A GL AC500V SM | <b>35207-0120</b> |
| NH-Si 00 125A gL SM | 00   | 125  | 10 | NH-Si 00 125A GL AC500V SM | <b>35207-0130</b> |

## NH Fuse-Links 500 V gL

- Rated voltage: AC 500 V / DC 440 V\*
- Utilization category: gL acc. to VDE 0636-21 and VDE 0636-1
- IEC 60269-2
- Breaking capacity AC: 120 kA
- Breaking capacity DC: see technical data

► Technical data, page 36



35010-0160

### NH Fuse-Links for cable and line protection, AC 500 V gL

#### Features:

- Center indicator
- Non-insulated metal gripping lug
- Pure silver fuse element

| Designation                | Size | Amps | PU | Product designation        | Order no.  |
|----------------------------|------|------|----|----------------------------|------------|
| NH-SI 00 2A GL AG AC500V   | 00   | 2    | 10 | NH-SI 00 2A GL AG AC500V   | 35010-0010 |
| NH-SI 00 4A GL AG AC500V   | 00   | 4    | 10 | NH-SI 00 4A GL AG AC500V   | 35010-0020 |
| NH-SI 00 6A GL AG AC500V   | 00   | 6    | 10 | NH-SI 00 6A GL AG AC500V   | 35010-0030 |
| NH-SI 00 10A GL AG AC500V  | 00   | 10   | 10 | NH-SI 00 10A GL AG AC500V  | 35010-0040 |
| NH-SI 00 16A GL AG AC500V  | 00   | 16   | 10 | NH-SI 00 16A GL AG AC500V  | 35010-0050 |
| NH-SI 00 20A GL AG AC500V  | 00   | 20   | 10 | NH-SI 00 20A GL AG AC500V  | 35010-0060 |
| NH-SI 00 25A GL AG AC500V  | 00   | 25   | 10 | NH-SI 00 25A GL AG AC500V  | 35010-0070 |
| NH-SI 00 32A GL AG AC500V  | 00   | 32   | 10 | NH-SI 00 32A GL AG AC500V  | 35010-0080 |
| NH-SI 00 35A GL AG AC500V  | 00   | 35   | 10 | NH-SI 00 35A GL AG AC500V  | 35010-0090 |
| NH-SI 00 40A GL AG AC500V  | 00   | 40   | 10 | NH-SI 00 40A GL AG AC500V  | 35010-0100 |
| NH-SI 00 50A GL AG AC500V  | 00   | 50   | 10 | NH-SI 00 50A GL AG AC500V  | 35010-0110 |
| NH-SI 00 63A GL AG AC500V  | 00   | 63   | 10 | NH-SI 00 63A GL AG AC500V  | 35010-0120 |
| NH-SI 00 80A GL AG AC500V  | 00   | 80   | 10 | NH-SI 00 80A GL AG AC500V  | 35010-0130 |
| NH-SI 00 100A GL AG AC500V | 00   | 100  | 10 | NH-SI 00 100A GL AG AC500V | 35010-0140 |
| NH-SI 00 125A GL AG AC500V | 00   | 125  | 10 | NH-SI 00 125A GL AG AC500V | 35010-0150 |
| NH-SI 00 160A GL AG AC500V | 00   | 160  | 10 | NH-SI 00 160A GL AG AC500V | 35010-0160 |
| NH-SI 1/6A GL AG AC500V    | 1    | 6    | 3  | NH-SI 1/ 6A GL AG AC500V   | 35034-0010 |
| NH-SI 1/10A GL AG AC500V   | 1    | 10   | 3  | NH-SI 1/ 10A GL AG AC500V  | 35034-0020 |
| NH-SI 1/16A GL AG AC500V   | 1    | 16   | 3  | NH-SI 1/ 16A GL AG AC500V  | 35034-0030 |
| NH-SI 1/20A GL AG AC500V   | 1    | 20   | 3  | NH-SI 1/ 20A GL AG AC500V  | 35034-0040 |
| NH-SI 1/25A GL AG AC500V   | 1    | 25   | 3  | NH-SI 1/ 25A GL AG AC500V  | 35034-0050 |
| NH-SI 1/35A GL AG AC500V   | 1    | 35   | 3  | NH-SI 1/ 35A GL AG AC500V  | 35034-0060 |
| NH-SI 1/50A GL AG AC500V   | 1    | 50   | 3  | NH-SI 1/ 50A GL AG AC500V  | 35034-0070 |
| NH-SI 1/63A GL AG AC500V   | 1    | 63   | 3  | NH-SI 1/ 63A GL AG AC500V  | 35034-0080 |
| NH-SI 1/80A GL AG AC500V   | 1    | 80   | 3  | NH-SI 1/ 80A GL AG AC500V  | 35034-0090 |
| NH-SI 1/100A GL AG AC500V  | 1    | 100  | 3  | NH-SI 1/ 100A GL AG AC500V | 35034-0100 |
| NH-SI 1/125A GL AG AC500V  | 1    | 125  | 3  | NH-SI 1/ 125A GL AG AC500V | 35034-0110 |
| NH-SI 1 160A GL AG AC500V  | 1    | 160  | 3  | NH-SI 1 160A GL AG AC500V  | 35034-0120 |
| NH-SI 1 200A GL AG AC500V  | 1    | 200  | 3  | NH-SI 1 200A GL AG AC500V  | 35034-0130 |
| NH-SI 1 224A GL AG AC500V  | 1    | 224  | 3  | NH-SI 1 224A GL AG AC500V  | 35034-0140 |
| NH-SI 1 250A GL AG AC500V  | 1    | 250  | 3  | NH-SI 1 250A GL AG AC500V  | 35034-0150 |
| NH-SI 2/25A GL AG AC500V   | 2    | 25   | 3  | NH-SI 2/ 25A GL AG AC500V  | 35053-0010 |
| NH-SI 2/35A GL AG AC500V   | 2    | 35   | 3  | NH-SI 2/ 35A GL AG AC500V  | 35053-0020 |
| NH-SI 2/50A GL AG AC500V   | 2    | 50   | 3  | NH-SI 2/ 50A GL AG AC500V  | 35053-0030 |
| NH-SI 2/63A GL AG AC500V   | 2    | 63   | 3  | NH-SI 2/ 63A GL AG AC500V  | 35053-0040 |
| NH-SI 2/80A GL AG AC500V   | 2    | 80   | 3  | NH-SI 2/ 80A GL AG AC500V  | 35053-0050 |
| NH-SI 2/100A GL AG AC500V  | 2    | 100  | 3  | NH-SI 2/ 100A GL AG AC500V | 35053-0060 |
| NH-SI 2/125A GL AG AC500V  | 2    | 125  | 3  | NH-SI 2/ 125A GL AG AC500V | 35053-0070 |
| NH-SI 2/160A GL AG AC500V  | 2    | 160  | 3  | NH-SI 2/ 160A GL AG AC500V | 35053-0080 |
| NH-SI 2/200A GL AG AC500V  | 2    | 200  | 3  | NH-SI 2/ 200A GL AG AC500V | 35053-0090 |
| NH-SI 2/224A GL AG AC500V  | 2    | 224  | 3  | NH-SI 2/ 224A GL AG AC500V | 35053-0100 |
| NH-SI 2 250A GL AG AC500V  | 2    | 250  | 3  | NH-SI 2 250A GL AG AC500V  | 35053-0110 |
| NH-SI 2 300A GL AG AC500V  | 2    | 300  | 3  | NH-SI 2 300A GL AG AC500V  | 35053-0120 |
| NH-SI 2 315A GL AG AC500V  | 2    | 315  | 3  | NH-SI 2 315A GL AG AC500V  | 35053-0130 |
| NH-SI 2 355A GL AG AC500V  | 2    | 355  | 3  | NH-SI 2 355A GL AG AC500V  | 35053-0140 |
| NH-SI 2 400A GL AG AC500V  | 2    | 400  | 3  | NH-SI 2 400A GL AG AC500V  | 35053-0150 |
| NH-SI 3 315A GL AG AC500V  | 3    | 315  | 3  | NH-SI 3 315A GL AG AC500V  | 35077-0010 |
| NH-SI 3 355A GL AG AC500V  | 3    | 355  | 3  | NH-SI 3 355A GL AG AC500V  | 35077-0020 |
| NH-SI 3 400A GL AG AC500V  | 3    | 400  | 3  | NH-SI 3 400A GL AG AC500V  | 35077-0030 |
| NH-SI 3 425A GL AG AC500V  | 3    | 425  | 3  | NH-SI 3 425A GL AG AC500V  | 35077-0040 |
| NH-SI 3 500A GL AG AC500V  | 3    | 500  | 3  | NH-SI 3 500A GL AG AC500V  | 35077-0050 |
| NH-SI 3 630A GL AG AC500V  | 3    | 630  | 3  | NH-SI 3 630A GL AG AC500V  | 35077-0060 |



## NH Fuse-Links 500V gL

- Rated voltage: AC 500V / DC 440V\*
- Utilization category: gL acc. to VDE 0636-21 and VDE 0636-1
- IEC 60269-2

- Breaking capacity AC: 120 kA
- Breaking capacity DC: see technical data

► Technical data, page 36



35164-0160

### NH Fuse-Links for cable and line protection, AC 500V gL

#### Features:

- Center indicator
- Insulated metal gripping lug
- Pure silver fuse element

| Designation                   | Size | Amps | PU | Product designation           | Order no.  |
|-------------------------------|------|------|----|-------------------------------|------------|
| NH-SI 00 2A GL AG AC500V LI   | 00   | 2    | 10 | NH-SI 00 2A GL AG AC500V LI   | 35164-0010 |
| NH-SI 00 4A GL AG AC500V LI   | 00   | 4    | 10 | NH-SI 00 4,0A GL AG AC500V LI | 35164-0020 |
| NH-SI 00 6A GL AG AC500V LI   | 00   | 6    | 10 | NH-SI 00 6A GL AG AC500V LI   | 35164-0030 |
| NH-SI 00 10A GL AG AC500V LI  | 00   | 10   | 10 | NH-SI 00 10A GL AG AC500V LI  | 35164-0040 |
| NH-SI 00 16A GL AG AC500V LI  | 00   | 16   | 10 | NH-SI 00 16A GL AG AC500V LI  | 35164-0050 |
| NH-SI 00 20A GL AG AC500V LI  | 00   | 20   | 10 | NH-SI 00 20A GL AG AC500V LI  | 35164-0060 |
| NH-SI 00 25A GL AG AC500V LI  | 00   | 25   | 10 | NH-SI 00 25A GL AG AC500V LI  | 35164-0070 |
| NH-SI 00 32A GL AG AC500V LI  | 00   | 32   | 10 | NH-SI 00 32A GL AG AC500V LI  | 35164-0080 |
| NH-SI 00 35A GL AG AC500V LI  | 00   | 35   | 10 | NH-SI 00 35A GL AG AC500V LI  | 35164-0090 |
| NH-SI 00 40A GL AG AC500V LI  | 00   | 40   | 10 | NH-SI 00 40A GL AG AC500V LI  | 35164-0100 |
| NH-SI 00 50A GL AG AC500V LI  | 00   | 50   | 10 | NH-SI 00 50A GL AG AC500V LI  | 35164-0110 |
| NH-SI 00 63A GL AG AC500V LI  | 00   | 63   | 10 | NH-SI 00 63A GL AG AC500V LI  | 35164-0120 |
| NH-SI 00 80A GL AG AC500V LI  | 00   | 80   | 10 | NH-SI 00 80A GL AG AC500V LI  | 35164-0130 |
| NH-SI 00 100A GL AG AC500V LI | 00   | 100  | 10 | NH-SI 00 100A GL AG AC500V LI | 35164-0140 |
| NH-SI 00 125A GL AG AC500V LI | 00   | 125  | 10 | NH-SI 00 125A GL AG AC500V LI | 35164-0150 |
| NH-SI 00 160A GL AG AC500V LI | 00   | 160  | 10 | NH-SI 00 160A GL AG AC500V LI | 35164-0160 |
| NH-SI 1 6A GL AG AC500V LI    | 1    | 6    | 3  | NH-SI 1 6A GL AG AC500V LI    | 35203-0010 |
| NH-SI 1 10A GL AG AC500V LI   | 1    | 10   | 3  | NH-SI 1 10A GL AG AC500V LI   | 35203-0020 |
| NH-SI 1 16A GL AG AC500V LI   | 1    | 16   | 3  | NH-SI 1 16A GL AG AC500V LI   | 35203-0030 |
| NH-SI 1 20A GL AG AC500V LI   | 1    | 20   | 3  | NH-SI 1 20A GL AG AC500V LI   | 35203-0040 |
| NH-SI 1 25A GL AG AC500V LI   | 1    | 25   | 3  | NH-SI 1 25A GL AG AC500V LI   | 35203-0050 |
| NH-SI 1 35A GL AG AC500V LI   | 1    | 35   | 3  | NH-SI 1 35A GL AG AC500V LI   | 35203-0060 |
| NH-SI 1 50A GL AG AC500V LI   | 1    | 50   | 3  | NH-SI 1 50A GL AG AC500V LI   | 35203-0070 |
| NH-SI 1 63A GL AG AC500V LI   | 1    | 63   | 3  | NH-SI 1 63A GL AG AC500V LI   | 35203-0080 |
| NH-SI 1 80A GL AG AC500V LI   | 1    | 80   | 3  | NH-SI 1 80A GL AG AC500V LI   | 35203-0090 |
| NH-SI 1 100A GL AG AC500V LI  | 1    | 100  | 3  | NH-SI 1 100A GL AG AC500V LI  | 35203-0100 |
| NH-SI 1 125A GL AG AC500V LI  | 1    | 125  | 3  | NH-SI 1 125A GL AG AC500V LI  | 35203-0110 |
| NH-SI 1 160A GL AG AC500V LI  | 1    | 160  | 3  | NH-SI 1 160A GL AG AC500V LI  | 35203-0120 |
| NH-SI 1 200A GL AG AC500V LI  | 1    | 200  | 3  | NH-SI 1 200A GL AG AC500V LI  | 35203-0130 |
| NH-SI 1 224A GL AG AC500V LI  | 1    | 224  | 3  | NH-SI 1 224A GL AG AC500V LI  | 35203-0140 |
| NH-SI 1 250A GL AG AC500V LI  | 1    | 250  | 3  | NH-SI 1 250A GL AG AC500V LI  | 35203-0150 |
| NH-SI 2 25A GL AG AC500V LI   | 2    | 25   | 3  | NH-SI 2 25A GL AG AC500V LI   | 35115-0010 |
| NH-SI 2 35A GL AG AC500V LI   | 2    | 35   | 3  | NH-SI 2 35A GL AG AC500V LI   | 35115-0020 |
| NH-SI 2 50A GL AG AC500V LI   | 2    | 50   | 3  | NH-SI 2 50A GL AG AC500V LI   | 35115-0030 |
| NH-SI 2 63A GL AG AC500V LI   | 2    | 63   | 3  | NH-SI 2 63A GL AG AC500V LI   | 35115-0040 |
| NH-SI 2 80A GL AG AC500V LI   | 2    | 80   | 3  | NH-SI 2 80A GL AG AC500V LI   | 35115-0050 |
| NH-SI 2 100A GL AG AC500V LI  | 2    | 100  | 3  | NH-SI 2 100A GL AG AC500V LI  | 35115-0060 |
| NH-SI 2 125A GL AG AC500V LI  | 2    | 125  | 3  | NH-SI 2 125A GL AG AC500V LI  | 35115-0070 |
| NH-SI 2 160A GL AG AC500V LI  | 2    | 160  | 3  | NH-SI 2 160A GL AG AC500V LI  | 35115-0080 |
| NH-SI 2 200A GL AG AC500V LI  | 2    | 200  | 3  | NH-SI 2 200A GL AG AC500V LI  | 35115-0090 |
| NH-SI 2 224A GL AG AC500V LI  | 2    | 224  | 3  | NH-SI 2 224A GL AG AC500V LI  | 35115-0100 |
| NH-SI 2 250A GL AG AC500V LI  | 2    | 250  | 3  | NH-SI 2 250A GL AG AC500V LI  | 35115-0110 |
| NH-SI 2 300A GL AG AC500V LI  | 2    | 300  | 3  | NH-SI 2 300A GL AG AC500V LI  | 35115-0120 |
| NH-SI 2 315A GL AG AC500V LI  | 2    | 315  | 3  | NH-SI 2 315A GL AG AC500V LI  | 35115-0130 |
| NH-SI 2 355A GL AG AC500V LI  | 2    | 355  | 3  | NH-SI 2 355A GL AG AC500V LI  | 35115-0140 |
| NH-SI 2 400A GL AG AC500V LI  | 2    | 400  | 3  | NH-SI 2 400A GL AG AC500V LI  | 35115-0150 |

## NH Fuse-Links 500V gL

- Rated voltage: AC 500V / DC 440V\*
- Utilization category: gL acc. to VDE 0636-21 and VDE 0636-1
- IEC 60269-2
- Breaking capacity AC: 120 kA
- Breaking capacity DC: see technical data

► Technical data, page 40



35164-0240

### NH Fuse-Links for cable and line protection, AC 500V gL

#### Features:

- Center indicator (specifically for meshed mains systems)
- Insulated metal gripping lug
- Pure silver fuse element

| Designation                      | Size | Amps | PU | Product designation              | Order no.         |
|----------------------------------|------|------|----|----------------------------------|-------------------|
| NH-SI 00 10A GL AG AC500V LI AU  | 00   | 10   | 10 | NH-SI 00 10A GL AG AC500V LI AU  | <b>35164-0270</b> |
| NH-SI 00 16A GL AG AC500V LI AU  | 00   | 16   | 10 | NH-SI 00 16A GL AG AC500V LI AU  | <b>35164-0260</b> |
| NH-SI 00 25A GL AG AC500V LI AU  | 00   | 25   | 10 | NH-SI 00 25A GL AG AC500V LI AU  | <b>35164-0250</b> |
| NH-SI 00 35A GL AG AC500V LI AU  | 00   | 35   | 10 | NH-SI 00 35A GL AG AC500V LI AU  | <b>35164-0170</b> |
| NH-SI 00 40A GL AG AC500V LI AU  | 00   | 40   | 10 | NH-SI 00 40A GL AG AC500V LI AU  | <b>35164-0180</b> |
| NH-SI 00 50A GL AG AC500V LI AU  | 00   | 50   | 10 | NH-SI 00 50A GL AG AC500V LI AU  | <b>35164-0190</b> |
| NH-SI 00 63A GL AG AC500V LI AU  | 00   | 63   | 10 | NH-SI 00 63A GL AG AC500V LI AU  | <b>35164-0200</b> |
| NH-SI 00 80A GL AG AC500V LI AU  | 00   | 80   | 10 | NH-SI 00 80A GL AG AC500V LI AU  | <b>35164-0210</b> |
| NH-SI 00 100A GL AG AC500V LI AU | 00   | 100  | 10 | NH-SI 00 100A GL AG AC500V LI AU | <b>35164-0220</b> |
| NH-SI 00 125A GL AG AC500V LI AU | 00   | 125  | 10 | NH-SI 00 125A GL AG AC500V LI AU | <b>35164-0230</b> |
| NH-SI 00 160A GL AG AC500V LI AU | 00   | 160  | 10 | NH-SI 00 160A GL AG AC500V LI AU | <b>35164-0240</b> |
| NH-SI 2 35A GL AG AC500V LI AU   | 2    | 35   | 3  | NH-SI 2 35A GL AG AC500V LI AU   | <b>35115-0280</b> |
| NH-SI 2 63A GL AG AC500V LI AU   | 2    | 63   | 3  | NH-SI 2 63A GL AG AC500V LI AU   | <b>35115-0160</b> |
| NH-SI 2 80A GL AG AC500V LI AU   | 2    | 80   | 3  | NH-SI 2 80A GL AG AC500V LI AU   | <b>35115-0170</b> |
| NH-SI 2 100A GL AG AC500V LI AU  | 2    | 100  | 3  | NH-SI 2 100A GL AG AC500V LI AU  | <b>35115-0180</b> |
| NH-SI 2 125A GL AG AC500V LI AU  | 2    | 125  | 3  | NH-SI 2 125A GL AG AC500V LI AU  | <b>35115-0190</b> |
| NH-SI 2 160A GL AG AC500V LI AU  | 2    | 160  | 3  | NH-SI 2 160A GL AG AC500V LI AU  | <b>35115-0200</b> |
| NH-SI 2 200A GL AG AC500V LI AU  | 2    | 200  | 3  | NH-SI 2 200A GL AG AC500V LI AU  | <b>35115-0210</b> |
| NH-SI 2 224A GL AG AC500V LI AU  | 2    | 224  | 3  | NH-SI 2 224A GL AG AC500V LI AU  | <b>35115-0220</b> |
| NH-SI 2 250A GL AG AC500V LI AU  | 2    | 250  | 3  | NH-SI 2 250A GL AG AC500V LI AU  | <b>35115-0230</b> |
| NH-SI 2 300A GL AG AC500V LI AU  | 2    | 300  | 3  | NH-SI 2 300A GL AG AC500V LI AU  | <b>35115-0240</b> |
| NH-SI 2 315A GL AG AC500V LI AU  | 2    | 315  | 3  | NH-SI 2 315A GL AG AC500V LI AU  | <b>35115-0250</b> |
| NH-SI 2 355A GL AG AC500V LI AU  | 2    | 355  | 3  | NH-SI 2 355A GL AG AC500V LI AU  | <b>35115-0260</b> |
| NH-SI 2 400A GL AG AC500V LI AU  | 2    | 400  | 3  | NH-SI 2 400A GL AG AC500V LI AU  | <b>35115-0270</b> |

## NH Fuse-Links 690 V gG

- Rated voltage: AC 690 V
- Utilization category: gG acc. to VDE 0636-2 and VDE 0636-1
- IEC 60269-2 and IEC 60269-1
- Application: for cable and line protection
- Breaking capacity AC: 80 kA (630 A, 50 kA)
- Breaking capacity DC: see technical data

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35421-0250

### NH Fuse-Links for cable and line protection, 690 V AC gG

#### Features:

- Twin indicator
- Non-insulated metal gripping lug
- Copper fuse element

| Designation                | Size | Amps | PU | Product designation        | Order no.         |
|----------------------------|------|------|----|----------------------------|-------------------|
| NH-SI 000 2A GG AC690V AK  | 000  | 2    | 3  | NH-SI 000 2A GG AC690V AK  | <b>35421-0020</b> |
| NH-SI 000 4A GG AC690V AK  | 000  | 4    | 3  | NH-SI 000 4A GG AC690V AK  | <b>35421-0040</b> |
| NH-SI 000 6A GG AC690V AK  | 000  | 6    | 3  | NH-SI 000 6A GG AC690V AK  | <b>35421-0060</b> |
| NH-SI 000 10A GG AC690V AK | 000  | 10   | 3  | NH-SI 000 10A GG AC690V AK | <b>35421-0100</b> |
| NH-SI 000 16A GG AC690V AK | 000  | 16   | 3  | NH-SI 000 16A GG AC690V AK | <b>35421-0160</b> |
| NH-SI 000 20A GG AC690V AK | 000  | 20   | 3  | NH-SI 000 20A GG AC690V AK | <b>35421-0200</b> |
| NH-SI 000 25A GG AC690V AK | 000  | 25   | 3  | NH-SI 000 25A GG AC690V AK | <b>35421-0250</b> |
| NH-SI 000 32A GG AC690V AK | 000  | 32   | 3  | NH-SI 000 32A GG AC690V AK | <b>35421-0320</b> |
| NH-SI 000 35A GG AC690V AK | 000  | 35   | 3  | NH-SI 000 35A GG AC690V AK | <b>35421-0350</b> |
| NH-SI 000 40A GG AC690V AK | 000  | 40   | 3  | NH-SI 000 40A GG AC690V AK | <b>35421-0400</b> |
| NH-SI 000 50A GG AC690V AK | 000  | 50   | 3  | NH-SI 000 50A GG AC690V AK | <b>35421-0500</b> |
| NH-SI 000 63A GG AC690V AK | 000  | 63   | 3  | NH-SI 000 63A GG AC690V AK | <b>35421-0630</b> |
| NH-SI 00 80A GG AC690V AK  | 00   | 80   | 3  | NH-SI 00 80A GG AC690V AK  | <b>35422-0800</b> |
| NH-SI 00 100A GG AC690V AK | 00   | 100  | 3  | NH-SI 00 100A GG AC690V AK | <b>35422-1000</b> |
| NH-SI 00 125A GG AC690V AK | 00   | 125  | 3  | NH-SI 00 125A GG AC690V AK | <b>35422-1250</b> |
| NH-SI 1/ 25A GG AC690V AK  | 1    | 25   | 3  | NH-SI 1/ 25A GG AC690V AK  | <b>35423-0250</b> |
| NH-SI 1/ 32A GG AC690V AK  | 1    | 32   | 3  | NH-SI 1/ 32A GG AC690V AK  | <b>35423-0320</b> |
| NH-SI 1/ 35A GG AC690V AK  | 1    | 35   | 3  | NH-SI 1/ 35A GG AC690V AK  | <b>35423-0350</b> |
| NH-SI 1/ 40A GG AC690V AK  | 1    | 40   | 3  | NH-SI 1/ 40A GG AC690V AK  | <b>35423-0400</b> |
| NH-SI 1/ 50A GG AC690V AK  | 1    | 50   | 3  | NH-SI 1/ 50A GG AC690V AK  | <b>35423-0500</b> |
| NH-SI 1/ 63A GG AC690V AK  | 1    | 63   | 3  | NH-SI 1/ 63A GG AC690V AK  | <b>35423-0630</b> |
| NH-SI 1/ 80A GG AC690V AK  | 1    | 80   | 3  | NH-SI 1/ 80A GG AC690V AK  | <b>35423-0800</b> |
| NH-SI 1/ 100A GG AC690V AK | 1    | 100  | 3  | NH-SI 1/ 100A GG AC690V AK | <b>35423-1000</b> |
| NH-SI 1 125A GG AC690V AK  | 1    | 125  | 3  | NH-SI 1 125A GG AC690V AK  | <b>35423-1250</b> |
| NH-SI 1 160A GG AC690V AK  | 1    | 160  | 3  | NH-SI 1 160A GG AC690V AK  | <b>35423-1600</b> |
| NH-SI 1 200A GG AC690V AK  | 1    | 200  | 3  | NH-SI 1 200A GG AC690V AK  | <b>35423-2000</b> |
| NH-SI 1 250A GG AC690V AK  | 1    | 250  | 3  | NH-SI 1 250A GG AC690V AK  | <b>35423-2500</b> |
| NH-SI 2/ 25A GG AC690V AK  | 2    | 25   | 3  | NH-SI 2/ 25A GG AC690V AK  | <b>35424-0250</b> |
| NH-SI 2/ 35A GG AC690V AK  | 2    | 35   | 3  | NH-SI 2/ 35A GG AC690V AK  | <b>35424-0350</b> |
| NH-SI 2/ 50A GG AC690V AK  | 2    | 50   | 3  | NH-SI 2/ 50A GG AC690V AK  | <b>35424-0500</b> |
| NH-SI 2/ 63A GG AC690V AK  | 2    | 63   | 3  | NH-SI 2/ 63A GG AC690V AK  | <b>35424-0630</b> |
| NH-SI 2/ 80A GG AC690V AK  | 2    | 80   | 3  | NH-SI 2/ 80A GG AC690V AK  | <b>35424-0800</b> |
| NH-SI 2/ 100A GG AC690V AK | 2    | 100  | 3  | NH-SI 2/ 100A GG AC690V AK | <b>35424-1000</b> |
| NH-SI 2/ 125A GG AC690V AK | 2    | 125  | 3  | NH-SI 2/ 125A GG AC690V AK | <b>35424-1250</b> |
| NH-SI 2/ 160A GG AC690V AK | 2    | 160  | 3  | NH-SI 2/ 160A GG AC690V AK | <b>35424-1600</b> |
| NH-SI 2/ 200A GG AC690V AK | 2    | 200  | 3  | NH-SI 2/ 200A GG AC690V AK | <b>35424-2000</b> |
| NH-SI 2/ 250A GG AC690V AK | 2    | 250  | 3  | NH-SI 2/ 250A GG AC690V AK | <b>35424-2500</b> |
| NH-SI 2 315A GG AC690V AK  | 2    | 315  | 3  | NH-SI 2 315A GG AC690V AK  | <b>35424-3150</b> |
| NH-SI 2 355A GG AC690V AK  | 2    | 355  | 3  | NH-SI 2 355A GG AC690V AK  | <b>35424-3550</b> |
| NH-SI 2 400A GG AC690V MA  | 2    | 400  | 3  | NH-SI 2 400A GG AC690V MA  | <b>35424-4000</b> |

## NH Fuse-Links 690 V gG

- Rated voltage: AC 690 V
- Utilization category: gG acc. to VDE 0636-2 and VDE 0636-1
- IEC 60269-2 and IEC 60269-1
- Application: for cable and line protection
- Breaking capacity AC: 80 kA (630 A, 50 kA)
- Breaking capacity DC: see technical data

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35425-4000

### NH Fuse-Links for cable and line protection, 690 V AC gG

#### Features:

- Twin indicator (630 A with center indicator)
- Non-insulated metal gripping lug
- Copper fuse element

| Designation                | Size | Amps | PU | Product designation        | Order no.         |
|----------------------------|------|------|----|----------------------------|-------------------|
| NH-SI 3/ 80A GG AC690V AK  | 3    | 80   | 3  | NH-SI 3/ 80A GG AC690V AK  | <b>35425-0800</b> |
| NH-SI 3/ 100A GG AC690V AK | 3    | 100  | 3  | NH-SI 3/ 100A GG AC690V AK | <b>35425-1000</b> |
| NH-SI 3/ 125A GG AC690V AK | 3    | 125  | 3  | NH-SI 3/ 125A GG AC690V AK | <b>35425-1250</b> |
| NH-SI 3/ 160A GG AC690V AK | 3    | 160  | 3  | NH-SI 3/ 160A GG AC690V AK | <b>35425-1600</b> |
| NH-SI 3/ 200A GG AC690V AK | 3    | 200  | 3  | NH-SI 3/ 200A GG AC690V AK | <b>35425-2000</b> |
| NH-SI 3/ 224A GG AC690V AK | 3    | 224  | 3  | NH-SI 3/ 224A GG AC690V AK | <b>35425-2240</b> |
| NH-SI 3/ 250A GG AC690V AK | 3    | 250  | 3  | NH-SI 3/ 250A GG AC690V AK | <b>35425-2500</b> |
| NH-SI 3/ 315A GG AC690V AK | 3    | 315  | 3  | NH-SI 3/ 315A GG AC690V AK | <b>35425-3150</b> |
| NH-SI 3/ 355A GG AC690V AK | 3    | 355  | 3  | NH-SI 3/ 355A GG AC690V AK | <b>35425-3550</b> |
| NH-SI 3 400A GG AC690V AK  | 3    | 400  | 3  | NH-SI 3 400A GG AC690V AK  | <b>35425-4000</b> |
| NH-SI 3 425A GG AC690V AK  | 3    | 425  | 3  | NH-SI 3 425A GG AC690V AK  | <b>35425-4250</b> |
| NH-SI 3 500A GG AC690V AK  | 3    | 500  | 3  | NH-SI 3 500A GG AC690V AK  | <b>35425-5000</b> |
| NH-SI 3 630A GG AC690V MA  | 3    | 630  | 3  | NH-SI 3 630A GG AC690V MA  | <b>35425-6300</b> |



## NH Fuse-Links 500 V gR

- Rated voltage: AC 500 V
- Utilization category: gR acc. to VDE 0636-4
- Application: for semiconductor protection

- Breaking capacity AC: 120 kA
- Breaking capacity DC: see technical data

► Technical data, page 46



35058-0110

### NH Fuse-Links for semiconductor protection, 500 V AC gR

#### Features:

- Center indicator
- Non-insulated metal gripping lug
- Pure silver fuse element

| Designation                  | Size | Amps | PU | Product designation          | Order no.  |
|------------------------------|------|------|----|------------------------------|------------|
| NH-SI 00 16A GR AC500V LS    | 00   | 16   | 10 | NH-SI 00 16A GR AC500V LS    | 35024-0180 |
| NH-SI 00 20A GR AC500V LS    | 00   | 20   | 10 | NH-SI 00 20A GR AC500V LS    | 35024-0170 |
| NH-SI 00 25A GR AC500V LS    | 00   | 25   | 10 | NH-SI 00 25A GR AC500V LS    | 35024-0190 |
| NH-SI 00 35A GR AC500V LS    | 00   | 35   | 10 | NH-SI 00 35A GR AC500V LS    | 35024-0010 |
| NH-SI 00 40A GR AC500V LS    | 00   | 40   | 10 | NH-SI 00 40A GR AC500V LS    | 35024-0020 |
| NH-SI 00 50A GR AC500V LS    | 00   | 50   | 10 | NH-SI 00 50A GR AC500V LS    | 35024-0030 |
| NH-SI 00 63A GR AC500V LS    | 00   | 63   | 10 | NH-SI 00 63A GR AC500V LS    | 35024-0040 |
| NH-SI 00 80A GR AC500V LS    | 00   | 80   | 10 | NH-SI 00 80A GR AC500V LS    | 35024-0050 |
| NH-SI 00 100A GR AC500V LS   | 00   | 100  | 10 | NH-SI 00 100A GR AC500V LS   | 35024-0060 |
| NH-SI 00 125A GR AC500V LS   | 00   | 125  | 10 | NH-SI 00 125A GR AC500V LS   | 35024-0070 |
| NH-SI 00 160A GR AC500V LS   | 00   | 160  | 10 | NH-SI 00 160A GR AC500V LS   | 35024-0080 |
| NH-SI 1 35A GR AC500V LS     | 1    | 35   | 3  | NH-SI 1 35A GR AC500V LS     | 35040-0010 |
| NH-SI 1 50A GR AC500V LS     | 1    | 50   | 3  | NH-SI 1 50A GR AC500V LS     | 35040-0020 |
| NH-SI 1 63A GR AC500V LS     | 1    | 63   | 3  | NH-SI 1 63A GR AC500V LS     | 35040-0030 |
| NH-SI 1 80A GR AC500V LS     | 1    | 80   | 3  | NH-SI 1 80A GR AC500V LS     | 35040-0040 |
| NH-SI 1 100A GR AC500V LS    | 1    | 100  | 3  | NH-SI 1 100A GR AC500V LS    | 35040-0050 |
| NH-SI 1 125A GR AC500V LS    | 1    | 125  | 3  | NH-SI 1 125A GR AC500V LS    | 35040-0060 |
| NH-SI 1 160A GR AC500V LS    | 1    | 160  | 3  | NH-SI 1 160A GR AC500V LS    | 35040-0070 |
| NH-SI 1 200A GR AC500V LS    | 1    | 200  | 3  | NH-SI 1 200A GR AC500V LS    | 35040-0080 |
| NH-SI 1 224A GR AC500V LS    | 1    | 224  | 3  | NH-SI 1 224A GR AC500V LS    | 35040-0090 |
| NH-SI 1 250A GR AC500V LS    | 1    | 250  | 3  | NH-SI 1 250A GR AC500V LS    | 35040-0100 |
| NH-SI 2 80A GR AC500V LS     | 2    | 80   | 3  | NH-SI 2 80A GR AC500V LS     | 35058-0010 |
| NH-SI 2 100A GR AC500V LS    | 2    | 100  | 3  | NH-SI 2 100A GR AC500V LS    | 35058-0020 |
| NH-SI 2 125A GR AC500V LS    | 2    | 125  | 3  | NH-SI 2 125A GR AC500V LS    | 35058-0030 |
| NH-SI 2 160A GR AC500V LS    | 2    | 160  | 3  | NH-SI 2 160A GR AC500V LS    | 35058-0040 |
| NH-SI 2 200A GR AC500V LS    | 2    | 200  | 3  | NH-SI 2 200A GR AC500V LS    | 35058-0050 |
| NH-SI 2 224A GR AC500V LS    | 2    | 224  | 3  | NH-SI 2 224A GR AC500V LS    | 35058-0060 |
| NH-SI 2 250A GR AC500V LS    | 2    | 250  | 3  | NH-SI 2 250A GR AC500V LS    | 35058-0070 |
| NH-SI 2 300A GR AC500V LS    | 2    | 300  | 3  | NH-SI 2 300A GR AC500V LS    | 35058-0080 |
| NH-SI 2 315A GR AC500V LS    | 2    | 315  | 3  | NH-SI 2 315A GR AC500V LS    | 35058-0090 |
| NH-SI 2 355A GR AC500V LS    | 2    | 355  | 3  | NH-SI 2 355A GR AC500V LS    | 35058-0100 |
| NH-SI 2 400A GR AC500V LS    | 2    | 400  | 3  | NH-SI 2 400A GR AC500V LS    | 35058-0110 |
| NH-SI 3 315A GR AC500V LS    | 3    | 315  | 1  | NH-SI 3 315A GR AC500V LS    | 35079-0010 |
| NH-SI 3 355A GR AC500V LS    | 3    | 355  | 1  | NH-SI 3 355A GR AC500V LS    | 35079-0020 |
| NH-SI 3 400A GR AC500V LS    | 3    | 400  | 1  | NH-SI 3 400A GR AC500V LS    | 35079-0030 |
| NH-SI 3 425A GR AC500V LS    | 3    | 425  | 1  | NH-SI 3 425A GR AC500V LS    | 35079-0040 |
| NH-SI 3 500A GR AC500V LS    | 3    | 500  | 1  | NH-SI 3 500A GR AC500V LS    | 35079-0050 |
| NH-SI 3 630A GR AC500V LS    | 3    | 630  | 1  | NH-SI 3 630A GR AC500V LS    | 35079-0060 |
| NH-SI 00 16A GR AC500V SM    | 00   | 16   | 10 | NH-SI 00 16A GR AC500V SM    | 35218-0010 |
| NH-SI 00 20A GR AC500V SM    | 00   | 20   | 10 | NH-SI 00 20A GR AC500V SM    | 35218-0020 |
| NH-SI 00 25A GR AC500V SM    | 00   | 25   | 10 | NH-SI 00 25A GR AC500V SM    | 35218-0030 |
| NH-SI 00 35A GR AC500V SM    | 00   | 35   | 10 | NH-SI 00 35A GR AC500V SM    | 35218-0040 |
| NH-SI 00 40A GR AC500V SM    | 00   | 40   | 10 | NH-SI 00 40A GR AC500V SM    | 35218-0050 |
| NH-SI 00 50A GR AC500V SM    | 00   | 50   | 10 | NH-SI 00 50A GR AC500V SM    | 35218-0060 |
| NH-SI 00 63A GR AC500V SM    | 00   | 63   | 10 | NH-SI 00 63A GR AC500V SM    | 35218-0070 |
| NH-SI 00 80A GR AC500V SM    | 00   | 80   | 10 | NH-SI 00 80A GR AC500V SM    | 35218-0080 |
| NH-SI 00 100A GR AC500V SM   | 00   | 100  | 10 | NH-SI 00 100A GR AC500V SM   | 35218-0090 |
| NH-SI 00 125A GR AC500V SM   | 00   | 125  | 10 | NH-SI 00 125A GR AC500V SM   | 35218-0100 |
| NH-SI 1 35A GR AC500V LS SM  | 1    | 35   | 1  | NH-SI 1 35A GR AC500V LS SM  | 35046-0010 |
| NH-SI 1 50A GR AC500V LS SM  | 1    | 50   | 1  | NH-SI 1 50A GR AC500V LS SM  | 35046-0020 |
| NH-SI 1 63A GR AC500V LS SM  | 1    | 63   | 1  | NH-SI 1 63A GR AC500V LS SM  | 35046-0030 |
| NH-SI 1 80A GR AC500V LS SM  | 1    | 80   | 1  | NH-SI 1 80A GR AC500V LS SM  | 35046-0040 |
| NH-SI 1 100A GR AC500V LS SM | 1    | 100  | 1  | NH-SI 1 100A GR AC500V LS SM | 35046-0050 |

## NH Fuse-Links 500 V gR

- Rated voltage: AC 500 V
- Utilization category: gR acc. to VDE 0636-4
- Application: for semiconductor protection
- Breaking capacity AC: 120 kA
- Breaking capacity DC: see technical data

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35060-0150

### NH Fuse-Links for semiconductor protection, 500 V AC gR

#### Features:

- Center indicator
- Non-insulated metal gripping lug
- Pure silver fuse element
- Striker for fuse monitoring

| Designation                  | Size | Amps | PU | Product designation          | Order no.         |
|------------------------------|------|------|----|------------------------------|-------------------|
| NH-SI 00 16A GR AC500V SM    | 00   | 16   | 10 | NH-SI 00 16A GR AC500V SM    | <b>35218-0010</b> |
| NH-SI 00 20A GR AC500V SM    | 00   | 20   | 10 | NH-SI 00 20A GR AC500V SM    | <b>35218-0020</b> |
| NH-SI 00 25A GR AC500V SM    | 00   | 25   | 10 | NH-SI 00 25A GR AC500V SM    | <b>35218-0030</b> |
| NH-SI 00 35A GR AC500V SM    | 00   | 35   | 10 | NH-SI 00 35A GR AC500V SM    | <b>35218-0040</b> |
| NH-SI 00 40A GR AC500V SM    | 00   | 40   | 10 | NH-SI 00 40A GR AC500V SM    | <b>35218-0050</b> |
| NH-SI 00 50A GR AC500V SM    | 00   | 50   | 10 | NH-SI 00 50A GR AC500V SM    | <b>35218-0060</b> |
| NH-SI 00 63A GR AC500V SM    | 00   | 63   | 10 | NH-SI 00 63A GR AC500V SM    | <b>35218-0070</b> |
| NH-SI 00 80A GR AC500V SM    | 00   | 80   | 10 | NH-SI 00 80A GR AC500V SM    | <b>35218-0080</b> |
| NH-SI 00 100A GR AC500V SM   | 00   | 100  | 10 | NH-SI 00 100A GR AC500V SM   | <b>35218-0090</b> |
| NH-SI 00 125A GR AC500V SM   | 00   | 125  | 10 | NH-SI 00 125A GR AC500V SM   | <b>35218-0100</b> |
| NH-SI 1 35A GR AC500V LS SM  | 1    | 35   | 1  | NH-SI 1 35A GR AC500V LS SM  | <b>35046-0010</b> |
| NH-SI 1 50A GR AC500V LS SM  | 1    | 50   | 1  | NH-SI 1 50A GR AC500V LS SM  | <b>35046-0020</b> |
| NH-SI 1 63A GR AC500V LS SM  | 1    | 63   | 1  | NH-SI 1 63A GR AC500V LS SM  | <b>35046-0030</b> |
| NH-SI 1 80A GR AC500V LS SM  | 1    | 80   | 1  | NH-SI 1 80A GR AC500V LS SM  | <b>35046-0040</b> |
| NH-SI 1 100A GR AC500V LS SM | 1    | 100  | 1  | NH-SI 1 100A GR AC500V LS SM | <b>35046-0050</b> |
| NH-SI 1 160A GR AC500V LS SM | 1    | 160  | 1  | NH-SI 1 160A GR AC500V LS SM | <b>35046-0070</b> |
| NH-SI 1 200A GR AC500V LS SM | 1    | 200  | 1  | NH-SI 1 200A GR AC500V LS SM | <b>35046-0080</b> |
| NH-SI 1 224A GR AC500V LS SM | 1    | 224  | 1  | NH-SI 1 224A GR AC500V LS SM | <b>35046-0090</b> |
| NH-SI 1 250A GR AC500V LS SM | 1    | 250  | 1  | NH-SI 1 250A GR AC500V LS SM | <b>35046-0100</b> |
| NH-SI 2 80A GR AC500V LS SM  | 2    | 80   | 1  | NH-SI 2 80A GR AC500V LS SM  | <b>35060-0050</b> |
| NH-SI 2 100A GR AC500V LS SM | 2    | 100  | 1  | NH-SI 2 100A GR AC500V LS SM | <b>35060-0060</b> |
| NH-SI 2 125A GR AC500V LS SM | 2    | 125  | 1  | NH-SI 2 125A GR AC500V LS SM | <b>35060-0070</b> |
| NH-SI 2 160A GR AC500V LS SM | 2    | 160  | 1  | NH-SI 2 160A GR AC500V LS SM | <b>35060-0080</b> |
| NH-SI 2 200A GR AC500V LS SM | 2    | 200  | 1  | NH-SI 2 200A GR AC500V LS SM | <b>35060-0090</b> |
| NH-SI 2 224A GR AC500V LS SM | 2    | 224  | 1  | NH-SI 2 224A GR AC500V LS SM | <b>35060-0100</b> |
| NH-SI 2 250A GR AC500V LS SM | 2    | 250  | 1  | NH-SI 2 250A GR AC500V LS SM | <b>35060-0110</b> |
| NH-SI 2 300A GR AC500V LS SM | 2    | 300  | 1  | NH-SI 2 300A GR AC500V LS SM | <b>35060-0120</b> |
| NH-SI 2 315A GR AC500V LS SM | 2    | 315  | 1  | NH-SI 2 315A GR AC500V LS SM | <b>35060-0130</b> |
| NH-SI 2 355A GR AC500V LS SM | 2    | 355  | 1  | NH-SI 2 355A GR AC500V LS SM | <b>35060-0140</b> |
| NH-SI 2 400A GR AC500V LS SM | 2    | 400  | 1  | NH-SI 2 400A GR AC500V LS SM | <b>35060-0150</b> |
| NH-SI 3 315A GR AC500V LS SM | 3    | 315  | 1  | NH-SI 3 315A GR AC500V LS SM | <b>35086-0010</b> |
| NH-SI 3 355A GR AC500V LS SM | 3    | 355  | 1  | NH-SI 3 355A GR AC500V LS SM | <b>35086-0020</b> |
| NH-SI 3 400A GR AC500V LS SM | 3    | 400  | 1  | NH-SI 3 400A GR AC500V LS SM | <b>35086-0030</b> |
| NH-SI 3 425A GR AC500V LS SM | 3    | 425  | 1  | NH-SI 3 425A GR AC500V LS SM | <b>35086-0040</b> |
| NH-SI 3 500A GR AC500V LS SM | 3    | 500  | 1  | NH-SI 3 500A GR AC500V LS SM | <b>35086-0050</b> |
| NH-SI 3 630A GR AC500V LS SM | 3    | 630  | 1  | NH-SI 3 630A GR AC500V LS SM | <b>35086-0060</b> |

## NH Fuse-Links 500V gR

- Rated voltage: AC 500 V
- Utilization category: gR acc. to VDE 0636-4
- Application: Maintenance fuse
- Breaking capacity AC: 120 kA

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35209-0050

### Maintenance fuse-link 500 V AC LI

#### Features:

- Specific marking
- Insulated metal gripping lugs
- Pure silver fuse element
- Highly vibration-resistant screws

| Designation                             | Size | Amps | PU | Product designation                     | Order no.         |
|-----------------------------------------|------|------|----|-----------------------------------------|-------------------|
| NH-ARBEITSSICHERUNG 2 80A GR AC500V LI  | 2    | 80   | 3  | NH-ARBEITSSICHERUNG 2 80A GR AC500V LI  | <b>35209-0010</b> |
| NH-ARBEITSSICHERUNG 2 100A GR AC500V LI | 2    | 100  | 3  | NH-ARBEITSSICHERUNG 2 100A GR AC500V LI | <b>35209-0020</b> |
| NH-ARBEITSSICHERUNG 2 125A GR AC500V LI | 2    | 125  | 3  | NH-ARBEITSSICHERUNG 2 125A GR AC500V LI | <b>35209-0030</b> |
| NH-ARBEITSSICHERUNG 2 160A GR AC500V LI | 2    | 160  | 3  | NH-ARBEITSSICHERUNG 2 160A GR AC500V LI | <b>35209-0040</b> |
| NH-ARBEITSSICHERUNG 2 200A GR AC500V LI | 2    | 200  | 3  | NH-ARBEITSSICHERUNG 2 200A GR AC500V LI | <b>35209-0050</b> |
| NH-ARBEITSSICHERUNG 2 224A GR AC500V LI | 2    | 224  | 3  | NH-ARBEITSSICHERUNG 2 224A GR AC500V LI | <b>35209-0060</b> |
| NH-ARBEITSSICHERUNG 2 250A GR AC500V LI | 2    | 250  | 3  | NH-ARBEITSSICHERUNG 2 250A GR AC500V LI | <b>35209-0070</b> |
| NH-ARBEITSSICHERUNG 2 300A GR AC500V LI | 2    | 300  | 3  | NH-ARBEITSSICHERUNG 2 300A GR AC500V LI | <b>35209-0080</b> |
| NH-ARBEITSSICHERUNG 2 315A GR AC500V LI | 2    | 315  | 3  | NH-ARBEITSSICHERUNG 2 315A GR AC500V LI | <b>35209-0090</b> |

## NH Fuse-Links 400 V gTr

- Rated voltage: 400 V AC gTr
- Utilization category: gTr acc. to VDE 0636-2011

- Application: for transformer protection
- Breaking capacity: 100 kA size 3, 630 kVA, 50 kA

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35081-0110

### NH Fuse-Links for transformer protection, 400 V AC gTr

#### Features:

- Center indicator
- Non-insulated metal gripping lug
- Copper fuse element

| Designation                   | Size | kVA  | Amps | PU | Product designation           | Order no.         |
|-------------------------------|------|------|------|----|-------------------------------|-------------------|
| NH-SI 2 50KVA GTR AC400V MA   | 2    | 50   | 72   | 3  | NH-SI 2 50KVA GTR AC400V MA   | <b>35076-1010</b> |
| NH-SI 2 75KVA GTR AC400V MA   | 2    | 75   | 108  | 3  | NH-SI 2 75KVA GTR AC400V MA   | <b>35076-1020</b> |
| NH-SI 2 100KVA GTR AC400V MA  | 2    | 100  | 144  | 3  | NH-SI 2 100KVA GTR AC400V MA  | <b>35076-1030</b> |
| NH-SI 2 125KVA GTR AC400V MA  | 2    | 125  | 180  | 3  | NH-SI 2 125KVA GTR AC400V MA  | <b>35076-1040</b> |
| NH-SI 2 160KVA GTR AC400V MA  | 2    | 160  | 231  | 3  | NH-SI 2 160KVA GTR AC400V MA  | <b>35076-1050</b> |
| NH-SI 2 200KVA GTR AC400V MA  | 2    | 200  | 289  | 3  | NH-SI 2 200KVA GTR AC400V MA  | <b>35076-1060</b> |
| NH-SI 2 250KVA GTR AC400V MA  | 2    | 250  | 361  | 3  | NH-SI 2 250KVA GTR AC400V MA  | <b>35076-1070</b> |
| NH-SI 3 100KVA GTR AC400V MA  | 3    | 100  | 144  | 1  | NH-SI 3 100KVA GTR AC400V MA  | <b>35081-1040</b> |
| NH-SI 3 160KVA GTR AC400V MA  | 3    | 160  | 231  | 1  | NH-SI 3 160KVA GTR AC400V MA  | <b>35081-1060</b> |
| NH-SI 3 200KVA GTR AC400V MA  | 3    | 200  | 289  | 1  | NH-SI 3 200KVA GTR AC400V MA  | <b>35081-1050</b> |
| NH-SI 3 250KVA GTR AC400V MA  | 3    | 250  | 361  | 1  | NH-SI 3 250KVA GTR AC400V MA  | <b>35081-1010</b> |
| NH-SI 3 315KVA GTR AC400V MA  | 3    | 315  | 455  | 1  | NH-SI 3 315KVA GTR AC400V MA  | <b>35081-1020</b> |
| NH-SI 3 400KVA GTR AC400V MA  | 3    | 400  | 577  | 1  | NH-SI 3 400KVA GTR AC400V MA  | <b>35081-1030</b> |
| NH-SI 3 500KVA GTR AC400V MA  | 3    | 500  | 722  | 1  | NH-SI 3 500KVA GTR AC400V MA  | <b>35081-0100</b> |
| NH-SI 3 630KVA GTR AC400V MA  | 3    | 630  | 909  | 1  | NH-SI 3 630KVA GTR AC400V MA  | <b>35081-0110</b> |
| NH-SI 4A 100KVA GTR AC400V MA | 4a   | 100  | 144  | 1  | NH-SI 4A 100KVA GTR AC400V MA | <b>35100-0100</b> |
| NH-SI 4A 160KVA GTR AC400V MA | 4a   | 160  | 231  | 1  | NH-SI 4A 160KVA GTR AC400V MA | <b>35100-0110</b> |
| NH-SI 4A 200KVA GTR AC400V MA | 4a   | 200  | 289  | 1  | NH-SI 4A 200KVA GTR AC400V MA | <b>35100-0160</b> |
| NH-SI 4A 250KVA GTR AC400V MA | 4a   | 250  | 361  | 1  | NH-SI 4A 250KVA GTR AC400V MA | <b>35100-0120</b> |
| NH-SI 4A 315KVA GTR AC400V MA | 4a   | 315  | 455  | 1  | NH-SI 4A 315KVA GTR AC400V MA | <b>35100-0170</b> |
| NH-SI 4A 400KVA GTR AC400V MA | 4a   | 400  | 577  | 1  | NH-SI 4A 400KVA GTR AC400V MA | <b>35100-0130</b> |
| NH-SI 4A 500KVA GTR AC400V MA | 4a   | 500  | 722  | 1  | NH-SI 4A 500KVA GTR AC400V MA | <b>35100-0140</b> |
| NH-SI 4A 630KVA GTR AC400V MA | 4a   | 630  | 909  | 1  | NH-SI 4A 630KVA GTR AC400V MA | <b>35100-0150</b> |
| NH-SI 4A 800KVA GTR AC400V MA | 4a   | 800  | 1155 | 1  | NH-SI 4A 800KVA GTR AC400V MA | <b>35100-0040</b> |
| NH-SI 4A 1000KVA GTR AC400V   | 4a   | 1000 | 1443 | 1  | NH-SI 4A 1000KVA GTR AC400V   | <b>35100-0190</b> |



