

# NH KNIFE-BLADE

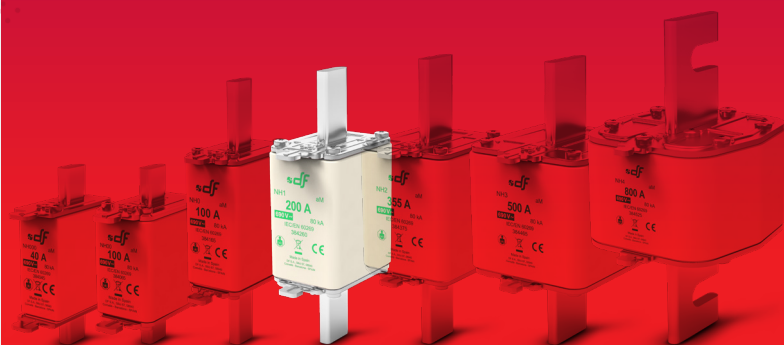
FUSE LINKS & FUSE BASES



## aM

## NH 500V/690V

fuse links



## PROTECTING THE WORLD



#### RATED VOLTAGE

690V AC  
500V AC

#### RATED CURRENT

63A...250A

#### BREAKING CAPACITY

80kA @ 690V  
120kA @ 500V

#### STANDARDS

IEC/EN 60269-1  
IEC/EN 60269-2

## Knife type NH aM 500V/690V fuse links with top indicator

These high breaking capacity fuse-links are intended for short circuit protection in motors, transformer and other load with high inrush currents, with rated voltages up to 690V (+5%).

The rated breaking capacity is 80kA at 690V or 120kA at 500V. Excellent protection of switchgear (contactor, thermal switch) due to the good current limiting capability and low  $I^2t$  values. These fuse links must be associated to an overload device protection (thermal switch).

Compact versions in low rated currents of every size.

The range comprises the following fuse links:

- Size NHC1 aM 690V 63A to 100A
- Size NH1 gG 500V/690V 125A to 250A
- Size NH1 with striker aM 500V/690V 80A to 250A

Manufactured with ceramic body with high withstand to internal pressure and thermal shock, that allows a high breaking capacity. Knife contacts are made of silver plated copper or brass.

They are manufactured according to IEC/EN60269 Standards and comply with RoHS directive.