# NH Fuse-Links 1000 V gB/aM

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35041-0180

## NH Fuse-Links 1L, 1000 V gB

### Features:

- AC 1000 V / DC 550 V\*
- Breaking capacity: 25 kA
- gB acc. to VDE 0636-2011

| Designation                    | Size | Amps | PU | Product designation            | Order no.         |
|--------------------------------|------|------|----|--------------------------------|-------------------|
| NH-SI 1L 10A GB AC1000V LS AS  | 1L   | 10   | 1  | NH-SI 1L 10A GB AC1000V LS AS  | <b>35041-0410</b> |
| NH-SI 1L 16A GB AC1000V LS AS  | 1L   | 16   | 1  | NH-SI 1L 16A GB AC1000V LS AS  | <b>35041-0420</b> |
| NH-SI 1L 35A GB AC1000V LS AS  | 1L   | 35   | 1  | NH-SI 1L 35A GB AC1000V LS AS  | <b>35041-0100</b> |
| NH-SI 1L 50A GB AC1000V LS AS  | 1L   | 50   | 1  | NH-SI 1L 50A GB AC1000V LS AS  | <b>35041-0110</b> |
| NH-SI 1L 63A GB AC1000V LS AS  | 1L   | 63   | 1  | NH-SI 1L 63A GB AC1000V LS AS  | <b>35041-0120</b> |
| NH-SI 1L 80A GB AC1000V LS AS  | 1L   | 80   | 1  | NH-SI 1L 80A GB AC1000V LS AS  | <b>35041-0130</b> |
| NH-SI 1L 100A GB AC1000V LS AS | 1L   | 100  | 1  | NH-SI 1L 100A GB AC1000V LS AS | <b>35041-0140</b> |
| NH-SI 1L 125A GB AC1000V LS AS | 1L   | 125  | 1  | NH-SI 1L 125A GB AC1000V LS AS | <b>35041-0150</b> |
| NH-SI 1L 160A GB AC1000V LS AS | 1L   | 160  | 1  | NH-SI 1L 160A GB AC1000V LS AS | <b>35041-0160</b> |
| NH-SI 1L 200A GB AC1000V LS AS | 1L   | 200  | 1  | NH-SI 1L 200A GB AC1000V LS AS | <b>35041-0170</b> |
| NH-SI 1L 250A GB AC1000V LS AS | 1L   | 250  | 1  | NH-SI 1L 250A GB AC1000V LS AS | <b>35041-0180</b> |



35151-0020

## NH Fuse-Links for the back-up protection of mining equipment

### Features:

- 1000 V AC (425 – 500 A) and 1500 V AC (10 – 355 A)
- Breaking capacity: 25 kA
- aM acc. to VDE 0636-2011

| Designation                 | Size | Amps | PU | Product designation         | Order no.         |
|-----------------------------|------|------|----|-----------------------------|-------------------|
| NH-SI 3 125A AM AC1000V SBW | 3    | 125  | 1  | NH-SI 3 125A AM AC1000V SBW | <b>35151-0010</b> |
| NH-SI 3 160A AM AC1000V SBW | 3    | 160  | 1  | NH-SI 3 160A AM AC1000V SBW | <b>35151-0020</b> |
| NH-SI 3 200A AM AC1000V SBW | 3    | 200  | 1  | NH-SI 3 200A AM AC1000V SBW | <b>35151-0030</b> |
| NH-SI 3 224A AM AC1000V SBW | 3    | 224  | 1  | NH-SI 3 224A AM AC1000V SBW | <b>35151-0040</b> |
| NH-SI 3 250A AM AC1000V SBW | 3    | 250  | 1  | NH-SI 3 250A AM AC1000V SBW | <b>35151-0050</b> |
| NH-SI 3 315A AM AC1000V SBW | 3    | 315  | 1  | NH-SI 3 315A AM AC1000V SBW | <b>35151-0070</b> |
| NH-SI 3 355A AM AC1000V SBW | 3    | 355  | 1  | NH-SI 3 355A AM AC1000V SBW | <b>35151-0080</b> |
| NH-SI 3 500A AM AC1000V SBW | 3    | 500  | 1  | NH-SI 3 500A AM AC1000V SBW | <b>35151-0120</b> |

## NH Fuse-Links 1000 V / 1500 V TF

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35150-0180

### NH Fuse-Links for the back-up protection of mining equipment

**Features:**

- AC 1000 V
- Breaking capacity: 25 kA
- TF acc. to VDE 0660 and DIN 43620-5

| Designation                 | Size | Amps | PU | Product designation         | Order no.         |
|-----------------------------|------|------|----|-----------------------------|-------------------|
| NH-SI 3 10A TF AC1000V RHB  | 3    | 10   | 1  | NH-SI 3 10A TF AC1000V RHB  | <b>35150-0010</b> |
| NH-SI 3 16A TF AC1000V RHB  | 3    | 16   | 1  | NH-SI 3 16A TF AC1000V RHB  | <b>35150-0020</b> |
| NH-SI 3 20A TF AC1000V RHB  | 3    | 20   | 1  | NH-SI 3 20A TF AC1000V RHB  | <b>35150-0030</b> |
| NH-SI 3 25A TF AC1000V RHB  | 3    | 25   | 1  | NH-SI 3 25A TF AC1000V RHB  | <b>35150-0040</b> |
| NH-SI 3 35A TF AC1000V RHB  | 3    | 35   | 1  | NH-SI 3 35A TF AC1000V RHB  | <b>35150-0050</b> |
| NH-SI 3 50A TF AC1000V RHB  | 3    | 50   | 1  | NH-SI 3 50A TF AC1000V RHB  | <b>35150-0060</b> |
| NH-SI 3 63A TF AC1000V RHB  | 3    | 63   | 1  | NH-SI 3 63A TF AC1000V RHB  | <b>35150-0070</b> |
| NH-SI 3 80A TF AC1000V RHB  | 3    | 80   | 1  | NH-SI 3 80A TF AC1000V RHB  | <b>35150-0080</b> |
| NH-SI 3 100A TF AC1000V RHB | 3    | 100  | 1  | NH-SI 3 100A TF AC1000V RHB | <b>35150-0090</b> |
| NH-SI 3 125A TF AC1000V RHB | 3    | 125  | 1  | NH-SI 3 125A TF AC1000V RHB | <b>35150-0100</b> |
| NH-SI 3 160A TF AC1000V RHB | 3    | 160  | 1  | NH-SI 3 160A TF AC1000V RHB | <b>35150-0110</b> |
| NH-SI 3 200A TF AC1000V RHB | 3    | 200  | 1  | NH-SI 3 200A TF AC1000V RHB | <b>35150-0120</b> |
| NH-SI 3 224A TF AC1000V RHB | 3    | 224  | 1  | NH-SI 3 224A TF AC1000V RHB | <b>35150-0130</b> |
| NH-SI 3 250A TF AC1000V RHB | 3    | 250  | 1  | NH-SI 3 250A TF AC1000V RHB | <b>35150-0140</b> |
| NH-SI 3 300A TF AC1000V RHB | 3    | 300  | 1  | NH-SI 3 300A TF AC1000V RHB | <b>35150-0150</b> |
| NH-SI 3 315A TF AC1000V RHB | 3    | 315  | 1  | NH-SI 3 315A TF AC1000V RHB | <b>35150-0160</b> |
| NH-SI 3 355A TF AC1000V RHB | 3    | 355  | 1  | NH-SI 3 355A TF AC1000V RHB | <b>35150-0170</b> |
| NH-SI 3 425A TF AC1000V RHB | 3    | 425  | 1  | NH-SI 3 425A TF AC1000V RHB | <b>35150-0180</b> |
| NH-SI 3 400A TF AC1000V RHB | 3    | 400  | 1  | NH-SI 3 400A TF AC1000V RHB | <b>35150-0190</b> |



35089-0190

### NH Fuse-Links, size 3L, special design

**Features:**

- AC 1000 V (425 – 500 A), AC 1500 V (6 – 355 A)
- Breaking capacity: 10 kA
- TF acc. to VDE 0660 and DIN 43620-5

| Designation                 | Size | Amps | PU | Product designation         | Order no.         |
|-----------------------------|------|------|----|-----------------------------|-------------------|
| NH-SI 3L 6A TF AC1500V LS   | 3L   | 6    | 1  | NH-SI 3L 6A TF AC1500V LS   | <b>35089-0200</b> |
| NH-SI 3L 10A TF AC1500V LS  | 3L   | 10   | 1  | NH-SI 3L 10A TF AC1500V LS  | <b>35089-0010</b> |
| NH-SI 3L 16A TF AC1500V LS  | 3L   | 16   | 1  | NH-SI 3L 16A TF AC1500V LS  | <b>35089-0020</b> |
| NH-SI 3L 20A TF AC1500V LS  | 3L   | 20   | 1  | NH-SI 3L 20A TF AC1500V LS  | <b>35089-0030</b> |
| NH-SI 3L 25A TF AC1500V LS  | 3L   | 25   | 1  | NH-SI 3L 25A TF AC1500V LS  | <b>35089-0040</b> |
| NH-SI 3L 35A TF AC1500V LS  | 3L   | 35   | 1  | NH-SI 3L 35A TF AC1500V LS  | <b>35089-0050</b> |
| NH-SI 3L 50A TF AC1500V LS  | 3L   | 50   | 1  | NH-SI 3L 50A TF AC1500V LS  | <b>35089-0060</b> |
| NH-SI 3L 63A TF AC1500V LS  | 3L   | 63   | 1  | NH-SI 3L 63A TF AC1500V LS  | <b>35089-0070</b> |
| NH-SI 3L 80A TF AC1500V LS  | 3L   | 80   | 1  | NH-SI 3L 80A TF AC1500V LS  | <b>35089-0080</b> |
| NH-SI 3L 100A TF AC1500V LS | 3L   | 100  | 1  | NH-SI 3L 100A TF AC1500V LS | <b>35089-0090</b> |
| NH-SI 3L 125A TF AC1500V LS | 3L   | 125  | 1  | NH-SI 3L 125A TF AC1500V LS | <b>35089-0100</b> |
| NH-SI 3L 160A TF AC1500V LS | 3L   | 160  | 1  | NH-SI 3L 160A TF AC1500V LS | <b>35089-0110</b> |
| NH-SI 3L 200A TF AC1500V LS | 3L   | 200  | 1  | NH-SI 3L 200A TF AC1500V LS | <b>35089-0120</b> |
| NH-SI 3L 224A TF AC1500V LS | 3L   | 224  | 1  | NH-SI 3L 224A TF AC1500V LS | <b>35089-0130</b> |
| NH-SI 3L 250A TF AC1500V LS | 3L   | 250  | 1  | NH-SI 3L 250A TF AC1500V LS | <b>35089-0140</b> |
| NH-SI 3L 300A TF AC1500V LS | 3L   | 300  | 1  | NH-SI 3L 300A TF AC1500V LS | <b>35089-0150</b> |
| NH-SI 3L 315A TF AC1500V LS | 3L   | 315  | 1  | NH-SI 3L 315A TF AC1500V LS | <b>35089-0160</b> |
| NH-SI 3L 355A TF AC1500V LS | 3L   | 355  | 1  | NH-SI 3L 355A TF AC1500V LS | <b>35089-0170</b> |
| NH-SI 3L 425A TF AC1000V LS | 3L   | 425  | 1  | NH-SI 3L 425A TF AC1000V LS | <b>35089-0180</b> |
| NH-SI 3L 500A TF AC1000V LS | 3L   | 500  | 1  | NH-SI 3L 500A TF AC1000V LS | <b>35089-0190</b> |

# NH Fuse-Links 1000 V / 1500 V TF

► Technical data, page 49



35091-0190

## NH Fuse-Links, size 3L, special design

### Features:

- 1000 V AC (425 – 500 A) and 1500 V AC (10 – 355 A)
- 10 kA (1500 V AC)/50 kA (1000 V DC)
- TF acc. to VDE 0660 and DIN 43620-5
- Striker pin for fuse monitoring

| Designation                 | Size | Amps | PU | Product designation           | Order no.         |
|-----------------------------|------|------|----|-------------------------------|-------------------|
| NH-SI 3L 10A TF AC1500V SM  | 3L   | 10   | 1  | NH-SI 3L 10A TF AC1500V SM    | <b>35091-0010</b> |
| NH-SI 3L 16A TF AC1500V SM  | 3L   | 16   | 1  | NH-SI 3L 16A TF AC1500V SM    | <b>35091-0020</b> |
| NH-SI 3L 20A TF AC1500V SM  | 3L   | 20   | 1  | NH-SI 3L 20A TF AC1500V SM    | <b>35091-0030</b> |
| NH-SI 3L 25A TF AC1500V SM  | 3L   | 25   | 1  | NH-SI 3L 25A TF AC1500V SM    | <b>35091-0040</b> |
| NH-SI 3L 35A TF AC1500V SM  | 3L   | 35   | 1  | NH-SI 3L 35A TF AC1500V SM    | <b>35091-0050</b> |
| NH-SI 3L 50A TF AC1500V SM  | 3L   | 50   | 1  | NH-SI 3L 50A TF AC1500V SM    | <b>35091-0060</b> |
| NH-SI 3L 63A TF AC1500V SM  | 3L   | 63   | 1  | NH-SI 3L 63A TF AC1500V SM    | <b>35091-0070</b> |
| NH-SI 3L 80A TF AC1500V SM  | 3L   | 80   | 1  | A NH-SI 3L 80A TF AC1500V SM  | <b>35091-0080</b> |
| NH-SI 3L 100A TF AC1500V SM | 3L   | 100  | 1  | NH-SI 3L 100A TF AC1500V SM   | <b>35091-0090</b> |
| NH-SI 3L 125A TF AC1500V SM | 3L   | 125  | 1  | NH-SI 3L 125A TF AC1500V SM   | <b>35091-0100</b> |
| NH-SI 3L 160A TF AC1500V SM | 3L   | 160  | 1  | A NH-SI 3L 160A TF AC1500V SM | <b>35091-0110</b> |
| NH-SI 3L 200A TF AC1500V SM | 3L   | 200  | 1  | NH-SI 3L 200A TF AC1500V SM   | <b>35091-0120</b> |
| NH-SI 3L 224A TF AC1500V SM | 3L   | 224  | 1  | NH-SI 3L 224A TF AC1500V SM   | <b>35091-0130</b> |
| NH-SI 3L 250A TF AC1500V SM | 3L   | 250  | 1  | NH-SI 3L 250A TF AC1500V SM   | <b>35091-0140</b> |
| NH-SI 3L 300A TF AC1500V SM | 3L   | 300  | 1  | NH-SI 3L 300A TF AC1500V SM   | <b>35091-0150</b> |
| NH-SI 3L 315A TF AC1500V SM | 3L   | 315  | 1  | NH-SI 3L 315A TF AC1500V SM   | <b>35091-0160</b> |
| NH-SI 3L 355A TF AC1500V SM | 3L   | 355  | 1  | NH-SI 3L 355A TF AC1500V SM   | <b>35091-0170</b> |
| NH-SI 3L 425A TF AC1000V SM | 3L   | 425  | 1  | A NH-SI 3L 425A TF AC1000V SM | <b>35091-0180</b> |
| NH-SI 3L 500A TF AC1000V SM | 3L   | 500  | 1  | A NH-SI 3L 500A TF AC1000V SM | <b>35091-0190</b> |

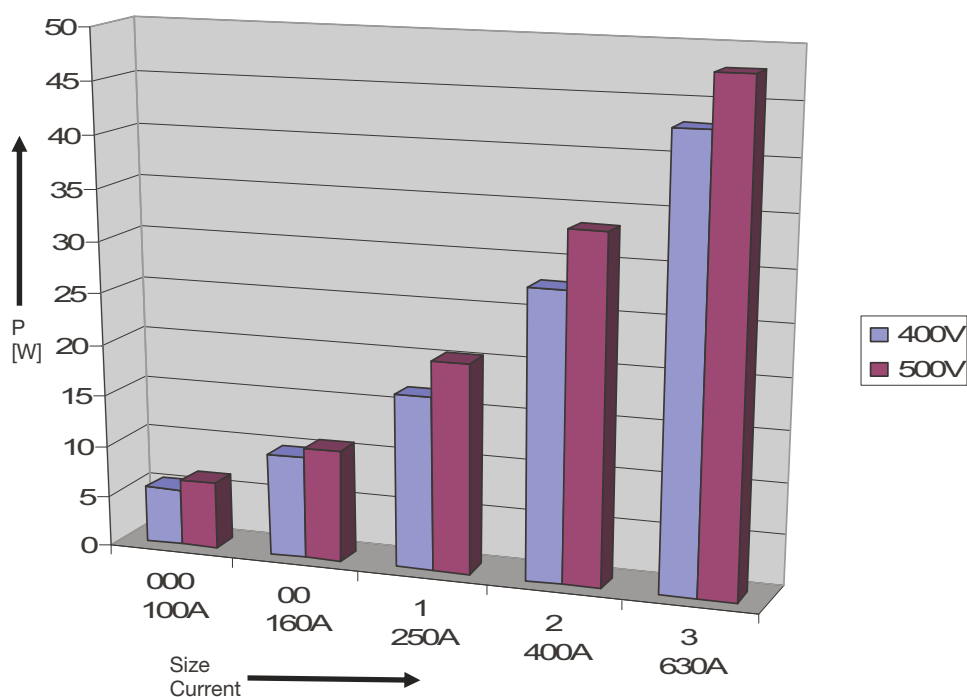
## NH Fuse-Links AC 400 V gG

In energy distribution, there is an ever increasing trend toward higher energy density. The number of distribution components such as circuit breakers, fuse switches, fuse bases increases while the size of cabinets keeps becoming even more compact. However, any cabinet can only handle a limited amount of power but also represents a major cost factor. The main application in energy distribution grids is the 230/400-V range.

Thanks to their significantly lower power dissipation, EFEN's 400-V fuse-links are optimally suited for the requirements of today and also save energy. The twin indicator ensures optimal visibility of the fuse status in all installations.

- Energy-saving design with 400-V fuse element
- Reduced power and heat dissipation
- Twin indicator ensures visibility in all installations

Power dissipation of 400 V and 500 V NH Fuse-Links compared



Annual power saving per fuse-link\*

| Size           | E     |
|----------------|-------|
| Current        | [kWh] |
| NH 000<br>100A | 2,6   |
| NH 00<br>160A  | 2,9   |
| NH 1<br>250A   | 9,2   |
| NH 2<br>400A   | 14,5  |
| NH 3<br>630A   | 13,1  |

\* 80%  $I_n$  / ½ time

## NH Fuse-Links AC 400 V gG

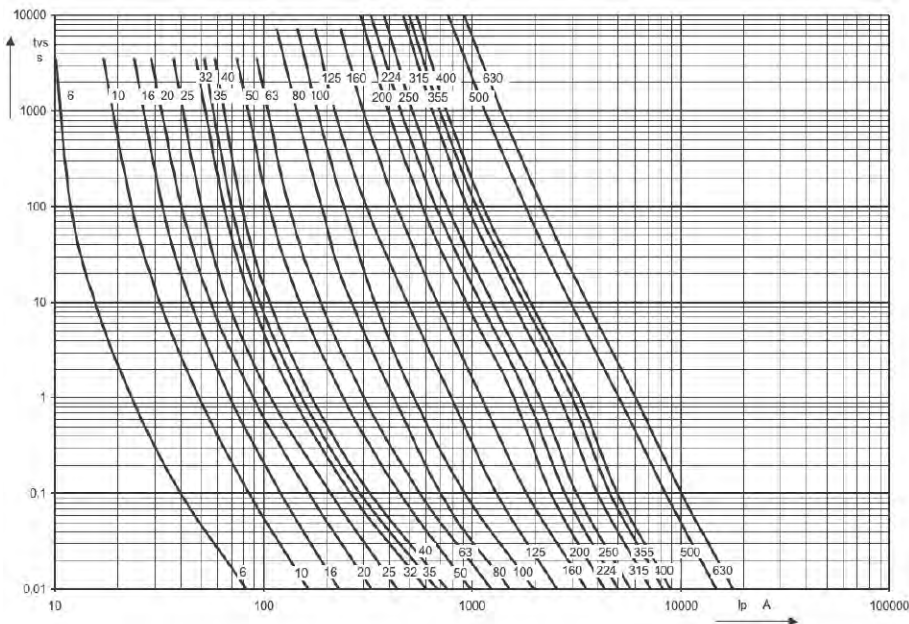
| Size | Amps | PU | Non-insulated metal gripping lugs<br>Order no. | Insulated metal gripping lugs<br>Order no. |
|------|------|----|------------------------------------------------|--------------------------------------------|
| 000  | 2    | 3  | 35401-0020                                     | 35406-0020                                 |
| 000  | 4    | 3  | 35401-0040                                     | 35406-0040                                 |
| 000  | 6    | 3  | 35401-0060                                     | 35406-0060                                 |
| 000  | 10   | 3  | 35401-0100                                     | 35406-0100                                 |
| 000  | 16   | 3  | 35401-0160                                     | 35406-0160                                 |
| 000  | 20   | 3  | 35401-0200                                     | 35406-0200                                 |
| 000  | 25   | 3  | 35401-0250                                     | 35406-0250                                 |
| 000  | 32   | 3  | 35401-0320                                     | 35406-0320                                 |
| 000  | 35   | 3  | 35401-0350                                     | 35406-0350                                 |
| 000  | 40   | 3  | 35401-0400                                     | 35406-0400                                 |
| 000  | 50   | 3  | 35401-0500                                     | 35406-0500                                 |
| 000  | 63   | 3  | 35401-0630                                     | 35406-0630                                 |
| 000  | 80   | 3  | 35401-0800                                     | 35406-0800                                 |
| 000  | 100  | 3  | 35401-1000                                     | 35406-1000                                 |
| 00   | 125  | 3  | 35402-1250                                     | 35407-1250                                 |
| 00   | 160  | 3  | 35402-1600                                     | 35407-1600                                 |
| 1    | 16   | 3  | 35403-0160                                     | 35408-0160                                 |
| 1    | 20   | 3  | 35403-0200                                     | 35408-0200                                 |
| 1    | 25   | 3  | 35403-0250                                     | 35408-0250                                 |
| 1    | 32   | 3  | 35403-0320                                     | 35408-0320                                 |
| 1    | 35   | 3  | 35403-0350                                     | 35408-0350                                 |
| 1    | 40   | 3  | 35403-0400                                     | 35408-0400                                 |
| 1    | 50   | 3  | 35403-0500                                     | 35408-0500                                 |
| 1    | 63   | 3  | 35403-0630                                     | 35408-0630                                 |
| 1    | 80   | 3  | 35403-0800                                     | 35408-0800                                 |
| 1    | 100  | 3  | 35403-1000                                     | 35408-1000                                 |
| 1    | 125  | 3  | 35403-1250                                     | 35408-1250                                 |
| 1    | 160  | 3  | 35403-1600                                     | 35408-1600                                 |
| 1    | 200  | 3  | 35403-2000                                     | 35408-2000                                 |
| 1    | 224  | 3  | 35403-2240                                     | 35408-2240                                 |
| 1    | 250  | 3  | 35403-2500                                     | 35408-2500                                 |
| 2    | 35   | 3  | 35404-0350                                     | 35409-0350                                 |
| 2    | 50   | 3  | 35404-0500                                     | 35409-0500                                 |
| 2    | 63   | 3  | 35404-0630                                     | 35409-0630                                 |
| 2    | 80   | 3  | 35404-0800                                     | 35409-0800                                 |
| 2    | 100  | 3  | 35404-1000                                     | 35409-1000                                 |
| 2    | 125  | 3  | 35404-1250                                     | 35409-1250                                 |
| 2    | 160  | 3  | 35404-1600                                     | 35409-1600                                 |
| 2    | 200  | 3  | 35404-2000                                     | 35409-2000                                 |
| 2    | 224  | 3  | 35404-2240                                     | 35409-2240                                 |
| 2    | 250  | 3  | 35404-2500                                     | 35409-2500                                 |
| 2    | 315  | 3  | 35404-3150                                     | 35409-3150                                 |
| 2    | 355  | 3  | 35404-3550                                     | 35409-3550                                 |
| 2    | 400  | 3  | 35404-4000                                     | 35409-4000                                 |
| 3    | 250  | 1  | 35405-2500                                     | 35410-2500                                 |
| 3    | 300  | 1  | 35405-3000                                     | 35410-3000                                 |
| 3    | 315  | 1  | 35405-3150                                     | 35410-3150                                 |
| 3    | 400  | 1  | 35405-4000                                     | 35410-4000                                 |
| 3    | 425  | 1  | 35405-4250                                     | 35410-4250                                 |
| 3    | 500  | 1  | 35405-5000                                     | 35410-5000                                 |
| 3    | 630  | 1  | 35405-6300                                     | 35410-6300                                 |

For cable and line protection  
Rated voltage: AC 400V  
Utilization category: gG acc. to VDE 0636-2 and VDE 60269-2  
Application: For cable and line protection  
Breaking capacity: 100 kA

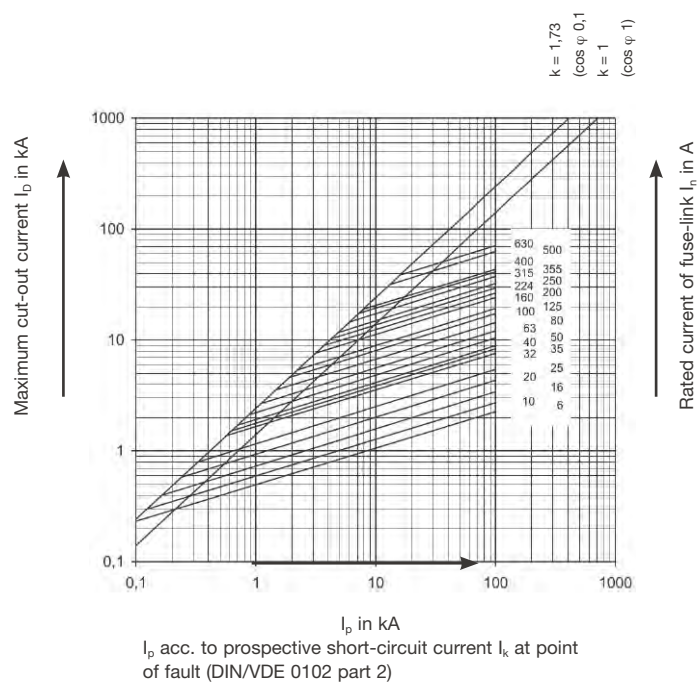


## NH Fuse-Links AC 400V gG

Time-current characteristics NH Fuse-Links of size 000 – 3, gG, 400 V AC, VDE 0636 part 2 and IEC 60269-2



Cut-out current characteristics NH Fuse-Links size 000 – 3, gG, 400 V AC, VDE 0636 part 2 and IEC 60269-2



# NH Fuse-Links AC 400V gG

Rated power dissipation  $P_a$  in Watts of NH Fuse-Links size 000 – 3, gG, AC 400 V, acc. to VDE 0636 part 2 and IEC 60269-2

| $I_n$<br>A | Size |     |      |      |      |
|------------|------|-----|------|------|------|
|            | 000  | 00  | 1    | 2    | 3    |
| 6          | 1,7  |     |      |      |      |
| 10         | 1,0  |     |      |      |      |
| 16         | 1,8  |     |      |      |      |
| 20         | 2,0  |     |      |      |      |
| 25         | 2,4  |     |      |      |      |
| 32         | 2,6  |     |      |      |      |
| 35         | 3,2  |     |      |      |      |
| 40         | 3,1  |     |      |      |      |
| 50         | 3,5  |     | 4,5  |      |      |
| 63         | 4,5  | 4,5 | 5,7  |      |      |
| 80         | 5,0  | 5,0 | 5,5  |      |      |
| 100        | 5,5  | 5,5 | 7,0  | 7,3  |      |
| 125        |      | 8,6 | 9,1  | 9,1  |      |
| 160        |      | 9,6 | 13,0 | 13,0 |      |
| 200        |      |     | 13,1 | 13,5 |      |
| 224        |      |     | 15,1 | 15,1 |      |
| 250        |      |     | 16,9 | 18,0 |      |
| 315        |      |     |      | 19,9 | 22,7 |
| 355        |      |     |      | 22,7 | 28,0 |
| 400        |      |     |      | 28,0 |      |
| 500        |      |     |      |      | 30,8 |
| 630        |      |     |      |      | 43,0 |

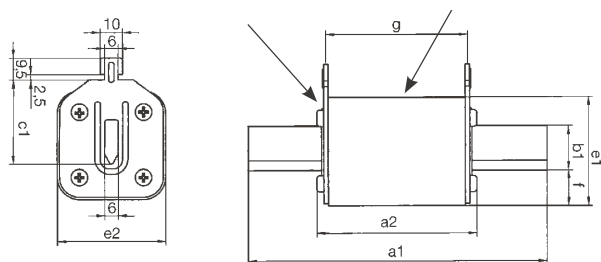
Pre-arcing integrals and operating integrals in A<sup>2</sup>s NH Fuse-Links size 000 – 3, gG, AC 400 V, acc. to VDE 0636 part 2 and IEC 60269-2

| $I_n$<br>A | Size       |           |            |           |            |           |            |           |            |           |
|------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
|            | 000        |           | 00         |           | 1          |           | 2          |           | 3          |           |
|            | Pre-arcing | Operating | Pre-arcing | Operating | Pre-arcing | Operating | Pre-arcing | Operating | Pre-arcing | Operating |
| 6          | 53         | 160       |            |           |            |           |            |           |            |           |
| 10         | 115        | 570       |            |           |            |           |            |           |            |           |
| 16         | 220        | 1 150     |            |           |            |           |            |           |            |           |
| 20         | 455        | 2 400     |            |           |            |           |            |           |            |           |
| 25         | 880        | 3 700     |            |           |            |           |            |           |            |           |
| 32         | 2 450      | 9 000     |            |           |            |           |            |           |            |           |
| 35         | 3 150      | 11 500    |            |           | 3 150      | 11 500    | 3 150      | 11 500    |            |           |
| 40         | 3 950      | 14 000    |            |           | 3 950      | 14 000    | -          | -         |            |           |
| 50         | 6 450      | 22 500    |            |           | 6 450      | 22 500    | 6 450      | 22 500    |            |           |
| 63         | 9 950      | 35 500    | 9 950      | 35 500    | 9 950      | 35 500    | 9 950      | 35 500    |            |           |
| 80         | 16 950     | 59 500    | 16 950     | 59 500    | 16 950     | 59 500    | 16 950     | 59 500    |            |           |
| 100        | 28 500     | 100 300   | 28 500     | 100 300   | 28 500     | 100 300   | 28 500     | 100 300   |            |           |
| 125        |            |           | 38 500     | 139 500   | 38 500     | 139 500   | 38 500     | 139 500   |            |           |
| 160        |            |           | 76 500     | 279 000   | 76 500     | 279 000   | 76 500     | 279 000   |            |           |
| 200        |            |           |            |           | 126 000    | 458 000   | 126 000    | 458 000   |            |           |
| 224        |            |           |            |           | 171 000    | 610 000   | 171 000    | 610 000   |            |           |
| 250        |            |           |            |           | 224 000    | 797 000   | 224 000    | 797 000   | 224 000    | 797 000   |
| 315        |            |           |            |           |            |           | 353 000    | 1 221 000 | 353 000    | 1 221 000 |
| 355        |            |           |            |           |            |           | 464 000    | 1 617 000 | -          | -         |
| 400        |            |           |            |           |            |           | 552 000    | 1 924 000 | 552 000    | 1 924 000 |
| 500        |            |           |            |           |            |           |            |           | 1 672 000  | 4 672 000 |
| 630        |            |           |            |           |            |           |            |           | 2 381 000  | 6 837 000 |

## Fuse-Links

Indicator 000

Indicator 00 – 4a



Rated voltage: AC 500 V / DC see page 37

Application: For cable and line protection

Breaking capacity: 120 kA (AC 500 V) / DC see page 37

| Size | Rated current | a <sub>1</sub> | a <sub>2</sub> | b <sub>1</sub> | c <sub>1</sub> | e <sub>1</sub> | e <sub>2</sub> | g  |
|------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----|
| 000  |               | 78,5           | 53             | 15             | 35             | 40             | 21             | 47 |
| 00   | max. 160 A    | 78,5           | 53             | 15             | 35             | 47             | 30             | 47 |
| 1    | max. 160 A    | 135            | 71             | 15             | 40             | 47             | 30             | 65 |
| 1    | 200 – 250 A   | 135            | 71             | 20             | 40             | 52             | 40             | 65 |
| 2    | max. 250 A    | 150            | 72             | 20             | 48             | 52             | 40             | 65 |
| 2    | 300 – 400 A   | 150            | 72             | 26             | 48             | 60             | 51             | 65 |
| 3    | max. 400 A    | 150            | 72             | 26             | 60             | 60             | 51             | 65 |
| 3    | 500 – 630 A   | 150            | 72             | 33             | 60             | 74             | 70             | 65 |
| 4a   |               | 200            | 96             | 50             | 85             | 109            | 98             | 86 |

The time/current characteristics are matched to the cable and line capacities. Accordingly, the lines protected can be operated at optimal load as the breaking in case of overload is slow, but quick in the event of a short-circuit.

Even if devices of different brands are used that comply with the specifications, the definition of time-current ranges for category gG according to VDE 0636 and IEC 60269 ensures a selectivity of 1:1.6 at rated currents of  $\geq 16$  Amps.

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# NH Fuse-Links AC 500 V gG

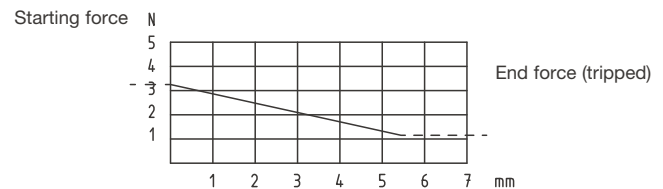
| Size | Amps  | PU | Non-insulated metal gripping lugs<br>Order no. | Insulated metal gripping lugs<br>Order no. |
|------|-------|----|------------------------------------------------|--------------------------------------------|
| 2    | 25    | 3  | 35054-0010                                     |                                            |
| 2    | 35    | 3  | 35054-0020                                     |                                            |
| 2    | 50    | 3  | 35054-0030                                     |                                            |
| 2    | 63    | 3  | 35054-0040                                     | 35116-0040                                 |
| 2    | 80    | 3  | 35054-0050                                     | 35116-0050                                 |
| 2    | 100   | 3  | 35054-0060                                     | 35116-0060                                 |
| 2    | 125   | 3  | 35054-0070                                     | 35116-0070                                 |
| 2    | 160   | 3  | 35054-0080                                     | 35116-0080                                 |
| 2    | 200   | 3  | 35054-0090                                     | 35116-0090                                 |
| 2    | 224   | 3  | 35054-0100                                     | 35116-0100                                 |
| 2    | 250   | 3  | 35054-0110                                     | 35116-0110                                 |
| 2    | (300) | 3  | 35054-0120                                     | 35116-0120                                 |
| 2    | 315   | 3  | 35054-0130                                     | 35116-0130                                 |
| 2    | (355) | 3  | 35054-0140                                     | 35116-0140                                 |
| 2    | 400   | 3  | 35054-0150                                     | 35116-0150                                 |
| 3    | 63    | 3  | 35078-0340                                     | 35420-1000                                 |
| 3    | 80    | 3  | 35078-0350                                     | 35420-1250                                 |
| 3    | 100   | 3  | 35078-0360                                     | 35420-1600                                 |
| 3    | 125   | 3  | 35078-0370                                     | 35420-2000                                 |
| 3    | 160   | 3  | 35078-0380                                     | 35420-2240                                 |
| 3    | 200   | 3  | 35078-0390                                     | 35420-2500                                 |
| 3    | 224   | 3  | 35078-0400                                     | 35420-3000                                 |
| 3    | 250   | 3  | 35078-0410                                     | 35420-3150                                 |
| 3    | (300) | 3  | 35078-0190                                     | 35420-3550                                 |
| 3    | 315   | 3  | 35078-0010                                     | 35420-4000                                 |
| 3    | (355) | 3  | 35078-0020                                     | 35420-4250                                 |
| 3    | 400   | 3  | 35078-0030                                     | 35420-5000                                 |
| 3    | (425) | 3  | 35078-0040                                     | 35420-6300                                 |
| 3    | 500   | 3  | 35078-0050                                     |                                            |
| 3    | 630   | 3  | 35078-0060                                     |                                            |
| 4a   | 400   | 1  | 35097-0120                                     |                                            |
| 4a   | 500   | 1  | 35097-0010                                     |                                            |
| 4a   | 630   | 1  | 35097-0020                                     |                                            |
| 4a   | 800   | 1  | 35097-0030                                     |                                            |
| 4a   | 1000  | 1  | 35097-0040                                     |                                            |
| 4a   | 1250  | 1  | 35097-0050                                     |                                            |
| 4a   | 1600  | 1  | 35097-0110                                     |                                            |

( ) = Dimensions according to DIN, rated current not standardized in VDE 0636

## NH Fuse-Links size 00 with striker

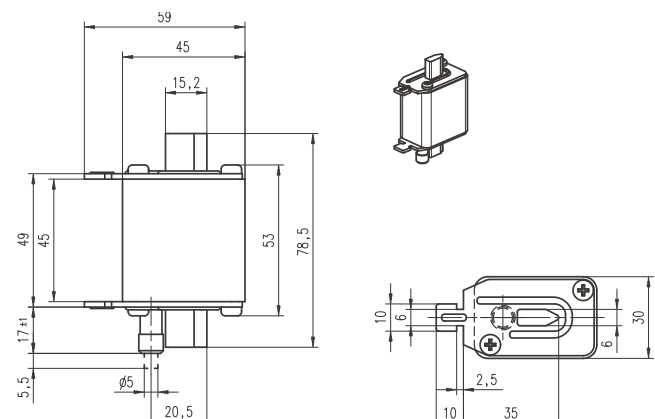
In combination with a micro switch, EFEN NH fuse-links size 00 with striker can be used for fuse monitoring.

## Force-distance diagram of the striker



## NH Fuse-Links for cable and line protection size 00, 500 V AC, utilization category gL/gG, with striker

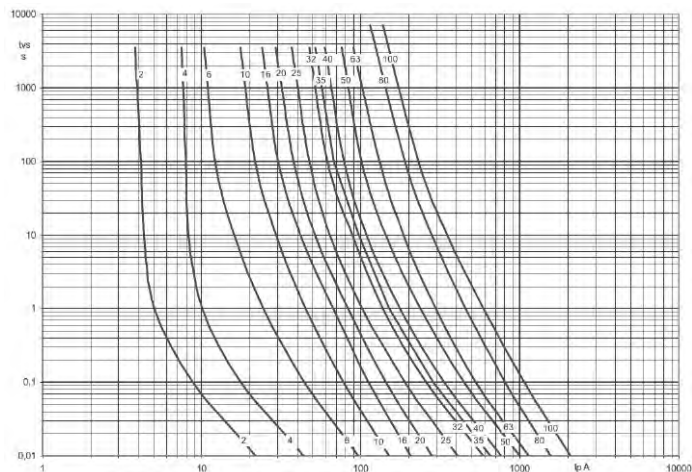
| Amps | Designation         | Order no.  |
|------|---------------------|------------|
| 6    | NH-Si 00 6A gL SM   | 35207-0010 |
| 10   | NH-Si 00 10A gL SM  | 35207-0020 |
| 16   | NH-Si 00 16A gL SM  | 35207-0030 |
| 20   | NH-Si 00 20A gL SM  | 35207-0040 |
| 25   | NH-Si 00 25A gL SM  | 35207-0050 |
| 32   | NH-Si 00 32A gL SM  | 35207-0060 |
| 35   | NH-Si 00 35A gL SM  | 35207-0070 |
| 40   | NH-Si 00 40A gL SM  | 35207-0080 |
| 50   | NH-Si 00 50A gL SM  | 35207-0090 |
| 63   | NH-Si 00 63A gL SM  | 35207-0100 |
| 80   | NH-Si 00 80A gL SM  | 35207-0110 |
| 100  | NH-Si 00 100A gL SM | 35207-0120 |
| 125  | NH-Si 00 125A gL SM | 35207-0130 |



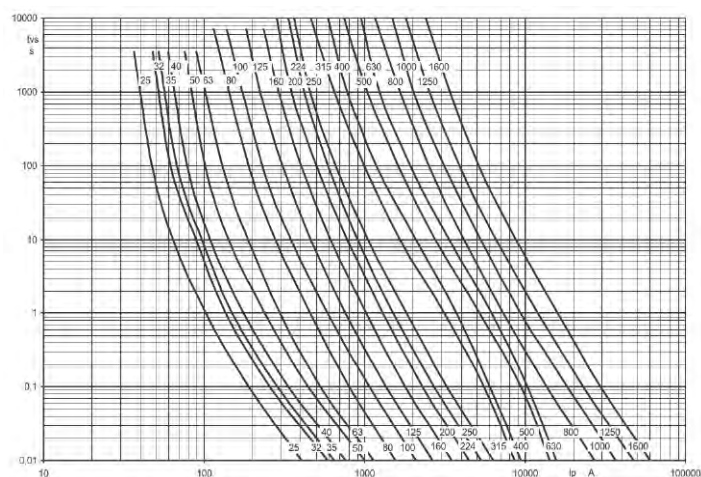
## NH Fuse-Links AC 500 V gG

For cable and line protection

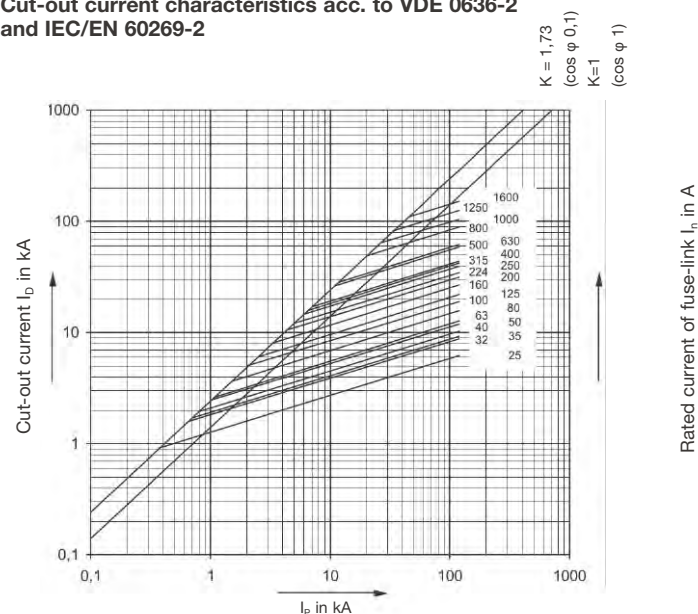
Time-current characteristics NH Fuse-Links size 000 acc. to VDE 0636-2 and IEC/EN 60269-2



Time-current characteristics NH Fuse-Links size 00 – 4a gG 500 V AC acc. to VDE 0636-2 and IEC/EN 60269-2



Cut-out current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



$I_p$  acc. to prospective short-circuit current  $I_k$  at point of fault (DIN/VDE 0102 part 2)



# NH Fuse-Links AC 500 V gG

Rated power dissipation  $P_w$  warm NH Fuse-Links size 000 – 4a gG AC 500 V acc. to VDE 0636-2 and IEC/EN 60269-2

| $I_n$<br>A | Size |      |      |      |      |       |
|------------|------|------|------|------|------|-------|
|            | 000  | 00   | 1    | 2    | 3    | 4a    |
| 6          | 1,6  |      |      |      |      |       |
| 10         | 1,1  |      |      |      |      |       |
| 16         | 1,8  |      | 1,8  |      |      |       |
| 20         | 2,3  |      | 2,3  |      |      |       |
| 25         | 2,4  | 2,4  | 2,4  |      |      |       |
| 32         | 3,1  | 3,1  | 3,1  |      |      |       |
| 35         | 3,0  | 3,0  | 3,0  |      |      |       |
| 40         | 3,7  | 3,7  | 3,7  |      |      |       |
| 50         | 4,1  | 4,1  | 4,1  | 4,1  |      |       |
| 63         | 5,4  | 5,6  | 6,6  | 6,8  |      |       |
| 80         | 6,5  | 6,8  | 8,0  | 8,3  |      |       |
| 100        | 7,5  | 7,5  | 9,4  | 10,7 |      |       |
| 125        |      | 10,0 | 11,8 | 12,2 |      |       |
| 160        |      | 12,0 | 14,6 | 15,0 |      |       |
| 200        |      |      | 18,0 | 18,5 |      |       |
| 224        |      |      | 19,0 | 19,2 | 20,0 |       |
| 250        |      |      | 20,0 | 20,6 | 21,1 |       |
| 315        |      |      |      | 25,0 | 25,0 |       |
| 355        |      |      |      | 31,5 | 32,0 |       |
| 400        |      |      |      | 28,5 | 34,0 | 31,2  |
| 500        |      |      |      |      | 43,0 | 36,5  |
| 630        |      |      |      |      | 43,1 | 44,4  |
| 800        |      |      |      |      |      | 68,0  |
| 1000       |      |      |      |      |      | 72,9  |
| 1250       |      |      |      |      |      | 100,5 |
| 1600       |      |      |      |      |      | 126,2 |

Pre-arcing integrals and operating integrals in A<sup>2</sup>s of NH Fuse-Links size 000 – 4a, gG, AC 500 V, acc. to VDE 0636-2 and IEC/EN 60269-2

| $I_n$<br>A | Size       |           |            |           |            |           |            |           |            |           |                       |                       |
|------------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|-----------------------|-----------------------|
|            | 000        |           | 00         |           | 1          |           | 2          |           | 3          |           | 4a                    |                       |
|            | Pre-arcing | Operating | Pre-arcing | Operating | Pre-arcing | Operating | Pre-arcing | Operating | Pre-arcing | Operating | Pre-arcing            | Operating             |
| 6          | 53,6       | 280       |            |           |            |           |            |           |            |           |                       |                       |
| 10         | 109        | 490       |            |           |            |           |            |           |            |           |                       |                       |
| 16         | 199        | 890       |            |           |            |           |            |           |            |           |                       |                       |
| 20         | 430        | 1930      |            |           |            |           |            |           |            |           |                       |                       |
| 25         | 890        | 4010      | 890        | 4010      | 990        | 4010      | 990        | 4010      |            |           |                       |                       |
| 32         | 2475       | 6900      | 2475       | 6900      | 2475       | 6900      | 2475       | 6900      |            |           |                       |                       |
| 35         | 2990       | 8380      | 2990       | 8380      | 2990       | 8380      | 2990       | 8380      |            |           |                       |                       |
| 40         | 3970       | 10100     | 3970       | 10100     | 3970       | 10100     | 3970       | 10100     |            |           |                       |                       |
| 50         | 6330       | 16150     | 6330       | 16150     | 6330       | 16150     | 6330       | 16150     |            |           |                       |                       |
| 63         | 7430       | 20800     | 7430       | 20800     | 7430       | 20800     | 7430       | 20800     | 7430       | 20800     |                       |                       |
| 80         | 14250      | 39900     | 14250      | 39900     | 14250      | 39900     | 14250      | 39900     | 14250      | 39900     |                       |                       |
| 100        | 25340      | 70900     | 25340      | 70900     | 25340      | 71000     | 25340      | 71000     | 25340      | 71000     |                       |                       |
| 125        |            |           | 39600      | 110800    | 39600      | 111000    | 39600      | 111000    | 39600      | 111000    |                       |                       |
| 160        |            |           | 70400      | 197100    | 70400      | 197100    | 70400      | 197100    | 70400      | 197100    |                       |                       |
| 200        |            |           |            |           | 114400     | 320000    | 114400     | 320000    | 114400     | 320000    |                       |                       |
| 224        |            |           |            |           | 158400     | 444000    | 158400     | 444000    | 158400     | 444000    |                       |                       |
| 250        |            |           |            |           | 228000     | 639000    | 228000     | 639000    | 228000     | 639000    |                       |                       |
| 315        |            |           |            |           |            |           | 275900     | 773000    | 275900     | 773000    |                       |                       |
| 355        |            |           |            |           |            |           | 356400     | 998000    | 356400     | 998000    |                       |                       |
| 400        |            |           |            |           |            |           | 431200     | 1207000   | 431200     | 1207000   | 610500                | 927000                |
| 500        |            |           |            |           |            |           |            |           | 766600     | 2147000   | 1025 10 <sup>3</sup>  | 1618 10 <sup>3</sup>  |
| 630        |            |           |            |           |            |           |            |           | 912300     | 3013000   | 1767 10 <sup>3</sup>  | 2600 10 <sup>3</sup>  |
| 800        |            |           |            |           |            |           |            |           |            |           | 3499 10 <sup>3</sup>  | 5449 10 <sup>3</sup>  |
| 1000       |            |           |            |           |            |           |            |           |            |           | 5878 10 <sup>3</sup>  | 8708 10 <sup>3</sup>  |
| 1250       |            |           |            |           |            |           |            |           |            |           | 12164 10 <sup>3</sup> | 18676 10 <sup>3</sup> |
| 1600       |            |           |            |           |            |           |            |           |            |           | 20347 10 <sup>3</sup> | 31278 10 <sup>3</sup> |

## NH Fuse-Links 500 V AC gL

**For cable and line protection in meshed main systems**  
(ageing-resistant)

Rated voltage: AC 500 V

Utilization category: gL/gG acc. to VDE 0636-21 and IEC 60269-2

Application: For cable and line protection

Breaking capacity: 120 kA (size 00 – 2)

### Electrical characteristics

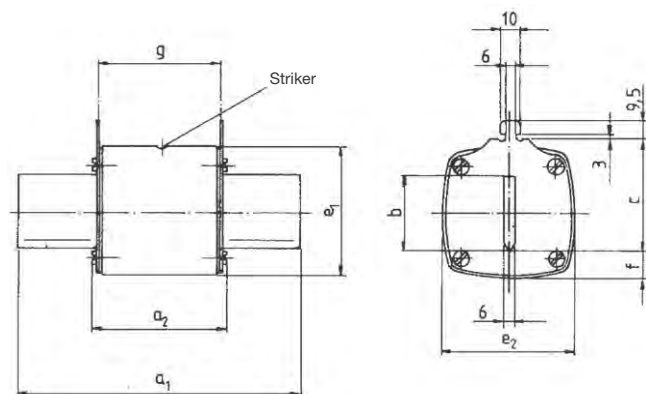
The time/current characteristics are matched to the cable and line capacities. Accordingly, the lines protected can be operated at optimal load as the breaking in case of overload is slow, but quick in the event of a short-circuit.

Even if devices of different brands are used that comply with the specifications, the definition of time-current ranges for category gL/gG acc. to VDE 0636 and IEC 60269-2 ensures a selectivity of 1:1.6. EFEN 500 V gL/gG fuse-links used in a 400 V grid have a selectivity of 1:1.25 for rated currents  $\geq 16$  A, i.e. between the increments of the rated currents.

EFEN PURE SILVER NH fuse-links 500 V gL/gG are specifically suited for use in meshed mains systems and show a selectivity factor of 0.79 when used in 400 V grids. Accordingly, if the maximum partial short-circuit current does not exceed 79% of the total short-circuit current, only the fuse-link closest to the failure point will be tripped. Thanks to the pure silver fuse element, this favourable factor is maintained throughout the component's entire service life.

Note: When used in meshed main systems, standard indicators do usually not respond reliably because of the low differential voltages. Please inquiry for a solution by EFEN.

### Dimensions: DIN 43620-1



| Size             | a <sub>1</sub> | a <sub>2</sub> | b    | c  | e <sub>1</sub> | e <sub>2</sub> | f    | g  |
|------------------|----------------|----------------|------|----|----------------|----------------|------|----|
| 00 <sup>1)</sup> | 78,5           | 53             | 15   | 35 | 40             | 28             | 12,5 | 47 |
| 0                | 125            | 67             | 15   | 35 | 38             | 35             | 11,5 | 65 |
| 1 <sup>2)</sup>  | 135            | 74             | 20   | 40 | 38             | 35             | 9    | 65 |
| 1 <sup>3)</sup>  | 135            | 74             | 24,5 | 40 | 45             | 45             | 10   | 65 |
| 2 <sup>4)</sup>  | 150            | 74             | 25   | 48 | 45             | 45             | 10   | 65 |
| 2 <sup>5)</sup>  | 150            | 72             | 30   | 48 | 59             | 59             | 14,5 | 65 |
| 3 <sup>6)</sup>  | 150            | 72             | 40   | 60 | 70             | 70             | 15   | 65 |

<sup>1)</sup> Rated current up to 160 A

<sup>2)</sup> Rated current up to 125 A

<sup>3)</sup> Rated current 160 – 250 A

<sup>4)</sup> Rated current up to 250 A

<sup>5)</sup> Rated current 300 – 400 A

<sup>6)</sup> Rated current up to 630 A

### Rated power dissipation in Watts NH Fuse-Links Size 00 – 3 gL AC 500 V VDE 0636-2 and IEC/EN 60269-2

| I <sub>n</sub><br>A | Size | 00 | 1    | 2    | 3    |
|---------------------|------|----|------|------|------|
| 2                   | 0,25 |    |      |      |      |
| 4                   | 0,5  |    |      |      |      |
| 6                   | 1,0  |    |      |      |      |
| 10                  | 1,5  |    |      |      |      |
| 16                  | 1,9  |    |      |      |      |
| 20                  | 2,0  |    |      |      |      |
| 25                  | 2,2  |    |      |      |      |
| 35                  | 3,0  |    |      |      |      |
| 50                  | 3,75 |    |      |      |      |
| 63                  | 4,5  |    |      |      |      |
| 80                  | 4,8  |    |      |      |      |
| 100                 | 5,8  |    |      |      |      |
| 125                 | 8,8  |    |      |      |      |
| 160                 | 9,7  |    |      |      |      |
| 200                 |      |    | 15,7 |      |      |
| 224                 |      |    | 15,8 |      |      |
| 250                 |      |    | 16,4 |      |      |
| 315                 |      |    |      | 24,3 |      |
| 355                 |      |    |      | 26,2 |      |
| 400                 |      |    |      | 28,1 |      |
| 500                 |      |    |      |      | 33,0 |
| 630                 |      |    |      |      | 42,0 |

### Breaking capacity DC 500 V gL

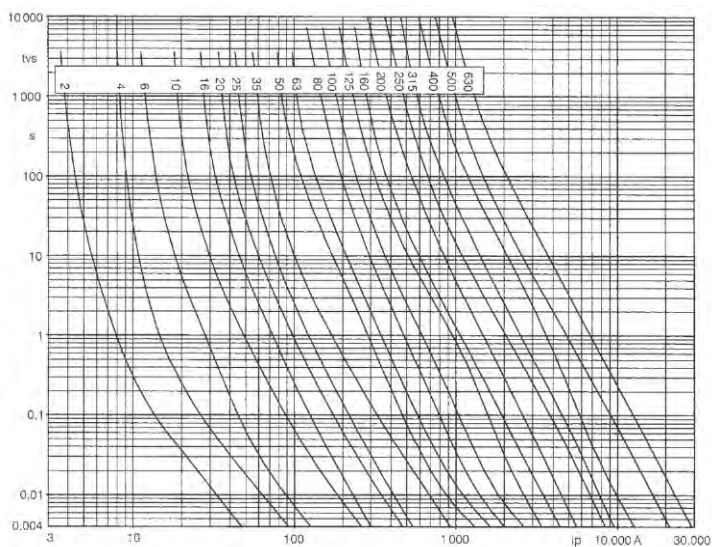
Size 00: 35 kA, 250V DC

Size 1: 35 kA, 440 V DC

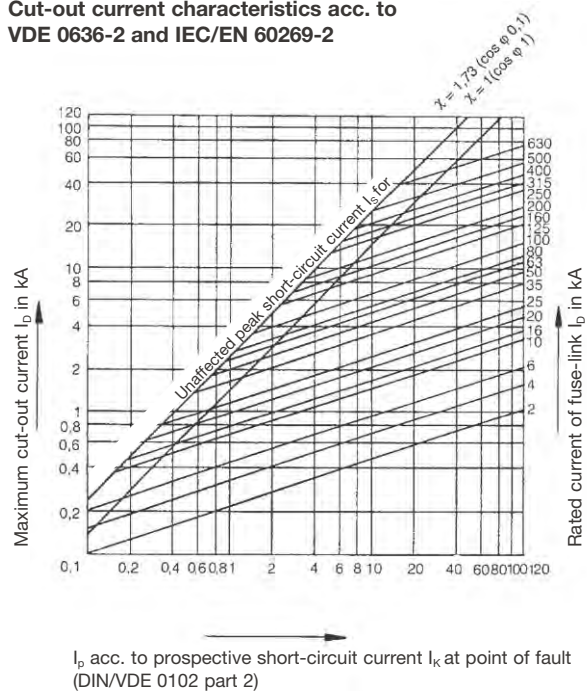
Size 2: 35 kA, 440 V DC

# NH Fuse-Links 500 V AC gL

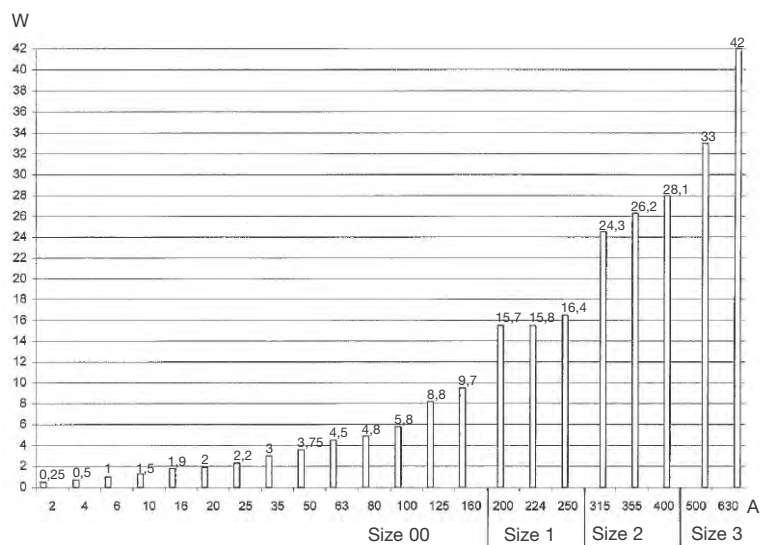
Time-current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



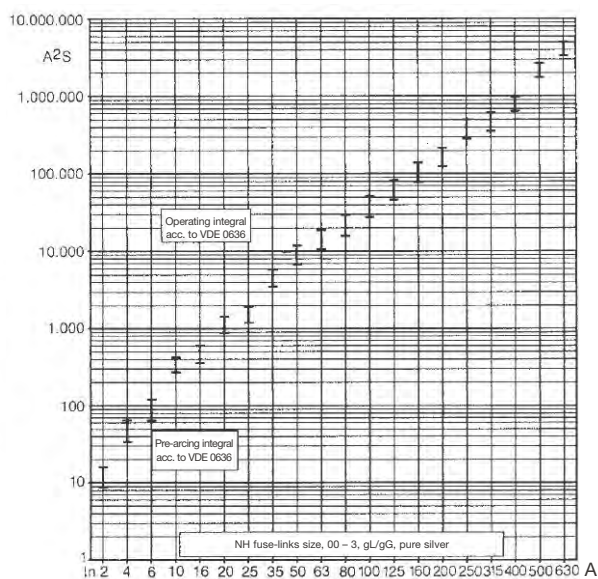
Cut-out current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



Rated power dissipation acc. to VDE 0636-2 and IEC/EN 60269-2



Pre-arcing and operating integrals acc. to VDE 0636-2 and IEC/EN 60269-2



# NH Fuse-Links AC 690 V gG

**For cable and line protection**

Rated voltage: AC 690 V

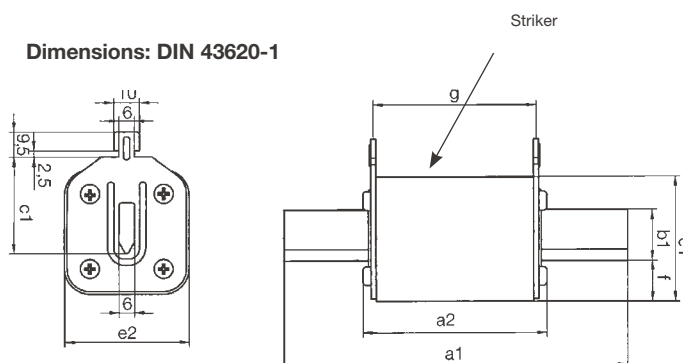
 Utilization category: gG acc. to VDE 0636-2 and VDE 0636-1,  
IEC 60269-2, IEC 60269-1

Application: For cable and line protection

Breaking capacity: 100 kA (630 A, 50 kA)

**Electrical characteristics:**

The time/current characteristics are matched to the cable and line capacities. Accordingly, the lines protected can be operated at optimal load as the breaking in case of overload is slow, but quick in the event of a short-circuit.

**Dimensions: DIN 43620-1**


| Size | Rated current | a <sub>1</sub> | a <sub>2</sub> | b <sub>1</sub> | c <sub>1</sub> | e <sub>1</sub> | e <sub>2</sub> | g  |
|------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----|
| 000  | 6-63 A        | 78,5           | 53             | 15             | 35             | 37             | 21             | 47 |
| 00   | 80-100 A      | 78,5           | 53             | 15             | 35             | 45             | 30             | 47 |
| 1    | 25-160 A      | 135            | 70             | 15             | 40             | 45             | 30             | 65 |
| 1    | 200-250 A     | 135            | 70             | 20             | 40             | 50             | 50             | 65 |
| 2    | 25-250 A      | 150            | 71             | 20             | 48             | 50             | 50             | 65 |
| 2    | 315-400 A     | 150            | 71             | 26             | 48             | 58             | 58             | 65 |
| 3    | 63-400 A      | 150            | 71             | 26             | 60             | 58             | 58             | 65 |
| 3    | 500 A, 630 A  | 150            | 74             | 32             | 60             | 71             | 71             | 65 |

**Rated power dissipation P<sub>a</sub> in Watts NH Fuse-Links size 000 – 3 gG  
AC 690 V VDE 0636-2 IEC 60269-2**

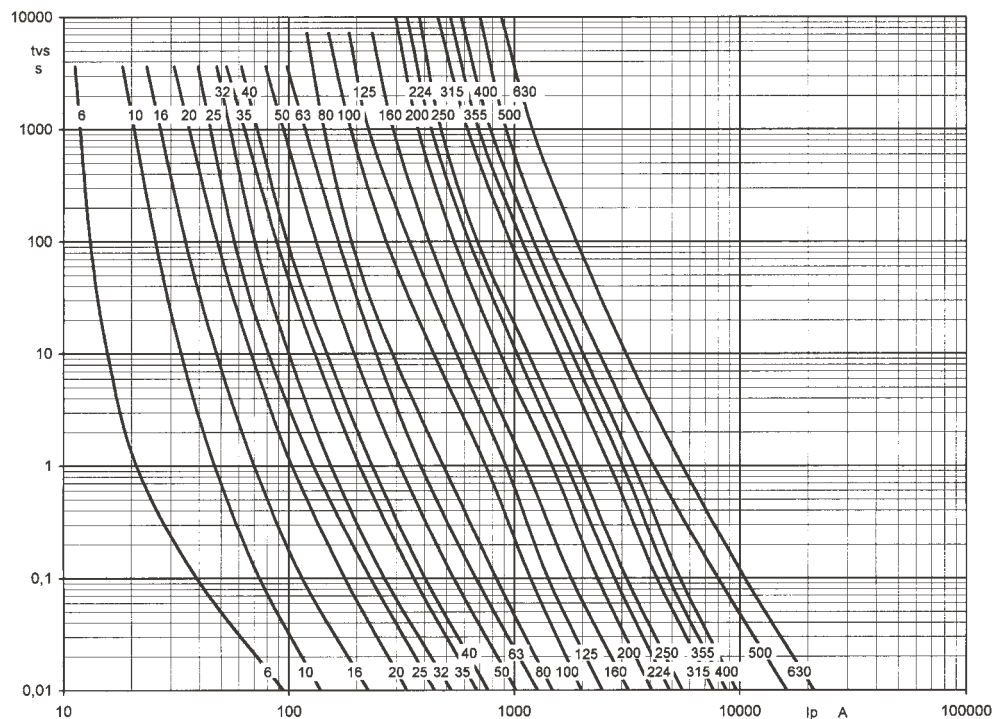
| I <sub>n</sub><br>A | Size |      |      |      |      |
|---------------------|------|------|------|------|------|
|                     | 000  | 00   | 1    | 2    | 3    |
| 2                   | 1,9  |      |      |      |      |
| 4                   | 1,5  |      |      |      |      |
| 6                   | 1,6  |      |      |      |      |
| 10                  | 1,7  |      |      |      |      |
| 16                  | 2,5  |      |      |      |      |
| 20                  | 2,6  |      |      |      |      |
| 25                  | 2,8  |      | 3,6  |      |      |
| 32                  | 3,1  |      | 3,7  |      |      |
| 35                  | 3,2  |      | 3,9  | 3,7  |      |
| 40                  | 3,7  |      | 4,4  | 4,4  |      |
| 50                  | 4,1  |      | 4,8  | 5,4  |      |
| 63                  | 5,4  |      | 6,6  | 6,8  |      |
| 80                  |      | 6,8  | 8,0  | 8,3  |      |
| 100                 |      | 7,5  | 9,4  | 10,7 |      |
| 125                 |      | 10,0 | 11,8 | 12,2 |      |
| 160                 |      |      | 14,6 | 15,5 |      |
| 200                 |      |      | 19,0 | 19,0 |      |
| 224                 |      |      | -    | -    |      |
| 250                 |      |      | 22,0 | 22,0 | 21,1 |
| 315                 |      |      |      | 27,0 | 25,0 |
| 355                 |      |      |      | 32,0 | 32,0 |
| 400                 |      |      |      |      | 34,0 |
| 500                 |      |      |      |      | 43,0 |
| 630                 |      |      |      |      | 52,0 |

( ) = Dimensions according to DIN, rated current not standardized in VDE 0636

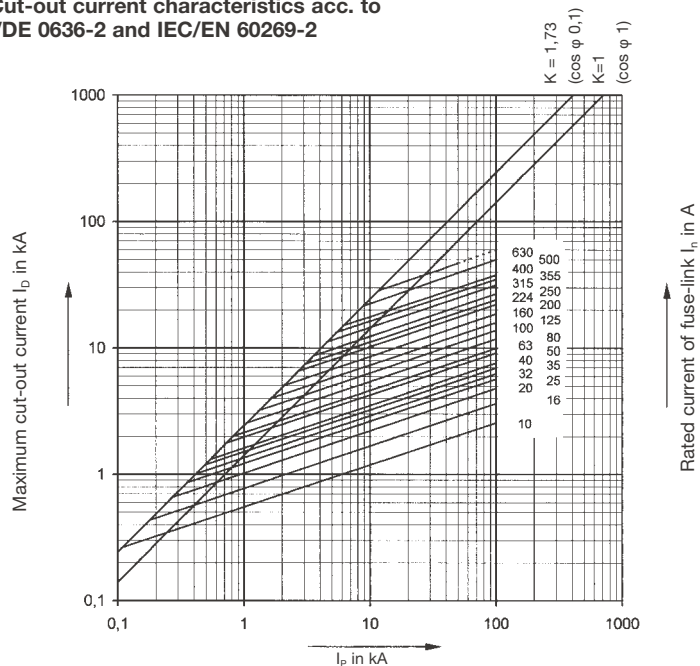
# NH Fuse-Links AC 690 V gG

For cable and line protection

Time-current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



Cut-out current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



$I_p$  acc. to prospective short-circuit current  $I_k$  at point of fault (DIN/VDE 0102 part 2)

Breaking capacity of DC 690 V gG fuses:

- Size 000: 40 kA, 250 V DC
- Size 00: 40 kA, 250 V DC
- Size 1: 80 kA, 440 V DC
- Size 2: 40 kA, 250 V DC
- 80 kA, 440 V DC
- Size 3: 40 kA, 250 V DC
- 80 kA, 400 V DC



# NH Fuse-Links AC 400 V gTr

## For transformer protection

Rated voltage: AC 400 V

Utilization category: gTr acc. to VDE 0636-2011

Application: For transformer protection

Breaking capacity: 100 kA

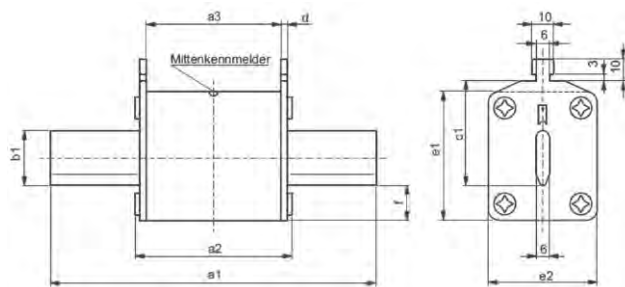
| Size | Amps   | kVA  | PU | Metal gripping lugs<br>Order no. |
|------|--------|------|----|----------------------------------|
| 2    | (72)   | 50   | 3  | 35076-1010                       |
| 2    | (108)  | 75   | 3  | 35076-1020                       |
| 2    | (144)  | 100  | 3  | 35076-1030                       |
| 2    | (180)  | 125  | 3  | 35076-1040                       |
| 2    | (231)  | 160  | 3  | 35076-1050                       |
| 2    | (289)  | 200  | 3  | 35076-1060                       |
| 2    | (361)  | 250  | 3  | 35076-1070                       |
| 3    | (144)  | 100  | 3  | 35081-1040                       |
| 3    | (231)  | 160  | 3  | 35081-1060                       |
| 3    | (289)  | 200  | 3  | 35081-1050                       |
| 3    | (361)  | 250  | 3  | 35081-1010                       |
| 3    | (455)  | 315  | 3  | 35081-1020                       |
| 3    | (577)  | 400  | 3  | 35081-1030                       |
| 3    | (722)  | 500  | 3  | 35081-0100                       |
| 3    | (909)  | 630  | 3  | 35081-0110                       |
| 4a   | (144)  | 100  | 1  | 35100-0100                       |
| 4a   | (231)  | 160  | 1  | 35100-0110                       |
| 4a   | (289)  | 200  | 1  | 35100-0160                       |
| 4a   | (361)  | 250  | 1  | 35100-0120                       |
| 4a   | (455)  | 315  | 1  | 35100-0170                       |
| 4a   | (577)  | 400  | 1  | 35100-0130                       |
| 4a   | (722)  | 500  | 1  | 35100-0140                       |
| 4a   | (909)  | 630  | 1  | 35100-0150                       |
| 4a   | (1155) | 800  | 1  | 35100-0040                       |
| 4a   | (1443) | 1000 | 1  | 35100-0190                       |

() = Dimensions according to DIN, rated current not standardized in VDE 0636

## Electrical characteristics:

Time-current characteristics are matched to the thermal capacity of the transformers and the time-current characteristics of the high-voltage fuse-links. The gTr fuse-link supplements the high-voltage fuse-link in the "non-permissible" overcurrent range. This allows a better utilization of the transformers' overload capacities. EFEN transformer fuse-links are able to carry the 1.3-fold of the transformer rated current for a minimum period of 10 hours. The fuse-link trips at the 1.5-fold transformer rated current within a period of 2 hours. Transformer fuse-links are designated in accordance with the transformer rated current in kVA.

## Dimensions: DIN 43620-1



## NH Fuse-Links AC 400 V gTr with non-insulated gripping lugs

| Size | Rated current  | a1  | a2 | a3 | d   | b1 | c1 | e1  | e2 | f  |
|------|----------------|-----|----|----|-----|----|----|-----|----|----|
| 2/   | 50 – 160 kVA   | 150 | 72 | 62 | 2,5 | 20 | 48 | 48  | 40 | 12 |
| 2    | 200 – 250 kVA  | 150 | 72 | 62 | 2,5 | 25 | 48 | 59  | 50 | 14 |
| 3/   | 100 – 250 kVA  | 150 | 73 | 62 | 2,8 | 25 | 60 | 59  | 50 | 13 |
| 3    | 315 – 630 kVA  | 150 | 73 | 62 | 2,8 | 32 | 60 | 71  | 71 | 17 |
| 4a/  | 100 – 400 kVA  | 200 | 96 | 84 | 3   | 32 | 85 | 71  | 73 | 18 |
| 4    | 500 – 1000 kVA | 200 | 96 | 84 | 4   | 50 | 85 | 109 | 98 | 27 |

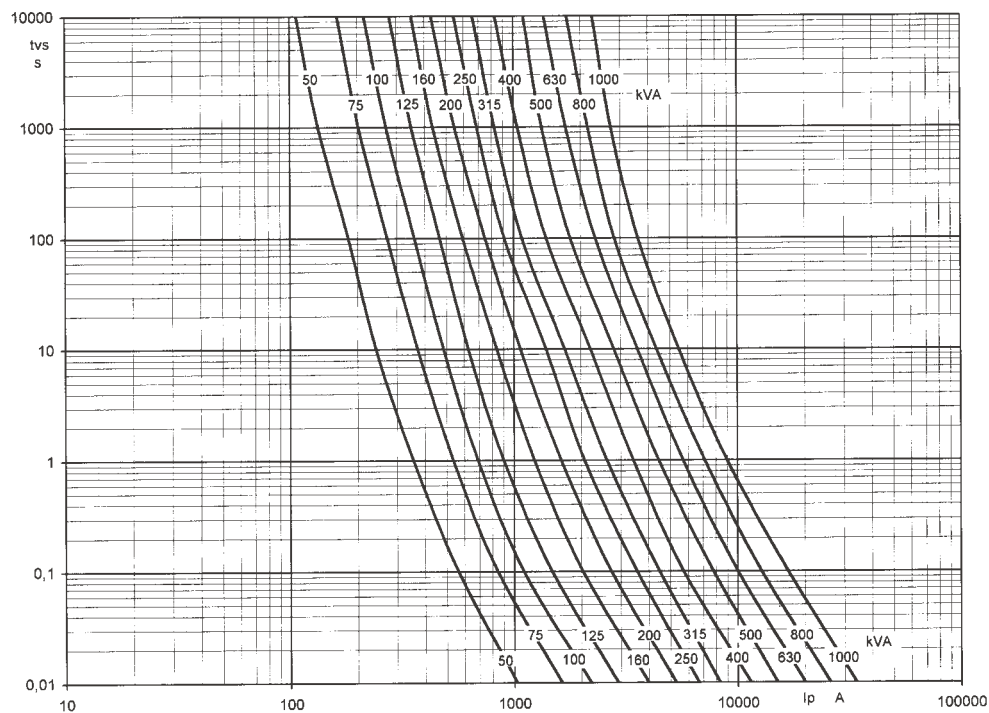
## Rated power dissipation $P_s$ in Watts of NH Fuse-Links size 2 – 4a gTr AC 400 V VDE 0636 part 2011

| Transformer<br>rated output | Rated current | Size |      |       |
|-----------------------------|---------------|------|------|-------|
|                             |               | 2    | 3    | 4a    |
| 50                          | 72            | 5,5  | 5,5  |       |
| 75                          | 102           | 7,8  | 7,8  |       |
| 100                         | 144           | 10,6 | 10,1 | 12,0  |
| 125                         | 180           | 12,8 | 12,8 | 15,0  |
| 160                         | 231           | 15,7 | 16,2 | 14,8  |
| 200                         | 289           | 16,0 | 16,0 | 22,5  |
| 250                         | 361           | 21,0 | 20,6 | 28,0  |
| 315                         | 455           | 25,0 | 25,0 | 31,5  |
| 400                         | 577           |      | 31,0 | 39,0  |
| 500                         | 722           |      | 53,0 | 49,0  |
| 630                         | 909           |      | 62,0 | 66,0  |
| 800                         | 1155          |      |      | 81,0  |
| 1000                        | 1443          |      |      | 110,0 |

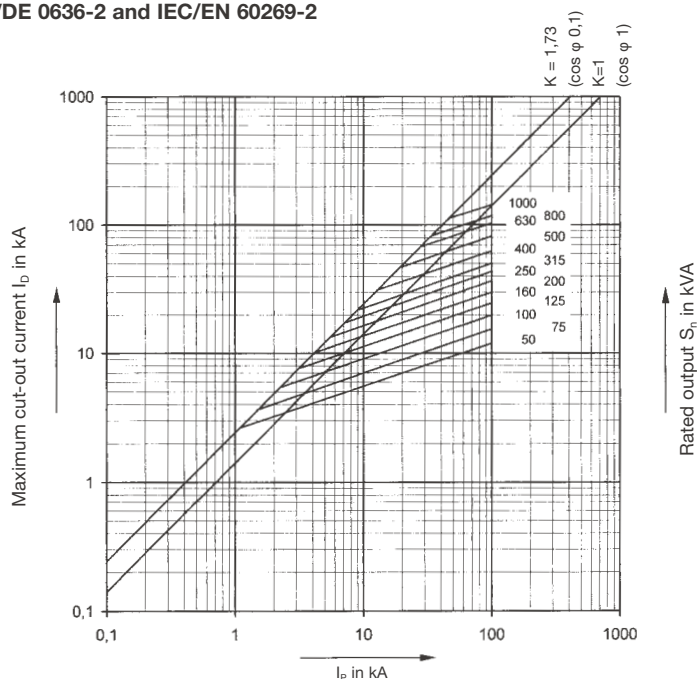
# NH Fuse-Links AC 400 V gTr

For transformer protection

Time-current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



Cut-out current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



$I_p$  acc. to prospective short-circuit current  $I_k$  at point of fault (DIN/VDE 0102 part 2)

## NH Fuse-Links AC 500 V gR

### For semiconductor protection – pure silver fuse element

Rated voltage: AC 500 V

Utilization category: gR acc. to VDE 0636-4

Application: For semiconductor protection

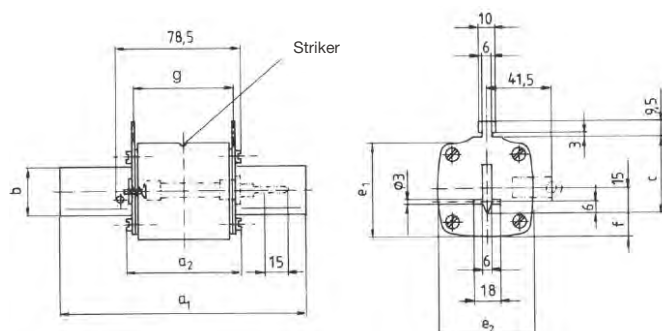
Breaking capacity: 120 kA

### Without striker

| Size | Amps  | PU | Metal gripping lugs<br>Order no. |
|------|-------|----|----------------------------------|
| 00   | 16    | 3  | 35024-0180                       |
| 00   | 20    | 3  | 35024-0170                       |
| 00   | 25    | 3  | 35024-0190                       |
| 00   | 35    | 3  | 35024-0010                       |
| 00   | 40    | 3  | 35024-0020                       |
| 00   | 50    | 3  | 35024-0030                       |
| 00   | 63    | 3  | 35024-0040                       |
| 00   | 80    | 3  | 35024-0050                       |
| 00   | 100   | 3  | 35024-0060                       |
| 00   | 125   | 3  | 35024-0070                       |
| 00   | 160   | 3  | 35024-0080                       |
| 1    | 35    | 3  | 35040-0010                       |
| 1    | 50    | 3  | 35040-0020                       |
| 1    | 63    | 3  | 35040-0030                       |
| 1    | 80    | 3  | 35040-0040                       |
| 1    | 100   | 3  | 35040-0050                       |
| 1    | 125   | 3  | 35040-0060                       |
| 1    | 160   | 3  | 35040-0070                       |
| 1    | 200   | 3  | 35040-0080                       |
| 1    | (224) | 3  | 35040-0090                       |
| 1    | 250   | 3  | 35040-0100                       |
| 2    | 80    | 3  | 35058-0010                       |
| 2    | 100   | 3  | 35058-0020                       |
| 2    | 125   | 3  | 35058-0030                       |
| 2    | 160   | 3  | 35058-0040                       |
| 2    | 200   | 3  | 35058-0050                       |
| 2    | (224) | 3  | 35058-0060                       |
| 2    | 250   | 3  | 35058-0070                       |
| 2    | (300) | 3  | 35058-0080                       |
| 2    | 315   | 3  | 35058-0090                       |
| 2    | (355) | 3  | 35058-0100                       |
| 2    | 400   | 3  | 35058-0110                       |
| 3    | 315   | 1  | 35079-0010                       |
| 3    | (355) | 1  | 35079-0020                       |
| 3    | 400   | 1  | 35079-0030                       |
| 3    | (425) | 1  | 35079-0040                       |
| 3    | 500   | 1  | 35079-0050                       |
| 3    | 630   | 1  | 35079-0060                       |

 ( ) = Dimensions according to DIN,  
rated current not standardized in VDE 0636

### Dimensions: DIN 43620-1



### Electrical characteristics:

EFEN NH fuse-links for semiconductor protection feature the following properties:

1. ultra-quick time-current characteristics adjusted to protection requirements
  2. a low arc voltage characteristic with low overvoltage
- EFEN gR fuse-links may be used as full-range fuses for overload and short-circuit protection or in conjunction with other overcurrent protection devices to provide short-circuit protection only.

### Variant with striker:

A spring-loaded striker pin is provided in parallel with the fuse-link. When the NH fuse-link trips, the striker pin is released, actuating the micro-switch on the NH fuse-base.

### With striker

| Size | Amps  | PU | Metal gripping lugs<br>Order no. |
|------|-------|----|----------------------------------|
| 00   | 16    | 3  | 35218-0010                       |
| 00   | 20    | 3  | 35218-0020                       |
| 00   | 25    | 3  | 35218-0030                       |
| 00   | 35    | 3  | 35218-0040                       |
| 00   | 40    | 3  | 35218-0050                       |
| 00   | 50    | 3  | 35218-0060                       |
| 00   | 63    | 3  | 35218-0070                       |
| 00   | 80    | 3  | 35218-0080                       |
| 00   | 100   | 3  | 35218-0090                       |
| 00   | 125   | 3  | 35218-0100                       |
| 1    | 35    | 1  | 35046-0010                       |
| 1    | 50    | 1  | 35046-0020                       |
| 1    | 63    | 1  | 35046-0030                       |
| 1    | 80    | 1  | 35046-0040                       |
| 1    | 100   | 1  | 35046-0050                       |
| 1    | 125   | 1  | 35046-0060                       |
| 1    | 160   | 1  | 35046-0070                       |
| 1    | 200   | 1  | 35046-0080                       |
| 1    | (224) | 1  | 35046-0090                       |
| 1    | 250   | 1  | 35046-0100                       |
| 2    | 80    | 1  | 35060-0050                       |
| 2    | 100   | 1  | 35060-0060                       |
| 2    | 125   | 1  | 35060-0070                       |
| 2    | 160   | 1  | 35060-0080                       |
| 2    | 200   | 1  | 35060-0090                       |
| 2    | (224) | 1  | 35060-0100                       |
| 2    | 250   | 1  | 35060-0110                       |
| 2    | (300) | 1  | 35060-0120                       |
| 2    | (315) | 1  | 35060-0130                       |
| 2    | 355   | 1  | 35060-0140                       |
| 2    | 400   | 1  | 35060-0150                       |
| 3    | 315   | 1  | 35086-0010                       |
| 3    | (355) | 1  | 35086-0020                       |
| 3    | 400   | 1  | 35086-0030                       |
| 3    | (425) | 1  | 35086-0040                       |
| 3    | 500   | 1  | 35086-0050                       |
| 3    | 630   | 1  | 35086-0060                       |

| Size | a <sub>1</sub> | a <sub>2</sub> | b    | c  | e <sub>1</sub> | e <sub>2</sub> | f    | g  |
|------|----------------|----------------|------|----|----------------|----------------|------|----|
| 00   | 78,5           | 53             | 15   | 35 | 40             | 28             | 12,5 | 47 |
| 0    | 125            | 67             | 15   | 35 | 38             | 35             | 11,5 | 65 |
| 1    | 135            | 71             | 24,5 | 40 | 45             | 45             | 10   | 65 |
| 2    | 150            | 72             | 30   | 48 | 59             | 59             | 14,5 | 65 |
| 3    | 150            | 72             | 40   | 60 | 70             | 70             | 15   | 65 |

## NH Fuse-Links AC 500 V gR

Rated power dissipation in Watts of NH Fuse-Links size 00 – 3  
gR AC 500 V VDE 0636-4

| I <sub>n</sub><br>A | Size |      |             |       |
|---------------------|------|------|-------------|-------|
|                     | 00   | 01   | 2           | 3     |
| 16                  | 6,0  |      |             |       |
| 20                  | 7,2  |      |             |       |
| 25                  | 8,0  |      |             |       |
| 35                  | 9,6  | 12,6 |             |       |
| 50                  | 12,0 | 14,0 |             |       |
| 63                  | 14,0 | 17,2 |             |       |
| 80                  | 17,7 | 21,2 | 20,0        |       |
| 100                 | 25,7 | 27,5 | 27,1        |       |
| 125                 | 29,7 | 31,2 | 29,7        |       |
| 160                 | 45,3 | 38,0 | 35,5        |       |
| 200                 |      | 46,0 | 43,9        |       |
| 224                 |      | 56,9 | 51,9        |       |
| 250                 |      | 65,0 | 56,8        |       |
| 300                 |      |      | <b>67,7</b> |       |
| 315                 |      |      | 68,7        | 67,7  |
| 355                 |      |      | 80,6        | 77,5  |
| 400                 |      |      | 91,6        | 88,5  |
| 425                 |      |      |             | 97,2  |
| 500                 |      |      |             | 115,7 |
| 630                 |      |      |             | 168,3 |

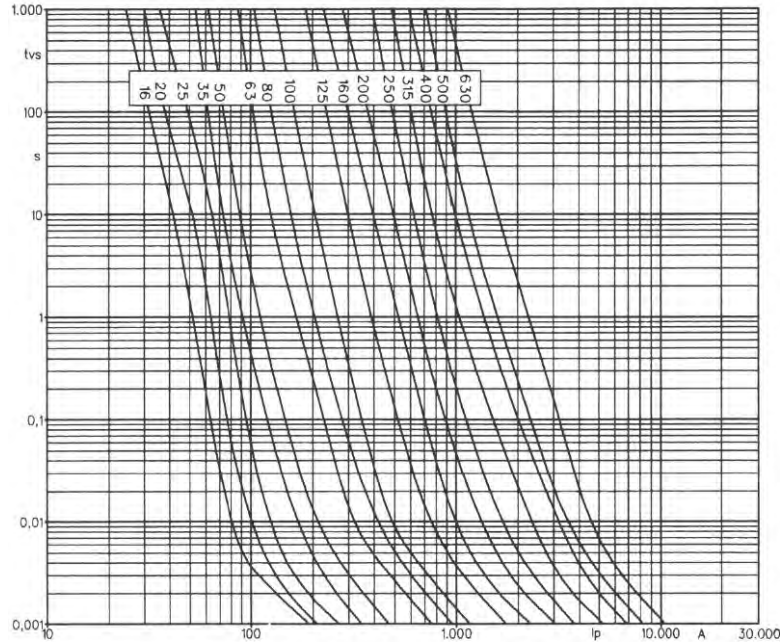
Breaking capacity DC 500 V gR

Size 00: 25 kA, 240 V DC  
Size 1: 25 kA, 440 V DC  
Size 2: 25 kA, 440 V DC  
Size 3: 25 kA, 440 V DC

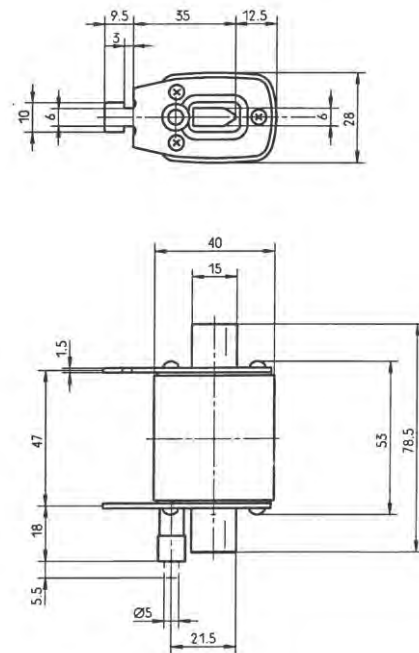
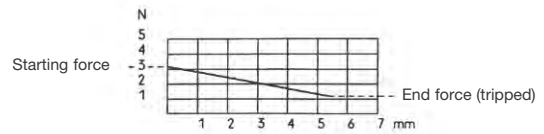
# NH Fuse-Links AC 500 V gR

For semiconductor protection – pure silver fuse element

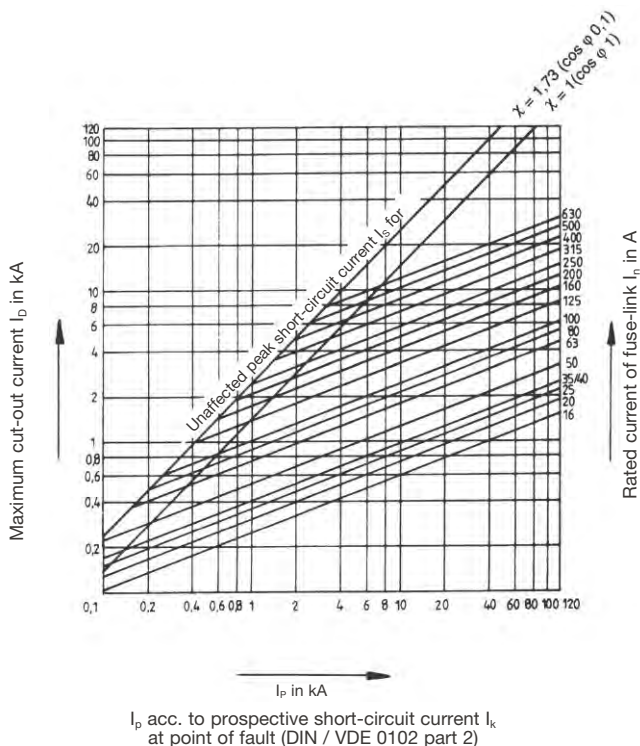
Time-current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



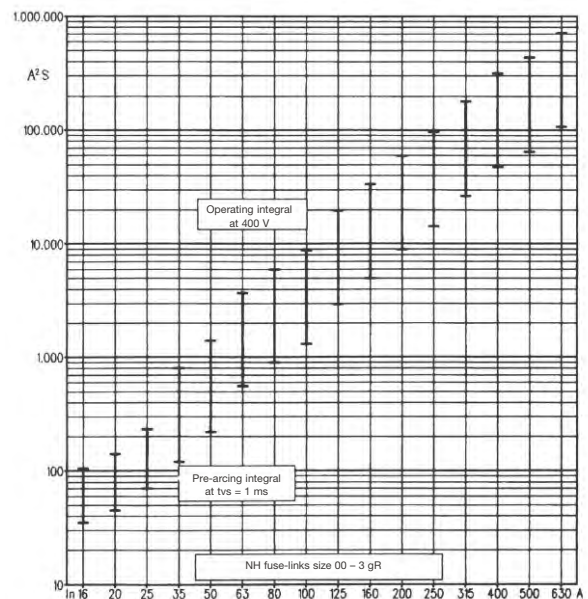
Force-distance diagram of the striker



Cut-out current characteristics acc. to VDE 0636-2 and IEC/EN 60269-2



Pre-arcing and operating integrals acc. to VDE 0636-2 and IEC/EN 60269-2





## NH Fuse-Links 1000 V / 1500 V

### For mining equipment protection – pure silver fuse element (ageing-resistant)

Rated voltage: AC 1000 V

Utilization category: gB and aM acc. to VDE 0636-2011

Application: gB – full-range protection of mining equipment

aM – back-up protection for mining equipment

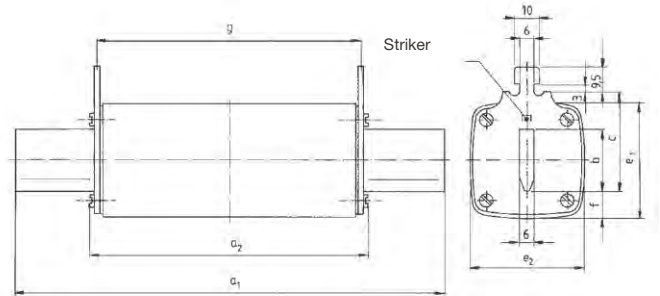
Breaking capacity: 25 kA

#### Electrical characteristics:

1. NH fuse-links of utilization category gB
2. NH fuse-links of utilization category aM provide back-up protection for switchgear devices. They protect switchgear devices in the event of short-circuits. When combined with overcurrent protection devices, they provide optimal protection to downstream motors and devices. The PURE SILVER fuse elements ensure that the NH fuse-links resist ageing while retaining their selectivity.

EFEN NH fuse-links of utilization categories aM respond quickly in case of short-circuits but are not tripped by overcurrent as this function is performed by other overcurrent protection devices.

| Size | a <sub>1</sub> | a <sub>2</sub> | b    | c  | e <sub>1</sub> | e <sub>2</sub> | f  | g     |
|------|----------------|----------------|------|----|----------------|----------------|----|-------|
| 1L   | 170            | 105,5          | 24,5 | 40 | 45             | 45             | 10 | 105,5 |
| 3    | 167,5          | 92,5           | 32   | 60 | 72             | 72             | 15 | 80,5  |



### Special-purpose designs and characteristics

Rated voltage: 1000 and 1500 V AC

Utilization category: TF acc. to DIN 43 620-5

Application: Protection of rectifier equipment for electric railway systems

Breaking capacity: 10 kA

#### Electrical characteristics:

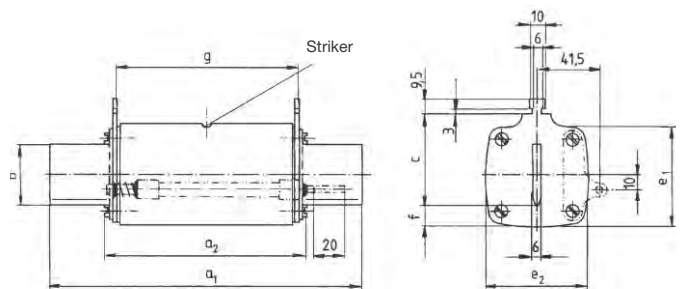
These special-purpose fuse-links have been designed for use in rectifier stations in railway systems. They feature dual time-current characteristics and PURE SILVER fuse elements. This makes these fuse-links especially resistant to ageing.

The fuse-links withstand overcurrents and inrush currents, but quickly interrupt short-circuits. Due to the quick response characteristic, short-circuit currents are cut out at low current levels.

#### Variant with striker:

A spring-loaded striker pin is provided in parallel with the fuse-link. When the NH fuse-link trips, the striker pin is released, actuating the micro-switch on the NH fuse-base.

| Size | a <sub>1</sub> | a <sub>2</sub> | b  | c  | e <sub>1</sub> | e <sub>2</sub> | f    | g   |
|------|----------------|----------------|----|----|----------------|----------------|------|-----|
| 3L   | 206            | 130            | 40 | 60 | 67             | 67             | 13,5 | 120 |



## NH maintenance fuse-link

### Application:

NH maintenance fuse-links are used to temporarily replace line-protection fuse-links (gG) in power grids during maintenance work. The feature ultra-quick time-current characteristics. Accordingly, maximum cut-out current and maximum cut-out energy are limited even more strictly than in NH fuse-links of utilization category gG. This means less risk by potential current arcing to the maintenance personnel.

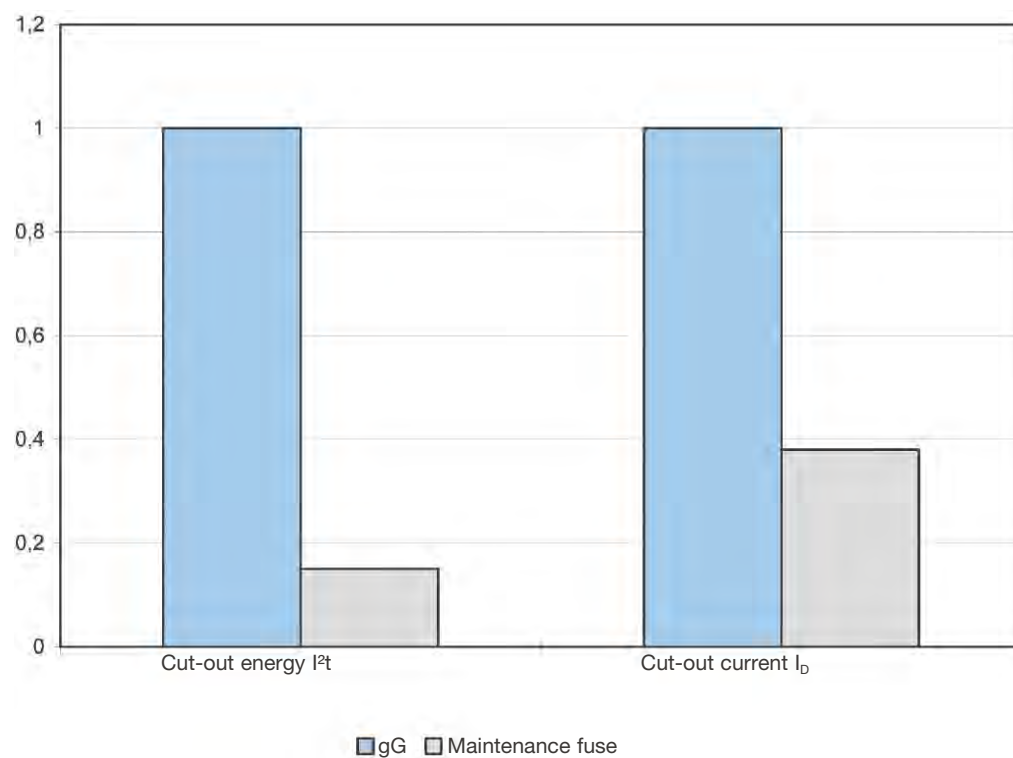
NH maintenance fuse-links are not optimally suited for normal operation as they trip more quickly in the case of temporary overload. Also, their power dissipation is much higher than that of fuse-links of category gG. For normal operation we recommend our ageing-resistant NH fuse-links of utilization category gG.