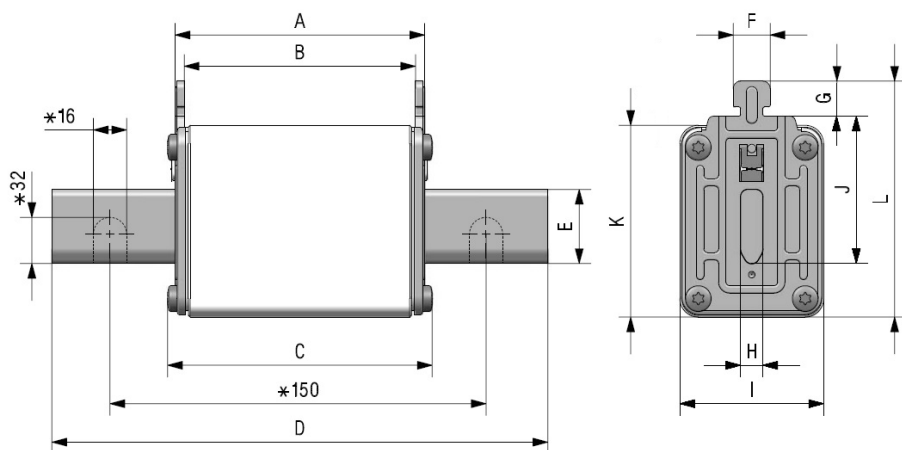


## Range

|             | U <sub>n</sub> | BREAKING CAPACITY | I <sub>n</sub> | REFERENCE     | PACKING  |
|-------------|----------------|-------------------|----------------|---------------|----------|
|             |                |                   | (A)            |               | Uni /BOX |
| <b>NHC1</b> | 690V           | 80kA              | 63             | <b>384235</b> | 3/30     |
|             |                |                   | 80             | <b>384240</b> | 3/30     |
|             |                |                   | 100            | <b>384245</b> | 3/30     |
|             |                |                   | 125            | <b>384250</b> | 3/30     |
| <b>NH1</b>  | 690V           | 80kA              | 160            | <b>384255</b> | 3/30     |
|             |                |                   | 200            | <b>384260</b> | 3/30     |
|             |                |                   | 224            | <b>383265</b> | 3/30     |
|             | 500V           | 120kA             | 250            | <b>383270</b> | 3/30     |

|                         | U <sub>n</sub> | BREAKING CAPACITY | I <sub>n</sub> | REFERENCE     | PACKING  |
|-------------------------|----------------|-------------------|----------------|---------------|----------|
|                         |                |                   | (A)            |               | Uni /BOX |
| <b>NH1 WITH STRIKER</b> | 690V           | 80kA              | 80             | <b>398240</b> | 3/30     |
|                         |                |                   | 100            | <b>398245</b> | 3/30     |
|                         |                |                   | 125            | <b>398250</b> | 3/30     |
|                         |                |                   | 160            | <b>398255</b> | 3/30     |
|                         |                |                   | 200            | <b>398260</b> | 3/30     |
|                         | 500V           | 120kA             | 250            | <b>397270</b> | 3/30     |

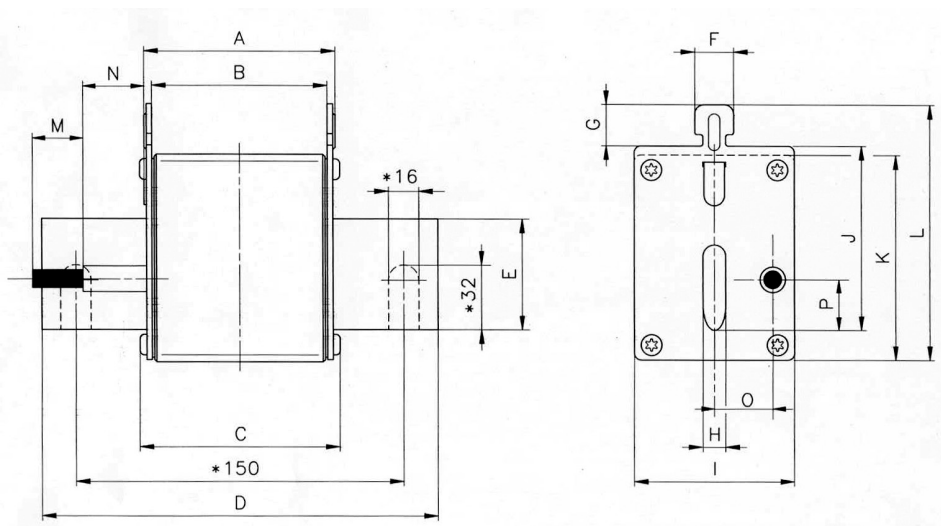
## Dimensions



\* Only for NH4 fuse links

|             | A  | B  | C    | D   | E  | F  | G   | H | I  | J  | K  | L  |
|-------------|----|----|------|-----|----|----|-----|---|----|----|----|----|
| <b>NHC1</b> | 68 | 62 | 70,5 | 135 | 15 | 10 | 9,5 | 6 | 29 | 40 | 47 | 64 |
| <b>NH1</b>  | 68 | 62 | 71,5 | 135 | 20 | 10 | 9,5 | 6 | 39 | 40 | 52 | 64 |

**Weight** NHC1: 270gr | NH1: 380gr



\* Only for NH4 fuse links

| A  | B  | C    | D   | E  | F  | G   | H | I  | J  | K  | L  | M  | N    | O  | P    |
|----|----|------|-----|----|----|-----|---|----|----|----|----|----|------|----|------|
| 68 | 62 | 71,5 | 135 | 20 | 10 | 9,5 | 6 | 39 | 40 | 52 | 64 | 15 | 28,5 | 16 | 14,5 |

**Weight** 380gr



## Technical data

|                         |                           |
|-------------------------|---------------------------|
| Rated voltage           | 690V +5%<br>500V +10%     |
| Rated current           | 63A...250A                |
| Rated breaking capacity | 80kA @690V<br>120kA @500V |
| Operating class         | aM                        |
| Rated frequency         | 42...62Hz                 |
| Storage temperature     | -40°C ... 90°C            |
| Operating temperature * | -40°C ... 80°C            |

\* For ambient temperatures higher than 25°C it is necessary to apply a derating in maximum current.

IEC/EN 60269-1  
IEC/EN 60269-2  
RoHS Compliant



## Standards

## Materials

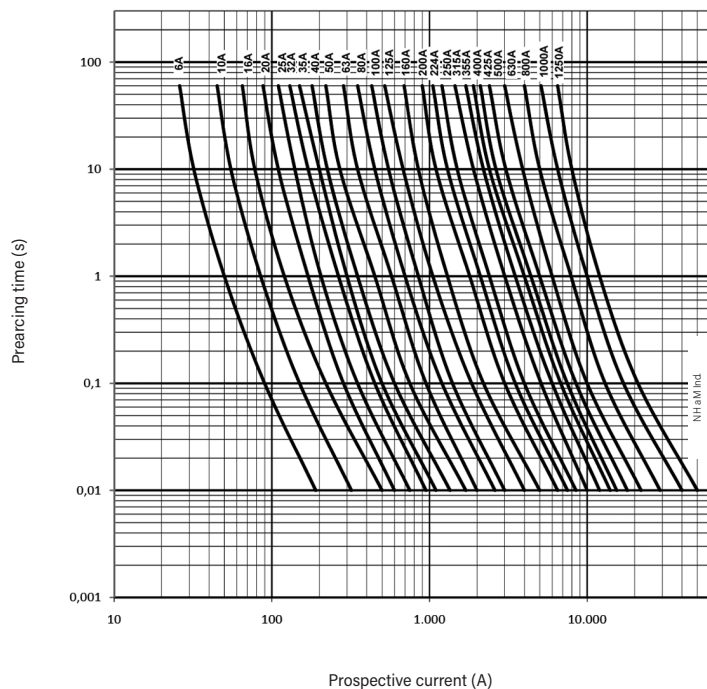
|                |                                 |
|----------------|---------------------------------|
| Body           | Steatite C221                   |
| Contact blades | Copper or brass (silver plated) |
| Plates         | Aluminium                       |
| Screws         | Zinc plated steel               |