- Less cut-out energy and lower cut-out currents thanks to ultra-quick time-current characteristics means more safety for the maintenance personnel
- Insulated metal gripping lugs protect against accidental contact with live parts
- Ageing-resistant pure silver fuse element
- Locked screws that do not come loose
- Reliable function even after years inside a service vehicle
- Clear identification in red color as "maintenance fuse-link"

| Size | Amps | Designation                    | Order no.         |
|------|------|--------------------------------|-------------------|
| 2    | 80   | NH-Arbeitssicherung 80A gR Li  | <b>35209-0010</b> |
| 2    | 100  | NH-Arbeitssicherung 100A gR Li | <b>35209-0020</b> |
| 2    | 125  | NH-Arbeitssicherung 125A gR Li | <b>35209-0030</b> |
| 2    | 160  | NH-Arbeitssicherung 160A gR Li | <b>35209-0040</b> |
| 2    | 200  | NH-Arbeitssicherung 200A gR Li | <b>35209-0050</b> |
| 2    | 224  | NH-Arbeitssicherung 224A gR Li | <b>35209-0060</b> |
| 2    | 250  | NH-Arbeitssicherung 250A gR Li | <b>35209-0070</b> |
| 2    | 300  | NH-Arbeitssicherung 300A gR Li | <b>35209-0080</b> |
| 2    | 315  | NH-Arbeitssicherung 315A gR Li | <b>35209-0090</b> |

## NH maintenance fuse-link

Maintenance fuse-link and gG fuse-link compared



## NH Fuse-Links for DC applications up to 80 V - series TPS

► Technical data, page 55



35300-0600

### TPS fault terminator Fuse-Links

#### Features:

- Compact design
- Use only with TPS fuse isolators (page 133)

| Designation                 | Size | Amps | PU | Product designation          | Order no.         |
|-----------------------------|------|------|----|------------------------------|-------------------|
| TPS FAULT TERMINATOR 60 A   | 00   | 60   | 3  | U TPS FAULT TERMINATOR 60A   | <b>35300-0060</b> |
| TPS FAULT TERMINATOR 80 A   | 00   | 80   | 3  | U TPS FAULT TERMINATOR 80A   | <b>35300-0080</b> |
| TPS FAULT TERMINATOR 100 A  | 00   | 100  | 3  | U TPS FAULT TERMINATOR 100A  | <b>35300-0100</b> |
| TPS FAULT TERMINATOR 150 A  | 00   | 150  | 3  | U TPS FAULT TERMINATOR 150A  | <b>35300-0150</b> |
| TPS FAULT TERMINATOR 200 A  | 00   | 200  | 3  | U TPS FAULT TERMINATOR 200A  | <b>35300-0200</b> |
| TPS FAULT TERMINATOR 250 A  | 00   | 250  | 3  | U TPS FAULT TERMINATOR 250A  | <b>35300-0250</b> |
| TPS FAULT TERMINATOR 300 A  | 00   | 300  | 3  | U TPS FAULT TERMINATOR 300A  | <b>35300-0300</b> |
| TPS FAULT TERMINATOR 400 A  | 00   | 400  | 3  | U TPS FAULT TERMINATOR 400A  | <b>35300-0400</b> |
| TPS FAULT TERMINATOR 500 A  | 00   | 500  | 3  | U TPS FAULT TERMINATOR 500A  | <b>35300-0500</b> |
| TPS FAULT TERMINATOR 600 A  | 00   | 600  | 3  | U TPS FAULT TERMINATOR 600A  | <b>35300-0600</b> |
| TPS FAULT TERMINATOR 800 A  | 2    | 800  | 1  | U TPS FAULT TERMINATOR 800A  | <b>35330-0800</b> |
| TPS FAULT TERMINATOR 1000 A | 2    | 1000 | 1  | U TPS FAULT TERMINATOR 1000A | <b>35330-1000</b> |
| TPS FAULT TERMINATOR 1200 A | 2    | 1200 | 1  | U TPS FAULT TERMINATOR 1200A | <b>35330-1200</b> |
| TPS FAULT TERMINATOR 1600 A | 2    | 1600 | 1  | U TPS FAULT TERMINATOR 1600A | <b>35330-1600</b> |



35301-0100

### TPS Fault Terminator with striker for fuse-monitoring

#### Features:

- Compact design
- Use only with TPS fuse isolators (page 133)

| Designation                   | Size | Amps | PU | Product designation            | Order no.         |
|-------------------------------|------|------|----|--------------------------------|-------------------|
| TPS FAULT TERMINATOR 60 A SM  | 00   | 60   | 3  | U TPS FAULT TERMINATOR 60A SM  | <b>35301-0060</b> |
| TPS FAULT TERMINATOR 80 A SM  | 00   | 80   | 3  | U TPS FAULT TERMINATOR 80A SM  | <b>35301-0080</b> |
| TPS FAULT TERMINATOR 100 A SM | 00   | 100  | 3  | U TPS FAULT TERMINATOR 100A SM | <b>35301-0100</b> |
| TPS FAULT TERMINATOR 150 A SM | 00   | 150  | 3  | U TPS FAULT TERMINATOR 150A SM | <b>35301-0150</b> |
| TPS FAULT TERMINATOR 200 A SM | 00   | 200  | 3  | U TPS FAULT TERMINATOR 200A SM | <b>35301-0200</b> |
| TPS FAULT TERMINATOR 250 A SM | 00   | 250  | 3  | U TPS FAULT TERMINATOR 250A SM | <b>35301-0250</b> |
| TPS FAULT TERMINATOR 300 A SM | 00   | 300  | 3  | U TPS FAULT TERMINATOR 300A SM | <b>35301-0300</b> |
| TPS FAULT TERMINATOR 400 A SM | 00   | 400  | 3  | U TPS FAULT TERMINATOR 400A SM | <b>35301-0400</b> |
| TPS FAULT TERMINATOR 500 A SM | 00   | 500  | 3  | U TPS FAULT TERMINATOR 500A SM | <b>35301-0500</b> |
| TPS FAULT TERMINATOR 600 A SM | 00   | 600  | 3  | U TPS FAULT TERMINATOR 600A SM | <b>35301-0600</b> |

# NH Fuse-Links for DC applications up to 550 V

► Technical data, page 55



35178-0020

## NH battery fuse DC 550 V

### Features:

- Clear identification for protection against mix-up
- Selection guide 56

| Designation               | Size | Amps | PU | Product designation       | Order no.         |
|---------------------------|------|------|----|---------------------------|-------------------|
| NH-BATTERIESICHERUNG 00 E | 00   |      | 3  | NH-BATTERIESICHERUNG 00 E | <b>35177-0010</b> |
| NH-BATTERIESICHERUNG 00 G | 00   |      | 3  | NH-BATTERIESICHERUNG 00 G | <b>35177-0030</b> |
| NH-BATTERIESICHERUNG 00 H | 00   |      | 3  | NH-BATTERIESICHERUNG 00 H | <b>35177-0040</b> |
| NH-BATTERIESICHERUNG 00 A | 00   |      | 3  | NH-BATTERIESICHERUNG 00 A | <b>35177-0050</b> |
| NH-BATTERIESICHERUNG 00 B | 00   |      | 3  | NH-BATTERIESICHERUNG 00 B | <b>35177-0060</b> |
| NH-BATTERIESICHERUNG 00 C | 00   |      | 3  | NH-BATTERIESICHERUNG 00 C | <b>35177-0070</b> |
| NH-BATTERIESICHERUNG 00 D | 00   |      | 3  | NH-BATTERIESICHERUNG 00 D | <b>35177-0080</b> |
| NH-BATTERIESICHERUNG 1 A  | 2C   |      | 3  | NH-BATTERIESICHERUNG 1 A  | <b>35178-0010</b> |
| NH-BATTERIESICHERUNG 1 B  | 2C   |      | 3  | NH-BATTERIESICHERUNG 1 B  | <b>35178-0020</b> |
| NH-BATTERIESICHERUNG 1 C  | 2C   |      | 3  | NH-BATTERIESICHERUNG 1 C  | <b>35178-0030</b> |
| NH-BATTERIESICHERUNG 2 A  | 2    |      | 3  | NH-BATTERIESICHERUNG 2 A  | <b>35179-0010</b> |
| NH-BATTERIESICHERUNG 2 B  | 2    |      | 3  | NH-BATTERIESICHERUNG 2 B  | <b>35179-0020</b> |
| NH-BATTERIESICHERUNG 3 A  | 3    |      | 1  | NH-BATTERIESICHERUNG 3 A  | <b>35180-0010</b> |
| NH-BATTERIESICHERUNG 3 B  | 3    |      | 1  | NH-BATTERIESICHERUNG 3 B  | <b>35180-0020</b> |
| NH-BATTERIESICHERUNG 3 C  | 3    |      | 1  | NH-BATTERIESICHERUNG 3 C  | <b>35180-0030</b> |
| NH-BATTERIESICHERUNG 4 C  | 4a   |      | 1  | NH-BATTERIESICHERUNG 4 C  | <b>35183-0020</b> |
| NH-BATTERIESICHERUNG 4 D  | 4a   |      | 1  | NH-BATTERIESICHERUNG 4 D  | <b>35183-0030</b> |
| NH-BATTERIESICHERUNG 4 E  | 4a   |      | 1  | NH-BATTERIESICHERUNG 4 E  | <b>35183-0040</b> |



## NH Fuse-Links 1000 V DC

► Technical data, page 49



35089-0190

### NH Fuse-Links, size 3L, special design

#### Features:

- AC 1000 V (425 – 500 A), AC 1500 V (6 – 355 A), 25 kA DC 1000 V 6 – 355 A
- Breaking capacity: 10 kA
- TF acc. to VDE 0660 and DIN 43620-5

| Designation                 | Size | Amps | PU | Product designation         | Order no.         |
|-----------------------------|------|------|----|-----------------------------|-------------------|
| NH-SI 3L 6A TF AC1500V LS   | 3L   | 6    | 3  | NH-SI 3L 6A TF AC1500V LS   | <b>35089-0200</b> |
| NH-SI 3L 10A TF AC1500V LS  | 3L   | 10   | 3  | NH-SI 3L 10A TF AC1500V LS  | <b>35089-0010</b> |
| NH-SI 3L 16A TF AC1500V LS  | 3L   | 16   | 3  | NH-SI 3L 16A TF AC1500V LS  | <b>35089-0020</b> |
| NH-SI 3L 20A TF AC1500V LS  | 3L   | 20   | 3  | NH-SI 3L 20A TF AC1500V LS  | <b>35089-0030</b> |
| NH-SI 3L 25A TF AC1500V LS  | 3L   | 25   | 3  | NH-SI 3L 25A TF AC1500V LS  | <b>35089-0040</b> |
| NH-SI 3L 35A TF AC1500V LS  | 3L   | 35   | 3  | NH-SI 3L 35A TF AC1500V LS  | <b>35089-0050</b> |
| NH-SI 3L 50A TF AC1500V LS  | 3L   | 50   | 3  | NH-SI 3L 50A TF AC1500V LS  | <b>35089-0060</b> |
| NH-SI 3L 63A TF AC1500V LS  | 3L   | 63   | 3  | NH-SI 3L 63A TF AC1500V LS  | <b>35089-0070</b> |
| NH-SI 3L 80A TF AC1500V LS  | 3L   | 80   | 3  | NH-SI 3L 80A TF AC1500V LS  | <b>35089-0080</b> |
| NH-SI 3L 100A TF AC1500V LS | 3L   | 100  | 3  | NH-SI 3L 100A TF AC1500V LS | <b>35089-0090</b> |
| NH-SI 3L 125A TF AC1500V LS | 3L   | 125  | 3  | NH-SI 3L 125A TF AC1500V LS | <b>35089-0100</b> |
| NH-SI 3L 160A TF AC1500V LS | 3L   | 160  | 3  | NH-SI 3L 160A TF AC1500V LS | <b>35089-0110</b> |
| NH-SI 3L 200A TF AC1500V LS | 3L   | 200  | 3  | NH-SI 3L 200A TF AC1500V LS | <b>35089-0120</b> |
| NH-SI 3L 224A TF AC1500V LS | 3L   | 224  | 3  | NH-SI 3L 224A TF AC1500V LS | <b>35089-0130</b> |
| NH-SI 3L 250A TF AC1500V LS | 3L   | 250  | 3  | NH-SI 3L 250A TF AC1500V LS | <b>35089-0140</b> |
| NH-SI 3L 300A TF AC1500V LS | 3L   | 300  | 3  | NH-SI 3L 300A TF AC1500V LS | <b>35089-0150</b> |
| NH-SI 3L 315A TF AC1500V LS | 3L   | 315  | 3  | NH-SI 3L 315A TF AC1500V LS | <b>35089-0160</b> |
| NH-SI 3L 355A TF AC1500V LS | 3L   | 355  | 3  | NH-SI 3L 355A TF AC1500V LS | <b>35089-0170</b> |



35091-0190

### NH Fuse-Links, size 3L, special design

#### Features:

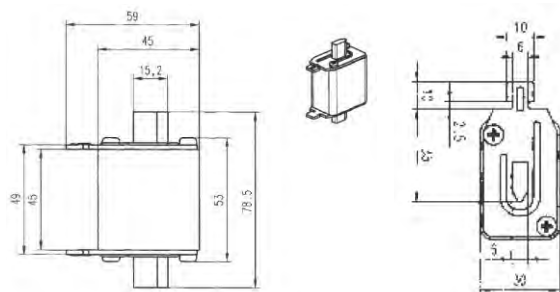
- 1000 V AC (425 – 500 A) and 1500 V AC (10 – 355 A)
- Breaking capacity 10 kA (1500 V AC); 50 kA (1000 V AC), 25 kA, 1000 V DC, 10 – 355 A
- TF acc. to VDE 0660 and DIN 43620-5
- Striker pin for fuse monitoring

| Designation                 | Size | Amps | PU | Product designation           | Order no.         |
|-----------------------------|------|------|----|-------------------------------|-------------------|
| NH-SI 3L 10A TF AC1500V SM  | 3L   | 10   | 3  | NH-SI 3L 10A TF AC1500V SM    | <b>35091-0010</b> |
| NH-SI 3L 16A TF AC1500V SM  | 3L   | 16   | 3  | NH-SI 3L 16A TF AC1500V SM    | <b>35091-0020</b> |
| NH-SI 3L 20A TF AC1500V SM  | 3L   | 20   | 3  | NH-SI 3L 20A TF AC1500V SM    | <b>35091-0030</b> |
| NH-SI 3L 25A TF AC1500V SM  | 3L   | 25   | 3  | NH-SI 3L 25A TF AC1500V SM    | <b>35091-0040</b> |
| NH-SI 3L 35A TF AC1500V SM  | 3L   | 35   | 3  | NH-SI 3L 35A TF AC1500V SM    | <b>35091-0050</b> |
| NH-SI 3L 50A TF AC1500V SM  | 3L   | 50   | 3  | NH-SI 3L 50A TF AC1500V SM    | <b>35091-0060</b> |
| NH-SI 3L 63A TF AC1500V SM  | 3L   | 63   | 3  | NH-SI 3L 63A TF AC1500V SM    | <b>35091-0070</b> |
| NH-SI 3L 80A TF AC1500V SM  | 3L   | 80   | 3  | A NH-SI 3L 80A TF AC1500V SM  | <b>35091-0080</b> |
| NH-SI 3L 100A TF AC1500V SM | 3L   | 100  | 3  | NH-SI 3L 100A TF AC1500V SM   | <b>35091-0090</b> |
| NH-SI 3L 125A TF AC1500V SM | 3L   | 125  | 1  | NH-SI 3L 125A TF AC1500V SM   | <b>35091-0100</b> |
| NH-SI 3L 160A TF AC1500V SM | 3L   | 160  | 3  | A NH-SI 3L 160A TF AC1500V SM | <b>35091-0110</b> |
| NH-SI 3L 200A TF AC1500V SM | 3L   | 200  | 3  | NH-SI 3L 200A TF AC1500V SM   | <b>35091-0120</b> |
| NH-SI 3L 224A TF AC1500V SM | 3L   | 224  | 3  | NH-SI 3L 224A TF AC1500V SM   | <b>35091-0130</b> |
| NH-SI 3L 250A TF AC1500V SM | 3L   | 250  | 3  | NH-SI 3L 250A TF AC1500V SM   | <b>35091-0140</b> |
| NH-SI 3L 300A TF AC1500V SM | 3L   | 300  | 3  | NH-SI 3L 300A TF AC1500V SM   | <b>35091-0150</b> |
| NH-SI 3L 315A TF AC1500V SM | 3L   | 315  | 3  | NH-SI 3L 315A TF AC1500V SM   | <b>35091-0160</b> |
| NH-SI 3L 355A TF AC1500V SM | 3L   | 355  | 3  | NH-SI 3L 355A TF AC1500V SM   | <b>35091-0170</b> |

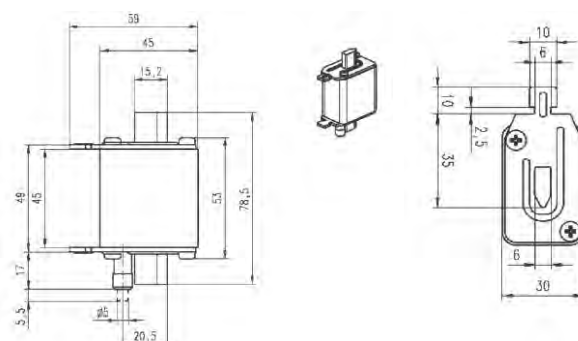
## NH Fuse-Links for DC applications up to 80 V, series TPS

### TPS Fault Terminator

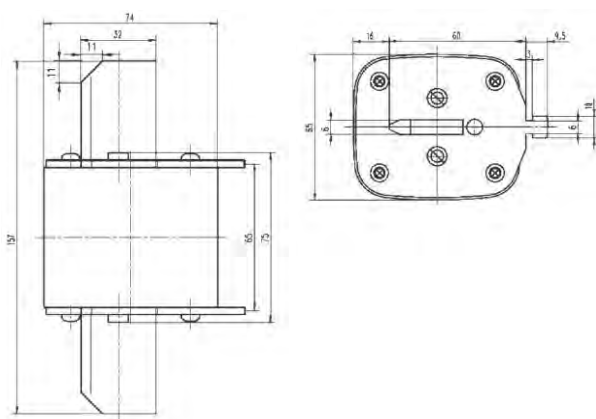
TPS 00/60 – 600 A



TPS 00/60 – 600 A with striker



TPS 2/800 – 1600 A



Rated power dissipation in Watts of TPS Fault Terminator size 00

| $I_n$ [A] | Fuse-link | Fuse-link with switch |
|-----------|-----------|-----------------------|
| 60        | 4,5       | 5                     |
| 80        | 5         | 5,5                   |
| 100       | 6,5       | 7,8                   |
| 150       | 10        | 13                    |
| 200       | 12        | 17                    |
| 250       | 13        | 21                    |
| 300       | 16        | 23                    |
| 400       | 19,5      | 32                    |
| 500       | 26        | 43                    |
| 600       | 29        | 54                    |

Rated power dissipation in Watts of TPS Fault Terminator size 2

| $I_n$ [A] | Fuse-link | Fuse-link with switch |
|-----------|-----------|-----------------------|
| 800       | 43        | 65                    |
| 1000      | 57        | 89                    |
| 1200      | 64        | 113                   |
| 1600      | 95        | 155                   |

## Products for DC applications max. 550 V

### 1. Application

- Defined point of intersection between battery and UPS.
- Isolation of the battery during service and maintenance work.
- Protection of the battery against over-heating and mechanical damage in the case of short-circuits.

### 2. Selection criteria for EFEN battery switches and battery fuses

- Single-pole NH load-break switches in sizes from 00 to 4a are specifically suited to isolate and safeguard backup batteries in UPS applications. General-purpose line protection fuses are usually not suitable for use in these applications. Fast-acting fuses must be used. The extra heat coming from these fuse-links has to be taken into account when selecting suitable fuse switches. EFEN uses highly temperature-resistant materials that allow for optimum space utilization and reliable operation.
- Specific care must be taken to select the correct fuse-links for battery protection. Fuse elements for UPS systems must be resistant to ageing in order to prevent premature tripping under permissible load.
- The fuse-link characteristics must be carefully selected according to the UPS system and the battery rating in order to provide reliable full-range protection of the battery. EFEN offers expert

support in this process. Please *fill in and return the questionnaire* (see next page).

### 3. Features and benefits of EFEN battery switches and battery fuse-links for UPS.

- EFEN battery fuse-links provide superior short-circuit protection.
- Silver fuse elements resistant to ageing prevent premature inadvertent tripping.
- Low power dissipation prevents overheating of plastic components.
- Parallel contact isolation with two arcing chambers provides excellent DC breaking capacity.
- High thermal stability of plastics prevents overheating even under overload conditions.
- A complete range of fuse switches and fuse-links for optimal protection of all industry-standard UPS systems up to 550 V battery voltage.

# NH Fuse-Links for DC applications up to 550 V

Fuse-Links

## Questionnaire – EFEN battery-switches and battery-fuses for UPS systems

Company:

Contact person:

Phone no. for technical information:

### 1. UPS system

1.1 Manufacturer:

1.2 Type:

1.3 Output:

1.4 Power factor:

1.5 Efficiency:

1.6 DC circuit voltage:

1.7 Acceptable overload:

### 2. Battery

2.1 Manufacturer:

2.2 Type:

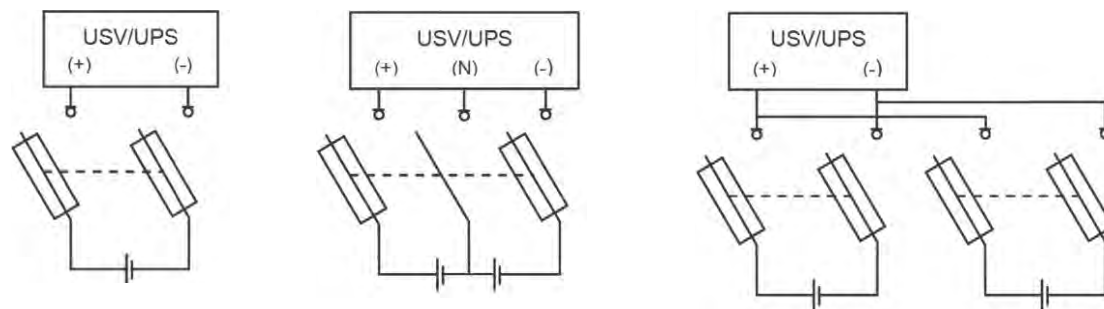
2.3 Rated voltage:

2.4 Capacity:

2.5 Number of blocks:

2.6 Battery layout:

- ☐ a) one string      ☐ b) circuit with a neutral point      ☐ c) two separately protected strings      ☐ d) other



2.7 Operating time:

2.8 Final discharge voltage (at the end of operating time):

2.9 Acceptable overload:

Place, date:

Completed by:   
(Signature)

## NH Fuse-Links for DC applications up to 550 V

### NH battery fuses DC 550 V for uninterruptible power supplies (UPS)

| Description     | Size | Type | Designation               | PU | Weight in kg | Order no.  |
|-----------------|------|------|---------------------------|----|--------------|------------|
| NH battery fuse | 00   | 00 E | NH-BATTERIESICHERUNG 00 E | 3  | 0,148        | 35177-0010 |
| NH battery fuse | 00   | 00 G | NH-BATTERIESICHERUNG 00 G | 3  | 0,148        | 35177-0030 |
| NH battery fuse | 00   | 00 H | NH-BATTERIESICHERUNG 00 H | 3  | 0,148        | 35177-0040 |
| NH battery fuse | 00   | 00 A | NH-BATTERIESICHERUNG 00 A | 3  | 0,148        | 35177-0050 |
| NH battery fuse | 00   | 00 B | NH-BATTERIESICHERUNG 00 B | 3  | 0,148        | 35177-0060 |
| NH battery fuse | 00   | 00 C | NH-BATTERIESICHERUNG 00 C | 3  | 0,148        | 35177-0070 |
| NH battery fuse | 00   | 00 D | NH-BATTERIESICHERUNG 00 D | 3  | 0,148        | 35177-0080 |
| NH battery fuse | 2C   | 1 A  | NH-BATTERIESICHERUNG 1 A  | 3  | 0,398        | 35178-0010 |
| NH battery fuse | 2C   | 1 B  | NH-BATTERIESICHERUNG 1 B  | 3  | 0,398        | 35178-0020 |
| NH battery fuse | 2C   | 1 C  | NH-BATTERIESICHERUNG 1 C  | 3  | 0,398        | 35178-0030 |
| NH battery fuse | 2    | 2 A  | NH-BATTERIESICHERUNG 2 A  | 3  | 0,636        | 35179-0010 |
| NH battery fuse | 2    | 2 B  | NH-BATTERIESICHERUNG 2 B  | 3  | 0,636        | 35179-0020 |
| NH battery fuse | 3    | 3 A  | NH-BATTERIESICHERUNG 3 A  | 1  | 0,915        | 35180-0010 |
| NH battery fuse | 3    | 3 B  | NH-BATTERIESICHERUNG 3 B  | 1  | 0,915        | 35180-0020 |
| NH battery fuse | 3    | 3 C  | NH-BATTERIESICHERUNG 3 C  | 1  | 0,915        | 35180-0030 |
| NH battery fuse | 4a   | 4 C  | NH-BATTERIESICHERUNG 4 C  | 1  | 2,589        | 35183-0020 |
| NH battery fuse | 4a   | 4 D  | NH-BATTERIESICHERUNG 4 D  | 1  | 2,589        | 35183-0030 |
| NH battery fuse | 4a   | 4 E  | NH-BATTERIESICHERUNG 4 E  | 1  | 2,589        | 35183-0040 |

\* Size 2 (compact design 2/1)

| Size | a <sub>1</sub> | a <sub>2</sub> | b    | c  | e <sub>1</sub> | e <sub>2</sub> | f    | g  |
|------|----------------|----------------|------|----|----------------|----------------|------|----|
| 00   | 78,5           | 53             | 15   | 35 | 40             | 28             | 12,5 | 47 |
| 2C   | 150            | 71             | 20,2 | 48 | 50             | 50             | 10   | 65 |
| 2    | 150            | 71             | 26,2 | 48 | 58             | 58             | 14,5 | 65 |
| 3    | 150            | 72             | 40   | 60 | 70             | 70             | 15   | 65 |
| 4a   | 200            | 98             | 50   | 85 | 110            | 102            | 28   | 87 |

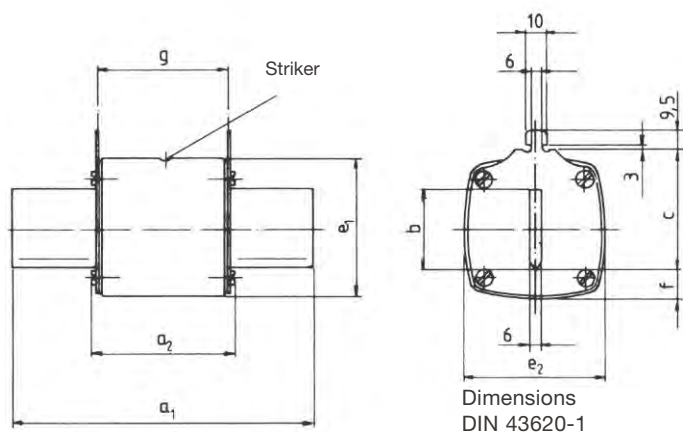
### Battery switches and battery fuses VDE 0660 T107

#### System

EFEN offers a complete range of single-pole compact load-break switches that are specifically designed for an operating voltage of 550 V DC as is typical for uninterruptible power supplies. These load-break switches protect batteries and battery-supplied circuits, representing the interface and isolating the system e.g. for maintenance purposes. Fuse-monitoring devices, strikers and a multitude of accessories are available.

#### Support

The isolation of a battery system in the event of a short-circuit must be precisely tuned to its capacity and maintenance concept. Fast-acting battery fuses selected in coordination with EFEN ensure reliable protection.



## NH Accessories

► Technical data, page 59



36022-0010

**NH fuse handles acc. to VDE 0636 T 201 and IEC 60269-2-1**  
for NH fuse-links and solid links

**Features:**

- Acc. to VDE 0636 T 201, IEC 60269-2-1
- For NH fuse-links and solid links

| Designation                                                                               | Size | Amps | PU | Product designation      | Order no.         |
|-------------------------------------------------------------------------------------------|------|------|----|--------------------------|-------------------|
| With leather cuff, 352 mm long                                                            | 00-3 |      | 3  | NH-GRIFF MIT LEDERSTULPE | <b>36022-0010</b> |
| With hand protection, without cuff                                                        | 00-3 |      | 10 | NH-HANDGRIFF GR.00-3     | <b>36020-0010</b> |
| Special variant for NH fuse-links or solid links with 120 mm gripping lug spacing, 1500 V | 3L   |      | 4  | NH-HANDGRIFF GR.3 1500V  | <b>36018-0010</b> |



36008-0010

**NH solid link, size 00 – 4a, non-insulated metal gripping lugs**

**Features:**

- Non-insulated metal gripping lugs

| Designation   | Size | Amps | PU | Product designation            | Order no.         |
|---------------|------|------|----|--------------------------------|-------------------|
| NH solid link | 00   | 160  | 15 | TRENNMESSER GR.00              | <b>36008-0010</b> |
| NH solid link | 00   | 250  | 15 | TRENNMESSER GR.00 250A         | <b>36115-0010</b> |
| NH solid link | 0    | 160  | 15 | TRENNMESSER GR.0               | <b>36009-0010</b> |
| NH solid link | 1    | 250  | 9  | TRENNMESSER GR.1               | <b>36010-0010</b> |
| NH solid link | 2    | 400  | 6  | TRENNMESSER GR.2 NR            | <b>36011-0010</b> |
| NH solid link | 3    | 630  | 6  | TRENNMESSER GR.3               | <b>36012-0010</b> |
| NH solid link | 3    | 1000 | 6  | TRENNMESSER GR.3 1000A / 1250A | <b>36012-0020</b> |
| NH solid link | 4    | 1250 | 10 | TRENNMESSER GR.4               | <b>36013-0010</b> |
| NH solid link | 4a   | 1600 | 6  | TRENNMESSER GR.4A              | <b>36014-0010</b> |



36139-0010

**NH solid link, size 00 – 3a, insulated gripping lugs**

**Features:**

- Insulated gripping lug

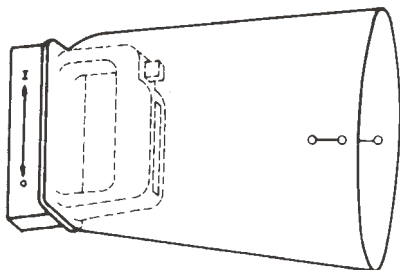
| Designation                           | Size | Amps | PU | Product designation        | Order no.         |
|---------------------------------------|------|------|----|----------------------------|-------------------|
| NH solid link, insulated gripping lug | 00   | 160  | 12 | TRENNMESSER GR.00 160A LP  | <b>36139-0010</b> |
| NH solid link, insulated gripping lug | 0    | 160  | 6  | TRENNMESSER GR.0 160A LP   | <b>36140-0010</b> |
| NH solid link, insulated gripping lug | 1    | 250  | 12 | TRENNMESSER GR.1 250A LP   | <b>36141-0010</b> |
| NH solid link, insulated gripping lug | 2    | 400  | 6  | TRENNMESSER GR.2 400A LP   | <b>36142-0010</b> |
| NH solid link, insulated gripping lug | 3    | 630  | 6  | TRENNMESSER GR.3 630A LP   | <b>36143-0010</b> |
| NH solid link, insulated gripping lug | 3    | 1000 | 3  | TRENNMESSER GR.3 1000A LP  | <b>36144-0010</b> |
| NH solid link, insulated gripping lug | 3L   | 1000 | 15 | TRENNMESSER GR.3L 1000A LP | <b>36015-0020</b> |
| TPS solid link for up to 600 A        | 00   | 600  | 1  | TRENNMESSER TPS 00/600     | <b>36917-0010</b> |
| TPS solid link for up to 1600 A       | 2    | 1600 | 1  | TRENNMESSER TPS 2/1600     | <b>36918-0010</b> |



## NH Accessories

### NH fuse handles

Acc. to VDE 0680-4, DIN 43620-4, IEC 60269-2-1 for NH fuse-links and solid links.



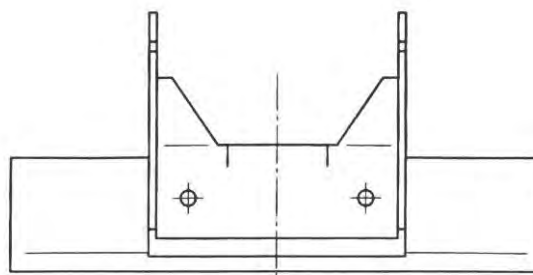
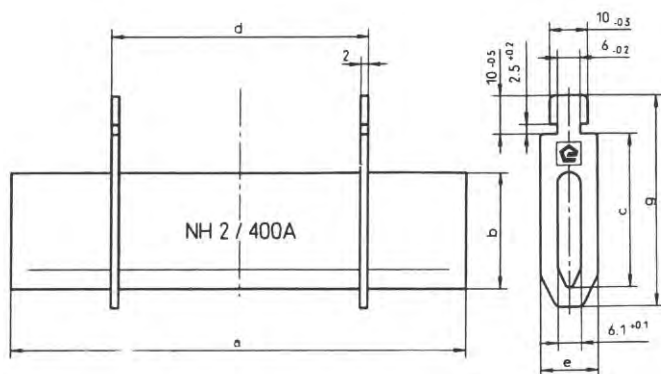
| Description                                                                                                                                         | PU | Weight | Order no.         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----|--------|-------------------|
| <b>Fuse handle for NH Fuse-Links</b> DIN 43620-1 and DIN VDE 0636-201, size 00 – 3 (can also be used for size 4) with hand protection, without cuff | 10 | 0,208  | <b>36020-0010</b> |
| <b>Fuse handle for NH Fuse-Links</b> DIN 43620-1 and DIN VDE 0636-201, size 00 – 3 (can also be used for size 4) with leather cuff, 352 mm long     | 3  | 0,384  | <b>36022-0010</b> |
| <b>Special fuse handle for NH Fuse-Links</b> with a gripping-lug spacing of 120 mm, 1500 V                                                          | 4  | 0,301  | <b>36018-0010</b> |

### NH solid link, size 00 – 4a

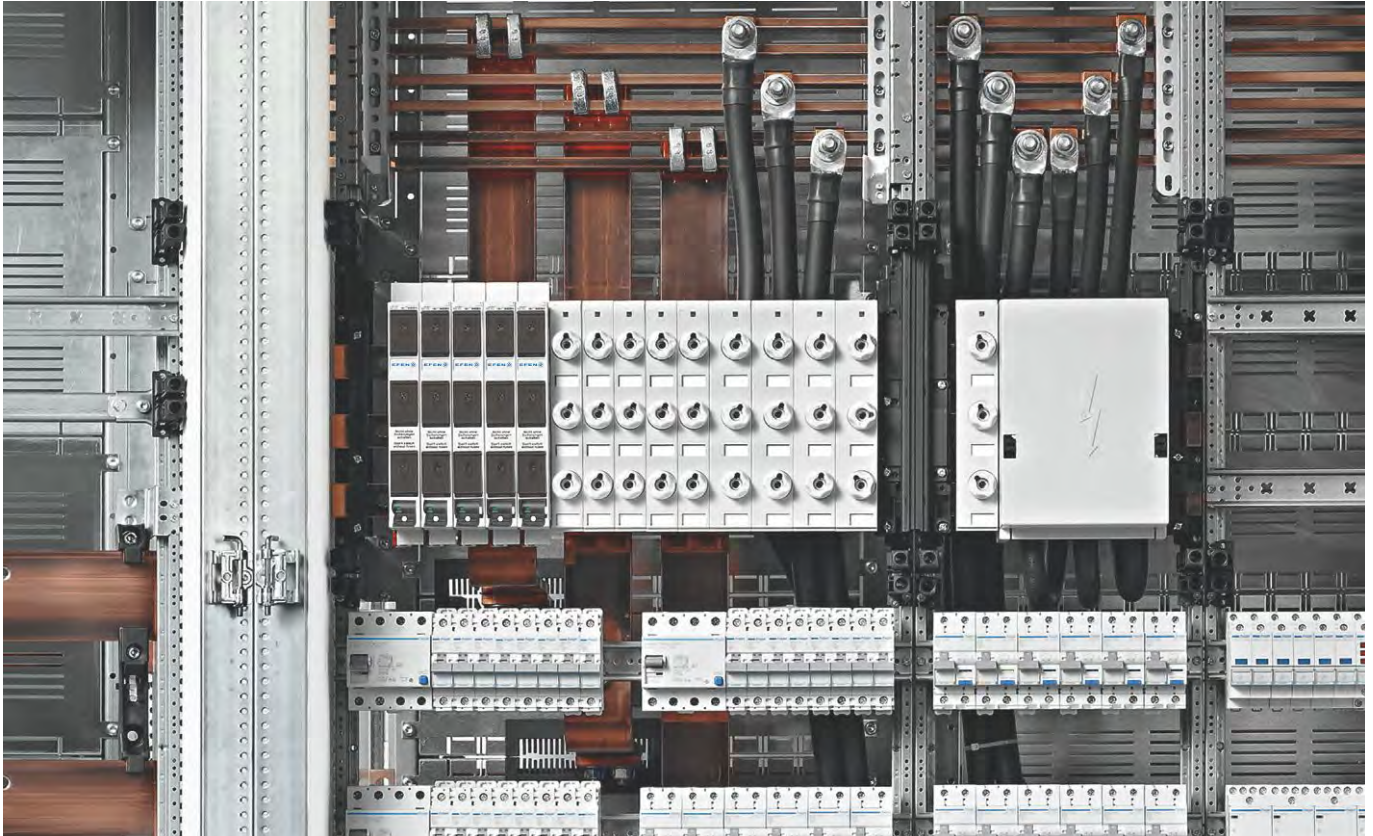
NH solid links are suitable for NH fuse-bases acc. to DIN 43620-3 and VDE 0636-201 as well as NH fuse-switches and isolating switches of the corresponding sizes.

Metal gripping lugs

Insulated gripping lugs



| Size | Amps | V    | Dimensions |    |    |     |    |    | Weight | PU | Metal gripping lugs | Weight | PU | Insulated gripping lugs |
|------|------|------|------------|----|----|-----|----|----|--------|----|---------------------|--------|----|-------------------------|
|      |      |      |            |    |    |     |    |    |        |    | Order no.           |        |    | Order no.               |
|      |      | 0,00 | a          | b  | c  | d   | g  | e  |        |    |                     |        |    |                         |
| 00   | 160  | 0,00 | 77         | 15 | 35 | 47  | 49 | 17 | 0,07   | 15 | <b>36008-0010</b>   | 0,05   | 12 | <b>36139-0010</b>       |
| 0    | 160  | 0,00 | 77         | 15 | 35 | 47  | 49 | 17 | 0,10   | 10 | <b>36009-0010</b>   | 0,10   | 6  | <b>36140-0010</b>       |
| 1    | 250  | 0,00 | 122,5      | 15 | 35 | 65  | 56 | 17 | 0,15   | 9  | <b>36010-0010</b>   | 0,15   | 12 | <b>36141-0010</b>       |
| 2    | 400  | 0,00 | 132,5      | 20 | 40 | 65  | 64 | 20 | 0,21   | 6  | <b>36011-0010</b>   | 0,25   | 6  | <b>36142-0010</b>       |
| 3    | 630  | 0,00 | 147,5      | 25 | 48 | 65  | 76 | 20 | 0,27   | 6  | <b>36012-0010</b>   | 0,25   | 6  | <b>36143-0010</b>       |
| 3    | 1000 | 0,00 | 147,5      | 32 | 60 | 65  | 76 | 20 | 0,27   | 6  | <b>36012-0020</b>   | 0,25   | 6  | <b>36144-0010</b>       |
| 3L   | 1000 | 0,00 | 147,5      | 32 | 60 | 65  | 70 | 20 | -      | -  | -                   | 0,35   | 10 | <b>36015-0020</b>       |
| 4    | 1250 | 0,00 | 203        | 32 | 60 | 120 | 96 | 96 | 0,60   | 10 | <b>36013-0010</b>   | -      | -  | -                       |
| 4a   | 1600 | 0,00 | 200        | 50 | 85 | 65  | 96 | 25 | 0,59   | 6  | <b>36014-0010</b>   | -      | -  | -                       |



## D Fuse-Links

The D0 Fuse-Links offer protection within the smallest space and, thanks to state-of-the-art distribution components, perfectly integrate into future systems.

### System

The D0 fuse systems are characterized by a high level of protection against accidental contact. Ceramic gage rings in the fuse base - prevent the installation of incorrect fuse elements in the critical range above 10 A. EFEN offers a wide range of D0 fuse-links from 2 to 63 A.

### Features

Thanks to the uniform rated voltage of 500 V for direct and alternating current and due to the high breaking capacity of AC 50 kA and DC 8 kA, the D0 system is universally suited for installation in buildings and industrial applications.



## D Fuse-Links

|                                            |         |
|--------------------------------------------|---------|
| D Fuse-Links<br>E14, E16, E18, E27 and E33 | page 62 |
| D-type gauge rings<br>E16, E27 and E33     | page 63 |
| D0-type gauge pieces<br>E14 and E18        | page 64 |
| D-type screw gauge pieces<br>E27 and E33   | page 64 |
| D-type accessories                         | page 65 |
| Technical data                             | page 66 |

### D0 Fuse-Links



### D0 Fuse-Links DII-DIII



### D0 Fuse-Links E16



### Ring-type, D0-type and D0 screw gauge pieces



## D Fuse-Links

- Fuse-links D01 – DII
- Category gG
- Rated voltage:  
400 V AC / 250 V DC

- Rated breaking capacity:  
50 kA / 400 V AC,  
8 kA / 250 V DC
- Standards EC 60269, EN 60269,  
DIN 49522, VDE 0636-T41

► Technical data, page 67



55021-0020

### D0 Fuse-Links

#### Features:

- Compliant with VDE 0636 part 21, 31, 41, IEC 60269-2-1, 6029-3
- VDE approval
- Utilization category gG
- Rated voltage AC 400 (440) V, DC 250 V

| Designation         | Amps | PU | Product designation | Order no.         |
|---------------------|------|----|---------------------|-------------------|
| D-SI D01 E14 2A gG  | 2    | 10 | D-SI D01 E14 2A gG  | <b>55021-0020</b> |
| D-SI D01 E14 4A gG  | 4    | 10 | D-SI D01 E14 4A gG  | <b>55021-0040</b> |
| D-SI D01 E14 6A gG  | 6    | 10 | D-SI D01 E14 6A gG  | <b>55021-0060</b> |
| D-SI D01 E14 10A gG | 10   | 10 | D-SI D01 E14 10A gG | <b>55021-0100</b> |
| D-SI D01 E14 16A gG | 16   | 10 | D-SI D01 E14 16A gG | <b>55021-0160</b> |
| D-SI D02 E18 20A gG | 20   | 10 | D-SI D02 E18 20A gG | <b>55022-0200</b> |
| D-SI D02 E18 25A gG | 25   | 10 | D-SI D02 E18 25A gG | <b>55022-0250</b> |
| D-SI D02 E18 32A gG | 32   | 10 | D-SI D02 E18 32A gG | <b>55022-0320</b> |
| D-SI D02 E18 35A gG | 35   | 10 | D-SI D02 E18 35A gG | <b>55022-0350</b> |
| D-SI D02 E18 40A gG | 40   | 10 | D-SI D02 E18 40A gG | <b>55022-0400</b> |
| D-SI D02 E18 50A gG | 50   | 10 | D-SI D02 E18 50A gG | <b>55022-0500</b> |
| D-SI D02 E18 63A gG | 63   | 10 | D-SI D02 E18 63A gG | <b>55022-0630</b> |



55015-0100

### D Fuse-Links DII-DIII

#### Features:

- Slow-blow characteristic acc. to DIN 49515, VDE 0636
- Characteristic gG acc. to VDE 0636, EN 60269
- VDE approval, rated voltage AC 500 V

| Designation          | Amps | PU  | Product designation  | Order no.         |
|----------------------|------|-----|----------------------|-------------------|
| D-SI DII E27 2A gG   | 2    | 100 | D-SI DII E27 2A gG   | <b>55015-0020</b> |
| D-SI DII E27 10A gG  | 10   | 100 | D-SI DII E27 10A gG  | <b>55015-0100</b> |
| D-SI DII E27 16A gG  | 16   | 100 | D-SI DII E27 16A gG  | <b>55015-0160</b> |
| D-SI DII E27 20A gG  | 20   | 100 | D-SI DII E27 20A gG  | <b>55015-0200</b> |
| D-SI DII E27 25A gG  | 25   | 100 | D-SI DII E27 25A gG  | <b>55015-0250</b> |
| D-SI DIII E33 35A gG | 35   | 100 | D-SI DIII E33 35A gG | <b>55016-0350</b> |
| D-SI DIII E33 50A gG | 50   | 100 | D-SI DIII E33 50A gG | <b>55016-0500</b> |
| D-SI DIII E33 63A gG | 63   | 100 | D-SI DIII E33 63A gG | <b>55016-0630</b> |



55000-0250

### D Fuse-Links E16

#### Features:

- DIN 49360, 500 V
- Fast-acting or slow-blow
- Variant: Ceramic base with nickel-plated brass contacts
- Colored indicator

| Designation      | Amps | PU | Product designation | Order no.         |
|------------------|------|----|---------------------|-------------------|
| D-SI E16 2A F    | 2    | 20 | D-SI E16 2A F       | <b>55000-0020</b> |
| D-SI E16 4A F    | 4    | 20 | D-SI E16 4A F       | <b>55000-0040</b> |
| D-SI E16 6A F    | 6    | 20 | D-SI E16 6A F       | <b>55000-0060</b> |
| D-SI E16 10A F   | 10   | 20 | D-SI E16 10A F      | <b>55000-0100</b> |
| D-SI E16 16A F   | 16   | 20 | D-SI E16 16A F      | <b>55000-0160</b> |
| D-SI E16 20A F   | 20   | 20 | D-SI E16 20A F      | <b>55000-0200</b> |
| D-SI E16 25A F   | 25   | 20 | D-SI E16 25A F      | <b>55000-0250</b> |
| A D-SI E16 2A T  | 2    | 20 | A D-SI E16 2A T     | <b>55001-0020</b> |
| A D-SI E16 4A T  | 4    | 20 | A D-SI E16 4A T     | <b>55001-0040</b> |
| A D-SI E16 6A T  | 6    | 20 | A D-SI E16 6A T     | <b>55001-0060</b> |
| A D-SI E16 10A T | 10   | 20 | A D-SI E16 10A T    | <b>55001-0100</b> |
| A D-SI E16 16A T | 16   | 20 | A D-SI E16 16A T    | <b>55001-0160</b> |
| A D-SI E16 20A T | 20   | 20 | A D-SI E16 20A T    | <b>55001-0200</b> |
| A D-SI E16 25A T | 25   | 20 | A D-SI E16 25A T    | <b>55001-0250</b> |

## D Fuse-Links

► Technical data, page 66



58002-0160

### D-type ceramic gauge rings acc. to DIN 49360 and DIN 49362

#### Features:

- Ceramic
- E16
- 2 A to 16 A

| Designation                              | Amps | PU  | Product designation       | Order no.         |
|------------------------------------------|------|-----|---------------------------|-------------------|
| D-type ceramic gauge ring insert E16 2A  | 2    | 100 | D-PASSEINSATZ E16 2A KER  | <b>58002-0020</b> |
| D-type ceramic gauge ring insert E16 4A  | 4    | 100 | D-PASSEINSATZ E16 4A KER  | <b>58002-0040</b> |
| D-type ceramic gauge ring insert E16 6A  | 6    | 100 | D-PASSEINSATZ E16 6A KER  | <b>58002-0060</b> |
| D-type ceramic gauge ring insert E16 10A | 10   | 100 | D-PASSEINSATZ E16 10A KER | <b>58002-0100</b> |
| D-type ceramic gauge ring insert E16 16A | 16   | 100 | D-PASSEINSATZ E16 16A KER | <b>58002-0160</b> |



58003-0200

### D-type ceramic gauge ring inserts acc. to DIN 49360 and DIN 49362

#### Features:

- Ceramic
- E16
- 2 A to 16 A

| Designation                           | Amps | PU  | Product designation           | Order no.         |
|---------------------------------------|------|-----|-------------------------------|-------------------|
| D-type ceramic gauge ring E27 DII 2A  | 2    | 100 | D-PASSEINSATZ E27 DII 2A KER  | <b>58003-0020</b> |
| D-type ceramic gauge ring E27 DII 4A  | 4    | 100 | D-PASSEINSATZ E27 DII 4A KER  | <b>58003-0040</b> |
| D-type ceramic gauge ring E27 DII 6A  | 6    | 100 | D-PASSEINSATZ E27 DII 6A KER  | <b>58003-0060</b> |
| D-type ceramic gauge ring E27 DII 10A | 10   | 100 | D-PASSEINSATZ E27 DII 10A KER | <b>58003-0100</b> |
| D-type ceramic gauge ring E27 DII 16A | 16   | 100 | D-PASSEINSATZ E27 DII 16A KER | <b>58003-0160</b> |
| D-type ceramic gauge ring E27 DII 20A | 20   | 100 | D-PASSEINSATZ E27 DII 20A KER | <b>58003-0200</b> |
| D-TYPE CERAMIC GAUGE RING E27 DII 25A | 50   |     | D-PASSEINSATZ E27 DII 25A KER | <b>58003-0250</b> |



58004-0350

### D-type ceramic gauge ring E27 DII 25A

#### Features:

- Ceramic
- E33
- 2 A to 35 A

| Designation                            | Amps | PU | Product designation            | Order no.         |
|----------------------------------------|------|----|--------------------------------|-------------------|
| D-type ceramic gauge ring E33 DIII 2A  | 2    | 50 | D-PASSEINSATZ E33 DIII 2A KER  | <b>58004-0020</b> |
| D-type ceramic gauge ring E33 DIII 4A  | 4    | 50 | D-PASSEINSATZ E33 DIII 4A KER  | <b>58004-0040</b> |
| D-type ceramic gauge ring E33 DIII 6A  | 6    | 50 | D-PASSEINSATZ E33 DIII 6A KER  | <b>58004-0060</b> |
| D-type ceramic gauge ring E33 DIII 10A | 10   | 50 | D-PASSEINSATZ E33 DIII 10A KER | <b>58004-0100</b> |
| D-type ceramic gauge ring E33 DIII 16A | 16   | 50 | D-PASSEINSATZ E33 DIII 16A KER | <b>58004-0160</b> |
| D-type ceramic gauge ring E33 DIII 20A | 20   | 50 | D-PASSEINSATZ E33 DIII 20A KER | <b>58004-0200</b> |
| D-type ceramic gauge ring E33 DIII 25A | 25   | 50 | D-PASSEINSATZ E33 DIII 25A KER | <b>58004-0250</b> |
| D-type ceramic gauge ring E33 DIII 35A | 35   | 50 | D-PASSEINSATZ E33 DIII 35A KER | <b>58004-0350</b> |
| D-type ceramic gauge ring E33 DIII 50A | 50   | 50 | D-PASSEINSATZ E33 DIII 50A KER | <b>58004-0500</b> |
| D-type ceramic gauge ring E33 DIII 63A | 63   | 50 | D-PASSEINSATZ E33 DIII 63A KER | <b>58004-0630</b> |



## D-type gauge pieces, D-type screw-in gauge piece

► Technical data - on demand



58006-0200

### D0-type gauge pieces acc. to 49523 for over-voltage protection

#### Features:

- E14, E18, D03
- 2 A to 80 A

| Designation                         | Amps | PU  | Product designation                  | Order no.         |
|-------------------------------------|------|-----|--------------------------------------|-------------------|
| D-type gauge piece D01 E14 PH01 2A  | 2    | 100 | D-PASSHÜLSE D01 E14 PH01 2A ROSA     | <b>58005-0020</b> |
| D-type gauge piece D01 E14 PH01 4A  | 4    | 100 | D-PASSHÜLSE D01 E14 PH01 4A BRAUN    | <b>58005-0040</b> |
| D-type gauge piece D01 E14 PH01 6A  | 6    | 100 | D-PASSHÜLSE D01 E14 PH01 6A GRÜN     | <b>58005-0060</b> |
| D-type gauge piece D01 E14 PH01 10A | 10   | 100 | D-PASSHÜLSE D01 E14 PH01 10A ROT     | <b>58005-0100</b> |
| D-type gauge piece D01 E18 PH02 4A  | 4    | 100 | D-PASSHÜLSE D02 E18 PH02 4A BRAUN    | <b>58006-0040</b> |
| D-type gauge piece D01 E18 PH02 6A  | 6    | 100 | D-PASSHÜLSE D02 E18 PH02 6A GRÜN     | <b>58006-0060</b> |
| D-type gauge piece D01 E18 PH02 10A | 10   | 100 | D-PASSHÜLSE D02 E18 PH02 10A ROT     | <b>58006-0100</b> |
| D-type gauge piece D01 E18 PH02 16A | 16   | 100 | D-PASSHÜLSE D02 E18 PH02 16A GRAU    | <b>58006-0160</b> |
| D-type gauge piece D01 E18 PH02 20A | 20   | 100 | D-PASSHÜLSE D02 E18 PH02 20A BLAU    | <b>58006-0200</b> |
| D-type gauge piece D01 E18 PH02 25A | 25   | 100 | D-PASSHÜLSE D02 E18 PH02 25A GELB    | <b>58006-0250</b> |
| D-type gauge piece D01 E18 PH02 35A | 35   | 100 | D-PASSHÜLSE D02 E18 PH02 35A SCHWARZ | <b>58006-0350</b> |
| D-type gauge piece D01 E18 PH02 50A | 50   | 100 | D-PASSHÜLSE D02 E18 PH02 50A WEISS   | <b>58006-0500</b> |



58020-0020

### D-type screw gauge pieces acc. to DIN 49516 for over-voltage protection

#### Features:

- Ceramic
- E27 – E33
- 2 A to 63 A

| Designation                      | Amps | PU  | Product designation          | Order no.         |
|----------------------------------|------|-----|------------------------------|-------------------|
| D-type screw gauge piece E27 20A | 20   | 100 | D-SCHRAUBPASSEINSATZ E27 20A | <b>58020-0200</b> |
| D-type screw gauge piece E27 25A | 25   | 100 | D-SCHRAUBPASSEINSATZ E27 25A | <b>58020-0250</b> |
| D-type screw gauge piece E27 4A  | 4    | 100 | D-Schraubpasseinsatz E27 4A  | <b>58020-3040</b> |
| D-type screw gauge piece E27 6A  | 6    | 100 | D-Schraubpasseinsatz E27 6A  | <b>58020-3060</b> |
| D-type screw gauge piece E27 10A | 10   | 100 | D-Schraubpasseinsatz E27 10A | <b>58020-3100</b> |
| D-type screw gauge piece E27 16A | 16   | 100 | D-Schraubpasseinsatz E27 16A | <b>58020-3160</b> |
| D-type screw gauge piece E27 20A | 20   | 100 | D-Schraubpasseinsatz E27 20A | <b>58020-3200</b> |
| D-type screw gauge piece E27 25A | 25   | 100 | D-Schraubpasseinsatz E27 25A | <b>58020-3250</b> |
| D-type screw gauge piece E33 35A | 35   | 100 | D-Schraubpasseinsatz E33 35A | <b>58021-3350</b> |
| D-type screw gauge piece E33 50A | 50   | 100 | D-Schraubpasseinsatz E33 50A | <b>58021-3500</b> |
| D-type screw gauge piece E33 63A | 63   | 100 | D-Schraubpasseinsatz E33 63A | <b>58021-3630</b> |