## Power dissipation

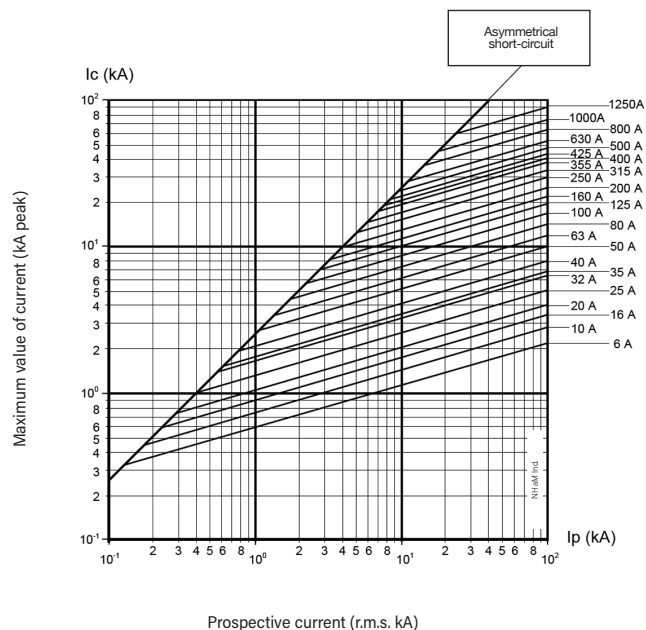
|      | I <sub>n</sub> | POWER DISSIPATION | PREARcing I <sub>p</sub> t | TOTAL I <sub>p</sub> t 230V | TOTAL I <sub>p</sub> t 400V | TOTAL I <sub>p</sub> t 500V |
|------|----------------|-------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|
|      | (A)            | (W)               | ≈ 4 ms (A <sup>2</sup> s)  | (A <sup>2</sup> s)          | (A <sup>2</sup> s)          | (A <sup>2</sup> s)          |
| NHC1 | 63             | 4,1               | 16300                      | 33697                       | 40405                       | 57050                       |
|      | 80             | 5,1               | 19600                      | 40519                       | 48586                       | 68600                       |
|      | 100            | 6,8               | 36000                      | 74423                       | 89239                       | 126000                      |
| NH1  | 125            | 8,7               | 53000                      | 99787                       | 116890                      | 157872                      |
|      | 160            | 9,7               | 82000                      | 154388                      | 180848                      | 244255                      |
|      | 200            | 13,8              | 167000                     | 314425                      | 368313                      | 497447                      |
|      | 224            | 14,6              | 240000                     | 451868                      | 529312                      | 714894                      |
|      | 250            | 18,1              | 291000                     | 547890                      | 641790                      | 866809                      |

\* Same data for STRIKER range (80A up to 250A)

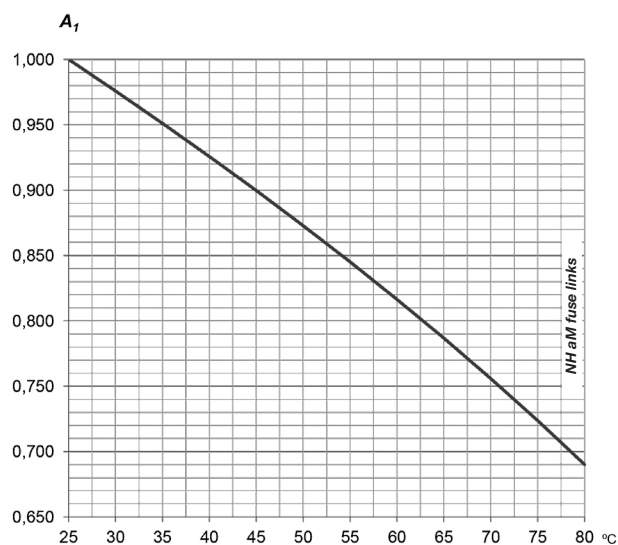
## t-I characteristics



## Cut-off characteristics



## Ambient temperature derating factor



| $t_a$<br>(°C) | $A_1$ |
|---------------|-------|
| 25            | 1,00  |
| 30            | 0,98  |
| 35            | 0,95  |
| 40            | 0,93  |
| 45            | 0,90  |
| 50            | 0,87  |
| 55            | 0,84  |
| 60            | 0,82  |
| 65            | 0,79  |
| 70            | 0,76  |
| 75            | 0,72  |
| 80            | 0,69  |