## D-type accessories

► Technical data - on demand



58008-0010

### Key for D-type gauge pieces

#### Features:

- for D01 – D02

| Designation                           | PU | Product designation            | Order no.         |
|---------------------------------------|----|--------------------------------|-------------------|
| Key for D-type gauge pieces D01 – D02 | 1  | D-Passeinsatzschlüssel D01-D02 | <b>58008-0010</b> |



58015-0010

### D0-type special retaining spring

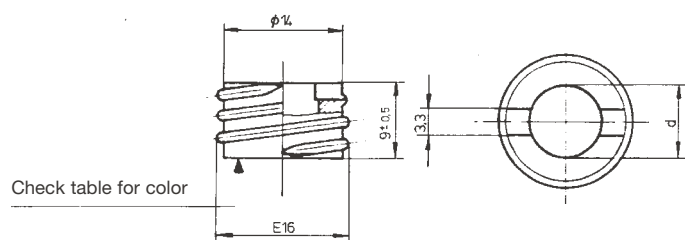
#### Features:

- Metal

| Designation                         | PU  | Product designation               | Order no.         |
|-------------------------------------|-----|-----------------------------------|-------------------|
| D0-type retaining spring D01 in K02 | 100 | D0-HALTEFEDER D01 in K02 RFD02-01 | <b>58015-0010</b> |

## D-type fuse system

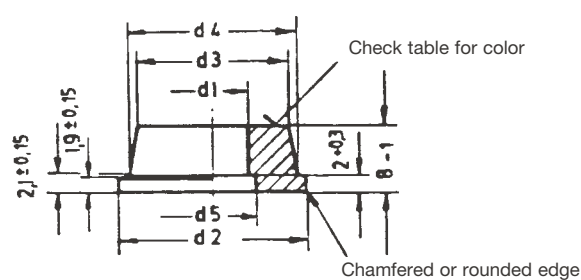
### Type 58002-xxxx



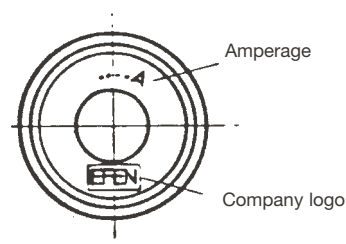
| Rated current A |      | RAL color |      | Order no.  |
|-----------------|------|-----------|------|------------|
| 2               | 6,3  | pink      | 3014 | 58002-0020 |
| 4               |      | brown     | 8003 | 58002-0040 |
| 6               |      | green     | 6010 | 58002-0060 |
| 10              | 8,5  | red       | 3000 | 58002-0100 |
| 16              | 10,5 | grey      | 7005 | 58002-0160 |

For other types please inquire

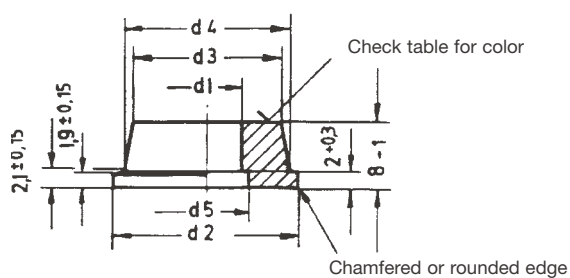
### Type 58003-xxxx



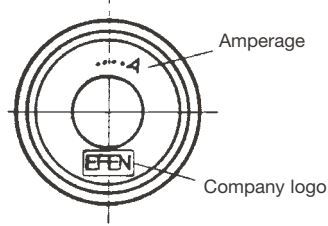
| Order no.  | Rated current A |      |      |      |    | Color |
|------------|-----------------|------|------|------|----|-------|
| 58003-0020 | 2               | 6,5  | 22,5 | 18,5 | 20 | pink  |
| 58003-0040 | 4               |      |      |      |    | brown |
| 58003-0060 | 6               |      |      |      |    | green |
| 58003-0100 | 10              | 8,5  |      |      |    | red   |
| 58003-0160 | 16              | 10,5 |      |      |    | grey  |
| 58003-0200 | 20              | 12,5 |      |      |    | blue  |



### Type 58004-xxxx

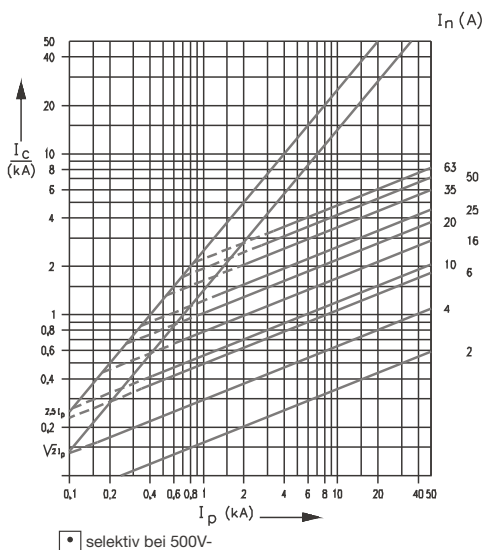


| Order no.  | Rated current A | $d + 0,8$<br>0 | $d \pm 0,5$ | $d \pm 0,5$ | $d \pm 0,5$ | $d \pm 0,5$ | Color  |
|------------|-----------------|----------------|-------------|-------------|-------------|-------------|--------|
| 58004-0020 | 2               | 6,5            | 28,5        | 24,5        | 26          | 10          | pink   |
| 58004-0040 | 4               |                |             |             |             |             | brown  |
| 58004-0060 | 6               |                |             |             |             |             | green  |
| 58004-0100 | 10              | 8,5            |             |             |             | 12          | red    |
| 58004-0160 | 16              | 10,5           |             |             |             | 14          | grey   |
| 58004-0200 | 20              | 12,5           |             |             |             | 16          | blue   |
| 58004-0250 | 25              | 14,5           |             |             |             | 18          | yellow |
| 58004-0350 | 35              | 16,5           |             |             |             | 20          | black  |

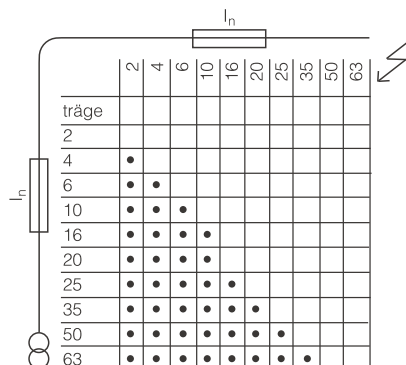


## D-type fuse system

Current limitation diagram gG/gL 500 V~  
D01, D02, DII, DIII Fuse-Links



Selectivity gL/gG fuses  
D01, D02, DII, DIII



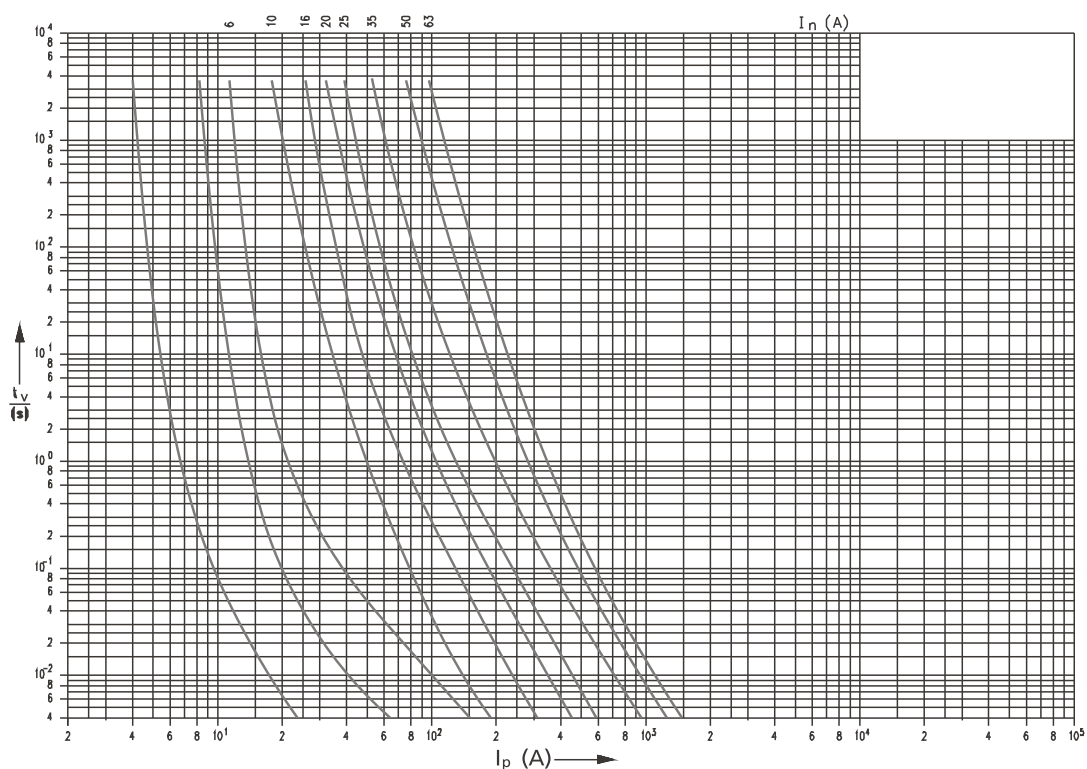
Power dissipation table  
D01, D02 gG/gL fuses

|            | $I_n$ | Watt |
|------------|-------|------|
| <b>D01</b> | 2A    | 0,8  |
|            | 4A    | 1,1  |
|            | 6A    | 1,2  |
|            | 10A   | 1,1  |
|            | 16A   | 1,7  |
|            | 20A   | 1,7  |
| <b>D02</b> | 25A   | 2,3  |
|            | 35A   | 2,8  |
|            | 50A   | 3,8  |
|            | 63A   | 5,0  |

DII, DIII gG/gL fuses

|             | $I_n$ | Watt |
|-------------|-------|------|
| <b>DII</b>  | 2A    | 1,5  |
|             | 4A    | 1,6  |
|             | 6A    | 1,8  |
|             | 10A   | 1,4  |
|             | 16A   | 2,1  |
| <b>DIII</b> | 20A   | 2,2  |
|             | 25A   | 3    |
|             | 35A   | 4,1  |
|             | 50A   | 5    |
|             | 63A   | 6,9  |

Time-current characteristic D01, D02, DII, DIII gG/gL





## DC Fuse-Links 10 x 38

Reliable protection of photovoltaic systems against overloads and short-circuits.

### System

The fuse-links 10 x 38 by EFEN are the base line of string protection in photovoltaic systems. Designed for the rated DC voltage of 600 V required for solar modules, these fuses offer reliable protection against overload and short-circuit.

### Features

The compact DC fuses are designed for high breaking currents. They are ideally suited for applications requiring reliable and instant breaking in the event of a failure.



## DC Fuse-Links 10 x 38

DC Fuse-Links 10 x 38

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Technical data

page 72

### DC Fuse-Links

for 1000 V with 30 kA breaking capacity



### DC Fuse-Disconnecter

for optimum line section protection  
see page 136





## DC Fuse-Links 10 x 38

**Application:**

Protection of photovoltaic (PV)  
DC systems against overcurrent  
and short-circuits

► Technical data, page 72



55030-0010

**DC fuse 10 x 38 for 1000 V gPV**
**Features:**

- Rated voltage: 1000 V DC / 600 V DC
- Breaking capacity: 30 kA
- Utilization category: gPV
- IEC 60269-6

| Designation               | Size    | Amps | PU | Product designation       | Order no.         |
|---------------------------|---------|------|----|---------------------------|-------------------|
| SI-10x38 gPV 1000V DC 1A  | 10 x 38 | 1    | 10 | SI-10x38 gPV 1000V DC 1A  | <b>55030-0010</b> |
| SI-10x38 gPV 1000V DC 2A  | 10 x 38 | 2    | 10 | SI-10x38 gPV 1000V DC 2A  | <b>55030-0020</b> |
| SI-10x38 gPV 1000V DC 3A  | 10 x 38 | 3    | 10 | SI-10x38 gPV 1000V DC 3A  | <b>55030-0030</b> |
| SI-10x38 gPV 1000V DC 4A  | 10 x 38 | 4    | 10 | SI-10x38 gPV 1000V DC 4A  | <b>55030-0040</b> |
| SI-10x38 gPV 1000V DC 5A  | 10 x 38 | 5    | 10 | SI-10x38 gPV 1000V DC 5A  | <b>55030-0050</b> |
| SI-10x38 gPV 1000V DC 6A  | 10 x 38 | 6    | 10 | SI-10x38 gPV 1000V DC 6A  | <b>55030-0060</b> |
| SI-10x38 gPV 1000V DC 8A  | 10 x 38 | 8    | 10 | SI-10x38 gPV 1000V DC 8A  | <b>55030-0080</b> |
| SI-10x38 gPV 1000V DC 10A | 10 x 38 | 10   | 10 | SI-10x38 gPV 1000V DC 10A | <b>55030-0100</b> |
| SI-10x38 gPV 1000V DC 12A | 10 x 38 | 12   | 10 | SI-10x38 gPV 1000V DC 12A | <b>55030-0120</b> |
| SI-10x38 gPV 1000V DC 15A | 10 x 38 | 15   | 10 | SI-10x38 gPV 1000V DC 15A | <b>55030-0150</b> |
| SI-10x38 gPV 1000V DC 16A | 10 x 38 | 16   | 10 | SI-10x38 gPV 1000V DC 16A | <b>55030-0160</b> |
| SI-10x38 gPV 1000V DC 20A | 10 x 38 | 20   | 10 | SI-10x38 gPV 1000V DC 20A | <b>55030-0200</b> |
| SI-10x38 gPV 600V DC 25A  | 10 x 38 | 25   | 10 | SI-10x38 gPV 600V DC 25A  | <b>55030-0250</b> |
| SI-10x38 gPV 600V DC 32A  | 10 x 38 | 32   | 10 | SI-10x38 gPV 600V DC 32A  | <b>55030-0320</b> |



## DC Fuse-Links

### Protection of photovoltaic (PV) DC systems against overcurrent and short-circuits

|                                             |                                           |            |
|---------------------------------------------|-------------------------------------------|------------|
| <b>Size</b>                                 | 10,3 x 38 mm                              |            |
| <b>Rated voltage</b>                        | 1000 V DC                                 | 600 V DC   |
| <b>Rated current</b>                        | 1 to 20 A                                 | 25 to 32 A |
| <b>Time constant (L/R)</b>                  | 2 ms                                      |            |
| <b>Minimum release current</b>              | $1,45 \times I_n$                         |            |
| <b>Breaking capacity</b>                    | 30 kA                                     |            |
| <b>Utilization category</b>                 | gPV                                       |            |
| <b>Temperature</b>                          | Operating temperature: - 25 °C to + 70 °C |            |
| <b>Without striker pin, without striker</b> |                                           |            |

| Rated voltage | Rated current | EAN           | Weight | PU | Order no.  |
|---------------|---------------|---------------|--------|----|------------|
| 1000 V        | 1 A           | 4049857117321 | 7,9 g  | 10 | 55030-0010 |
| 1000 V        | 2 A           | 4049857117345 | 7,9 g  | 10 | 55030-0020 |
| 1000 V        | 3 A           | 4049857117512 | 7,9 g  | 10 | 55030-0030 |
| 1000 V        | 4 A           | 4049857117611 | 7,9 g  | 10 | 55030-0040 |
| 1000 V        | 5 A           | 4049857117635 | 7,9 g  | 10 | 55030-0050 |
| 1000 V        | 6 A           | 4049857117659 | 7,9 g  | 10 | 55030-0060 |
| 1000 V        | 8 A           | 4049857117697 | 7,9 g  | 10 | 55030-0080 |
| 1000 V        | 10 A          | 4049857117703 | 7,9 g  | 10 | 55030-0100 |
| 1000 V        | 12 A          | 4049857117710 | 7,9 g  | 10 | 55030-0120 |
| 1000 V        | 15 A          | 4049857117727 | 7,9 g  | 10 | 55030-0150 |
| 1000 V        | 16 A          | 4049857117857 | 7,9 g  | 10 | 55030-0160 |
| 1000 V        | 20 A          | 4049857117901 | 7,9 g  | 10 | 55030-0200 |
| 600 V         | 25 A          | 4049857117918 | 7,9 g  | 10 | 55030-0250 |
| 600 V         | 32 A          | 4049857117956 | 7,9 g  | 10 | 55030-0320 |

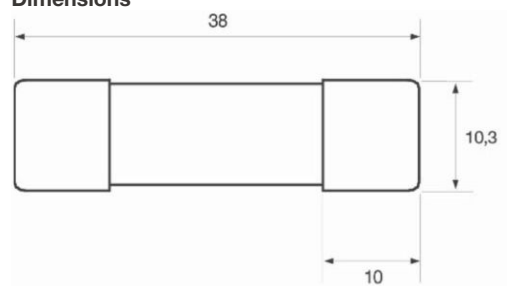
### Temperature compensation factor (A1): Compensation factors for adjustment to ambient temperature:

| Ambient temperature  | 25 °C | 30 °C             | 40 °C             | 50 °C             | 60 °C             | 70 °C             |
|----------------------|-------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Rated current</b> | $I_n$ | $0,97 \times I_n$ | $0,92 \times I_n$ | $0,87 \times I_n$ | $0,82 \times I_n$ | $0,76 \times I_n$ |

### Rated output

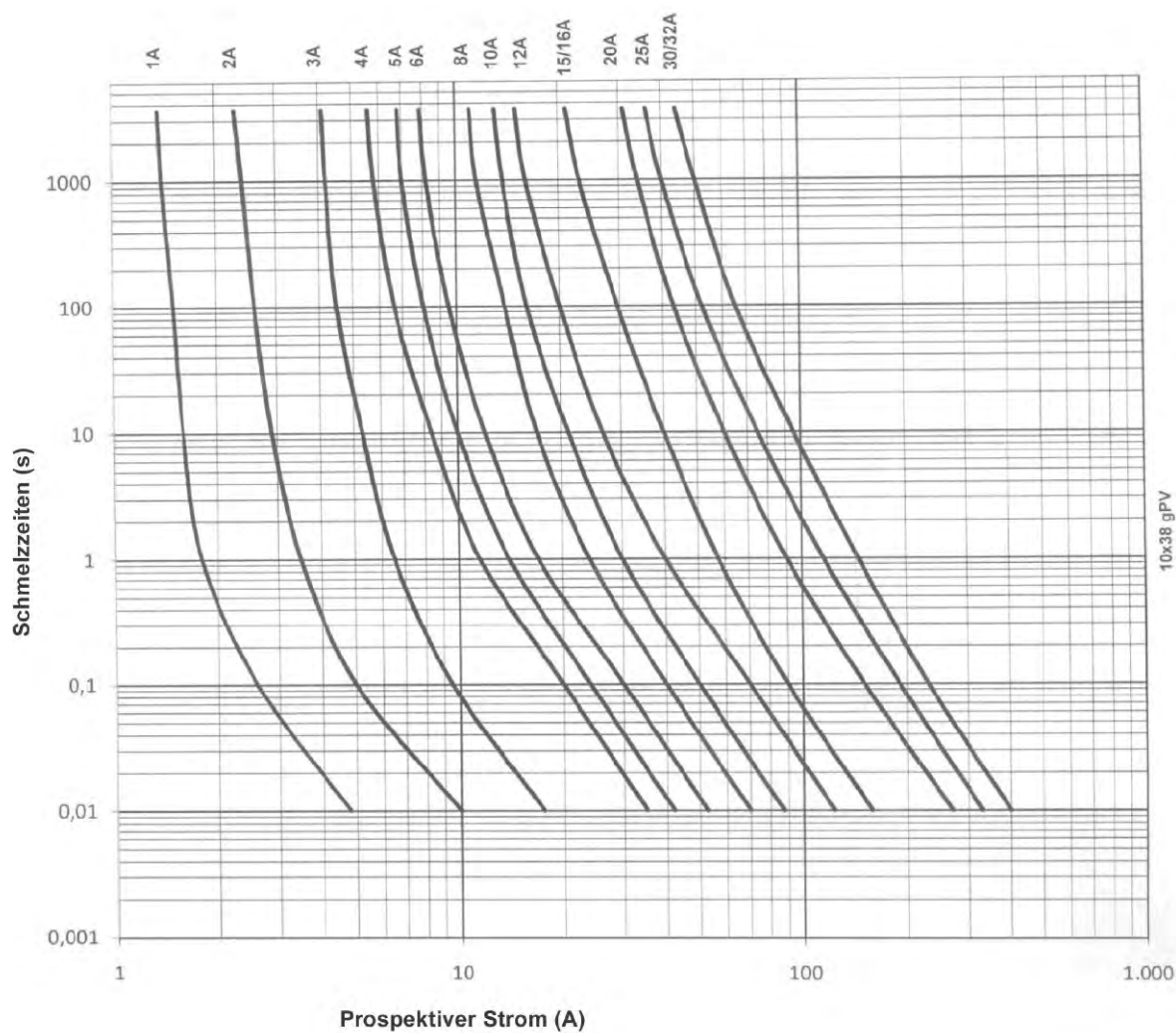
| Rated current (A)                                    | 1    | 2    | 3    | 4    | 5    | 6    | 8    | 10   | 12   | 15   | 16   | 20   | 25   | 32   |
|------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Power dissipation at <math>0,7 I_n</math> (W)</b> | 0,31 | 0,62 | 0,54 | 0,73 | 0,93 | 0,96 | 1,02 | 1,03 | 1,04 | 1,07 | 1,08 | 1,16 | 1,10 | 1,76 |
| <b>Power dissipation at <math>I_n</math> (W)</b>     | 0,76 | 1,54 | 1,35 | 1,84 | 2,22 | 2,4  | 2,55 | 2,58 | 2,6  | 2,44 | 2,7  | 2,9  | 2,74 | 4,4  |

### Dimensions



## DC Fuse-Links

Time-current characteristic





## EFEN HV general-purpose and back-up Fuse-Links

EFEN's general-purpose and back-up Fuse-Links are a reliable safety interface for transformers, capacitors and high-voltage motors. The range comprises types for indoor, outdoor and oil-submerged applications.

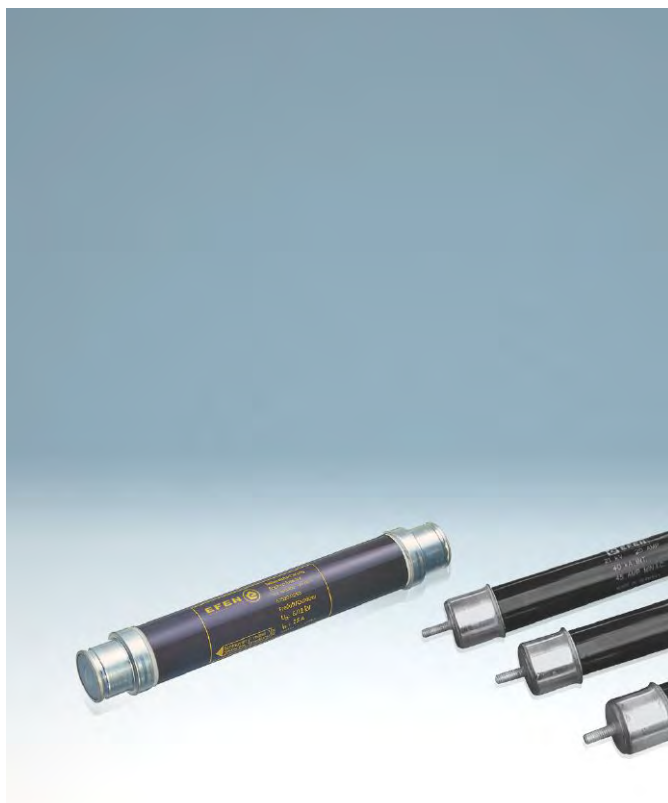
### System

EFEN's range of general-purpose and back-up fuse-links is nationally and internationally approved. The HV fuse-links ensure reliable protection of transformers, capacitors and motors.

### Features

The range of HV fuse-links includes variants for indoor and outdoor use as well as oil-submerged applications. A wide range of special-purpose fuse-links – also with special dimensions – and a full range of accessories complements the offer.





## High Voltage Fuse-Links

|                                                                                                   |         |
|---------------------------------------------------------------------------------------------------|---------|
| HV Fuse-Links acc. to<br>VDE 0670 T402 / IEC 60 282-1                                             | page 76 |
| HV Fuse-Links acc. to<br>VDE 0670 T402 / IEC 60 282-1 ÜLA                                         | page 77 |
| HV Fuse-Links acc. to<br>VDE 0670 T402 / IEC 60 282-1 ÜLA+                                        | page 78 |
| HV Fuse-Links acc. to<br>VDE 0670 T4 / IEC 60 282-1                                               | page 79 |
| HV Fuse-Links acc. to<br>VDE 0670 T4 / IEC 60 282-1 ÜLA                                           | page 80 |
| EFEN HV general purpose Fuse-Links<br>acc. to VDE 0670 T402 / IEC 60 282-1                        | page 78 |
| High-Voltage Fuse-Links for<br>Voltage Transformers (HSW) acc. to<br>VDE 0670 T 402 / IEC 60282-1 | page 83 |
| Test device for tripping medium<br>voltage switches                                               | page 83 |
| Accessories for HV Fuse-Links                                                                     | page 83 |
| Selection tables acc. to T402                                                                     | page 91 |
| Selection tables acc. to T4                                                                       | page 94 |
| Technical data                                                                                    | page 84 |

### Back-Up Fuse-Links

with controlled power dissipation (ÜLA)



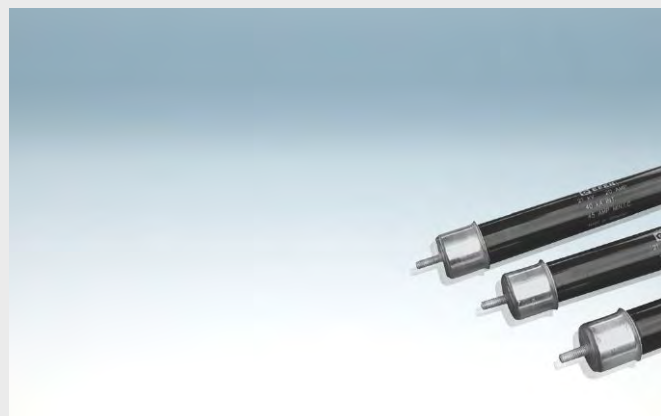
### Test device

for tripping medium voltage switches



### Special Version

with threaded stud



### High-Voltage Fuse-Link

for voltage transformers (HSW)



# HV Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1

► Technical data, page 98

Fuse-Links



67140-1000

## HV back-up Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1

| Designation                        | Rated<br>volt. kV | Length Ø | Amps PU | Product designation                | Order no.         |
|------------------------------------|-------------------|----------|---------|------------------------------------|-------------------|
| HH-SI 3/7,2KV 6,3A FC TA 192/56    | 3/7,2             | 192 56   | 6,3 1   | HH-SI 3/7,2KV 6,3A FC TA 192/56    | <b>67110-0060</b> |
| HH-SI 3/7,2KV 10A FC TA 192/56     | 3/7,2             | 192 56   | 10 1    | HH-SI 3/7,2KV 10A FC TA 192/56     | <b>67110-0100</b> |
| HH-SI 3/7,2KV 16A FC TA 192/56     | 3/7,2             | 192 56   | 16 1    | HH-SI 3/7,2KV 16A FC TA 192/56     | <b>67110-0160</b> |
| HH-SI 3/7,2KV 20A FC TA 192/56     | 3/7,2             | 192 56   | 20 1    | HH-SI 3/7,2KV 20A FC TA 192/56     | <b>67110-0200</b> |
| HH-SI 3/7,2KV 25A FC TA 192/56     | 3/7,2             | 192 56   | 25 1    | HH-SI 3/7,2KV 25A FC TA 192/56     | <b>67110-0250</b> |
| HH-SI 3/7,2KV 31,5A FC TA 192/56   | 3/7,2             | 192 56   | 31,5 1  | HH-SI 3/7,2KV 31,5A FC TA 192/56   | <b>67110-0320</b> |
| HH-SI 3/7,2KV 40A FC TA 192/56     | 3/7,2             | 192 56   | 40 1    | HH-SI 3/7,2KV 40A FC TA 192/56     | <b>67110-0400</b> |
| HH-SI 3/7,2KV 50A FC TA 192/56     | 3/7,2             | 192 56   | 50 1    | HH-SI 3/7,2KV 50A FC TA 192/56     | <b>67110-0500</b> |
| HH-SI 3/7,2KV 63A FC TA 192/65     | 3/7,2             | 192 65   | 63 1    | HH-SI 3/7,2KV 63A FC TA 192/65     | <b>67110-0630</b> |
| HH-SI 3/7,2KV 80A FC TA 192/65     | 3/7,2             | 192 65   | 80 1    | HH-SI 3/7,2KV 80A FC TA 192/65     | <b>67110-0800</b> |
| HH-SI 3/7,2KV 100A FC TA 192/78    | 3/7,2             | 192 78   | 100 1   | HH-SI 3/7,2KV 100A FC TA 192/78    | <b>67110-1000</b> |
| HH-SI 3/7,2KV 125A FC TA 192/88    | 3/7,2             | 192 88   | 125 1   | HH-SI 3/7,2KV 125A FC TA 192/88    | <b>67110-1250</b> |
| HH-SI 3/7,2KV 160A FC TA 192/88    | 3/7,2             | 192 88   | 160 1   | HH-SI 3/7,2KV 160A FC TA 192/88    | <b>67110-1600</b> |
| HH-SI 6/12KV 6,3A FC TA 292/56     | 6/12              | 292 56   | 6,3 1   | HH-SI 6/12KV 6,3A FC TA 292/56     | <b>67120-0060</b> |
| HH-SI 6/12KV 10A FC TA 292/56      | 6/12              | 292 56   | 10 1    | HH-SI 6/12KV 10A FC TA 292/56      | <b>67120-0100</b> |
| HH-SI 6/12KV 16A FC TA 292/56      | 6/12              | 292 56   | 16 1    | HH-SI 6/12KV 16A FC TA 292/56      | <b>67120-0160</b> |
| HH-SI 6/12KV 20A FC TA 292/56      | 6/12              | 292 56   | 20 1    | HH-SI 6/12KV 20A FC TA 292/56      | <b>67120-0200</b> |
| HH-SI 6/12KV 25A FC TA 292/56      | 6/12              | 292 56   | 25 1    | HH-SI 6/12KV 25A FC TA 292/56      | <b>67120-0250</b> |
| HH-SI 6/12KV 31,5A FC TA 292/56    | 6/12              | 292 56   | 31,5 1  | HH-SI 6/12KV 31,5A FC TA 292/56    | <b>67120-0320</b> |
| HH-SI 6/12KV 40A FC TA 292/56      | 6/12              | 292 56   | 40 1    | HH-SI 6/12KV 40A FC TA 292/56      | <b>67120-0400</b> |
| HH-SI 6/12KV 50A FC TA 292/56      | 6/12              | 292 56   | 50 1    | HH-SI 6/12KV 50A FC TA 292/56      | <b>67120-0500</b> |
| HH-SI 6/12KV 63A FC TA 292/65      | 6/12              | 292 65   | 63 1    | HH-SI 6/12KV 63A FC TA 292/65      | <b>67120-0630</b> |
| HH-SI 6/12KV 80A FC TA 292/65      | 6/12              | 292 65   | 80 1    | HH-SI 6/12KV 80A FC TA 292/65      | <b>67120-0800</b> |
| HH-SI 6/12KV 100A FC TA 292/78     | 6/12              | 292 78   | 100 1   | HH-SI 6/12KV 100A FC TA 292/78     | <b>67120-1000</b> |
| HH-SI 6/12KV 125A FC TA 292/88     | 6/12              | 292 88   | 125 1   | HH-SI 6/12KV 125A FC TA 292/88     | <b>67120-1250</b> |
| HH-SI 6/12KV 160A FC TA 292/88     | 6/12              | 292 88   | 160 1   | HH-SI 6/12KV 160A FC TA 292/88     | <b>67120-1600</b> |
| HH-SI 10/17,5KV 6,3A FC TA 367/56  | 10/17,5           | 367 56   | 6,3 1   | HH-SI 10/17,5KV 6,3A FC TA 367/56  | <b>67130-0060</b> |
| HH-SI 10/17,5KV 10A FC TA 367/56   | 10/17,5           | 367 56   | 10 1    | HH-SI 10/17,5KV 10A FC TA 367/56   | <b>67130-0100</b> |
| HH-SI 10/17,5KV 16A FC TA 367/56   | 10/17,5           | 367 56   | 16 1    | HH-SI 10/17,5KV 16A FC TA 367/56   | <b>67130-0160</b> |
| HH-SI 10/17,5KV 20A FC TA 367/56   | 10/17,5           | 367 56   | 20 1    | HH-SI 10/17,5KV 20A FC TA 367/56   | <b>67130-0200</b> |
| HH-SI 10/17,5KV 25A FC TA 367/56   | 10/17,5           | 367 56   | 25 1    | HH-SI 10/17,5KV 25A FC TA 367/56   | <b>67130-0250</b> |
| HH-SI 10/17,5KV 30A FC TB 367/56   | 10/17,5           | 367 56   | 30 1    | HH-SI 10/17,5KV 30A FC TB 367/56   | <b>67130-0300</b> |
| HH-SI 10/17,5KV 31,5A FC TA 367/56 | 10/17,5           | 367 56   | 31,5 1  | HH-SI 10/17,5KV 31,5A FC TA 367/56 | <b>67130-0320</b> |
| HH-SI 10/17,5KV 40A FC TA 367/56   | 10/17,5           | 367 56   | 40 1    | HH-SI 10/17,5KV 40A FC TA 367/56   | <b>67130-0400</b> |
| HH-SI 10/17,5KV 50A FC TA 367/78   | 10/17,5           | 367 78   | 50 1    | HH-SI 10/17,5KV 50A FC TA 367/78   | <b>67130-0500</b> |
| HH-SI 10/17,5KV 63A FC TA 367/78   | 10/17,5           | 367 78   | 63 1    | HH-SI 10/17,5KV 63A FC TA 367/78   | <b>67130-0630</b> |
| HH-SI 10/17,5KV 80A FC TA 367/78   | 10/17,5           | 367 78   | 80 1    | HH-SI 10/17,5KV 80A FC TA 367/78   | <b>67130-0800</b> |
| HH-SI 10/17,5KV 100A FC TA 367/88  | 10/17,5           | 367 88   | 100 1   | HH-SI 10/17,5KV 100A FC TA 367/88  | <b>67130-1000</b> |
| HH-SI 10/24KV 6,3A FC TA 442/56    | 10/24             | 442 56   | 6,3 1   | HH-SI 10/24KV 6,3A FC TA 442/56    | <b>67140-0060</b> |
| HH-SI 10/24KV 10A FC TA 442/56     | 10/24             | 442 56   | 10 1    | HH-SI 10/24KV 10A FC TA 442/56     | <b>67140-0100</b> |
| HH-SI 10/24KV 16A FC TA 442/56     | 10/24             | 442 56   | 16 1    | HH-SI 10/24KV 16A FC TA 442/56     | <b>67140-0160</b> |
| HH-SI 10/24KV 20A FC TA 442/56     | 10/24             | 442 56   | 20 1    | HH-SI 10/24KV 20A FC TA 442/56     | <b>67140-0200</b> |
| HH-SI 10/24KV 25A FC TA 442/56     | 10/24             | 442 56   | 25 1    | HH-SI 10/24KV 25A FC TA 442/56     | <b>67140-0250</b> |
| HH-SI 10/24KV 31,5A FC TA 442/56   | 10/24             | 442 56   | 31,5 1  | HH-SI 10/24KV 31,5A FC TA 442/56   | <b>67140-0320</b> |
| HH-SI 10/24KV 40A FC TA 442/56     | 10/24             | 442 56   | 40 1    | HH-SI 10/24KV 40A FC TA 442/56     | <b>67140-0400</b> |
| HH-SI 10/24KV 50A FC TA 442/65     | 10/24             | 442 65   | 50 1    | HH-SI 10/24KV 50A FC TA 442/65     | <b>67140-0500</b> |
| HH-SI 10/24KV 63A FC TA 442/65     | 10/24             | 442 65   | 63 1    | HH-SI 10/24KV 63A FC TA 442/65     | <b>67140-0630</b> |
| HH-SI 10/24KV 80A FC TA 442/65     | 10/24             | 442 65   | 80 1    | HH-SI 10/24KV 80A FC TA 442/65     | <b>67140-0800</b> |
| HH-SI 10/24KV 100A FC TA 442/88    | 10/24             | 442 88   | 100 1   | HH-SI 10/24KV 100A FC TA 442/88    | <b>67140-1000</b> |

# HV Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1

► Technical data, page 101

## HV back-up Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1

| Designation                      | Rated<br>volt. kV | Length Ø | Amps PU | Product designation              | Order no.         |
|----------------------------------|-------------------|----------|---------|----------------------------------|-------------------|
| HH-SI 20/36KV 6,3A FC TA 537/56  | 20/36             | 537 56   | 6,3 1   | HH-SI 20/36KV 6,3A FC TA 537/56  | <b>67150-0060</b> |
| HH-SI 20/36KV 10A FC TA 537/56   | 20/36             | 537 56   | 10 1    | HH-SI 20/36KV 10A FC TA 537/56   | <b>67150-0100</b> |
| HH-SI 20/36KV 16A FC TA 537/56   | 20/36             | 537 56   | 16 1    | HH-SI 20/36KV 16A FC TA 537/56   | <b>67150-0160</b> |
| HH-SI 20/36KV 20A FC TA 537/56   | 20/36             | 537 56   | 20 1    | HH-SI 20/36KV 20A FC TA 537/56   | <b>67150-0200</b> |
| HH-SI 20/36KV 25A FC TA 537/56   | 20/36             | 537 56   | 25 1    | HH-SI 20/36KV 25A FC TA 537/56   | <b>67150-0250</b> |
| HH-SI 20/36KV 31,5A FC TA 537/65 | 20/36             | 537 65   | 31,5 1  | HH-SI 20/36KV 31,5A FC TA 537/65 | <b>67150-0320</b> |
| HH-SI 20/36KV 40A FC TA 537/65   | 20/36             | 537 65   | 40 1    | HH-SI 20/36KV 40A FC TA 537/65   | <b>67150-0400</b> |
| HH-SI 20/36KV 50A FC TA 537/88   | 20/36             | 537 88   | 50 1    | HH-SI 20/36KV 50A FC TA 537/88   | <b>67150-0500</b> |
| HH-SI 20/36KV 63A FC TA 537/88   | 20/36             | 537 88   | 63 1    | HH-SI 20/36KV 63A FC TA 537/88   | <b>67150-0630</b> |

## HV back-up Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1 with controlled power dissipation (ÜLA)

| Designation                              | Rated<br>volt. kV | Length Ø | Amps PU | Product designation                      | Order no.         |
|------------------------------------------|-------------------|----------|---------|------------------------------------------|-------------------|
| HH-SI 6/12KV 10A FC ÜLA 292/56           | 6/12              | 292 56   | 10 1    | HH-SI 6/12KV 10A FC ÜLA 292/56           | <b>67520-0100</b> |
| HH-SI 6/12KV 16A FC ÜLA 292/56           | 6/12              | 292 56   | 16 1    | HH-SI 6/12KV 16A FC ÜLA 292/56           | <b>67520-0160</b> |
| HH-SI 6/12KV 20A FC ÜLA 292/56           | 6/12              | 292 56   | 20 1    | HH-SI 6/12KV 20A FC ÜLA 292/56           | <b>67520-0200</b> |
| HH-SI 6/12KV 25A FC ÜLA 292/56           | 6/12              | 292 56   | 25 1    | HH-SI 6/12KV 25A FC ÜLA 292/56           | <b>67520-0250</b> |
| HH-SI 6/12KV 31,5A FC ÜLA 292/56         | 6/12              | 292 56   | 31,5 1  | HH-SI 6/12KV 31,5A FC ÜLA 292/56         | <b>67520-0320</b> |
| HH-SI 6/12KV 40A FC ÜLA 292/56           | 6/12              | 292 56   | 40 1    | HH-SI 6/12KV 40A FC ÜLA 292/56           | <b>67520-0400</b> |
| HH-SI 6/12KV 50A FC ÜLA 292/56           | 6/12              | 292 56   | 50 1    | HH-SI 6/12KV 50A FC ÜLA 292/56           | <b>67520-0500</b> |
| HH-SI 6/12KV 63A FC ÜLA 292/65           | 6/12              | 292 65   | 63 1    | HH-SI 6/12KV 63A FC ÜLA 292/65           | <b>67520-0630</b> |
| HH-SI 6/12KV 80A FC ÜLA 292/65           | 6/12              | 292 65   | 80 1    | HH-SI 6/12KV 80A FC ÜLA 292/65           | <b>67520-0800</b> |
| HH-SI 6/12KV 100A FC ÜLA 292/65          | 6/12              | 292 65   | 100 1   | HH-SI 6/12KV 100A FC ÜLA 292/65          | <b>67520-1000</b> |
| HH-SI 6/12KV 125A FC ÜLA 292/88          | 6/12              | 292 88   | 125 1   | HH-SI 6/12KV 125A FC ÜLA 292/88          | <b>67520-1250</b> |
| HH-SI 6/12KV 160A FC ÜLA 292/88          | 6/12              | 292 88   | 160 1   | HH-SI 6/12KV 160A FC ÜLA 292/88          | <b>67520-1600</b> |
| HH-SI 10/24KV 6,3A FC ÜLA 442/56         | 10/24             | 442 56   | 6,3 1   | HH-SI 10/24KV 6,3A FC ÜLA 442/56         | <b>67541-0060</b> |
| HH-SI 10/24KV 10A FC ÜLA 442/56          | 10/24             | 442 56   | 10 1    | HH-SI 10/24KV 10A FC ÜLA 442/56          | <b>67541-0100</b> |
| HH-SI 10/24KV 16A FC ÜLA 442/56          | 10/24             | 442 56   | 16 1    | HH-SI 10/24KV 16A FC ÜLA 442/56          | <b>67541-0160</b> |
| HH-SI 10/24KV 20A FC ÜLA 442/56          | 10/24             | 442 56   | 20 1    | HH-SI 10/24KV 20A FC ÜLA 442/56          | <b>67541-0200</b> |
| HH-SI 10/24KV 25A FC ÜLA 442/56          | 10/24             | 442 56   | 25 1    | HH-SI 10/24KV 25A FC ÜLA 442/56          | <b>67541-0250</b> |
| HH-SI 10/24KV 31,5A FC ÜLA 442/56        | 10/24             | 442 56   | 31,5 1  | HH-SI 10/24KV 31,5A FC ÜLA 442/56        | <b>67541-0320</b> |
| HH-SI 10/24KV 40A FC ÜLA 442/56          | 10/24             | 442 56   | 40 1    | HH-SI 10/24KV 40A FC ÜLA 442/56          | <b>67541-0400</b> |
| HH-SI 10/24KV 50A FC ÜLA 442/65          | 10/24             | 442 65   | 50 1    | HH-SI 10/24KV 50A FC ÜLA 442/65          | <b>67541-0500</b> |
| HH-SI 10/24KV 63A FC ÜLA 442/65          | 10/24             | 442 65   | 63 1    | HH-SI 10/24KV 63A FC ÜLA 442/65          | <b>67541-0630</b> |
| HH-SI 10/24KV 80A FC ÜLA 442/65          | 10/24             | 442 65   | 80 1    | HH-SI 10/24KV 80A FC ÜLA 442/65          | <b>67541-0800</b> |
| HH-SI 10/24KV 100A FC ÜLA 442/88         | 10/24             | 442 88   | 100 1   | HH-SI 10/24KV 100A FC ÜLA 442/88         | <b>67541-1000</b> |
| HH-SI 20/36KV 6,3A FC ÜLA 537/56         | 20/36             | 537 56   | 6,3 1   | HH-SI 20/36KV 6,3A FC ÜLA 537/56         | <b>67550-0060</b> |
| HH-SI 20/36KV 10A FC ÜLA 537/56          | 20/36             | 537 56   | 10 1    | HH-SI 20/36KV 10A FC ÜLA 537/56          | <b>67550-0100</b> |
| HH-SI 20/36KV 16A FC ÜLA 537/56          | 20/36             | 537 56   | 16 1    | HH-SI 20/36KV 16A FC ÜLA 537/56          | <b>67550-0160</b> |
| HH-SI 20/36KV 20A FC ÜLA 537/56          | 20/36             | 537 56   | 20 1    | HH-SI 20/36KV 20A FC ÜLA 537/56          | <b>67550-0200</b> |
| HH-SI 20/36KV 25A FC ÜLA 537/56          | 20/36             | 537 56   | 25 1    | HH-SI 20/36KV 25A FC ÜLA 537/56          | <b>67550-0250</b> |
| HH-SI 20/36KV 31,5A FC ÜLA 537/65        | 20/36             | 537 65   | 31,5 1  | HH-SI 20/36KV 31,5A FC ÜLA 537/65        | <b>67550-0320</b> |
| HH-SI 20/36KV 40A FC ÜLA 537/65          | 20/36             | 537 65   | 40 1    | HH-SI 20/36KV 40A FC ÜLA 537/65          | <b>67550-0400</b> |
| HH-SI 20/36KV 50A FC ÜLA 537/88          | 20/36             | 537 88   | 50 1    | HH-SI 20/36KV 50A FC ÜLA 537/88          | <b>67550-0500</b> |
| HH-SI 10/24KV 6,3A FC ÜLA+ 442/56 K44,8  | 10/24             | 442 56   | 6,3 1   | HH-SI 10/24KV 6,3A FC ÜLA+ 442/56 K44,8  | <b>67543-0060</b> |
| HH-SI 10/24KV 10A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 10 1    | HH-SI 10/24KV 10A FC ÜLA+ 442/56 K44,8   | <b>67543-0100</b> |
| HH-SI 10/24KV 16A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 16 1    | HH-SI 10/24KV 16A FC ÜLA+ 442/56 K44,8   | <b>67543-0160</b> |
| HH-SI 10/24KV 20A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 20 1    | HH-SI 10/24KV 20A FC ÜLA+ 442/56 K44,8   | <b>67543-0200</b> |
| HH-SI 10/24KV 25A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 25 1    | HH-SI 10/24KV 25A FC ÜLA+ 442/56 K44,8   | <b>67543-0250</b> |
| HH-SI 10/24KV 31,5A FC ÜLA+ 442/56 K44,8 | 10/24             | 442 56   | 31,5 1  | HH-SI 10/24KV 31,5A FC ÜLA+ 442/56 K44,8 | <b>67543-0320</b> |
| HH-SI 10/24KV 40A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 40 1    | HH-SI 10/24KV 40A FC ÜLA+ 442/56 K44,8   | <b>67543-0400</b> |
| HH-SI 10/24KV 50A FC ÜLA+ 442/65 K44,8   | 10/24             | 442 65   | 50 1    | HH-SI 10/24KV 50A FC ÜLA+ 442/65 K44,8   | <b>67543-0500</b> |
| HH-SI 10/24KV 63A FC ÜLA+ 442/65 K44,8   | 10/24             | 442 65   | 63 1    | HH-SI 10/24KV 63A FC ÜLA+ 442/65 K44,8   | <b>67542-0630</b> |
| HH-SI 10/24KV 63A FC ÜLA+ 442/78 K44,8   | 10/24             | 442 78   | 63 1    | HH-SI 10/24KV 63A FC ÜLA+ 442/78 K44,8   | <b>67543-0630</b> |
| HH-SI 10/24KV 80A FC ÜLA+ 442/78 K44,8   | 10/24             | 442 78   | 80 1    | HH-SI 10/24KV 80A FC ÜLA+ 442/78 K44,8   | <b>67543-0800</b> |
| HH-SI 10/24KV 100A FC ÜLA+ 442/88 K44,8  | 10/24             | 442 88   | 100 1   | HH-SI 10/24KV 100A FC ÜLA+ 442/88 K44,8  | <b>67543-1000</b> |
| HH-SI 10/24KV 125A FC ÜLA+ 442/88 K44,8  | 10/24             | 442 88   | 125 1   | HH-SI 10/24KV 125A FC ÜLA+ 442/88 K44,8  | <b>67543-1250</b> |



67520-0100

# HV Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1

Fuse-Links

► Technical data, page 90, 94



67543-0060

## HV back-up Fuse-Links acc. to VDE 0670 T402 / IEC 60282-1 with controlled power dissipation (ÜLA Plus)

| Designation                              | Rated<br>volt. kV | Length Ø | Amps PU | Product designation                      | Order no.         |
|------------------------------------------|-------------------|----------|---------|------------------------------------------|-------------------|
| HH-SI 10/24KV 6,3A FC ÜLA+ 442/56 K44,8  | 10/24             | 442 56   | 6,3 1   | HH-SI 10/24KV 6,3A FC ÜLA+ 442/56 K44,8  | <b>67543-0060</b> |
| HH-SI 10/24KV 10A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 10 1    | HH-SI 10/24KV 10A FC ÜLA+ 442/56 K44,8   | <b>67543-0100</b> |
| HH-SI 10/24KV 16A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 16 1    | HH-SI 10/24KV 16A FC ÜLA+ 442/56 K44,8   | <b>67543-0160</b> |
| HH-SI 10/24KV 20A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 20 1    | HH-SI 10/24KV 20A FC ÜLA+ 442/56 K44,8   | <b>67543-0200</b> |
| HH-SI 10/24KV 25A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 25 1    | HH-SI 10/24KV 25A FC ÜLA+ 442/56 K44,8   | <b>67543-0250</b> |
| HH-SI 10/24KV 31,5A FC ÜLA+ 442/56 K44,8 | 10/24             | 442 56   | 31,5 1  | HH-SI 10/24KV 31,5A FC ÜLA+ 442/56 K44,8 | <b>67543-0320</b> |
| HH-SI 10/24KV 40A FC ÜLA+ 442/56 K44,8   | 10/24             | 442 56   | 40 1    | HH-SI 10/24KV 40A FC ÜLA+ 442/56 K44,8   | <b>67543-0400</b> |
| HH-SI 10/24KV 50A FC ÜLA+ 442/65 K44,8   | 10/24             | 442 65   | 50 1    | HH-SI 10/24KV 50A FC ÜLA+ 442/65 K44,8   | <b>67543-0500</b> |
| HH-SI 10/24KV 63A FC ÜLA+ 442/65 K44,8   | 10/24             | 442 65   | 63 1    | HH-SI 10/24KV 63A FC ÜLA+ 442/65 K44,8   | <b>67542-0630</b> |
| HH-SI 10/24KV 63A FC ÜLA+ 442/78 K44,8   | 10/24             | 442 78   | 63 1    | HH-SI 10/24KV 63A FC ÜLA+ 442/78 K44,8   | <b>67543-0630</b> |
| HH-SI 10/24KV 80A FC ÜLA+ 442/78 K44,8   | 10/24             | 442 78   | 80 1    | HH-SI 10/24KV 80A FC ÜLA+ 442/78 K44,8   | <b>67543-0800</b> |
| HH-SI 10/24KV 100A FC ÜLA+ 442/88 K44,8  | 10/24             | 442 88   | 100 1   | HH-SI 10/24KV 100A FC ÜLA+ 442/88 K44,8  | <b>67543-1000</b> |
| HH-SI 10/24KV 125A FC ÜLA+ 442/88 K44,8  | 10/24             | 442 88   | 125 1   | HH-SI 10/24KV 125A FC ÜLA+ 442/88 K44,8  | <b>67543-1250</b> |
| HH-SI 20/36KV 6,3A FC ÜLA+ 537/56 K44,8  | 20/36             | 537 56   | 6,3 1   | HH-SI 20/36KV 6,3A FC ÜLA+ 537/56 K44,8  | <b>67553-0060</b> |
| HH-SI 20/36KV 10A FC ÜLA+ 537/56 K44,8   | 20/36             | 537 56   | 10 1    | HH-SI 20/36KV 10A FC ÜLA+ 537/56 K44,8   | <b>67553-0100</b> |
| HH-SI 20/36KV 16A FC ÜLA+ 537/56 K44,8   | 20/36             | 537 56   | 16 1    | HH-SI 20/36KV 16A FC ÜLA+ 537/56 K44,8   | <b>67553-0160</b> |
| HH-SI 20/36KV 20A FC ÜLA+ 537/56 K44,8   | 20/36             | 537 56   | 20 1    | HH-SI 20/36KV 20A FC ÜLA+ 537/56 K44,8   | <b>67553-0200</b> |
| HH-SI 20/36KV 25A FC ÜLA+ 537/56 K44,8   | 20/36             | 537 56   | 25 1    | HH-SI 20/36KV 25A FC ÜLA+ 537/56 K44,8   | <b>67553-0250</b> |
| HH-SI 20/36KV 31,5A FC ÜLA+ 537/65 K44,8 | 20/36             | 537 65   | 31,5 1  | HH-SI 20/36KV 31,5A FC ÜLA+ 537/65 K44,8 | <b>67553-0320</b> |
| HH-SI 20/36KV 40A FC ÜLA+ 537/65 K44,8   | 20/36             | 537 65   | 40 1    | HH-SI 20/36KV 40A FC ÜLA+ 537/65 K44,8   | <b>67553-0400</b> |
| HH-SI 20/36KV 50A FC ÜLA+ 537/88 K44,8   | 20/36             | 537 88   | 50 1    | HH-SI 20/36KV 50A FC ÜLA+ 537/88 K44,8   | <b>67553-0500</b> |
| HH-SI 20/36KV 63A FC ÜLA+ 537/88 K44,8   | 20/36             | 537 88   | 63 1    | HH-SI 20/36KV 63A FC ÜLA+ 537/88 K44,8   | <b>67553-0630</b> |
| HH-SI 20/36KV 80A FC ÜLA+ 537/88 K44,8   | 20/36             | 537 88   | 80 1    | HH-SI 20/36KV 80A FC ÜLA+ 537/88 K44,8   | <b>67553-0800</b> |



67420-0060

## HV general-purpose Fuse-Links

| Designation                     | Rated<br>volt. kV | Length Ø | Amps PU | Product designation             | Order no.         |
|---------------------------------|-------------------|----------|---------|---------------------------------|-------------------|
| HH-SI 6/12KV 6,3A FC VB 292/65  | 6/12              | 292 65   | 6,3 1   | HH-SI 6/12KV 6,3A FC VB 292/65  | <b>67420-0060</b> |
| HH-SI 6/12KV 16A FC VB 292/65   | 6/12              | 292 65   | 16 1    | HH-SI 6/12KV 16A FC VB 292/65   | <b>67420-0160</b> |
| HH-SI 6/12KV 25A FC VB 292/65   | 6/12              | 292 65   | 25 1    | HH-SI 6/12KV 25A FC VB 292/65   | <b>67420-0250</b> |
| HH-SI 6/12KV 40A FC VB 292/78   | 6/12              | 292 78   | 40 1    | HH-SI 6/12KV 40A FC VB 292/78   | <b>67420-0400</b> |
| HH-SI 6/12KV 50A FC VB 292/88   | 6/12              | 292 88   | 50 1    | HH-SI 6/12KV 50A FC VB 292/88   | <b>67420-0500</b> |
| HH-SI 10/24KV 4A FC VB 442/78   | 10/24             | 442 78   | 4,0 1   | HH-SI 10/24KV 4A FC VB 442/78   | <b>67440-0040</b> |
| HH-SI 10/24KV 6,3A FC VB 442/78 | 10/24             | 442 78   | 6,3 1   | HH-SI 10/24KV 6,3A FC VB 442/78 | <b>67440-0060</b> |
| HH-SI 10/24KV 10A FC VB 442/78  | 10/24             | 442 78   | 10 1    | HH-SI 10/24KV 10A FC VB 442/78  | <b>67440-0100</b> |
| HH-SI 10/24KV 16A FC VB 442/78  | 10/24             | 442 78   | 16 1    | HH-SI 10/24KV 16A FC VB 442/78  | <b>67440-0160</b> |
| HH-SI 10/24KV 25A FC VB 442/88  | 10/24             | 442 88   | 25 1    | HH-SI 10/24KV 25A FC VB 442/88  | <b>67440-0250</b> |

# HV Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

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67220-0400

## HV back-up Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

| Designation                       | Rated<br>volt. kV | Length | Ø  | Amps | PU | Product designation               | Order no.         |
|-----------------------------------|-------------------|--------|----|------|----|-----------------------------------|-------------------|
| HH-SI 3/7,2KV 2A FC TB 192/56     | 3/7,2             | 192    | 56 | 2    | 1  | HH-SI 3/7,2KV 2A FC TB 192/56     | <b>67210-0020</b> |
| HH-SI 3/7,2KV 4A FC TB 192/56     | 3/7,2             | 192    | 56 | 4    | 1  | HH-SI 3/7,2KV 4A FC TB 192/56     | <b>67210-0040</b> |
| HH-SI 3/7,2KV 63A FC TB 192/65    | 3/7,2             | 192    | 65 | 63   | 1  | HH-SI 3/7,2KV 63A FC TB 192/65    | <b>67210-0630</b> |
| HH-SI 3/7,2KV 80A FC TB 192/65    | 3/7,2             | 192    | 65 | 80   | 1  | HH-SI 3/7,2KV 80A FC TB 192/65    | <b>67210-0800</b> |
| HH-SI 3/7,2KV 100A FC TB 192/65   | 3/7,2             | 192    | 65 | 100  | 1  | HH-SI 3/7,2KV 100A FC TB 192/65   | <b>67210-1000</b> |
| HH-SI 3/7,2KV 160A FC TB 192/88   | 3/7,2             | 192    | 88 | 160  | 1  | HH-SI 3/7,2KV 160A FC TB 192/88   | <b>67210-1600</b> |
| HH-SI 3/7,2KV 200A FC TB 192/88   | 3/7,2             | 192    | 88 | 200  | 1  | HH-SI 3/7,2KV 200A FC TB 192/88   | <b>67210-2000</b> |
| HH-SI 6/12KV 1A FC TB 292/56      | 6/12              | 292    | 56 | 1    | 1  | HH-SI 6/12KV 1A FC TB 292/56      | <b>67220-0010</b> |
| HH-SI 6/12KV 2A FC TB 292/56      | 6/12              | 292    | 56 | 2    | 1  | HH-SI 6/12KV 2A FC TB 292/56      | <b>67220-0020</b> |
| HH-SI 6/12KV 4A FC TB 292/56      | 6/12              | 292    | 56 | 4    | 1  | HH-SI 6/12KV 4A FC TB 292/56      | <b>67220-0040</b> |
| HH-SI 6/12KV 6,3A FC TB 292/56    | 6/12              | 292    | 56 | 6,3  | 1  | HH-SI 6/12KV 6,3A FC TB 292/56    | <b>67220-0060</b> |
| HH-SI 6/12KV 10A FC TB 292/56     | 6/12              | 292    | 56 | 10   | 1  | HH-SI 6/12KV 10A FC TB 292/56     | <b>67220-0100</b> |
| HH-SI 6/12KV 16A FC TB 292/56     | 6/12              | 292    | 56 | 16   | 1  | HH-SI 6/12KV 16A FC TB 292/56     | <b>67220-0160</b> |
| HH-SI 6/12KV 20A FC TB 292/56     | 6/12              | 292    | 56 | 20   | 1  | HH-SI 6/12KV 20A FC TB 292/56     | <b>67220-0200</b> |
| HH-SI 6/12KV 25A FC TB 292/56     | 6/12              | 292    | 56 | 25   | 1  | HH-SI 6/12KV 25A FC TB 292/56     | <b>67220-0250</b> |
| HH-SI 6/12KV 31,5A FC TB 292/56   | 6/12              | 292    | 56 | 31,5 | 1  | HH-SI 6/12KV 31,5A FC TB 292/56   | <b>67220-0320</b> |
| HH-SI 6/12KV 40A FC TB 292/56     | 6/12              | 292    | 56 | 40   | 1  | HH-SI 6/12KV 40A FC TB 292/56     | <b>67220-0400</b> |
| HH-SI 6/12KV 50A FC TB 292/56     | 6/12              | 292    | 56 | 50   | 1  | HH-SI 6/12KV 50A FC TB 292/56     | <b>67220-0500</b> |
| HH-SI 6/12KV 63A FC TB 292/56     | 6/12              | 292    | 56 | 63   | 1  | HH-SI 6/12KV 63A FC TB 292/56     | <b>67220-0630</b> |
| HH-SI 6/12KV 80A FC TB 292/65     | 6/12              | 292    | 65 | 80   | 1  | HH-SI 6/12KV 80A FC TB 292/65     | <b>67220-0800</b> |
| HH-SI 6/12KV 100A FC TB 292/65    | 6/12              | 292    | 65 | 100  | 1  | HH-SI 6/12KV 100A FC TB 292/65    | <b>67220-1000</b> |
| HH-SI 6/12KV 125A FC TB 292/88    | 6/12              | 292    | 88 | 125  | 1  | HH-SI 6/12KV 125A FC TB 292/88    | <b>67220-1250</b> |
| HH-SI 6/12KV 160A FC TB 292/88    | 6/12              | 292    | 88 | 160  | 1  | HH-SI 6/12KV 160A FC TB 292/88    | <b>67220-1600</b> |
| HH-SI 6/12KV 200A FC TB 292/88    | 6/12              | 292    | 88 | 200  | 1  | HH-SI 6/12KV 200A FC TB 292/88    | <b>67220-2000</b> |
| HH-SI 6/12KV 250A FC TB 292/88    | 6/12              | 292    | 88 | 250  | 1  | HH-SI 6/12KV 250A FC TB 292/88    | <b>67220-2500</b> |
| HH-SI 10/17,5KV 2A FC TB 367/56   | 10/17,5           | 367    | 56 | 2    | 1  | HH-SI 10/17,5KV 2A FC TB 367/56   | <b>67230-0020</b> |
| HH-SI 10/17,5KV 4A FC TB 367/56   | 10/17,5           | 367    | 56 | 4    | 1  | HH-SI 10/17,5KV 4A FC TB 367/56   | <b>67230-0040</b> |
| HH-SI 10/17,5KV 50A FC TB 367/65  | 10/17,5           | 367    | 65 | 50   | 1  | HH-SI 10/17,5KV 50A FC TB 367/65  | <b>67230-0500</b> |
| HH-SI 10/17,5KV 63A FC TB 367/65  | 10/17,5           | 367    | 65 | 63   | 1  | HH-SI 10/17,5KV 63A FC TB 367/65  | <b>67230-0630</b> |
| HH-SI 10/17,5KV 80A FC TB 367/65  | 10/17,5           | 367    | 65 | 80   | 1  | HH-SI 10/17,5KV 80A FC TB 367/65  | <b>67230-0800</b> |
| HH-SI 10/17,5KV 100A FC TB 367/65 | 10/17,5           | 367    | 65 | 100  | 1  | HH-SI 10/17,5KV 100A FC TB 367/65 | <b>67230-1000</b> |
| HH-SI 10/24KV 1A FC TB 442/56     | 10/24             | 442    | 56 | 1    | 1  | HH-SI 10/24KV 1A FC TB 442/56     | <b>67240-0010</b> |
| HH-SI 10/24KV 2A FC TB 442/56     | 10/24             | 442    | 56 | 2    | 1  | HH-SI 10/24KV 2A FC TB 442/56     | <b>67240-0020</b> |
| HH-SI 10/24KV 4A FC TB 442/56     | 10/24             | 442    | 56 | 4    | 1  | HH-SI 10/24KV 4A FC TB 442/56     | <b>67240-0040</b> |
| HH-SI 10/24KV 6,3A FC TB 442/56   | 10/24             | 442    | 56 | 6,3  | 1  | HH-SI 10/24KV 6,3A FC TB 442/56   | <b>67240-0060</b> |
| HH-SI 10/24KV 10A FC TB 442/56    | 10/24             | 442    | 56 | 10   | 1  | HH-SI 10/24KV 10A FC TB 442/56    | <b>67240-0100</b> |
| HH-SI 10/24KV 16A FC TB 442/56    | 10/24             | 442    | 56 | 16   | 1  | HH-SI 10/24KV 16A FC TB 442/56    | <b>67240-0160</b> |
| HH-SI 10/24KV 20A FC TB 442/56    | 10/24             | 442    | 56 | 20   | 1  | HH-SI 10/24KV 20A FC TB 442/56    | <b>67240-0200</b> |
| HH-SI 10/24KV 25A FC TB 442/56    | 10/24             | 442    | 56 | 25   | 1  | HH-SI 10/24KV 25A FC TB 442/56    | <b>67240-0250</b> |
| HH-SI 10/24KV 31,5A FC TB 442/56  | 10/24             | 442    | 56 | 31,5 | 1  | HH-SI 10/24KV 31,5A FC TB 442/56  | <b>67240-0320</b> |
| HH-SI 10/24KV 40A FC TB 442/56    | 10/24             | 442    | 56 | 40   | 1  | HH-SI 10/24KV 40A FC TB 442/56    | <b>67240-0400</b> |
| HH-SI 10/24KV 50A FC TB 442/56    | 10/24             | 442    | 56 | 50   | 1  | HH-SI 10/24KV 50A FC TB 442/56    | <b>67240-0500</b> |
| HH-SI 10/24KV 63A FC TB 442/65    | 10/24             | 442    | 65 | 63   | 1  | HH-SI 10/24KV 63A FC TB 442/65    | <b>67240-0630</b> |
| HH-SI 10/24KV 80A FC TB 442/65    | 10/24             | 442    | 65 | 80   | 1  | HH-SI 10/24KV 80A FC TB 442/65    | <b>67240-0800</b> |
| HH-SI 10/24KV 100A FC TB 442/78   | 10/24             | 442    | 78 | 100  | 1  | HH-SI 10/24KV 100A FC TB 442/78   | <b>67240-1000</b> |
| HH-SI 10/24KV 125A FC TB 442/88   | 10/24             | 442    | 88 | 125  | 1  | HH-SI 10/24KV 125A FC TB 442/88   | <b>67240-1250</b> |
| HH-SI 10/24KV 160A FC TB 442/88   | 10/24             | 442    | 88 | 160  | 1  | HH-SI 10/24KV 160A FC TB 442/88   | <b>67240-1600</b> |
| HH-SI 20/36KV 2A FC TB 537/56     | 20/36             | 537    | 56 | 2    | 1  | HH-SI 20/36KV 2A FC TB 537/56     | <b>67250-0020</b> |
| HH-SI 20/36KV 4A FC TB 537/56     | 20/36             | 537    | 56 | 4    | 1  | HH-SI 20/36KV 4A FC TB 537/56     | <b>67250-0040</b> |
| HH-SI 20/36KV 6,3A FC TA 537/56   | 20/36             | 537    | 56 | 6,3  | 1  | HH-SI 20/36KV 6,3A FC TA 537/56   | <b>67150-0060</b> |
| HH-SI 20/36KV 10A FC TA 537/56    | 20/36             | 537    | 56 | 10   | 1  | HH-SI 20/36KV 10A FC TA 537/56    | <b>67150-0100</b> |
| HH-SI 20/36KV 16A FC TA 537/56    | 20/36             | 537    | 56 | 16   | 1  | HH-SI 20/36KV 16A FC TA 537/56    | <b>67150-0160</b> |
| HH-SI 20/36KV 20A FC TA 537/56    | 20/36             | 537    | 56 | 20   | 1  | HH-SI 20/36KV 20A FC TA 537/56    | <b>67150-0200</b> |
| HH-SI 20/36KV 25A FC TA 537/56    | 20/36             | 537    | 56 | 25   | 1  | HH-SI 20/36KV 25A FC TA 537/56    | <b>67150-0250</b> |
| HH-SI 20/36KV 31,5A FC TA 537/65  | 20/36             | 537    | 65 | 31,5 | 1  | HH-SI 20/36KV 31,5A FC TA 537/65  | <b>67150-0320</b> |
| HH-SI 20/36KV 40A FC TA 537/65    | 20/36             | 537    | 65 | 40   | 1  | HH-SI 20/36KV 40A FC TA 537/65    | <b>67150-0400</b> |
| HH-SI 20/36KV 50A FC TA 537/88    | 20/36             | 537    | 88 | 50   | 1  | HH-SI 20/36KV 50A FC TA 537/88    | <b>67150-0500</b> |
| HH-SI 20/36KV 63A FC TA 537/88    | 20/36             | 537    | 88 | 63   | 1  | HH-SI 20/36KV 63A FC TA 537/88    | <b>67150-0630</b> |



# HV Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

FUSE-LINKS

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67520-0100

## HV back-up Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1 with controlled power dissipation (ÜLA)

| Designation                          | Rated<br>volt. kV | Length Ø | Amps PU | Product designation                  | Order no.         |
|--------------------------------------|-------------------|----------|---------|--------------------------------------|-------------------|
| HH-SI 6/12KV 1A FC TB ÜLA 292/56     | 6/12              | 292 56   | 1 1     | HH-SI 6/12KV 1A FC TB ÜLA 292/56     | <b>67220-0019</b> |
| HH-SI 6/12KV 2A FC TB ÜLA 292/56     | 6/12              | 292 56   | 2 1     | HH-SI 6/12KV 2A FC TB ÜLA 292/56     | <b>67220-0029</b> |
| HH-SI 6/12KV 4A FC TB ÜLA 292/56     | 6/12              | 292 56   | 4 1     | HH-SI 6/12KV 4A FC TB ÜLA 292/56     | <b>67220-0049</b> |
| HH-SI 6/12KV 6,3A FC TB ÜLA 292/56   | 6/12              | 292 56   | 6,3 1   | HH-SI 6/12KV 6,3A FC TB ÜLA 292/56   | <b>67220-0069</b> |
| HH-SI 6/12KV 10A FC TB ÜLA 292/56    | 6/12              | 292 56   | 10 1    | HH-SI 6/12KV 10A FC TB ÜLA 292/56    | <b>67220-0109</b> |
| HH-SI 6/12KV 16A FC TB ÜLA 292/56    | 6/12              | 292 56   | 16 1    | HH-SI 6/12KV 16A FC TB ÜLA 292/56    | <b>67220-0169</b> |
| HH-SI 6/12KV 20A FC TB ÜLA 292/56    | 6/12              | 292 56   | 20 1    | HH-SI 6/12KV 20A FC TB ÜLA 292/56    | <b>67220-0209</b> |
| HH-SI 6/12KV 25A FC TB ÜLA 292/56    | 6/12              | 292 56   | 25 1    | HH-SI 6/12KV 25A FC TB ÜLA 292/56    | <b>67220-0259</b> |
| HH-SI 6/12KV 31,5A FC TB ÜLA 292/56  | 6/12              | 292 56   | 31,5 1  | HH-SI 6/12KV 31,5A FC TB ÜLA 292/56  | <b>67220-0329</b> |
| HH-SI 6/12KV 40A FC TB ÜLA 292/56    | 6/12              | 292 56   | 40 1    | HH-SI 6/12KV 40A FC TB ÜLA 292/56    | <b>67220-0409</b> |
| HH-SI 6/12KV 50A FC TB ÜLA 292/56    | 6/12              | 292 56   | 50 1    | HH-SI 6/12KV 50A FC TB ÜLA 292/56    | <b>67220-0509</b> |
| HH-SI 6/12KV 63A FC TB ÜLA 292/56    | 6/12              | 292 56   | 63 1    | HH-SI 6/12KV 63A FC TB ÜLA 292/56    | <b>67220-0639</b> |
| HH-SI 6/12KV 80A FC TB ÜLA 292/65    | 6/12              | 292 65   | 80 1    | HH-SI 6/12KV 80A FC TB ÜLA 292/65    | <b>67220-0809</b> |
| HH-SI 6/12KV 100A FC TB ÜLA 292/65   | 6/12              | 292 65   | 100 1   | HH-SI 6/12KV 100A FC TB ÜLA 292/65   | <b>67220-1009</b> |
| HH-SI 6/12KV 125A FC TB ÜLA 292/88   | 6/12              | 292 88   | 125 1   | HH-SI 6/12KV 125A FC TB ÜLA 292/88   | <b>67220-1259</b> |
| HH-SI 6/12KV 160A FC TB ÜLA 292/88   | 6/12              | 292 88   | 160 1   | HH-SI 6/12KV 160A FC TB ÜLA 292/88   | <b>67220-1609</b> |
| HH-SI 6/12KV 200A FC TB ÜLA 292/88   | 6/12              | 292 88   | 200 1   | HH-SI 6/12KV 200A FC TB ÜLA 292/88   | <b>67220-2009</b> |
| HH-SI 10/24KV 1A FC TB ÜLA 442/56    | 10/24             | 442 56   | 1 1     | HH-SI 10/24KV 1A FC TB ÜLA 442/56    | <b>67240-0019</b> |
| HH-SI 10/24KV 2A FC TB ÜLA 442/56    | 10/24             | 442 56   | 2 1     | HH-SI 10/24KV 2A FC TB ÜLA 442/56    | <b>67240-0029</b> |
| HH-SI 10/24KV 4A FC TB ÜLA 442/56    | 10/24             | 442 56   | 4 1     | HH-SI 10/24KV 4A FC TB ÜLA 442/56    | <b>67240-0049</b> |
| HH-SI 10/24KV 6,3A FC TB ÜLA 442/56  | 10/24             | 442 56   | 6,3 1   | HH-SI 10/24KV 6,3A FC TB ÜLA 442/56  | <b>67240-0069</b> |
| HH-SI 10/24KV 10A FC TB ÜLA 442/56   | 10/24             | 442 56   | 10 1    | HH-SI 10/24KV 10A FC TB ÜLA 442/56   | <b>67240-0109</b> |
| HH-SI 10/24KV 16A FC TB ÜLA 442/56   | 10/24             | 442 56   | 16 1    | HH-SI 10/24KV 16A FC TB ÜLA 442/56   | <b>67240-0169</b> |
| HH-SI 10/24KV 20A FC TB ÜLA 442/56   | 10/24             | 442 56   | 20 1    | HH-SI 10/24KV 20A FC TB ÜLA 442/56   | <b>67240-0209</b> |
| HH-SI 10/24KV 25A FC TB ÜLA 442/56   | 10/24             | 442 56   | 25 1    | HH-SI 10/24KV 25A FC TB ÜLA 442/56   | <b>67240-0259</b> |
| HH-SI 10/24KV 31,5A FC TB ÜLA 442/56 | 10/24             | 442 56   | 31,5 1  | HH-SI 10/24KV 31,5A FC TB ÜLA 442/56 | <b>67240-0329</b> |
| HH-SI 10/24KV 40A FC TB ÜLA 442/56   | 10/24             | 442 56   | 40 1    | HH-SI 10/24KV 40A FC TB ÜLA 442/56   | <b>67240-0409</b> |
| HH-SI 10/24KV 50A FC TB ÜLA 442/56   | 10/24             | 442 56   | 50 1    | HH-SI 10/24KV 50A FC TB ÜLA 442/56   | <b>67240-0509</b> |
| HH-SI 10/24KV 63A FC TB ÜLA 442/65   | 10/24             | 442 65   | 63 1    | HH-SI 10/24KV 63A FC TB ÜLA 442/65   | <b>67240-0639</b> |
| HH-SI 10/24KV 80A FC TB ÜLA 442/65   | 10/24             | 442 65   | 80 1    | HH-SI 10/24KV 80A FC TB ÜLA 442/65   | <b>67240-0809</b> |
| HH-SI 10/24KV 100A FC TB ÜLA 442/78  | 10/24             | 442 78   | 100 1   | HH-SI 10/24KV 100A FC TB ÜLA 442/78  | <b>67240-1009</b> |



# HV Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

► Technical data, page 104

Fuse-Links



67004-0100

## HV back-up Fuse-Links 6/12 kV with a length "e" of 442 mm (24-kV tube)

| Designation                     | Rated<br>volt. kV | Length Ø    | Amps PU | Product designation             | Order no.         |
|---------------------------------|-------------------|-------------|---------|---------------------------------|-------------------|
| HH-SI 6/12KV 1A FC TB 442/56    | 6/12              | 442 56 1    | 1       | HH-SI 6/12KV 1A FC TB 442/56    | <b>67004-0010</b> |
| HH-SI 6/12KV 2A FC TB 442/56    | 6/12              | 442 56 2    | 1       | HH-SI 6/12KV 2A FC TB 442/56    | <b>67004-0020</b> |
| HH-SI 6/12KV 4A FC TB 442/56    | 6/12              | 442 56 4    | 1       | HH-SI 6/12KV 4A FC TB 442/56    | <b>67004-0040</b> |
| HH-SI 6/12KV 6,3A FC TB 442/56  | 6/12              | 442 56 6,3  | 1       | HH-SI 6/12KV 6,3A FC TB 442/56  | <b>67004-0060</b> |
| HH-SI 6/12KV 10A FC TB 442/56   | 6/12              | 442 56 10   | 1       | HH-SI 6/12KV 10A FC TB 442/56   | <b>67004-0100</b> |
| HH-SI 6/12KV 16A FC TB 442/56   | 6/12              | 442 56 16   | 1       | HH-SI 6/12KV 16A FC TB 442/56   | <b>67004-0160</b> |
| HH-SI 6/12KV 20A FC TB 442/56   | 6/12              | 442 56 20   | 1       | HH-SI 6/12KV 20A FC TB 442/56   | <b>67004-0200</b> |
| HH-SI 6/12KV 25A FC TB 442/56   | 6/12              | 442 56 25   | 1       | HH-SI 6/12KV 25A FC TB 442/56   | <b>67004-0250</b> |
| HH-SI 6/12KV 31,5A FC TB 442/56 | 6/12              | 442 56 31,5 | 1       | HH-SI 6/12KV 31,5A FC TB 442/56 | <b>67004-0320</b> |
| HH-SI 6/12KV 40A FC TB 442/56   | 6/12              | 442 56 40   | 1       | HH-SI 6/12KV 40A FC TB 442/56   | <b>67004-0400</b> |
| HH-SI 6/12KV 50A FC TB 442/56   | 6/12              | 442 56 50   | 1       | HH-SI 6/12KV 50A FC TB 442/56   | <b>67004-0500</b> |
| HH-SI 6/12KV 63A FC TB 442/56   | 6/12              | 442 56 63   | 1       | HH-SI 6/12KV 63A FC TB 442/56   | <b>67004-0630</b> |
| HH-SI 6/12KV 80A FC TB 442/65   | 6/12              | 442 65 80   | 1       | HH-SI 6/12KV 80A FC TB 442/65   | <b>67004-0800</b> |
| HH-SI 6/12KV 100A FC TB 442/65  | 6/12              | 442 65 100  | 1       | HH-SI 6/12KV 100A FC TB 442/65  | <b>67004-1000</b> |
| HH-SI 6/12KV 125A FC TB 442/88  | 6/12              | 442 88 125  | 1       | HH-SI 6/12KV 125A FC TB 442/88  | <b>67004-1250</b> |
| HH-SI 6/12KV 160A FC TB 442/88  | 6/12              | 442 88 160  | 1       | HH-SI 6/12KV 160A FC TB 442/88  | <b>67004-1600</b> |
| HH-SI 6/12KV 200A FC TB 442/88  | 6/12              | 442 88 200  | 1       | HH-SI 6/12KV 200A FC TB 442/88  | <b>67004-2000</b> |



67004-0019

## HV back-up Fuse-Links 6/12 kV with a length "e" of 442 mm (24-kV tube) with controlled power dissipation (ÜLA)

| Designation                         | Rated<br>volt. kV | Length Ø    | Amps PU | Product designation                | Order no.         |
|-------------------------------------|-------------------|-------------|---------|------------------------------------|-------------------|
| HH-SI 6/12KV 10A FC TB 442/56 ÜLA   | 6/12              | 442 56 10   | 1       | HH-SI 6/12KV 10A FC TB 442/56 ÜLA  | <b>67004-0109</b> |
| HH-SI 6/12KV 20A FC TB 442/56 ÜLA   | 6/12              | 442 56 20   | 1       | HH-SI 6/12KV 20A FC TB 442/56 ÜLA  | <b>67004-0209</b> |
| HH-SI 6/12KV 16A FC TB 442/56 ÜLA   | 6/12              | 442 56 16   | 1       | HH-SI 6/12KV 16A FC TB 442/56 ÜLA  | <b>67004-0169</b> |
| HH-SI 6/12KV 31,5A FC TB 442/56 ÜLA | 6/12              | 442 56 31,5 | 1       | HH-SI 6/12KV 16A FC TB 442/56 ÜLA  | <b>67004-0329</b> |
| HH-SI 6/12KV 25A FC TB 442/56 ÜLA   | 6/12              | 442 56 25   | 1       | HH-SI 6/12KV 25A FC TB 442/56 ÜLA  | <b>67004-0259</b> |
| HH-SI 6/12KV 40A FC TB 442/56 ÜLA   | 6/12              | 442 56 40   | 1       | HH-SI 6/12KV 40A FC TB 442/56 ÜLA  | <b>67004-0409</b> |
| HH-SI 6/12KV 50A FC TB 442/56 ÜLA   | 6/12              | 442 56 50   | 1       | HH-SI 6/12KV 50A FC TB 442/56 ÜLA  | <b>67004-0509</b> |
| HH-SI 6/12KV 63A FC TB 442/56 ÜLA   | 6/12              | 442 56 63   | 1       | HH-SI 6/12KV 63A FC TB 442/56 ÜLA  | <b>67004-0639</b> |
| HH-SI 6/12KV 80A FC TB 442/65 ÜLA   | 6/12              | 442 65 80   | 1       | HH-SI 6/12KV 80A FC TB 442/65 ÜLA  | <b>67004-0809</b> |
| HH-SI 6/12KV 100A FC TB 442/65 ÜLA  | 6/12              | 442 65 100  | 1       | HH-SI 6/12KV 100A FC TB 442/65 ÜLA | <b>67004-1009</b> |
| HH-SI 6/12KV 125A FC TB 442/88 ÜLA  | 6/12              | 442 88 125  | 1       | HH-SI 6/12KV 125A FC TB 442/88 ÜLA | <b>67004-1259</b> |
| HH-SI 6/12KV 160A FC TB 442/88 ÜLA  | 6/12              | 442 88 160  | 1       | HH-SI 6/12KV 160A FC TB 442/88 ÜLA | <b>67004-1609</b> |

## Test devices and HV Fuse-Links for voltage transformers

► Technical data, page 92, 107

Fuse-Links



68013-0020

### Test device for tripping medium voltage switches

| Designation               | Rated<br>volt. kV | Length Ø | Amps PU | Product designation                         | Order no.         |
|---------------------------|-------------------|----------|---------|---------------------------------------------|-------------------|
| Test device 192 mm, 65 Nm | 7,2               | 192      | 1       | PRÜFSICHERUNG 65N e/D = 192mm               | <b>68013-0020</b> |
| Extension to 292 mm       | 12                | 292      | 1       | VERLÄNGER. F. PRÜFSICHERUNG<br>12KV e/D=292 | <b>68014-0010</b> |
| Extension to 442 mm       | 24                | 442      | 1       | VERLÄNGER. F. PRÜFSICHERUNG<br>24KV e/D=442 | <b>68015-0010</b> |



67036-0003

### High-voltage Fuse-Links for high-voltage transformer "HSW" acc. to VDE 0670 T4 / IEC 60 282-1

| Designation       | Rated<br>volt. kV | Length Ø | Amps PU   | Product designation       | Order no.         |
|-------------------|-------------------|----------|-----------|---------------------------|-------------------|
| Without indicator | 6/12              | 160      | 22 1,25 1 | HSW 6/12KV OHNE ANZEIGER  | <b>67036-0003</b> |
| Without indicator | 15/24             | 280      | 22 1,25 1 | HSW 15/24KV OHNE ANZEIGER | <b>67037-0003</b> |
| Without indicator | 20/36             | 421      | 37 1,00 1 | HSW 20/36KV OHNE ANZEIGER | <b>67088-0003</b> |
| With indicator    | 6/12              | 160      | 22 1,6 1  | HSW 6/12KV                | <b>67036-0004</b> |
| With indicator    | 15/24             | 280      | 22 1,4 1  | HSW 15/24KV               | <b>67037-0004</b> |

## Accessories for HV Fuse-Links

► Technical data, page 106



68007-0010

### HV fuse base acc. to DIN 43 624 for indoor use

| Designation | Rated volt. kV | Length Ø | Amps PU | Product designation                     | Order no.         |
|-------------|----------------|----------|---------|-----------------------------------------|-------------------|
| Fuse base   | 12             | 293 45   | 1       | HH-SICHERUNGSTRÄGER 12KV INNENRAUM BZM  | <b>68007-0010</b> |
| Fuse base   | 24             | 443 45   | 1       | HH-SICHERUNGSTRÄGER 24KV INNENRAUM BZM  | <b>68008-0010</b> |
| Fuse base   | 36             | 538 45   | 1       | HH-SICHERUNGSTRÄGER 36KV INNENRAUM BZM  | <b>68012-0010</b> |
| Fuse base   | 7,2            | 193 45   | 1       | HH-SICHERUNGSTRÄGER 7,2KV INNENRAUM BZM | <b>68021-0010</b> |



68016-0010

### Fuse base contacts, 200 A rated current, for indoor use

| Designation                                   | Amps PU | Product designation                        | Order no.         |
|-----------------------------------------------|---------|--------------------------------------------|-------------------|
| Fuse base contacts                            | 200 1   | RUNDKONTAKT NBF MIT ANSCHLUSSMATERIAL      | <b>68016-0010</b> |
| Fuse base contact with anti-vibration bracket | 200 1   | Rundkontakt mit Bügel für Rüttelsicherheit | <b>68005-0010</b> |

### Fuse base contacts, 200 A rated current, for outdoor use

| Designation        | Amps PU | Product designation  | Order no.         |
|--------------------|---------|----------------------|-------------------|
| Fuse base contacts | 200 1   | RUNDKONTAKT FREILUFT | <b>81931-0100</b> |

### HSW-fuse holder

| Designation     | PU | Product designation                | Order no.         |
|-----------------|----|------------------------------------|-------------------|
| HSW FUSE HOLDER | 1  | HSW-SICHERUNGSHALTER / FUSE HOLDER | <b>68022-0010</b> |



67033-0003

### HV solid links

| Designation       | Rated volt. kV | Length Ø | Amps PU | Product designation            | Order no.         |
|-------------------|----------------|----------|---------|--------------------------------|-------------------|
| Solid link 292/51 | 12             | 292 51   | 1       | DURCHSCHALTEINSATZ 12KV 292/51 | <b>67033-0003</b> |
| Solid link 442/51 | 24             | 442 51   | 1       | DURCHSCHALTEINSATZ 24KV 442/51 | <b>67034-0003</b> |



68003-0100

### Adapter for high-voltage Fuse-Links acc. to DIN 43 625

#### Features:

- For use of 292-mm (12-kV) fuse-links in 442-mm (24-kV) systems
- For HV fuse-links with grooved cap only

| Designation        | Ø  | Amps PU | Product designation                 | Order no.         |
|--------------------|----|---------|-------------------------------------|-------------------|
| Adapter            | 45 | 200 1   | ADAPTER FÜR HH-SI IN SENKR. MONTAGE | <b>68003-0100</b> |
| Adapter HV-SI 44.8 |    | 1       | Adapter HH-SI 44,8                  | <b>68003-0200</b> |



68004-0010

### Wall rack

#### Features:

- Holds 3 HV fuse-links

| Designation | Amps PU | Product designation              | Order no.         |
|-------------|---------|----------------------------------|-------------------|
| Wall rack   | 2       | WANDHALTERUNG FÜR HH-SICHERUNGEN | <b>68004-0010</b> |

## HV Fuse-Links

### General remarks

#### General information

HV fuse-links have been ensuring reliable protection in medium-voltage substations and grids for decades. They protect systems and equipment against the thermal and dynamic effects of short-circuits.

EFEN HV fuse-links provide the following significant features:

- High breaking capacity
- High current limitation
- Low switching voltage
- Quick breaking
- Non-ageing

EFEN HV fuse-links comply with the following standards:

- VDE 0670 T4 / IEC 60 282-1: High-voltage "current-limiting fuses"
- VDE 0670 T402: Selection of current-limiting fuses for transformer circuits
- IEC 60 787: Application guide for the selection of fuse-links of high-voltage fuses for transformer circuit applications
- VDE 0671 T105 / IEC 62271-105: High-voltage switch-fuse combinations
- DIN 43 625: High-voltage fuses, rated voltages 3.6 to 36 kV (fuse-link dimensions)
- DIN 43 624: High-voltage fuses, rated voltages 3/3.6 to 30/36 kV (single-pole fuse bases)

#### Terms and definitions

According to the applicable standards and physical properties, distinction is made between back-up fuse-links and general-purpose fuse-links:

#### Back-up Fuse-Links

Back-up fuse-links have a "rated minimum breaking current" from which the fuse-links are able to interrupt current. Back-up fuse-links cannot interrupt current when operated below their "rated minimum breaking current" (below  $I_3$ ). They operate from  $I_3$  to the "rated maximum breaking current" ( $I_1$ ).

When assigning back-up fuse-links, it must be considered that the lowest short-circuit current at the point of installation of the HV back-up fuse-link is higher than  $I_3$  ( $I_{kmin} > I_3$ ). If the short-circuit current is possibly lower than the minimum breaking current, additional protection must be provided.

#### General-purpose Fuse-Links

EFEN's general-purpose fuse-links comply with the correspondingly defined standards. Their operating range is extended for lower currents. These fuse-links are capable of interrupting all currents from any current causing the fuse-link to melt within a period of at least 1 hour and up to the "maximum rated breaking current" ( $I_1$ ). This allows these fuse-links to interrupt low fault currents reliably.

#### Striker

The strikers of the HV fuse-links of this product list have an effective length of 30 mm and are of type "medium". This classification results from the energy released by the striker between the points A and B (Fig.1). The initial force is approx. 80 N, the force at the end of the free motion is approx. 15 N. The striker is provided to serve as trip-free mechanism of the load-break switches.

The quality management system of EFEN GmbH is certified to the international standard DIN ISO 9001 (EN 29001).

EFEN applies a certified environment management system acc. to DIN ISO 14001 and the Eco Audit Order of the Council (EEC) 1836/93.

EFEN manufactures HV fuse-links dimensioned acc. to DIN 43 625 with strikers for indoor and outdoor use. Due to its red color, the striker can be used as a trip-free mechanism and also as an indicator.

In addition to the HV fuse-links shown in this catalogue, EFEN also manufactures a wide range of special-purpose fuse-links in other or custom dimensions. If you have a particular application that requires a special fuse protection solution, simply ask the EFEN team, we are there for you!

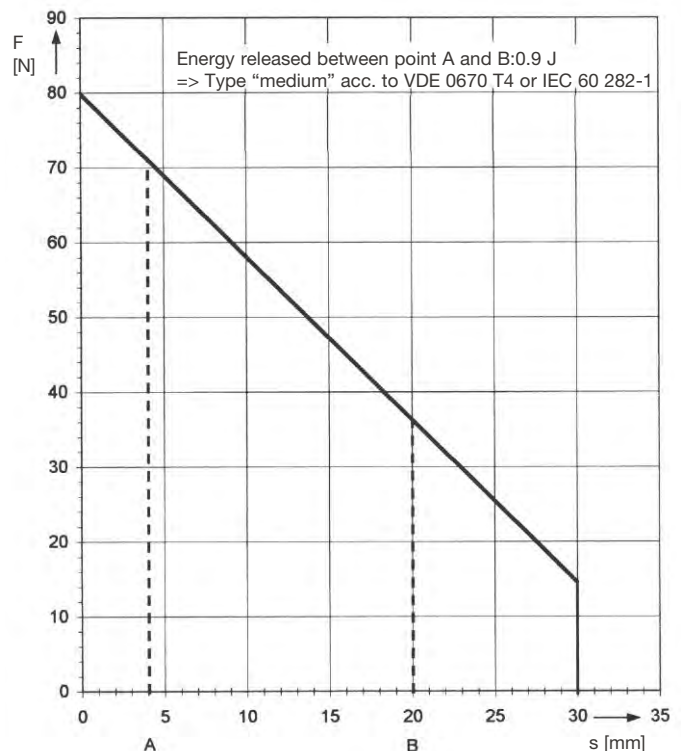


Fig.1

## HV Fuse-Links

### General remarks

#### Rated voltage range

When selecting HV fuse-links, it is important to ensure that these are operated at the voltage for which they are rated. Accordingly, the operating voltage must correspond to the maximum rated voltage of the fuse-link. Because of the switching voltage occurring during arcing, the fuse-link cannot be used at lower voltages without limitation. Accordingly, a lower operating voltage must also be observed at which the fuse-link can still be used without exceeding the system insulation level during arcing.

These two values define the fuse-link's permissible voltage range indicated on the fuse-link or in the technical data, e.g. 10/24 kV.

#### Breaking capacity $I_1$

The breaking capacity is also referred to as "rated maximum breaking current". This clearly indicates that this is the maximum current that the fuse-link is able to interrupt.

$I_1$  of the fuse-link must be greater than the maximum short-circuit current at the fuse-link's point of installation

( $I_1 > I_{Kmax}$ ).

#### Minimum breaking current $I_3$

According to the standard, the minimum breaking current is referred to as "rated minimum breaking current". This value must be specified on backup fuse-links. This is the minimum current from which on back-up fuse-links are capable of breaking fault currents.

Fuse-links must be assigned to systems in such a way that no fault current below  $I_3$  can occur at the fuse-link's point of installation (because of the system parameters or other protective devices).

#### Power dissipation of a fuse-link $P_{warm}$

The power dissipation of an HV fuse-link is specified at the fuse-link's rated current. When protecting systems with HV fuse-links, it must be noted that the operating current is normally no more than half the rated current. Due to the physical correlations, the actual power dissipation is less than a quarter of the value  $P_{warm}$  shown in the technical data table for HV fuse-links.

#### Time-current characteristic (I/t characteristic)

The time-current characteristics show the correlation between the current and pre-arcing time required for the fuse-element to melt. This is indicated as the virtual time ( $t_{vs}$ ) to allow comparing the I/t characteristics of fuse-links in the range below 100 ms. For coordination with other protective devices such as load-break switches or circuit breakers tripping at less than 100 ms the pre-arcing interval of  $I^2t$  must be applied.

#### Current limitation

At high short-circuit currents, HV fuse-links interrupt currents within a few milliseconds. This means that the sinusoidal current does not reach its peak value and the HV fuse-links act as current-limiting devices. This is a significant advantage compared to mechanical switches whose contacts take longer to open and interrupt currents at natural zero. During this period, the peak short-circuit current is able to freely develop its dynamic force. By using HV fuse-links, this surge current is limited within several ms to a fraction of its peak value, allowing the design of the downstream system to be reduced in terms of dynamic forces.

#### Switching voltage

To allow HV fuse-links to perform as current-limiters, the short-circuit current must be limited and reduced already as it increases. This requires a switching voltage that counteracts the driving system voltage and forces the current to zero. According to the specifications stated above, this switching voltage must not exceed the permissible value of 2.2 times the peak value of the maximum rated voltage. EFEN HV fuse-links meet this requirement.

#### Dimensions

HV fuse-links in this product list comply with DIN 43 625.

Fig. 2 shows the contact cap dimensions defined in this standard. Dimension "e" varies depending on the rated voltage of HV fuse-links and is shown as "dimension" of the fuse-links in the corresponding technical data tables. In addition, diameter "d" varies with the rated current. The corresponding values are also shown in the tables.

(Tables on page 90, 98, 101, 102 and 103)

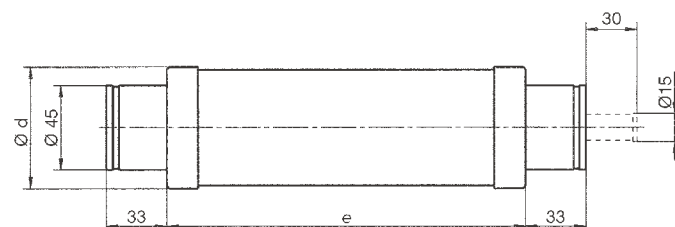


Fig. 2  
Dimensions acc. to DIN 43 625 in mm

## HV Fuse-Links

### General remarks

#### Description of further applications of EFEN HV Fuse-Links

##### Protection of high-voltage motors

With EFEN HV back-up fuse-links, high-voltage squirrel-cage motors can be protected against the effects of high short-circuit currents. Overloads must be interrupted by accompanying protective devices.

##### Protection of high-voltage capacitors

EFEN HV back-up fuse-links can be used to protect individual capacitors in the event of a short-circuit. However, particular aspects must be taken into account with respect to the rated voltage and rated current of the HV fuse-links.

##### Protection against distance short-circuits

HV fuse-links are not always used on bus bars or directly at the feeder, but rather directly upstream of the transformer at the end of a stub line. In such cases, it should be noted that the short-circuit current at the installation point of the HV fuse-links can be considerably lower than the current on a transformer secondary terminal short-circuit. In addition to transformer impedance, line impedance must also be taken into account.

##### Special applications

In addition to the standard applications described above, EFEN HV fuse-links can also be used for a wide range of special-purpose applications:

- Protection of voltage transformers
- Protection of capacitive transformers
- Protection of railway installations (16 2/3 Hz or DC)

##### Oil-tight HV Fuse-Links

EFEN also manufactures oil-tight HV fuse-links.

These fuse-links can be directly integrated into the devices to be protected such as transformer as they are suitable for oil-submerged operation.

These HV fuse-links can be manufactured with and without striker. Their contact caps can be fitted with threaded studs or nuts for the connection of cable lugs.

EFEN has developed a wide range of HV fuse-links for special applications which would be too numerous to list here.

Whenever you are facing a non-standard protection task, we will be happy to assist you in finding an optimal solution!



## HV Fuse-Links

### General remarks

#### Protection of transformers

The following must be observed when selecting HV fuse-links:

- Transformer ratings
  - Rated operating voltage (U)
  - Rated output (S)
  - rel. short-circuit voltage ( $u_k$  %)
  - Inrush current ( $8 \dots 12 I_N$ )
- Time-current characteristics of HV fuse-links
- Secondary protective devices/selectivity

Procedure explained using an example:

A 630 kVA transformer has a transformer rated current of 18.2 A at a rated operating voltage of 20 kV. The relative short-circuit voltage is 4%, and the inrush current is  $12 \times I_N$ . The short-circuit current on the secondary terminal short-circuit results from the relative short-circuit voltage. The transformer must be designed to withstand this current for 2 seconds. This condition results in point b) in Fig. 3. HV fuse-links must break this current within 2 seconds. In Fig. 3, fuse-link F4 must not be used for this transformer, as the fuse-link will require more than 2 seconds to melt at the given short-circuit current.

The inrush current is plotted for a duration of 0.1 seconds, resulting in point a). This inrush current must not melt the fuse-link.

Accordingly, fuse-link F1 cannot be used for this transformer. Fuse-links F2 and F3 may be used for this transformer since their time-current characteristics are between points a) and b). Several HV fuse-links for various rated currents can therefore be assigned to a transformer. The selection of the correct fuse must be based on the time-current characteristic and not the rated current of the HV fuse-link.

German standard VDE 0670 T402 defines time-current ranges for rated currents, taking into account points a) and b) as well as the selectivity to the NH fuse-links of utilization category gTr. If an HV fuse-link is assigned to a transformer according to part 402, all of the above factors must be taken into account to select the correct HV fuse-link.

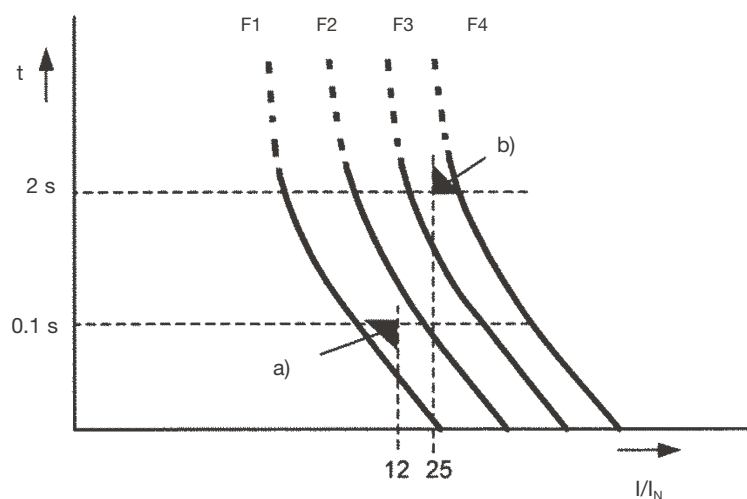


Fig. 3

F1– F4) Time-current characteristics for HV fuse-links

- Inrush current
- Lowest short-circuit current of the transformer

## HV Fuse-Links

### General remarks

**HV back-up Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1 with controlled power dissipation (ÜLA)**

#### Application

EFEN HV back-up fuses of type ÜLA meet the requirements of VDE 0670 and are specifically designed for installation in compact, enclosed SF6-insulated substations. In these substations, the fuse-links are installed in tight compartments. These significantly affect heat dissipation and only absorb a limited amount of heat. However, overheating of fuse compartments in such enclosures is not to be expected if EFEN HV fuse-links have been properly selected and are matched to the transformer to be protected according to table 3, and if the fuse-links are in faultless condition (Fig. 4).

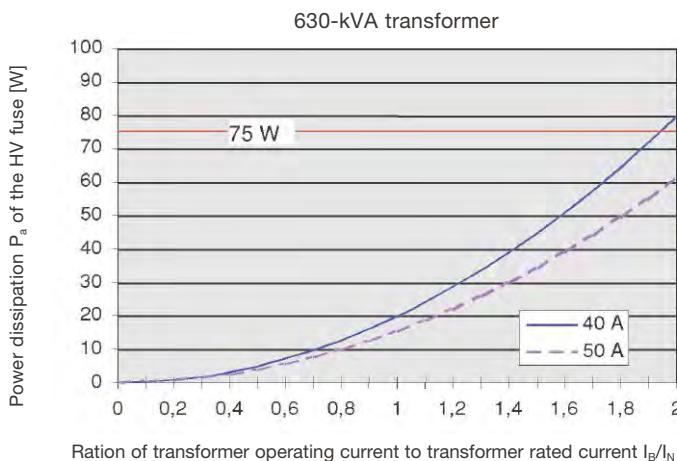


Fig. 4:  
Power dissipation of 40-A and 50-A HV fuse-links  
for a 20-kV 630-kVA transformer

One or more of the fuse elements connected in parallel may be interrupted by transient currents caused by transformer inrush or lightning current. As a result, fuses dissipate significantly more heat. There is a certain risk that the heat absorption limit for transformer rated current of the fuse compartments may be exceeded. EFEN HV back-up fuses of type ÜLA prevent such overheating when installed in conjunction with a transformer switch having a trip-free mechanism.

#### Operating mode

The average heat absorption of the fuse compartments is approximately 75 W. To prevent thermal overload, heat output  $P_a$  of the fuse must not exceed this limit:

$$P_a \leq 75 \text{ W}$$

The ÜLA striker system controls the power dissipation of the fuse as the tripping of the striker depends on the voltage, and power dissipation, accordingly:

$$U_a = R \cdot I_B$$

$$U_a \cdot I_B = P_a \leq 75 \text{ W}$$

The tripping voltage  $U_a$  of the ÜLA striker system has been selected so that, when multiplied by the operating current  $I_B$ , it will not exceed the limiting value, e.g. 75 W, if the resistance  $R$  of the fuse elements increases. In this case the ÜLA striker system controls the power dissipation of the fuse, triggering the transformer switch before the permissible power acceptance of the fuse compartment is exceeded (Fig. 5).