# PROTECTING THE WORLD

## HEAD OFFICE AND FACTORY

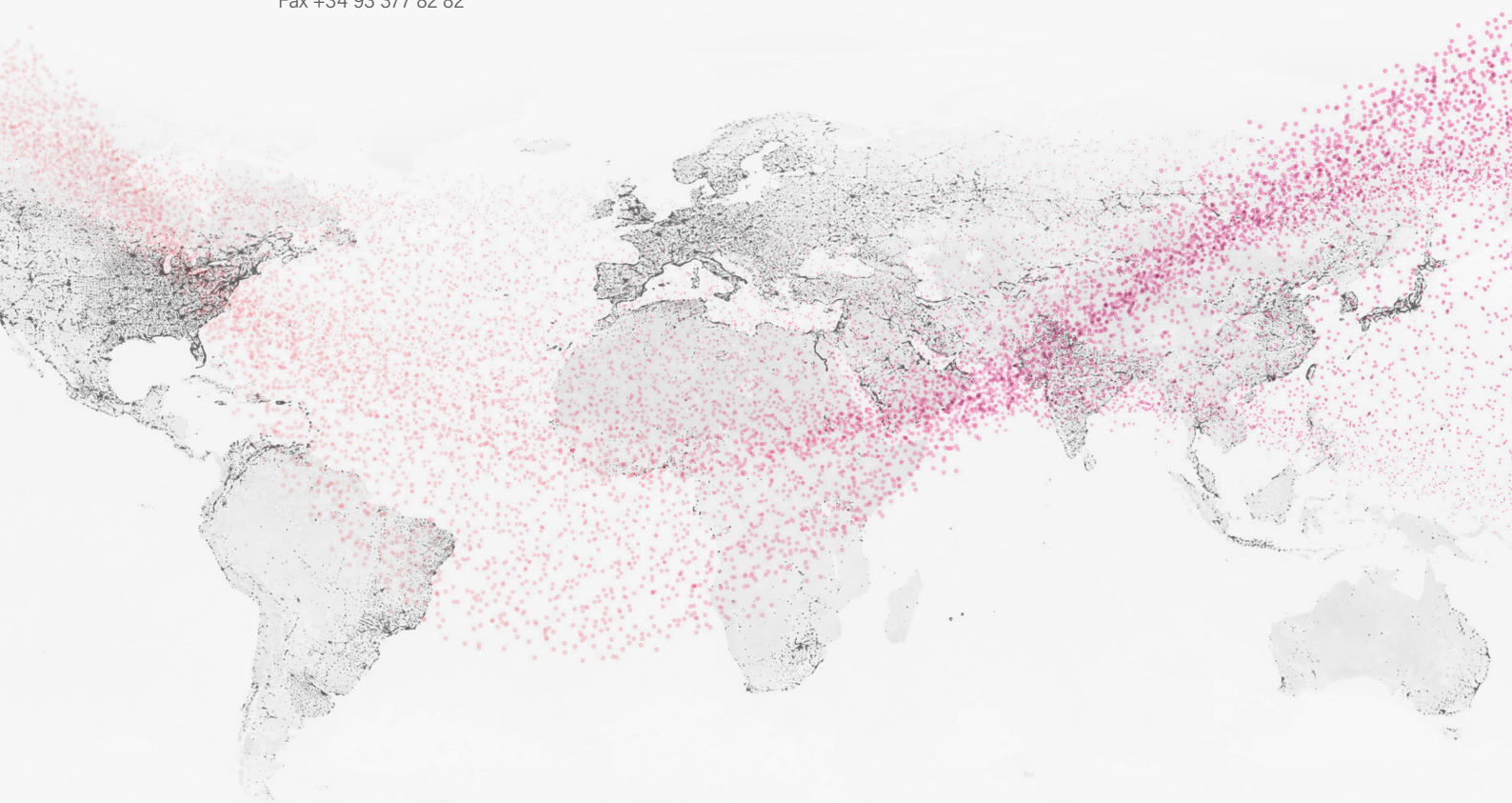
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The "electro technical expert" logo marked on the products included in this data sheet indicates that the installation of these products must be carried out by expert personnel with specialized knowledge.



To prevent electrical hazards, carry out the installation without voltage.



**Safety notice**  
Please capture the following QR code and read our safety notice carefully before installing our products.



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