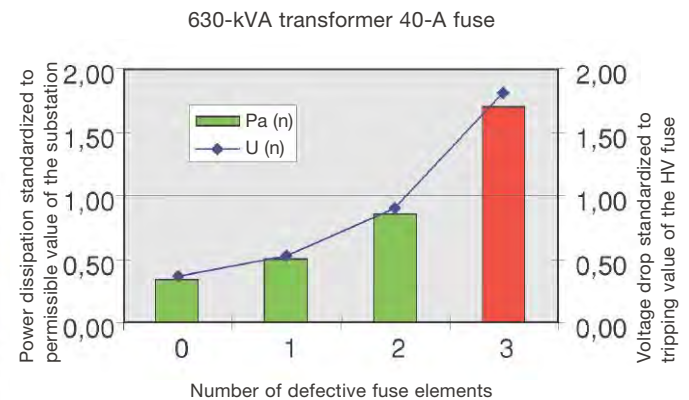


Fig. 5:  
Controlled power dissipation at 1.3 times the transformer rated current

#### Benefits of protection with controlled power dissipation (ÜLA)

- ÜLA controls the power dissipation of the fuse-links
- ÜLA is based on Ohm's law
- ÜLA works independently of the installation position of the fuse
- ÜLA trips the striker before the system overheats
- ÜLA is non-ageing

#### HV fuse-switch ÜLA Plus for switch-fuse combinations

The HV fuse-switch ÜLA Plus was specially designed for use in switch-fuse combinations. This product is characterized by low power dissipation and optimized breaking capacity, even at high rated currents.

- Fast-blowing: With regard to the requirements for switch-fuse combinations according to IEC 62271-105 / VDE 0671 T105, tripping speed in the range of 10 – 100ms was significantly increased. Letting the fuse perform the switching of the transformer short circuit current is a requirement. This is supported by the special characteristics of the fuse.
- Lower power dissipation: Reducing power dissipation by up to 30% allows protection with a switch-fuse combination even with large transformers and also reduces costs.
- Combined control system: The process of controlling temperature and power dissipation simultaneously allows excellent system protection.

The HV ÜLA Plus fuse-link is available from 6/12 kV to 20/36 kV. Thanks to the optimized characteristics, this line of fuse-links is especially suitable for use in gas-insulated SF6-substations.

## HV Fuse-Links

### General remarks

## High-voltage switch-fuse combinations acc. to VDE 0671 T105 / IEC 62 271-105

Switches can be combined with current-limiting HV fuse-links to increase their utilization range. Such combinations offer short-circuit protection as well as load-switching capacity. HV fuse-links provide short-circuit protection while the switch interrupts the currents below the take-over current of the combination unit. Further to the inrush current, the short-circuit current on the secondary-terminal short-circuit and the low-voltage selectivity, the following switch characteristics must be taken into account:

- Rated transfer current ( $I_{\text{transfer}}$ )
- Switch response time ( $t_0$ )

Fig. 6 shows the rated transfer current ( $I_{\text{transfer}}$ ) as a vertical line. The switch response time ( $t_s$ ) must be multiplied by 0.9 (simplified procedure for characteristic gradient 4) and is shown as a horizontal line. This results in an intersection that is characteristic to load switches and must be established for each switch individually.

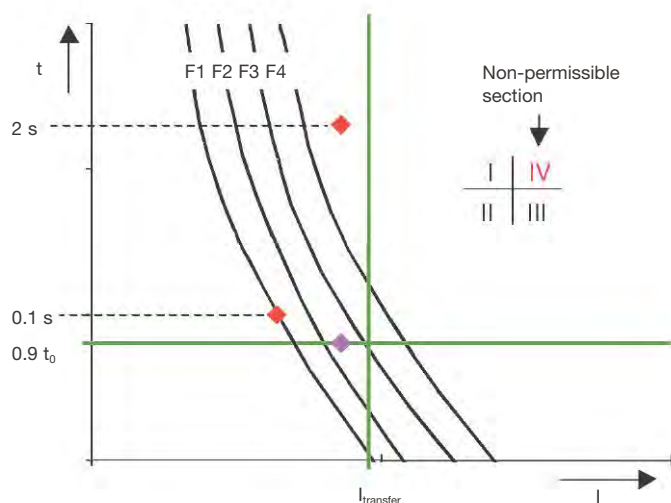


Fig. 6  
Selecting an HV fuse-link acc. to VDE 0671 T105 / IEC 62 271.105

This switch intersection divides the diagram into four quadrants (see Fig. 6). Only HV fuse-links with time-current characteristic that do not pass through quadrant IV ("non-permissible section") are suitable for the switch-fuse combination described. This means that all HV fuse-links with striker that meet this requirement can be used in switch-fuse combinations according to IEC 62 271-105. EFEN has assigned HV fuse-links to suitable switches and transformers for switchgear of all major manufacturers. These documents are available on request.

## EFEN HV general-purpose Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

EFEN HV general-purpose fuse-links have an extended breaking range for low currents. Connecting two fuse elements in series in one body results in specific time-current characteristic.

This allows a specific selectivity to be established between HV general-purpose fuse-links and low-voltage circuit breakers.

While one system can reliably interrupt low pre-arcing currents with long pre-arcing times (up to one hour), the other system is ready to break high short-circuit currents. Therefore, the time-current characteristic consists of two sections. The handover (intersection) point between the two systems is at approx. 1 second (see I/t characteristic F1 in Fig. 7).

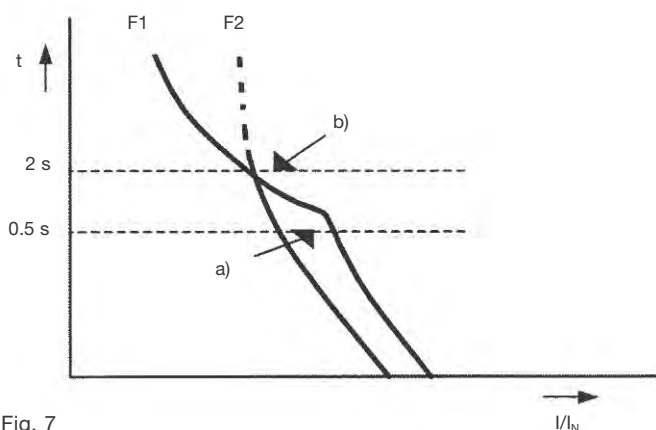


Fig. 7

- F1) Time-current characteristic of a general-purpose fuse-link
- F2) Time-current characteristic of a back-up fuse-link
  - a) Selectivity to low-voltage circuit breaker
  - b) Lowest short-circuit current of the transformer

In Fig. 7, point b) corresponds to the short-circuit current of a transformer. Point a) is the tripping current of a circuit breaker on the low-voltage side set e.g. to a tripping time of 0.5 seconds, transferred to the high-voltage side.

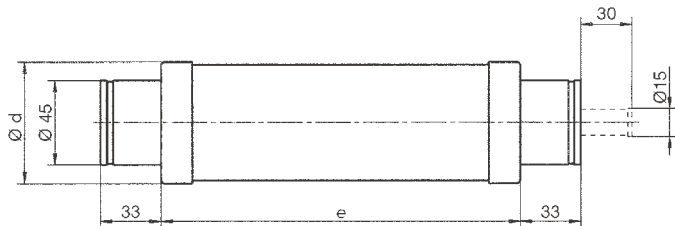
The transformer is protected by both fuse-links with I/t characteristic F1 and F2 as the short-circuit current is interrupted within 2 seconds. If a selectivity of the HV fuse-link to the circuit breaker (point a) is required, an EFEN HV general-purpose fuse-link must be used on the high-voltage side. Its time-current characteristic F1 is located to the right of point a) of the circuit-breaker, in contrast to I/t characteristic F2 of the HV back-up fuse-link which would already melt before the circuit breaker trips.

Thanks to a special manufacturing process, these HV general-purpose fuse-links can also be produced as an oil-tight variants which can be directly integrated into the transformer. Such fuse-links do not have a striker and are provided with a threaded connection on both ends. They are suitable for oil-submerged operation inside the transformer.

# HV Fuse-Links

## Electrical data, dimensions, weight

Fuse-Links



### Technical data

HV back-up Fuse-Links acc. to VDE 0670 / IEC 60 282-1 with controlled power dissipation (ÜLA)

| Order no.  | Rated voltage range | Rated current | Rated value, Maximum breaking current | Rated value, Minimum breaking current | Dimensions |      | Resistance and power dissipation |          | Operating integral | Weight |
|------------|---------------------|---------------|---------------------------------------|---------------------------------------|------------|------|----------------------------------|----------|--------------------|--------|
|            | Un kV               | In A          | I1 kA                                 | I3 A                                  | e mm       | d mm | R initial mΩ                     | P warm W | A²s                | kg     |
| 67523.0100 | 6/12                | 10            | 63                                    | 35                                    | 292        | 56   | 227                              | 29       | 3.000              | 1,6    |
| 67523.0160 |                     | 16            |                                       | 64                                    |            |      | 66                               | 21       | 3.700              |        |
| 67523.0200 |                     | 20            |                                       | 90                                    |            |      | 51                               | 25       | 4.700              |        |
| 67523.0250 |                     | 25            |                                       | 95                                    |            |      | 40                               | 29       | 4.920              |        |
| 67523.0320 |                     | 31,5          |                                       | 110                                   |            |      | 30                               | 39       | 7.000              |        |
| 67523.0400 |                     | 40            |                                       | 134                                   |            |      | 20                               | 46       | 14.000             |        |
| 67523.0500 |                     | 50            | 80                                    | 190                                   | 442        | 78   | 15                               | 62       | 25.300             | 2,1    |
| 67523.0630 |                     | 63            |                                       | 250                                   |            |      | 11,9                             | 58       | 52.200             |        |
| 67523.0800 |                     | 80            |                                       | 280                                   |            |      | 9,5                              | 82       | 78.000             |        |
| 67523.1000 |                     | 100           |                                       | 330                                   |            |      | 7,4                              | 103      | 152.000            |        |
| 67523.1250 |                     | 125           |                                       | 430                                   |            |      | 5,2                              | 109      | 266.800            |        |
| 67524.1000 |                     | 100           |                                       | 325                                   |            |      | 7,5                              | 100      | 169.500            |        |
| 67524.1250 |                     | 125           |                                       | 430                                   |            |      | 5,3                              | 109      | 291.000            | 3,3    |
| 67524.1600 |                     | 160           |                                       | 460                                   |            |      | 4,4                              | 175      | 358.500            |        |
| 67543.0060 | 10/24               | 6,3           | 63                                    | 23                                    | 442        | 56   | 640                              | 31       | 800                | 2,3    |
| 67543.0100 |                     | 10            |                                       | 36                                    |            |      | 386                              | 48       | 2.000              |        |
| 67543.0160 |                     | 16            |                                       | 73                                    |            |      | 127                              | 42       | 2.340              |        |
| 67543.0200 |                     | 20            |                                       | 91                                    |            |      | 97                               | 53       | 3.900              |        |
| 67543.0250 |                     | 25            |                                       | 116                                   |            |      | 73                               | 60       | 6.500              |        |
| 67543.0320 |                     | 31,5          |                                       | 125                                   |            |      | 57                               | 84       | 7.000              |        |
| 67543.0400 |                     | 40            | 80                                    | 161                                   | 537        | 65   | 41                               | 96       | 14.200             | 3,1    |
| 67543.0500 |                     | 50            |                                       | 210                                   |            |      | 27                               | 89       | 27.900             |        |
| 67543.0630 |                     | 63            |                                       | 235                                   |            |      | 21                               | 102      | 67.000             |        |
| 67543.0800 |                     | 80            |                                       | 265                                   |            |      | 17                               | 153      | 92.500             |        |
| 67543.1000 |                     | 100           |                                       | 345                                   |            |      | 13,6                             | 200      | 152.000            |        |
| 67543.1250 |                     | 125           |                                       | 435                                   |            |      | 10,1                             | 254      | 279.000            | 5,9    |
| 67553.0060 | 20/36               | 6,3           | 31,5                                  | 20                                    |            | 56   | 889                              | 39       | 600                | 2,7    |
| 67553.0100 |                     | 10            |                                       | 33                                    |            |      | 529                              | 66       | 2.000              |        |
| 67553.0160 |                     | 16            |                                       | 66                                    |            |      | 190                              | 67       | 2.340              |        |
| 67553.0200 |                     | 20            |                                       | 95                                    |            |      | 153                              | 84       | 3.900              |        |
| 67553.0250 |                     | 25            |                                       | 110                                   |            |      | 118                              | 100      | 6.500              |        |
| 67553.0320 |                     | 31,5          | 20                                    | 135                                   |            | 65   | 82                               | 119      | 7.000              | 3,7    |
| 67553.0400 |                     | 40            |                                       | 200                                   |            |      | 63                               | 176      | 14.200             |        |
| 67553.0500 |                     | 50            |                                       | 220                                   |            |      | 40                               | 130      | 34.000             |        |
| 67553.0630 |                     | 63            |                                       | 250                                   |            | 88   | 31                               | 165      | 72.500             |        |
| 67553.0800 |                     | 80            | 35                                    | 340                                   |            |      | 24                               | 229      | 119.000            | 6,5    |

\* This rated current requires a reduction factor. Reduction factors are available on request.

# HV Fuse-Links

## Selection table for HV back-up Fuse-Links

VDE 0670 T402 with ÜLA Plus / selection table acc. to IEC 62271-105

|                                            |                                                         | Transformer rated output in kVA |     |     |      |      |      |      |      |      |      |                      |      |      |      |      |      |
|--------------------------------------------|---------------------------------------------------------|---------------------------------|-----|-----|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|
| Rated voltage range of the fuse-link (kV)  |                                                         | U <sub>K</sub> = 4 %            |     |     |      |      |      |      |      |      |      | U <sub>K</sub> = 6 % |      |      |      |      |      |
| Rated operating voltage of the transformer |                                                         | 100                             | 125 | 160 | 200  | 250  | 315  | 400  | 500  | 630  | 630  | 800                  | 1000 | 1250 | 1600 | 2000 | 2500 |
| 6/12<br>10                                 | Transformer rated current in A                          | 5,8                             | 7,2 | 9,2 | 11,5 | 14,4 | 18,2 | 23,1 | 28,9 | 36,4 | 36,4 | 46,2                 | 57,7 | 72,2 | 92,4 |      |      |
|                                            | Short-circuit current 2s in A                           | 144                             | 180 | 231 | 289  | 361  | 455  | 577  | 722  | 909  | 606  | 770                  | 962  | 1203 | 1540 |      |      |
|                                            | Transfer current I transfer in A T <sub>0</sub> = 40 ms | 143                             | 143 | 184 | 258  | 321  | 433  | 567  | 512  | 660  | 512  | 660                  | 837  | 1135 | 1320 |      |      |
|                                            | Rated current of the fuse-link in A                     | 16                              | 16  | 20  | 25   | 31,5 | 40   | 50   | 63   | 80   | 63   | 80                   | 100  | 125  | 160  |      |      |
|                                            | Power dissipation of the fuse-link IN transf. in W      | 1,9                             | 3,0 | 3,4 | 4,7  | 5,3  | 6,9  | 8,3  | 8,1  | 11,3 | 14,0 | 19,8                 | 24,1 | 26,3 | 42,2 |      |      |
| 10/24<br>20                                | Transformer rated current in A                          | 2,9                             | 3,6 | 4,6 | 5,8  | 7,2  | 9,1  | 11,5 | 14,4 | 18,2 | 18,2 | 23,1                 | 28,9 | 36,1 | 46,2 | 57,7 | 72,2 |
|                                            | Short-circuit current 2s in A                           | 72                              | 90  | 115 | 144  | 180  | 227  | 289  | 361  | 455  | 303  | 385                  | 481  | 601  | 770  | 962  | 1203 |
|                                            | Transfer current I transfer in A                        | 72                              | 72  | 72  | 136  | 173  | 239  | 239  | 310  | 436  | 307  | 436                  | 450  | 562  | 701  | 860  | 1184 |
|                                            | Rated current of the fuse-link in A                     | 10                              | 10  | 10  | 16   | 20   | 25   | 25   | 31,5 | 40   | 31,5 | 40                   | 50   | 63   | 80   | 100  | 125  |
|                                            | Power dissipation of the fuse-link IN transf. in W      | 2,6                             | 4,0 | 6,7 | 4,0  | 4,8  | 5,8  | 9,7  | 11,8 | 13,2 | 20,2 | 23,1                 | 23,6 | 24,1 | 36,9 | 48,2 | 61,2 |
| 20/36<br>30                                | Transformer rated current in A                          | 1,9                             | 2,4 | 3,1 | 3,8  | 4,8  | 6,1  | 7,7  | 9,6  | 12,1 | 12,1 | 15,4                 | 19,2 | 24,1 | 30,8 | 38,5 | 48,1 |
|                                            | Short-circuit current 2s in A                           | 48                              | 60  | 77  | 96   | 120  | 152  | 192  | 241  | 303  | 202  | 257                  | 321  | 401  | 513  | 642  | 802  |
|                                            | Transfer current I transfer in A T <sub>0</sub> = 40 ms | 39                              | 39  | 71  | 71   | 71   | 139  | 181  | 181  | 228  | 181  | 228                  | 315  | 400  | 450  | 577  | 731  |
|                                            | Rated current of the fuse-link in A                     | 6,3                             | 6,3 | 10  | 10   | 10   | 16   | 20   | 20   | 25   | 20   | 25                   | 31,5 | 40   | 50   | 63   | 80   |
|                                            | Power dissipation of the fuse-link IN transf. in W      | 2,4                             | 3,7 | 4,1 | 6,3  | 6,1  | 3,6  | 6,3  | 13,1 | 15,9 | 22,8 | 28,3                 | 33,0 | 46,9 | 51,7 | 45,7 | 61,0 |

## HV Fuse-Links

### General remarks

**High-voltage Fuse-Links for voltage transformer "HSW"**  
acc. to VDE 0670 T4 / IEC 60 282-1

HV fuse-links for voltage transformers (HSW) offer protection against short-circuits. They reliably isolate the defective transformer from the power supply.

Their compact design enables integration into the transformer housing. By sealing the transformer housing with a screw cap, the HSW can be replaced and is visible from outside if the screw cap has a window. For status indication purposes, the HSW can be provided with an indicator. The HSW can be used for transformers with an output limit of up to 3000 VA (6 to 12 kV) or 6000 VA (15 to 24 kV).

In the event of a short-circuit, the HSW significantly reduces the current in such a way that the maximum peak current of 1 kA flows only for a few microseconds. In this way, effects of the defect on the supplying system are largely prevented.



Fig. 8

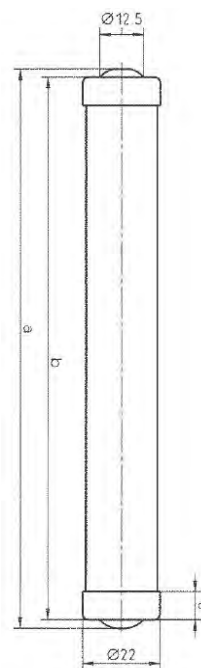


Fig. 9

### HV Fuse-Links for voltage transformers

#### Electrical data, dimensions, weight

| Variant           | Rated voltage range<br>$U_N$<br>kV | Dimensions |         | Initial resistance<br>$R_{initial}$ max.<br>$\Omega$ | Weight<br>kg | PU | Order no.  |
|-------------------|------------------------------------|------------|---------|------------------------------------------------------|--------------|----|------------|
|                   |                                    | a<br>mm    | b<br>mm |                                                      |              |    |            |
| with indicator    | 6/12                               | 160        | 155     | 7                                                    | 0,15         | 1  | 67036-0004 |
| with indicator    | 15/24                              | 280        | 275     | 12                                                   | 0,27         | 1  | 67037-0004 |
| without indicator | 6/12                               | 160        | 155     | 7                                                    | 0,15         | 1  | 67036-0003 |
| without indicator | 15/24                              | 280        | 275     | 12                                                   | 0,27         | 1  | 67037-0003 |
| without indicator | 20/36                              | 421        | -       | 9                                                    | 2,7          | 1  | 67088-0003 |



# HV Fuse-Links

## Selection table acc. to VDE 0670 T402 / IEC 60 282-1

Selection table for HV back-up Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1  
with selectivity to the low-voltage fuse-link (gTr/gG)

Table 1

| Rated voltage range of the fuse-link [kV] | Mode of protection, rated current of the fuse-link [A] | Transformer rated output [kVA] |              |                |                |                |                |              |                |                |                |                |                |
|-------------------------------------------|--------------------------------------------------------|--------------------------------|--------------|----------------|----------------|----------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|
|                                           |                                                        | Rel. short circuit voltage     |              |                |                | $u_K = 4 \%$   |                |              |                |                |                | $u_K = 5 \%$   |                |
|                                           |                                                        | 50                             | 100          | 125            | 160            | 200            | 250            | 315          | 400            | 500            | 630            | 800            | 1000           |
| 3/7,2                                     | $I_N$ Tr                                               | 4,8                            | 9,6          | 12,0           | 15,4           | 19,2           | 24,1           | 30,3         | 38,5           | 48,1           | 60,6           | 77,1           | 96,3           |
|                                           | with NH gG                                             | 16                             | <b>20-25</b> | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b>   | <b>50-63</b>   | <b>63-80</b> | <b>80-100</b>  | <b>100-125</b> | <b>100-160</b> | 160            | 160            |
|                                           | with NH gTr                                            |                                | <b>20-25</b> | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b>   | <b>50-63</b>   | <b>63-80</b> | <b>80-100</b>  | <b>100-125</b> | <b>100-160</b> | 160            | 160            |
| 6/12                                      | $I_N$ Tr                                               | 2,9                            | 5,8          | 7,2            | 9,2            | 11,5           | 14,4           | 18,2         | 23,1           | 28,9           | 36,4           | 46,2           | 57,7           |
|                                           | with NH gG                                             | 10                             | 16           | 16             | <b>20-25</b>   | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b> | <b>50-63</b>   | <b>63-80</b>   | <b>80-100</b>  | <b>100-125</b> | <b>100-125</b> |
|                                           | with NH gTr                                            |                                | 16           | 16             | <b>20-25</b>   | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b> | <b>50-63</b>   | <b>63-80</b>   | <b>80-100</b>  | <b>100-125</b> | <b>100-160</b> |
| 10/24                                     | $I_N$ Tr                                               | 1,5                            | 2,9          | 3,6            | 4,6            | 5,8            | 7,2            | 9,1          | 11,5           | 14,4           | 18,2           | 23,1           | 28,9           |
|                                           | with NH gG                                             | 6,3                            | 10           | 10             | 16             | 16             | <b>16-25</b>   | 25           | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b>   | 63             | 63             |
|                                           | with NH gTr                                            |                                | 10           | 10             | 16             | 16             | <b>16-25</b>   | 25           | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b>   | 63             | 63-80          |
| 20/36                                     | $I_N$ Tr                                               | 1,0                            | 1,9          | 2,4            | 3,1            | 3,8            | 4,8            | 6,1          | 7,7            | 9,6            | 12,1           | 15,4           | 19,2           |
|                                           | with NH gG                                             |                                | 6,3          | 10             | 10             | 16             | <b>16-20</b>   | <b>20-25</b> | 25             | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b>   | <b>40-50</b>   |
|                                           | with NH gTr                                            |                                | 6,3          | 10             | 10             | 16             | <b>16-20</b>   | <b>20-25</b> | 25             | <b>25-31,5</b> | <b>31,5-40</b> | <b>40-50</b>   | <b>40-50</b>   |
| 0,4                                       | $I_N$ Tr                                               | 72                             | 144          | 180            | 231            | 289            | 361            | 455          | 577            | 722            | 909            | 1155           | 1443           |
|                                           | with NH gG                                             | 80                             | 125/160      | 160/200        | 200/250        | 250/315        | 315/400        | 400/500      | 500/630        | 630/800        | 800/1000       | 1000/1250      | 1250/1600      |
|                                           | with NH gTr                                            |                                | 100          | 125            | 160            | 200            | 250            | 315          | 400            | 500            | 630            | 800            | 1000           |

Preferred values shown in bold print

$I_N$  Tr = Transformer rated current [A]

Selection table for HV back-up Fuse-Links acc. to VDE 0670 T402  
with selectivity to NH gTr with controlled power dissipation (ÜLA)

Table 2

| Rated voltage range of the fuse-link [kV] | Mode of protection, rated current of the fuse-link [A] | Transformer rated output [kVA] |     |     |      |              |      |          |      |      |      |              |  |
|-------------------------------------------|--------------------------------------------------------|--------------------------------|-----|-----|------|--------------|------|----------|------|------|------|--------------|--|
|                                           |                                                        | Rel. short circuit voltage     |     |     |      | $u_K = 4 \%$ |      |          |      |      |      | $u_K = 5 \%$ |  |
|                                           |                                                        | 100                            | 125 | 160 | 200  | 250          | 315  | 400      | 500  | 630  | 800  | 1000         |  |
| 6/12                                      | $I_N$ Tr                                               | 5,8                            | 7,2 | 9,2 | 11,5 | 14,4         | 18,2 | 23,1     | 28,9 | 36,4 | 46,2 | 57,7         |  |
|                                           | $I_N$                                                  | 16                             | 16  | 20  | 25   | 31,5         | 40   | 50       | 63   | 80   | 100  | 125          |  |
|                                           | $P_{warm}$                                             | 2,4                            | 3,6 | 4,5 | 5,3  | 6,3          | 8,6  | 10,7     | 10,4 | 13,1 | 28,5 | 18,3         |  |
| 10/24                                     | $I_N$ Tr                                               | 2,9                            | 3,6 | 4,6 | 5,8  | 7,2          | 9,1  | 11,6     | 14,4 | 18,2 | 23,1 | 28,9         |  |
|                                           | $I_N$                                                  | 10                             | 10  | 16  | 16   | 16/25        | 25   | 25/31,5  | 31,5 | 40   | 63   | 63           |  |
|                                           | $P_{warm}$                                             | 3,3                            | 5,0 | 2,9 | 4,6  | 7,2/3,8      | 6,2  | 10,2/8,3 | 13,0 | 15,2 | 14,0 | 22,7         |  |
| 20/36                                     | $I_N$ Tr                                               | 1,9                            | 2,4 | 3,1 | 3,8  | 4,8          | 6,1  | 7,7      | 9,6  | 12,1 | 15,4 | 19,2         |  |
|                                           | $I_N$                                                  | 6,3                            | 10  | 10  | 16   | 16           | 20   | 25       | 25   | 31,5 | 40   | 40/50        |  |
|                                           | $P_{warm}$                                             | 2,8                            | 3,0 | 4,7 | 3,0  | 4,5          | 5,6  | 6,5      | 10,0 | 12,3 | 16,9 | 27,6/17,3    |  |

$I_N$  Tr = Transformer rated current [A]

$I_N$  = Fuse-link rated current [A]

$P_{warm}$  = Power dissipation of the HV fuse-links for rated current of the transformer [W]

# HV Fuse-Links

## Selection table acc. to VDE 0670 T4 / IEC 60 282-1

Selection table for EFEN HV general-purpose fuses  
VDE 0670 T4 / IEC 60282-1

Table 3

| Rated voltage range of the fuse-link [kV] | Mode of protection, fuse-link rated current [A] | Transformer rated output [kVA]         |        |       |       |        |       |      |       |      |       |             |      |
|-------------------------------------------|-------------------------------------------------|----------------------------------------|--------|-------|-------|--------|-------|------|-------|------|-------|-------------|------|
|                                           |                                                 | Rel. short circuit voltage $u_K = 4\%$ |        |       |       |        |       |      |       |      |       | $u_K = 5\%$ |      |
|                                           |                                                 | 50                                     | 100    | 125   | 160   | 200    | 250   | 315  | 400   | 500  | 630   | 800         | 1000 |
| 3/7,2                                     | $I_{N Tr}$                                      | 4,8                                    | 9,6    | 12    | 15,4  | 19,2   | 24,1  | 30,3 | 38,5  | 48,1 | 60,6  | 77,1        | 96,3 |
| 6                                         | $I_N$                                           | 6,3                                    | 16     | 16    | 16-25 | 25     | 25-40 | 40   | 40-50 | 50   | 50    | -           | -    |
| 6/12                                      | $I_{N Tr}$                                      | 2,9                                    | 5,8    | 7,2   | 9,2   | 11,5   | 14,4  | 18,2 | 23,1  | 28,9 | 36,4  | 46,2        | 57,7 |
| 10                                        | $I_N$                                           | 6,3                                    | 6,3-10 | 10    | 16    | 16     | 16-25 | 25   | 25-40 | 40   | 40-50 | 50          | 50   |
| 10/24                                     | $I_{N Tr}$                                      | 1,5                                    | 2,9    | 3,6   | 4,6   | 5,8    | 7,2   | 9,1  | 11,5  | 14,4 | 18,2  | 23,1        | 28,9 |
| 20                                        | $I_N$                                           | -                                      | 4      | 4-6,3 | 6,3   | 6,3-10 | 10    | 16   | 16    | 16   | 25    | 25          | 25   |

$I_{N Tr}$  = Transformer rated current [A]

$I_N$  = Fuse-link rated current [A]

### Benefits of using EFEN HV general-purpose Fuse-Links:

- Reliable breaking of all currents: from the current tripping the fuse element within a time of  $\geq 1$  hour to the maximum rated breaking current  $I_1$
- No lightning current and low inrush current sensitivity
- Very low power dissipation/low thermal load
- Selectivity to low-voltage circuit breaker possible
- EFEN HV general-purpose fuse-links are available as oil-tight variants for integration into transformers

# HV Fuse-Links

## Selection table acc. to VDE 0670 T4 and T 402 / IEC 60 282-1

### HV Fuse-Links for protection of HV motors

EFEN HV fuse-links are suitable for HV motor protections.

EFEN has the expertise and the right products to protect your motor circuits effectively.

Selection table acc. to T402

Table 4

| High-voltage motors | Number of starts per h | Maximum motor starting current (A) |     |     |     |     |     |     |      |
|---------------------|------------------------|------------------------------------|-----|-----|-----|-----|-----|-----|------|
| Start-up times      |                        |                                    |     |     |     |     |     |     |      |
| ≤ 6 s               | ≤ 2                    | 130                                | 180 | 220 | 290 | 360 | 500 | 680 | 1100 |
|                     | 4                      | 120                                | 150 | 190 | 240 | 310 | 450 | 550 | 900  |
|                     | 10                     | 110                                | 140 | 170 | 220 | 270 | 400 | 490 | 770  |
|                     | 15                     | 100                                | 130 | 160 | 200 | 250 | 340 | 430 | 670  |
|                     | 30                     | 90                                 | 120 | 140 | 190 | 230 | 320 | 400 | 630  |
| 6 – 15 s            | 2                      | 120                                | 160 | 190 | 240 | 310 | 430 | 580 | 670  |
|                     | 4                      | 100                                | 140 | 170 | 220 | 280 | 400 | 500 | 610  |
|                     | 10                     | 90                                 | 120 | 150 | 200 | 240 | 340 | 430 | 540  |
|                     | 15                     | 80                                 | 110 | 130 | 180 | 220 | 320 | 400 | 480  |
|                     | 30                     | 70                                 | 100 | 120 | 160 | 200 | 290 | 350 | 430  |
| 15 – 60 s           | 2                      | 100                                | 130 | 160 | 220 | 270 | 380 | 470 | 590  |
|                     | 4                      | 90                                 | 120 | 150 | 200 | 250 | 340 | 440 | 540  |
|                     | 6                      | 80                                 | 110 | 140 | 190 | 230 | 320 | 400 | 500  |
|                     | 10                     | 70                                 | 100 | 130 | 180 | 220 | 300 | 380 | 470  |

recommended fuse-link (acc. to IEC 60282-1 and VDE 0670 T4 & 402)

|                     |            |            |            |            |            |            |            |            |            |
|---------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Rated current:      |            | 63 A       | 80 A       | 100 A      | 125 A      | 160 A      | 2 x 100 A  | 2 x 125 A  | 2 x 160 A  |
| Order number        |            |            |            |            |            |            |            |            |            |
| Motor rated voltage | 3 – 7,2 kV | 67110-0630 | 67110-0800 | 67110-1000 | 67110-1250 | 67110-1600 | 67110-1000 | 67110-1250 | 67110-1600 |
|                     | 6 – 12 kV  | 67120-0630 | 67120-0800 | 67120-1000 | 67120-1250 | 67120-1600 | 67120-1000 | 67120-1250 | 67120-1600 |
|                     | 10 – 24 kV | 67140-0630 | 67140-0800 | 67140-1000 |            |            |            |            |            |
|                     | 20 – 36 kV | 67150-0630 |            |            |            |            |            |            |            |

Selection table acc. to T4

Table 5

| High-voltage motors | Number of starts per h | Maximum motor starting current (A) |     |     |     |     |     |     |      |
|---------------------|------------------------|------------------------------------|-----|-----|-----|-----|-----|-----|------|
| Start-up times      |                        |                                    |     |     |     |     |     |     |      |
| ≤ 6 s               | ≤ 2                    | 120                                | 165 | 210 | 320 | 370 | 430 | 900 | 1050 |
|                     | 4                      | 110                                | 140 | 180 | 275 | 320 | 380 | 730 | 870  |
|                     | 10                     | 100                                | 130 | 160 | 240 | 280 | 330 | 620 | 750  |
|                     | 15                     | 90                                 | 120 | 150 | 220 | 260 | 300 | 560 | 650  |
|                     | 30                     | 80                                 | 110 | 135 | 205 | 240 | 280 | 510 | 600  |
| 6 – 15 s            | 2                      | 115                                | 145 | 180 | 270 | 320 | 370 | 590 | 640  |
|                     | 4                      | 95                                 | 125 | 160 | 240 | 280 | 340 | 530 | 570  |
|                     | 10                     | 85                                 | 110 | 140 | 210 | 250 | 300 | 480 | 510  |
|                     | 15                     | 75                                 | 100 | 120 | 190 | 230 | 280 | 430 | 450  |
|                     | 30                     | 65                                 | 90  | 110 | 170 | 210 | 250 | 380 | 400  |
| 15 – 60 s           | 2                      | 90                                 | 120 | 150 | 240 | 280 | 320 | 520 | 550  |
|                     | 4                      | 80                                 | 110 | 140 | 220 | 260 | 290 | 470 | 510  |
|                     | 6                      | 75                                 | 100 | 130 | 205 | 240 | 270 | 430 | 470  |
|                     | 10                     | 65                                 | 90  | 120 | 195 | 230 | 250 | 400 | 440  |

recommended fuse-link (acc. to IEC 60282-1 and VDE 0670 T4 & 402)

|                     |            |            |            |            |            |            |            |            |            |
|---------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Rated current:      |            | 63 A       | 80 A       | 100 A      | 160 A      | 200 A      | 2 x 100 A  | 2 x 160 A  | 2 x 200 A  |
| Order number        |            |            |            |            |            |            |            |            |            |
| Motor rated voltage | 3 – 7,2 kV | 67210-0630 | 67210-0800 | 67210-1000 | 67210-1600 | 67210-2000 | 67210-1000 | 67210-1600 | 67210-2000 |
|                     | 6 – 12 kV  |            | 67220-0800 | 67220-1000 | 67220-1600 | 67220-2000 | 67220-1000 | 67220-1600 | 67220-2000 |
|                     | 10 –24 kV  |            | 67240-0800 | 67240-1000 |            |            |            |            |            |

## HV Fuse-Links

### Selection table acc. to VDE 0670 T4 / IEC 60 282-1

Selection table for capacitors

Table 6

| Rated voltage range of the fuse-link [kV]     | 3/7,2        |                           | 6/12         |                           | 10/24        |                        | 20/36        |                        |
|-----------------------------------------------|--------------|---------------------------|--------------|---------------------------|--------------|------------------------|--------------|------------------------|
| Rated operating voltage of the capacitor [kV] | 3            |                           | 6            |                           | 10           |                        | 20           |                        |
| Capacitor<br>Rated output [kVAr]              | $I_{cr}$ [A] | $I_r$ [A]<br>Fuse-link    | $I_{cr}$ [A] | $I_r$ [A]<br>Fuse-link    | $I_{cr}$ [A] | $I_r$ [A]<br>Fuse-link | $I_{cr}$ [A] | $I_r$ [A]<br>Fuse-link |
|                                               |              | Order no.:                |              | Order no.:                |              | Order no.:             |              | Order no.:             |
| 50                                            | 9,6          | 20<br>67110-0200          | 4,8          | 10<br>67220-0100          | 2,9          | 6,3<br>67240-060       | 1,44         | 4<br>67250-0040        |
| 100                                           | 19,2         | 40<br>67110-0400          | 9,6          | 20<br>67220-0200          | 5,8          | 10<br>67240-0100       | 2,9          | 6,3<br>67150-0060      |
| 125                                           | 24,1         | 50<br>67110-0500          | 12,0         | 25<br>67220-0250          | 7,2          | 16<br>67240-0160       | 3,6          | 6,3<br>67150-0060      |
| 160                                           | 30,8         | 80<br>67210-0800          | 15,4         | 31,5<br>67220-0320        | 9,2          | 20<br>67240-0200       | 4,6          | 10<br>67150-0100       |
| 200                                           | 38,5         | 100<br>67210-1000         | 19,2         | 50<br>67220-0500          | 11,5         | 25<br>67240-0250       | 5,8          | 16<br>67150-0160       |
| 250                                           | 48,1         | 125<br>67110-1250         | 24,1         | 63<br>67220-0630          | 14,4         | 31,5<br>67240-0320     | 7,2          | 16<br>67150-0160       |
| 315                                           | 60,6         | 160<br>67210-1600         | 30,3         | 80<br>67220-0800          | 18,2         | 50<br>67240-0500       | 9,1          | 20<br>67150-0200       |
| 400                                           | 77,0         | 200<br>67210-2000         | 38,5         | 100<br>67220-1000         | 23,1         | 63<br>67240-0630       | 11,5         | 25<br>67150-0250       |
| 500                                           | 96,2         | 2 x 125<br>2 x 67110-1250 | 48,1         | 125<br>67220-1250         | 28,9         | 80<br>67240-0800       | 14,4         | 31,5<br>67150-0320     |
| 630                                           | 121,2        | 2 x 160<br>2 x 67210-1600 | 60,6         | 160<br>67220-1600         | 36,4         | 100<br>67240-1000      | 18,2         | 40<br>67150-0400       |
| 800                                           | 154,0        | 2 x 200<br>2 x 67210-2000 | 77,0         | 200<br>67220-2000         | 46,2         | 125<br>67240-1250      | 23,1         | 50<br>67150-0500       |
| 1000                                          | 192,5        | 3 x 160<br>3 x 67210-1600 | 96,2         | 2 x 125<br>2 x 67220-2000 | 57,7         | 160<br>67240-1600      | 28,9         | 63<br>67150-0630       |

#### Selection table for capacitor protection with HV back-up fuse-links according to VDE 0670 T4 / IEC 60282-1

When switching on and adjusting capacitors, transient currents similar to a short-circuit are generated. The intensity and duration of these currents depends on the switching angle, natural frequency and inductivity of the grid and on the size of the capacitors. Therefore, HV fuse-links with the next higher voltage level should be selected to protect individual capacitors.

The following table complies with the requirements of IEC 549 "High-voltage fuses for the external protection of shunt power capacitors".

#### Definitions:

$I_{cr}$  = Capacitor rated current [A]

$I_r$  = Fuse-link rated current [A]

# HV Fuse-Links

## Selection table acc. to VDE 0670 T4 / IEC 60 282-1

Selection table

HV back-up Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1 with controlled power dissipation (ÜLA)

Table 7

| Rated voltage range of the fuse-link [kV]       |                                | 6/12                          |                             | 10/24                         |                             |
|-------------------------------------------------|--------------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|
| Rated operating voltage of the transformer [kV] |                                | 10                            |                             | 20                            |                             |
| Rel. short-circuit voltage                      | Transformer rated output [kVA] | Transformer rated current [A] | Fuse-link rated current [A] | Transformer rated current [A] | Fuse-link rated current [A] |
| U <sub>K</sub> = 4 %                            | 50                             | 2,9                           | 10                          | 1,5                           | 4                           |
|                                                 | 100                            | 5,8                           | <b>16</b> – 20              | 2,9                           | 10                          |
|                                                 | 125                            | 7,2                           | <b>20</b> – 25              | 3,6                           | <b>10</b> – 16              |
|                                                 | 160                            | 9,2                           | <b>20</b> – 31,5            | 4,6                           | <b>16</b> – 20              |
|                                                 | 200                            | 11,5                          | <b>25</b> – 40              | 5,8                           | <b>16</b> – 20              |
|                                                 | 250                            | 14,4                          | <b>31,5</b> – 50            | 7,2                           | <b>20</b> – 25              |
|                                                 | 315                            | 18,2                          | <b>40</b> – 63              | 9,1                           | <b>20</b> – 31,5            |
|                                                 | 400                            | 23,1                          | <b>40</b> – 80              | 11,5                          | <b>25</b> – 40              |
|                                                 | 500                            | 28,9                          | <b>50</b> – 100             | 14,4                          | <b>31,5</b> – 50            |
| U <sub>K</sub> = 5 %                            | 630                            | 36,4                          | <b>63</b> – 100             | 18,2                          | <b>40</b> – 63              |
|                                                 | 800                            | 46,2                          | <b>80</b> – 125             | 23,1                          | <b>40</b> – 63              |
|                                                 | 1000                           | 57,7                          | <b>100</b> – 160            | 28,9                          | <b>50</b> – 80              |
| U <sub>K</sub> = 6,25 %                         | 1250                           | 72,2                          | 125 – 200                   | 36,1                          | <b>63</b> – 100             |
|                                                 | 1600                           | 92,4                          | 125 – 200                   | 46,2                          | <b>80</b> – 100             |

Preferred values shown in bold print

Selection table

HV back-up Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

Table 8

| Rated voltage range of the fuse-link [kV]       |                                | 3/7,2                         |                             | 6/12                          |                             | 10/24                         |                             | 20/36                         |                             |
|-------------------------------------------------|--------------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|-------------------------------|-----------------------------|
| Rated operating voltage of the transformer [kV] |                                | 6                             |                             | 10                            |                             | 20                            |                             | 30                            |                             |
| Rel. short circuit voltage                      | Transformer rated output [kVA] | Transformer rated current [A] | Fuse-link rated current [A] | Transformer rated current [A] | Fuse-link rated current [A] | Transformer rated current [A] | Fuse-link rated current [A] | Transformer rated current [A] | Fuse-link rated current [A] |
| U <sub>K</sub> = 4 %                            | 50                             | 4,8                           | <b>16</b> – 20              | 2,9                           | 10                          | 1,5                           | 4                           | 0,96                          | <b>2</b> – 6,3              |
|                                                 | 100                            | 9,6                           | <b>20</b> – 31,5            | 5,8                           | <b>16</b> – 20              | 2,9                           | 10                          | 1,9                           | <b>6,3</b> – 10             |
|                                                 | 125                            | 12                            | <b>25</b> – 40              | 7,2                           | <b>20</b> – 25              | 3,6                           | <b>10</b> – 16              | 2,4                           | 10                          |
|                                                 | 160                            | 15,4                          | <b>31,5</b> – 50            | 9,2                           | <b>20</b> – 31,5            | 4,6                           | <b>16</b> – 20              | 3,1                           | 10                          |
|                                                 | 200                            | 19,2                          | <b>40</b> – 63              | 11,5                          | <b>25</b> – 40              | 5,8                           | <b>16</b> – 20              | 3,8                           | <b>10</b> – 16              |
|                                                 | 250                            | 24,1                          | <b>40</b> – 80              | 14,4                          | <b>31,5</b> – 50            | 7,2                           | <b>20</b> – 25              | 4,8                           | <b>16</b> – 20              |
|                                                 | 315                            | 30,3                          | <b>50</b> – 100             | 18,2                          | <b>40</b> – 63              | 9,1                           | <b>20</b> – 31,5            | 6,1                           | <b>16</b> – 25              |
|                                                 | 400                            | 38,5                          | <b>63</b> – 125             | 23,1                          | <b>40</b> – 80              | 11,5                          | <b>25</b> – 40              | 7,7                           | <b>20</b> – 25              |
|                                                 | 500                            | 48,1                          | <b>80</b> – 160             | 28,9                          | <b>50</b> – 100             | 14,4                          | <b>31,5</b> – 50            | 9,6                           | <b>20</b> – 31,5            |
|                                                 | 630                            | 60,6                          | <b>100</b> – 200            | 36,4                          | <b>63</b> – 100             | 18,2                          | <b>40</b> – 63              | 12,1                          | <b>25</b> – 40              |
| U <sub>K</sub> = 5 %                            | 800                            | 77,1                          | <b>125</b> – 200            | 46,2                          | <b>80</b> – 125             | 23,1                          | <b>40</b> – 63              | 15,4                          | <b>31,5</b> – 40            |
|                                                 | 1000                           | 96,3                          | <b>125</b> – 160            | 57,7                          | <b>100</b> – 160            | 28,9                          | <b>50</b> – 80              | 19,2                          | <b>40</b> – 50              |
|                                                 | 1250                           | 120,3                         | <b>160</b> – 200            | 72,2                          | <b>125</b> – 200            | 36,1                          | <b>63</b> – 100             | 24,1                          | <b>40</b> – 50              |
| U <sub>K</sub> = 6,25 %                         | 1600                           | 154                           | 200                         | 92,4                          | <b>125</b> – 200            | 46,2                          | <b>80</b> – 100             | 30,8                          | <b>50</b> – 63              |

Preferred values shown in bold print

# HV Fuse-Links

HV back-up Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1  
Electrical data, dimensions, weight

Table 9

| Rated voltage range | Rated current | Rated value Maximum breaking current | Rated value Minimum breaking current | Dimensions |         | Resistance and power dissipation |                 | Operating integral | Weight | PU | Order no.  |
|---------------------|---------------|--------------------------------------|--------------------------------------|------------|---------|----------------------------------|-----------------|--------------------|--------|----|------------|
| $U_N$<br>kV         | $I_N$<br>A    | $I_1$<br>kA                          | $I_3$<br>A                           | e<br>mm    | d<br>mm | $R_{initial}$<br>mΩ              | $P_{warm}$<br>W | A <sup>2</sup> s   | kg     |    |            |
| 3/7,2               | 6,3           | 63                                   | 21                                   | 192        | 56      | 256                              | 11              | 800                | 1,2    | 1  | 67110-0060 |
| 3/7,2               | 10            | 63                                   | 38                                   | 192        | 56      | 144                              | 19              | 3.000              | 1,2    | 1  | 67110-0100 |
| 3/7,2               | 16            | 63                                   | 65                                   | 192        | 56      | 41                               | 13              | 2.340              | 1,2    | 1  | 67110-0160 |
| 3/7,2               | 20            | 63                                   | 92                                   | 192        | 56      | 32                               | 14,5            | 3.900              | 1,1    | 1  | 67110-0200 |
| 3/7,2               | 25            | 63                                   | 110                                  | 192        | 56      | 25                               | 20              | 4.900              | 1,2    | 1  | 67110-0250 |
| 3/7,2               | 31,5          | 63                                   | 123                                  | 192        | 56      | 19                               | 23              | 7.000              | 1,2    | 1  | 67110-0320 |
| 3/7,2               | 40            | 63                                   | 140                                  | 192        | 56      | 12,3                             | 30              | 14.000             | 1,2    | 1  | 67110-0400 |
| 3/7,2               | 50            | 63                                   | 194                                  | 192        | 56      | 9,3                              | 35              | 25.300             | 1,2    | 1  | 67110-0500 |
| 3/7,2               | 63            | 63                                   | 220                                  | 192        | 65      | 7,0                              | 60              | 61.700             | 1,4    | 1  | 67110-0630 |
| 3/7,2               | 80            | 63                                   | 300                                  | 192        | 65      | 5,2                              | 85              | 87.400             | 1,6    | 1  | 67110-0800 |
| 3/7,2               | 100           | 63                                   | 440                                  | 192        | 78      | 4,0                              | 96              | 180.000            | 2,0    | 1  | 67110-1000 |
| 3/7,2               | 125           | 63                                   | 440                                  | 192        | 88      | 2,9                              | 75              | 440.000            | 2,4    | 1  | 67110-1250 |
| 3/7,2               | 160           | 63                                   | 610                                  | 192        | 88      | 2,3                              | 120             | 654.000            | 2,7    | 1  | 67110-1600 |
| 6/12                | 6,3           | 63                                   | 23                                   | 292        | 56      | 409                              | 19              | 800                | 1,7    | 1  | 67120-0060 |
| 6/12                | 10            | 63                                   | 35                                   | 292        | 56      | 231                              | 29              | 3.000              | 1,7    | 1  | 67120-0100 |
| 6/12                | 16            | 63                                   | 64                                   | 292        | 56      | 69                               | 21              | 3.700              | 1,7    | 1  | 67120-0160 |
| 6/12                | 20            | 63                                   | 90                                   | 292        | 56      | 53                               | 25              | 4.700              | 1,6    | 1  | 67120-0200 |
| 6/12                | 25            | 63                                   | 95                                   | 292        | 56      | 41                               | 31              | 4.920              | 1,7    | 1  | 67120-0250 |
| 6/12                | 31,5          | 63                                   | 110                                  | 292        | 56      | 31                               | 39              | 7.000              | 1,7    | 1  | 67120-0320 |
| 6/12                | 40            | 63                                   | 134                                  | 292        | 56      | 20                               | 46              | 14.000             | 1,7    | 1  | 67120-0400 |
| 6/12                | 50            | 63                                   | 190                                  | 292        | 56      | 16,7                             | 62              | 25.300             | 1,7    | 1  | 67120-0500 |
| 6/12                | 63            | 63                                   | 220                                  | 292        | 65      | 11,7                             | 60              | 63.000             | 2,1    | 1  | 67120-0630 |
| 6/12                | 80            | 63                                   | 345                                  | 292        | 65      | 8,7                              | 82              | 87.000             | 2,3    | 1  | 67120-0800 |
| 6/12                | 100           | 63                                   | 400                                  | 292        | 78      | 6,7                              | 96              | 180.000            | 3,1    | 1  | 67120-1000 |
| 6/12                | 125           | 63                                   | 480                                  | 292        | 88      | 4,9                              | 117             | 440.000            | 3,7    | 1  | 67120-1250 |
| 6/12                | 160           | 63                                   | 610                                  | 292        | 88      | 3,8                              | 175             | 654.000            | 1,9    | 1  | 67120-1600 |
| 10/17,5             | 6,3           | 63                                   | 20                                   | 367        | 56      | 530                              | 24              | 800                | 1,9    | 1  | 67130-0060 |
| 10/17,5             | 10            | 63                                   | 33                                   | 367        | 56      | 312                              | 34              | 3.000              | 1,9    | 1  | 67130-0100 |
| 10/17,5             | 16            | 63                                   | 64                                   | 367        | 56      | 100                              | 34              | 2.340              | 1,9    | 1  | 67130-0160 |
| 10/17,5             | 20            | 63                                   | 80                                   | 367        | 56      | 75                               | 42              | 3.900              | 1,9    | 1  | 67130-0200 |
| 10/17,5             | 25            | 63                                   | 100                                  | 367        | 56      | 56                               | 50              | 6.500              | 1,9    | 1  | 67130-0250 |
| 10/17,5             | 31,5          | 63                                   | 110                                  | 367        | 56      | 46                               | 61              | 7.000              | 1,9    | 1  | 67130-0320 |
| 10/17,5             | 40            | 63                                   | 134                                  | 367        | 56      | 32                               | 83              | 14.200             | 1,9    | 1  | 67130-0400 |
| 10/17,5             | 50            | 63                                   | 180                                  | 367        | 56      | 22                               | 84              | 40.000             | 3,5    | 1  | 67130-0500 |
| 10/17,5             | 63            | 63                                   | 240                                  | 367        | 56      | 16                               | 110             | 61.700             | 3,5    | 1  | 67130-0630 |
| 10/17,5             | 80            | 63                                   | 320                                  | 367        | 78      | 13                               | 130             | 87.400             | 3,5    | 1  | 67130-0800 |
| 10/17,5             | 100           | 63                                   | 420                                  | 367        | 78      | 9,5                              | 180             | 170.000            | 4,4    | 1  | 67130-1000 |
| 10/24               | 6,3           | 63                                   | 23                                   | 442        | 56      | 640                              | 32              | 800                | 2,4    | 1  | 67140-0060 |
| 10/24               | 10            | 63                                   | 36                                   | 442        | 56      | 386                              | 48              | 2.000              | 2,4    | 1  | 67140-0100 |
| 10/24               | 16            | 63                                   | 73                                   | 442        | 56      | 127                              | 43              | 2.340              | 2,4    | 1  | 67140-0160 |
| 10/24               | 20            | 63                                   | 91                                   | 442        | 56      | 97                               | 53              | 3.900              | 2,3    | 1  | 67140-0200 |
| 10/24               | 25            | 63                                   | 116                                  | 442        | 56      | 74                               | 64              | 6.500              | 2,4    | 1  | 67140-0250 |
| 10/24               | 31,5          | 63                                   | 125                                  | 442        | 56      | 61                               | 85              | 7.000              | 2,4    | 1  | 67140-0320 |
| 10/24               | 40            | 63                                   | 161                                  | 442        | 56      | 43                               | 103             | 14.200             | 2,3    | 1  | 67140-0400 |
| 10/24               | 50            | 63                                   | 230                                  | 442        | 56      | 35                               | 146             | 24.200             | 4,5    | 1  | 67140-0500 |
| 10/24               | 63            | 63                                   | 350                                  | 442        | 65      | 25                               | 163             | 46.400             | 3,1    | 1  | 67140-0630 |
| 10/24               | 80            | 63                                   | 460                                  | 442        | 65      | 19                               | 196             | 104.000            | 4,5    | 1  | 67140-0800 |
| 10/24               | 100           | 63                                   | 420                                  | 442        | 88      | 14                               | 279             | 140.000            | 4,1    | 1  | 67140-1000 |
| 20/36               | 6,3           | 31,5                                 | 23                                   | 537        | 56      | 827                              | 39              | 600                | 2,8    | 1  | 67150-0060 |
| 20/36               | 10            | 31,5                                 | 34                                   | 537        | 56      | 463                              | 65              | 2.000              | 2,8    | 1  | 67150-0100 |
| 20/36               | 16            | 31,5                                 | 70                                   | 537        | 56      | 210                              | 67              | 2.340              | 2,7    | 1  | 67150-0160 |
| 20/36               | 20            | 31,5                                 | 100                                  | 537        | 56      | 165                              | 84              | 3.900              | 2,8    | 1  | 67150-0200 |
| 20/36               | 25            | 31,5                                 | 110                                  | 537        | 56      | 125                              | 100             | 6.500              | 2,8    | 1  | 67150-0250 |
| 20/36               | 31,5          | 31,5                                 | 135                                  | 537        | 56      | 85                               | 119             | 7.000              | 3,7    | 1  | 67150-0320 |
| 20/36               | 40            | 20                                   | 205                                  | 537        | 56      | 65                               | 176             | 14.200             | 3,8    | 1  | 67150-0400 |
| 20/36               | 50            | 20                                   | 220                                  | 537        | 56      | 42                               | 183             | 40.000             | 6,5    | 1  | 67150-0500 |
| 20/36               | 63            | 20                                   | 360                                  | 537        | 65      | 35                               | 271             | 61.700             | 6,8    | 1  | 67150-0630 |



# HV Fuse-Links

HV back-up Fuse-Links acc. to VDE 0670 T402 and T402 ÜLA

Time-current characteristics

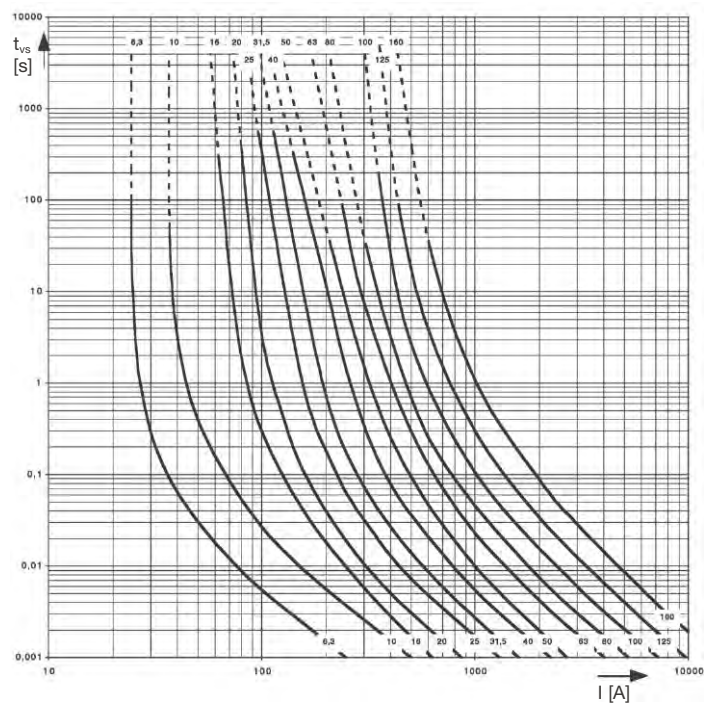


Fig. 10  
3/7.2 kV

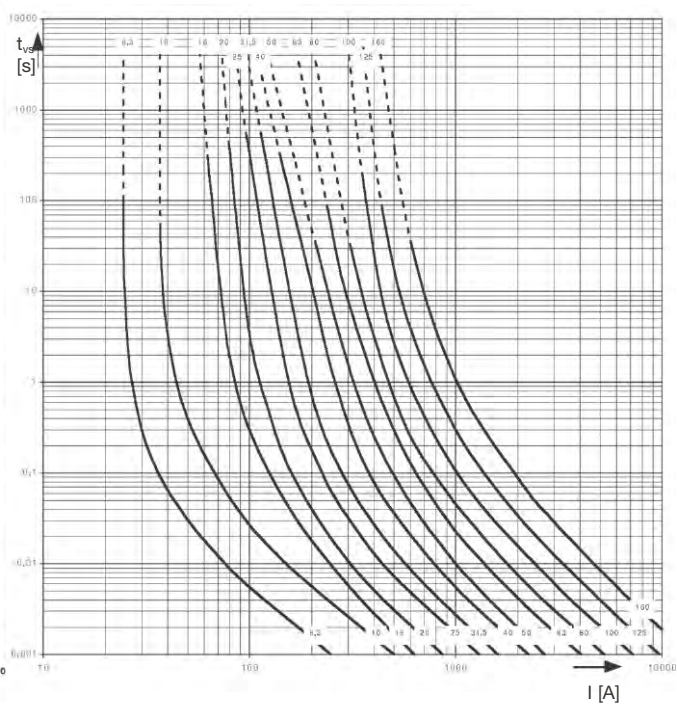


Fig. 11  
6/12 kV

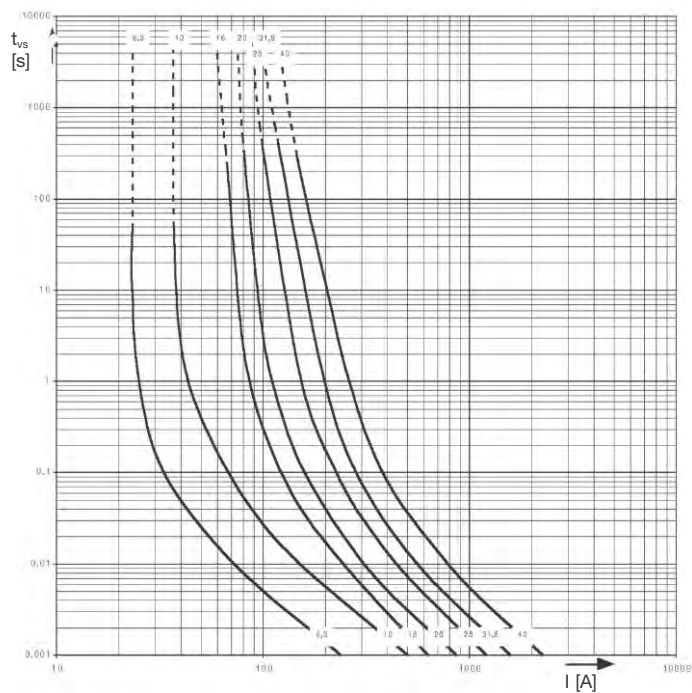


Fig. 12  
10/24 kV 6.3 A - 40 A

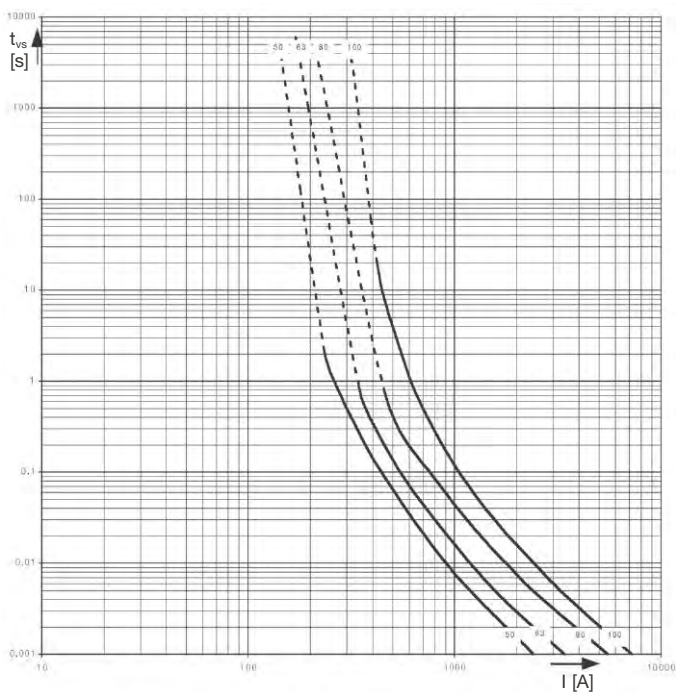


Fig. 13  
10/24 kV 50 A - 100 A

## HV Fuse-Links

HV back-up Fuse-Links acc. to VDE 0670 T402 and T402 ÜLA

Time-current characteristics

Dimensions acc. to DIN 43 625 in mm

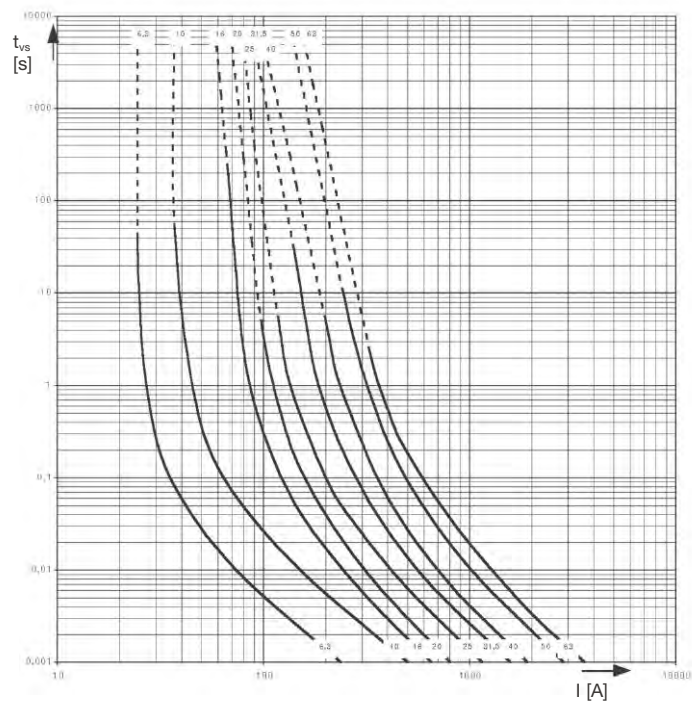
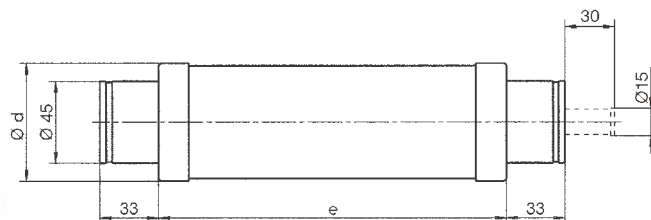


Fig. 14  
20/36 kV



# HV Fuse-Links

HV back-up Fuse-Links acc. to VDE 0670 T402 / IEC 60 282-1 with controlled power dissipation ŪLA

Electrical data, dimensions, weight

Table 10

| Rated voltage range | Rated current | Rated value Maximum breaking current | Rated value Minimum breaking current | Dimensions |         | Resistance and power dissipation |                   | Operating integral | Weight | PU | Order no.  |
|---------------------|---------------|--------------------------------------|--------------------------------------|------------|---------|----------------------------------|-------------------|--------------------|--------|----|------------|
| $U_N$<br>kV         | $I_N$<br>A    | $I_1$<br>kA                          | $I_3$<br>A                           | e<br>mm    | d<br>mm | $R_{initial}$<br>mΩ              | $P_{warm}^*$<br>W | A²s                | kg     |    |            |
| 6/12                | 10            | 63                                   | 35                                   | 292        | 56      | 227                              | 29                | 3.000              | 1,6    | 1  | 67520-0100 |
| 6/12                | 16            | 63                                   | 64                                   | 292        | 56      | 66                               | 21                | 3.700              | 1,6    | 1  | 67520-0160 |
| 6/12                | 20            | 63                                   | 90                                   | 292        | 56      | 51                               | 25                | 4.700              | 1,6    | 1  | 67520-0200 |
| 6/12                | 25            | 63                                   | 95                                   | 292        | 56      | 40                               | 29                | 4.920              | 1,6    | 1  | 67520-0250 |
| 6/12                | 31,5          | 63                                   | 110                                  | 292        | 56      | 30                               | 39                | 7.000              | 1,6    | 1  | 67520-0320 |
| 6/12                | 40            | 63                                   | 134                                  | 292        | 56      | 20                               | 46                | 14.000             | 1,6    | 1  | 67520-0400 |
| 6/12                | 50            | 63                                   | 190                                  | 292        | 56      | 15                               | 62                | 25.300             | 1,6    | 1  | 67520-0500 |
| 6/12                | 63            | 63                                   | 220                                  | 292        | 65      | 12                               | 62                | 63.000             | 2,1    | 1  | 67520-0630 |
| 6/12                | 80            | 63                                   | 345                                  | 292        | 65      | 8,7                              | 85                | 87.000             | 2,1    | 1  | 67520-0800 |
| 6/12                | 100           | 63                                   | 500                                  | 292        | 65      | 8,1                              | 152               | 140.000            | 2,1    | 1  | 67520-1000 |
| 6/12                | 125           | 63                                   | 480                                  | 292        | 88      | 4,5                              | 117               | 430.000            | 3,7    | 1  | 67520-1250 |
| 6/12                | 160           | 63                                   | 610                                  | 292        | 88      | 4,0                              | 175               | 670.000            | 3,7    | 1  | 67520-1600 |
| 10/24               | 6,3           | 63                                   | 23                                   | 442        | 56      | 640                              | 31                | 800                | 2,3    | 1  | 67541-0060 |
| 10/24               | 10            | 63                                   | 36                                   | 442        | 56      | 386                              | 48                | 2.000              | 2,3    | 1  | 67541-0100 |
| 10/24               | 16            | 63                                   | 73                                   | 442        | 56      | 127                              | 42                | 2.340              | 2,3    | 1  | 67541-0160 |
| 10/24               | 20            | 63                                   | 91                                   | 442        | 56      | 97                               | 53                | 3.900              | 2,3    | 1  | 67541-0200 |
| 10/24               | 25            | 63                                   | 116                                  | 442        | 56      | 73                               | 60                | 6.500              | 2,3    | 1  | 67541-0250 |
| 10/24               | 31,5          | 63                                   | 125                                  | 442        | 56      | 57                               | 84                | 7.000              | 2,3    | 1  | 67541-0320 |
| 10/24               | 40            | 63                                   | 161                                  | 442        | 56      | 41                               | 96                | 14.200             | 2,3    | 1  | 67541-0400 |
| 10/24               | 50            | 63                                   | 230                                  | 442        | 65      | 35                               | 146               | 24.200             | 3,1    | 1  | 67541-0500 |
| 10/24               | 63            | 63                                   | 350                                  | 442        | 65      | 24                               | 163               | 46.400             | 3,1    | 1  | 67541-0630 |
| 10/24               | 80            | 63                                   | 460                                  | 442        | 65      | 19                               | 196               | 104.000            | 3,1    | 1  | 67541-0800 |
| 10/24               | 100           | 63                                   | 420                                  | 442        | 88      | 14                               | 279               | 140.000            | 4,1    | 1  | 67541-1000 |
| 20/36               | 6,3           | 31,5                                 | 23                                   | 537        | 56      | 889                              | 39                | 600                | 2,7    | 1  | 67550-0060 |
| 20/36               | 10            | 31,5                                 | 34                                   | 537        | 56      | 529                              | 66                | 2.000              | 2,7    | 1  | 67550-0100 |
| 20/36               | 16            | 31,5                                 | 70                                   | 537        | 56      | 190                              | 67                | 2.340              | 2,7    | 1  | 67550-0160 |
| 20/36               | 20            | 31,5                                 | 100                                  | 537        | 56      | 153                              | 84                | 3.900              | 2,7    | 1  | 67550-0200 |
| 20/36               | 25            | 31,5                                 | 110                                  | 537        | 56      | 118                              | 100               | 6.500              | 2,7    | 1  | 67550-0250 |
| 20/36               | 31,5          | 31,5                                 | 135                                  | 537        | 65      | 82                               | 119               | 7.000              | 3,7    | 1  | 67550-0320 |
| 20/36               | 40            | 20                                   | 205                                  | 537        | 65      | 63                               | 176               | 14.200             | 3,7    | 1  | 67550-0400 |
| 20/36               | 50            | 20                                   | 220                                  | 537        | 88      | 41                               | 183               | 40.000             | 6,5    | 1  | 67550-0500 |

\* Power dissipation  $P_{warm}$  at HV fuse-link rated current; for power dissipation at transformer rated current see table 2

# HV Fuse-Links

HV back-up Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

Table 11

Electrical data, dimensions, weight

| Rated voltage range | Rated current | Rated value Maximum breaking current | Rated value Minimum breaking current | Dimensions |         | Resistance and power dissipation |                   | Operating integral | Weight | PU | Order no.  |
|---------------------|---------------|--------------------------------------|--------------------------------------|------------|---------|----------------------------------|-------------------|--------------------|--------|----|------------|
| $U_N$<br>kV         | $I_N$<br>A    | $I_1$<br>kA                          | $I_3$<br>A                           | e<br>mm    | d<br>mm | $R_{initial}$<br>mΩ              | $P_{warm}^*$<br>W | A2s                | kg     |    |            |
| 3/7,2               | 2             | 63                                   | 15                                   | 192        | 56      | 290                              | 1,8               | 600                | 1,1    | 1  | 67210-0020 |
| 3/7,2               | 4             | 63                                   | 20                                   | 192        | 56      | 270                              | 5                 | 800                | 1,1    | 1  | 67210-0040 |
| 3/7,2               | 6,3           | 63                                   | 21                                   | 192        | 56      | 256                              | 11                | 800                | 1,1    | 1  | 67110-0060 |
| 3/7,2               | 10            | 63                                   | 38                                   | 192        | 56      | 144                              | 19                | 3.000              | 1,1    | 1  | 67110-0100 |
| 3/7,2               | 16            | 63                                   | 65                                   | 192        | 56      | 41                               | 13                | 2.340              | 1,1    | 1  | 67110-0160 |
| 3/7,2               | 20            | 63                                   | 92                                   | 192        | 56      | 32                               | 14,5              | 3.900              | 1,1    | 1  | 67110-0200 |
| 3/7,2               | 25            | 63                                   | 110                                  | 192        | 56      | 25                               | 20                | 4.900              | 1,1    | 1  | 67110-0250 |
| 3/7,2               | 31,5          | 63                                   | 123                                  | 192        | 56      | 19                               | 23                | 7.000              | 1,1    | 1  | 67110-0320 |
| 3/7,2               | 40            | 63                                   | 140                                  | 192        | 56      | 12,3                             | 30                | 14.000             | 1,1    | 1  | 67110-0400 |
| 3/7,2               | 50            | 63                                   | 194                                  | 192        | 56      | 9,3                              | 35                | 25.300             | 1,1    | 1  | 67110-0500 |
| 3/7,2               | 63            | 63                                   | 220                                  | 192        | 65      | 8,75                             | 60                | 41.200             | 1,4    | 1  | 67210-0630 |
| 3/7,2               | 80            | 63                                   | 306                                  | 192        | 65      | 6,3                              | 85                | 84.000             | 1,4    | 1  | 67210-0800 |
| 3/7,2               | 100           | 63                                   | 363                                  | 192        | 65      | 5                                | 96                | 93.600             | 1,4    | 1  | 67210-1000 |
| 3/7,2               | 125           | 63                                   | 440                                  | 192        | 88      | 2,9                              | 75                | 440.000            | 2,4    | 1  | 67110-1250 |
| 3/7,2               | 160           | 63                                   | 509                                  | 192        | 88      | 2,5                              | 120               | 500.000            | 2,4    | 1  | 67210-1600 |
| 3/7,2               | 200           | 63                                   | 612                                  | 192        | 88      | 2,3                              | 200               | 654.000            | 2,4    | 1  | 67210-2000 |
| 6/12                | 1             | 63                                   | 14                                   | 292        | 56      | 1500                             | 1,6               | 90                 | 1,6    | 1  | 67220-0010 |
| 6/12                | 2             | 63                                   | 16                                   | 292        | 56      | 510                              | 2                 | 280                | 1,6    | 1  | 67220-0020 |
| 6/12                | 4             | 63                                   | 22                                   | 292        | 56      | 338                              | 6                 | 500                | 1,6    | 1  | 67220-0040 |
| 6/12                | 6,3           | 63                                   | 30                                   | 292        | 56      | 190                              | 8                 | 600                | 1,6    | 1  | 67220-0060 |
| 6/12                | 10            | 63                                   | 42                                   | 292        | 56      | 139                              | 16                | 1.150              | 1,6    | 1  | 67220-0100 |
| 6/12                | 16            | 63                                   | 54                                   | 292        | 56      | 107                              | 38                | 1.290              | 1,6    | 1  | 67220-0160 |
| 6/12                | 20            | 63                                   | 73                                   | 292        | 56      | 71                               | 38                | 3.200              | 1,6    | 1  | 67220-0200 |
| 6/12                | 25            | 63                                   | 93                                   | 292        | 56      | 52                               | 46                | 5.200              | 1,6    | 1  | 67220-0250 |
| 6/12                | 31,5          | 63                                   | 105                                  | 292        | 56      | 43                               | 65                | 7.200              | 1,6    | 1  | 67220-0320 |
| 6/12                | 40            | 63                                   | 125                                  | 292        | 56      | 23                               | 54                | 23.300             | 1,6    | 1  | 67220-0400 |
| 6/12                | 50            | 63                                   | 160                                  | 292        | 56      | 18                               | 70                | 34.900             | 1,6    | 1  | 67220-0500 |
| 6/12                | 63            | 63                                   | 230                                  | 292        | 56      | 12                               | 85                | 58.300             | 1,6    | 1  | 67220-0630 |
| 6/12                | 80            | 63                                   | 350                                  | 292        | 65      | 10,6                             | 114               | 90.000             | 2,1    | 1  | 67220-0800 |
| 6/12                | 100           | 63                                   | 500                                  | 292        | 65      | 8,5                              | 156               | 140.000            | 2,1    | 1  | 67220-1000 |
| 6/12                | 125           | 63                                   | 480                                  | 292        | 88      | 4                                | 117               | 440.000            | 3,7    | 1  | 67220-1250 |
| 6/12                | 160           | 63                                   | 560                                  | 292        | 88      | 4,3                              | 217               | 500.000            | 3,7    | 1  | 67220-1600 |
| 6/12                | 200           | 63                                   | 610                                  | 292        | 88      | 3,8                              | 333               | 654.000            | 3,7    | 1  | 67220-2000 |
| 6/12                | 250           | 63                                   | 740                                  | 292        | 88      | -                                | -                 | -                  | -      | 1  | 67220-2500 |
| 10/17,5             | 2             | 63                                   | 15                                   | 367        | 56      | 610                              | 4                 | 600                | 1,9    | 1  | 67230-0020 |
| 10/17,5             | 4             | 63                                   | 20                                   | 367        | 56      | 580                              | 15                | 800                | 1,9    | 1  | 67230-0040 |
| 10/17,5             | 50            | 63                                   | 165                                  | 367        | 65      | 28                               | 117               | 20.600             | 2,6    | 1  | 67230-0500 |
| 10/17,5             | 63            | 63                                   | 220                                  | 367        | 65      | 21                               | 150               | 41.200             | 2,6    | 1  | 67230-0630 |
| 10/17,5             | 80            | 63                                   | 300                                  | 367        | 65      | 15                               | 183               | 84.000             | 2,6    | 1  | 67230-0800 |
| 10/17,5             | 100           | 63                                   | 350                                  | 367        | 65      | 13                               | 260               | 93.600             | 2,6    | 1  | 67230-1000 |
| 10/24               | 1             | 63                                   | 14                                   | 442        | 56      | 2100                             | 2                 | 90                 | 2,3    | 1  | 67240-0010 |
| 10/24               | 2             | 63                                   | 16                                   | 442        | 56      | 800                              | 3                 | 340                | 2,3    | 1  | 67240-0020 |
| 10/24               | 4             | 63                                   | 23                                   | 442        | 56      | 550                              | 10                | 450                | 2,3    | 1  | 67240-0040 |
| 10/24               | 6,3           | 63                                   | 30                                   | 442        | 56      | 300                              | 13                | 530                | 2,3    | 1  | 67240-0060 |
| 10/24               | 10            | 63                                   | 43                                   | 442        | 56      | 220                              | 26                | 940                | 2,3    | 1  | 67240-0100 |
| 10/24               | 16            | 63                                   | 54                                   | 442        | 56      | 197                              | 73                | 1.400              | 2,3    | 1  | 67240-0160 |
| 10/24               | 20            | 63                                   | 73                                   | 442        | 56      | 134                              | 76                | 3.100              | 2,3    | 1  | 67240-0200 |
| 10/24               | 25            | 63                                   | 93                                   | 442        | 56      | 96                               | 89                | 4.500              | 2,3    | 1  | 67240-0250 |
| 10/24               | 31,5          | 63                                   | 105                                  | 442        | 56      | 79                               | 127               | 5.900              | 2,3    | 1  | 67240-0320 |
| 10/24               | 40            | 63                                   | 125                                  | 442        | 56      | 45                               | 114               | 18.800             | 2,3    | 1  | 67240-0400 |
| 10/24               | 50            | 63                                   | 205                                  | 442        | 56      | 35                               | 147               | 33.500             | 2,3    | 1  | 67240-0500 |
| 10/24               | 63            | 63                                   | 350                                  | 442        | 65      | 29                               | 163               | 46.400             | 3,1    | 1  | 67240-0630 |
| 10/24               | 80            | 63                                   | 310                                  | 442        | 65      | 20,5                             | 233               | 84.000             | 3,1    | 1  | 67240-0800 |
| 10/24               | 100           | 63                                   | 430                                  | 442        | 78      | 18                               | 400               | 93.600             | 4,1    | 1  | 67240-1000 |
| 10/24               | 125           | 40                                   | 760                                  | 442        | 88      | 11                               | 340               | 350.000            | 5,9    | 1  | 67240-1250 |
| 10/24               | 160           | 31,5                                 | 900                                  | 442        | 88      | 9,6                              | 515               | 500.000            | 5,9    | 1  | 67240-1600 |
| 10/24               | 200           | 31,5                                 | 1050                                 | 442        | 88      | 7,4                              | 740               | 730.000            | 5,9    | 1  | 67240-2000 |



## HV Fuse-Links

| Rated voltage range | Rated current | Rated value Maximum breaking current | Rated value Minimum breaking current | Dimensions |         | Resistance and power dissipation |                   | Operating integral | Weight | PU | Order no.  |
|---------------------|---------------|--------------------------------------|--------------------------------------|------------|---------|----------------------------------|-------------------|--------------------|--------|----|------------|
| $U_N$<br>kV         | $I_N$<br>A    | $I_1$<br>kA                          | $I_3$<br>A                           | e<br>mm    | d<br>mm | $R_{initial}$<br>mΩ              | $P_{warm}^*$<br>W | A2s                | kg     |    |            |
| 20/36               | 2             | 31,5                                 | 15                                   | 537        | 56      | 950                              | 9                 | 600                | 2,7    | 1  | 67250-0020 |
| 20/36               | 4             | 31,5                                 | 20                                   | 537        | 56      | 900                              | 32                | 800                | 2,7    | 1  | 67250-0040 |
| 20/36               | 6,3           | 31,5                                 | 23                                   | 537        | 56      | 827                              | 39                | 600                | 2,7    | 1  | 67150-0060 |
| 20/36               | 10            | 31,5                                 | 34                                   | 537        | 56      | 520                              | 65                | 2.000              | 2,7    | 1  | 67150-0100 |
| 20/36               | 16            | 31,5                                 | 70                                   | 537        | 56      | 210                              | 67                | 2.340              | 2,7    | 1  | 67150-0160 |
| 20/36               | 20            | 31,5                                 | 100                                  | 537        | 56      | 165                              | 84                | 3.900              | 2,7    | 1  | 67150-0200 |
| 20/36               | 25            | 31,5                                 | 110                                  | 537        | 56      | 125                              | 100               | 6.500              | 2,7    | 1  | 67150-0250 |
| 20/36               | 31,5          | 31,5                                 | 135                                  | 537        | 65      | 85                               | 119               | 7.000              | 3,7    | 1  | 67150-0320 |
| 20/36               | 40            | 20                                   | 205                                  | 537        | 65      | 65                               | 176               | 14.200             | 3,7    | 1  | 67150-0400 |
| 20/36               | 50            | 20                                   | 220                                  | 537        | 88      | 45                               | 183               | 40.000             | 6,5    | 1  | 67150-0500 |
| 20/36               | 63            | 20                                   | 360                                  | 537        | 88      | 35                               | 271               | 61.700             | 6,5    | 1  | 67150-0630 |

HV back-up Fuse-Links acc. to VDE 0670 T4 and T4 ÜLA  
Time-current characteristics

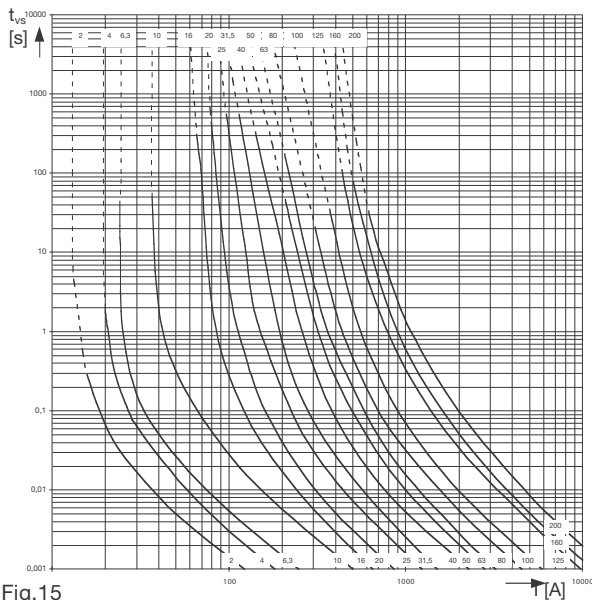


Fig.15  
3/7.2 kV

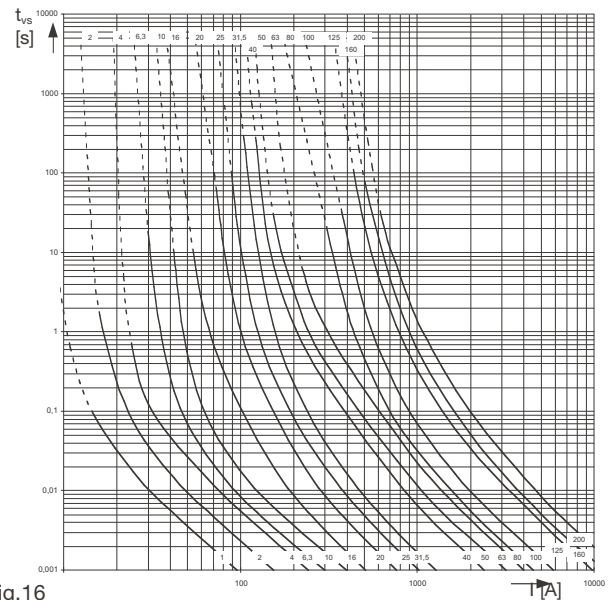


Fig.16  
6/12 kV

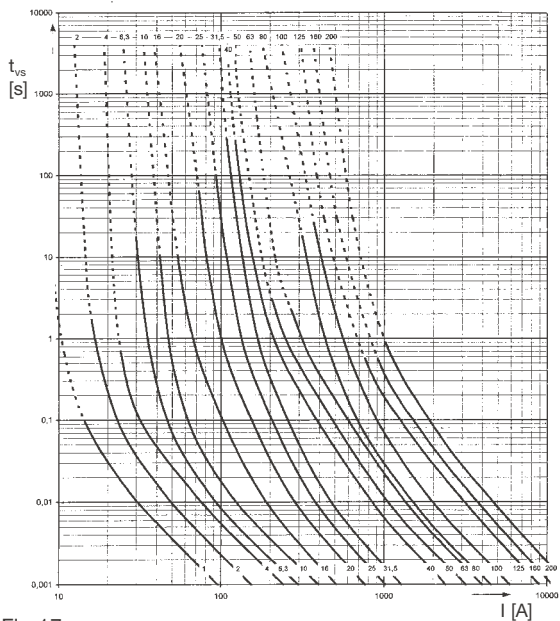


Fig.17  
10/24 kV

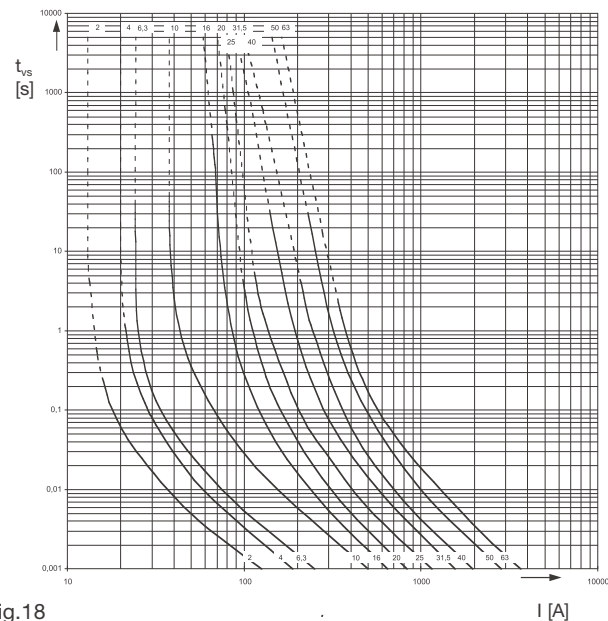


Fig.18  
20/36 kV

## HV Fuse-Links

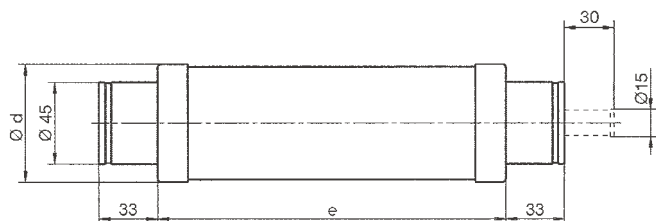
EFEN HV back-up Fuse-Links acc. to VDE 0670 T4 / IEC 60 282-1

Electrical data, dimensions, weight

| Rated voltage range | Rated current | Rated value<br>Maximum<br>breaking current | Dimensions |         | Resistance and power dissipation |                   | Operating integral | Weight | PU | Order no.  |
|---------------------|---------------|--------------------------------------------|------------|---------|----------------------------------|-------------------|--------------------|--------|----|------------|
| $U_N$<br>kV         | $I_N$<br>A    | $I_1$<br>kA                                | e<br>mm    | d<br>mm | $R_{initial}$<br>mΩ              | $P_{warm}^*$<br>W | A2s                | kg     |    |            |
| 6/12                | 1             | 63                                         | 442        | 56      | 1500                             | 1,5               | 90                 | 2,3    | 1  | 67004-0010 |
| 6/12                | 2             | 63                                         | 442        | 56      | 510                              | 2                 | 280                | 2,3    | 1  | 67004-0020 |
| 6/12                | 4             | 63                                         | 442        | 56      | 338                              | 6                 | 500                | 2,3    | 1  | 67004-0040 |
| 6/12                | 6,3           | 63                                         | 442        | 56      | 190                              | 7                 | 600                | 2,3    | 1  | 67004-060  |
| 6/12                | 10            | 63                                         | 442        | 56      | 139                              | 16                | 1.150              | 2,3    | 1  | 67004-0100 |
| 6/12                | 16            | 63                                         | 442        | 56      | 107                              | 36                | 1.290              | 2,3    | 1  | 67004-0160 |
| 6/12                | 20            | 63                                         | 442        | 56      | 71                               | 37                | 3.200              | 2,3    | 1  | 67004-0200 |
| 6/12                | 25            | 63                                         | 442        | 56      | 52                               | 44                | 5.200              | 2,3    | 1  | 67004-0250 |
| 6/12                | 31,5          | 63                                         | 442        | 56      | 43                               | 63                | 7.200              | 2,3    | 1  | 67004-0320 |
| 6/12                | 40            | 63                                         | 442        | 56      | 23                               | 50                | 23.300             | 2,3    | 1  | 67004-0400 |
| 6/12                | 50            | 63                                         | 442        | 56      | 18                               | 60                | 34.900             | 2,3    | 1  | 67004-0500 |
| 6/12                | 63            | 63                                         | 442        | 56      | 12                               | 77                | 58.300             | 2,3    | 1  | 67004-0630 |
| 6/12                | 80            | 63                                         | 442        | 65      | 10,6                             | 101               | 90.000             | 3,1    | 1  | 67004-0800 |
| 6/12                | 100           | 63                                         | 442        | 65      | 8,5                              | 140               | 140.000            | 3,1    | 1  | 67004-1000 |
| 6/12                | 125           | 63                                         | 442        | 88      | 4                                | 100               | 440.000            | 5,9    | 1  | 67004-1250 |
| 6/12                | 160           | 63                                         | 442        | 88      | 4                                | 160               | 500.000            | 5,9    | 1  | 67004-1600 |
| 6/12                | 200*          | 63                                         | 442        | 88      | 3,5                              | 248               | 654.000            | 5,9    | 1  | 67004-2000 |

\* Reduction factor 0.95

Dimensions acc. to DIN 43 625 in mm





# HV Fuse-Links

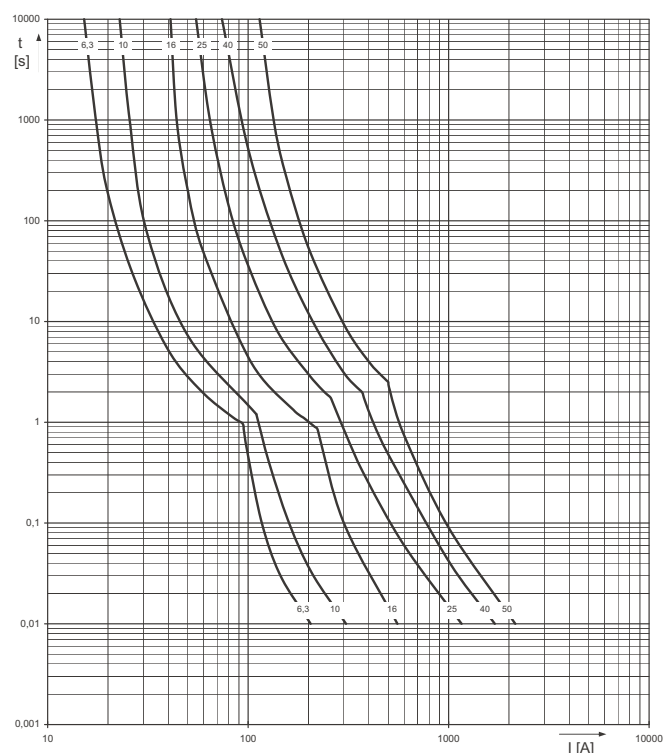
## EFEN HV general-purpose Fuse-Links

Table 12

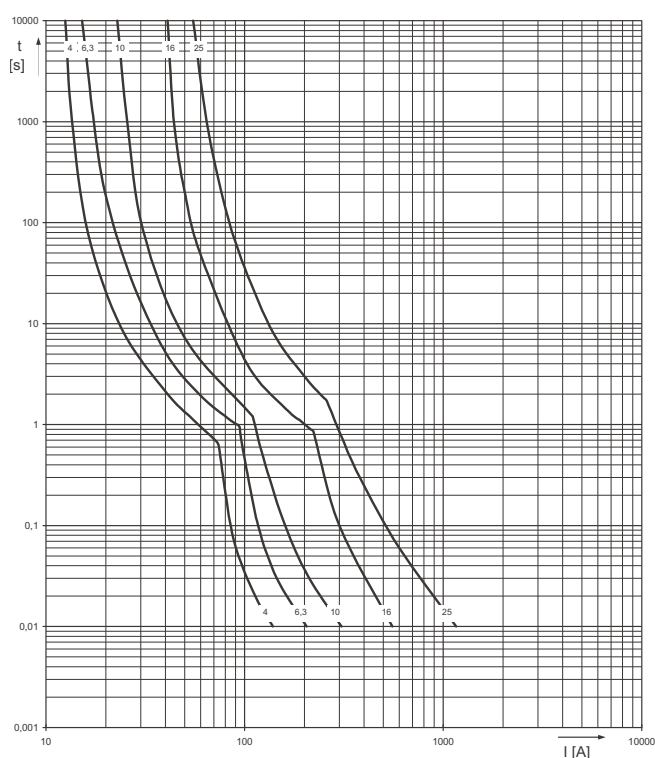
### Electrical data, dimensions, weight

| Rated voltage range | Rated current | Rated value<br>Maximum breaking current | Dimensions |         | Resistance and power dissipation |                   | Operating integral | Weight | PU | Order no.  |
|---------------------|---------------|-----------------------------------------|------------|---------|----------------------------------|-------------------|--------------------|--------|----|------------|
| $U_N$<br>kV         | $I_N$<br>A    | $I_1$<br>kA                             | e<br>mm    | d<br>mm | $R_{initial}$<br>mΩ              | $P_{warm}^*$<br>W | A2s                | kg     |    |            |
| 6/12                | 6,3           | 40                                      | 292        | 65      | 132                              | 6                 | 2.000              | 2,3    | 1  | 67420-0060 |
| 6/12                | 10            | 40                                      | 292        | 65      | 70                               | 8                 | 3.800              | 2,3    | 1  | 67420-0100 |
| 6/12                | 16            | 40                                      | 292        | 65      | 35                               | 10                | 14.000             | 2,3    | 1  | 67420-0160 |
| 6/12                | 25            | 40                                      | 292        | 65      | 21                               | 15                | 36.000             | 2,3    | 1  | 67420-0250 |
| 6/12                | 40            | 40                                      | 292        | 78      | 13                               | 24                | 110.000            | 3,1    | 1  | 67420-0400 |
| 6/12                | 50            | 40                                      | 292        | 88      | 10                               | 31                | 150.000            | 3,7    | 1  | 67420-0500 |
| 10/24               | 4             | 40                                      | 442        | 78      | 280                              | 5                 | 1.800              | 4,1    | 1  | 67440-0040 |
| 10/24               | 6,3           | 40                                      | 442        | 78      | 260                              | 11                | 2.000              | 4,1    | 1  | 67440-0060 |
| 10/24               | 10            | 40                                      | 442        | 78      | 138                              | 15                | 3.600              | 4,1    | 1  | 67440-0100 |
| 10/24               | 16            | 40                                      | 442        | 78      | 70                               | 21                | 14.000             | 4,1    | 1  | 67440-0160 |
| 10/24               | 25            | 40                                      | 442        | 88      | 41                               | 31                | 39.000             | 4,5    | 1  | 67440-0250 |

Time-current characteristics for HV general-purpose Fuse-Links 6/12 kV 6.3 A to 50 A acc. to IEC 60282-1 / VDE 0670 part 4



Time-current characteristics for HV general-purpose Fuse-Links 10/24 kV 4 A to 25 A acc. to VDE 0670 part 4

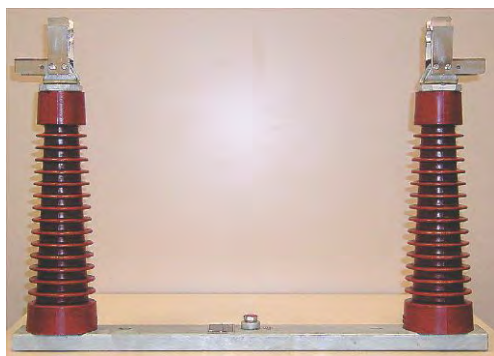


## Fuse-Links

### Electrical data, dimensions, weight

Table 13

| Order no.         | U <sub>N</sub> kV | In A | Dimensions in mm |     |     |     |     |     |     |     | Weight in kg | PU |
|-------------------|-------------------|------|------------------|-----|-----|-----|-----|-----|-----|-----|--------------|----|
|                   |                   |      | a                | b   | c   | d   | e   | f   | g   | h   |              |    |
| <b>68007-0010</b> | 12                | 200  | 293              | 255 | 195 | 323 | 425 | 55  | 453 | 55  | 3,8          | 1  |
| <b>68008-0010</b> | 24                | 200  | 443              | 335 | 275 | 473 | 575 | 300 | 603 | 66  | 4,8          | 1  |
| <b>68012-0010</b> | 36                | 200  | 538              | 495 | 435 | 568 | 700 | 380 | 698 | 108 | 9,4          | 1  |
| <b>68021-0010</b> | 7,2               | 200  | 193              | 254 | 194 | 223 | 325 | 55  | 353 | 55  |              |    |



**Fuse-Base contacts, rated current 200 A**

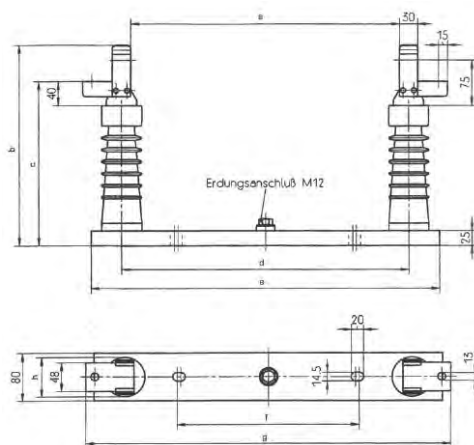
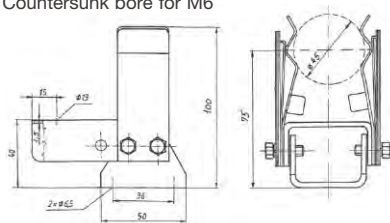


Table 14

Countersunk bore for M6



68016-0010

|                       |                               |
|-----------------------|-------------------------------|
| <b>Application</b>    | <b>Indoor and outdoor use</b> |
| <b>Contact spring</b> | E-copper silver-plated        |
| <b>Terminal lug</b>   | E-copper tin-plated           |
| <b>Weight</b>         | 0,42 kg                       |
| <b>Order no.</b>      | 68016-0010                    |

|                       |                               |
|-----------------------|-------------------------------|
| <b>Application</b>    | <b>Indoor and outdoor use</b> |
| <b>Contact spring</b> | E-copper silver-plated        |
| <b>Terminal lug</b>   | E-copper tin-plated           |
| <b>Weight</b>         | 0,35 kg                       |
| <b>Order no.</b>      | 81931-0100                    |

## HV Accessories

**Adapter for high-voltage Fuse-Links acc. to DIN 43 625**  
for extending the fuse-link from dimension "e"  
292 mm (12 kV) to 442 mm (24 kV)

**Adapter**

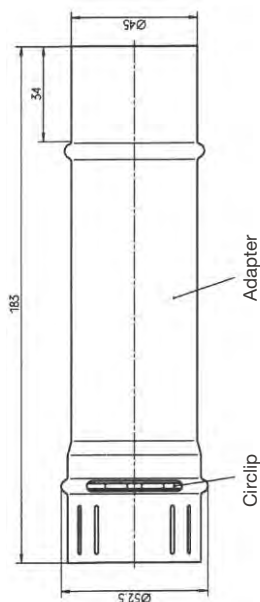


Fig. 20

**Wall rack**

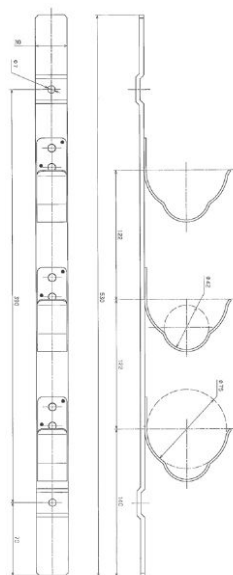


Fig. 21

| Designation | Variant         | Order no.  |
|-------------|-----------------|------------|
| Adapter     | Surface: silver | 68003-0100 |
| Adapter     |                 | 68003-0200 |
| Wall rack   |                 | 68004-0010 |

### Test device for tripping

**Test device**



Fig. 22

**Extension  
12 kV**



**Extension  
24 kV**



After activation of the timer, the striker is pushed in quickly and the fuse is inserted into the fuse box of the switch to be checked. After approx. 100 s, the switching mechanism trips, knocking out the striker. The dimensions of the test fuse-link correspond to those of HV fuse-links with a rated voltage of 7.2 kV. Extensions are available to adapt the test device to fuse-links of a different voltage.

1. Activate the timer using the yellow pin.
2. Push the striker in quickly.
3. If necessary, put on the adapter.
4. Insert the device into the fuse compartment of the switch and close it.
5. Wait for the device to trip.

#### **Safety notice:**

**Risk of injury while the timer is running and the striker has not tripped.**

**Stay clear of the tripping area of the test fuse-link.**

**Do not use test fuse-link under voltage.**

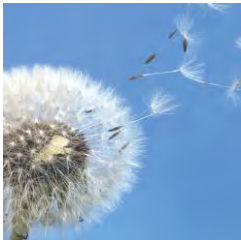
Mechanical test fuse-link of type HPS is used to check the tripping of load-break switches. Similar to an HV fuse-link, the test fuse-link consists of a cylindrical fuse body and contains a mechanical tripping mechanism with a timer and striker.

The test fuse-link has been designed for a nominal tripping force of 65 N that is less than the tripping characteristic of the EFEN HV fuse-link. This ensures the reliable tripping of the actual HV fuse-link.

| Designation                             | Dimensions     |              |                               | PU | Order no.  |
|-----------------------------------------|----------------|--------------|-------------------------------|----|------------|
|                                         | Diameter in mm | Length in mm | Resulting dimension "e" in mm |    |            |
| <b>Test device 65 N 192 mm (7.2 kV)</b> | 67             | 190          | 190                           | 1  | 68013-0020 |
| <b>Extension to 292 mm (12 kV)</b>      | 61             | 100          | 290                           | 1  | 68014-0010 |
| <b>Extension to 442 mm (24 kV)</b>      | 61             | 250          | 440                           | 1  | 68015-0010 |

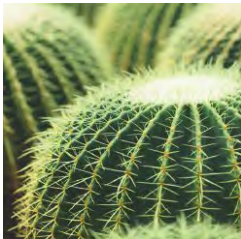


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