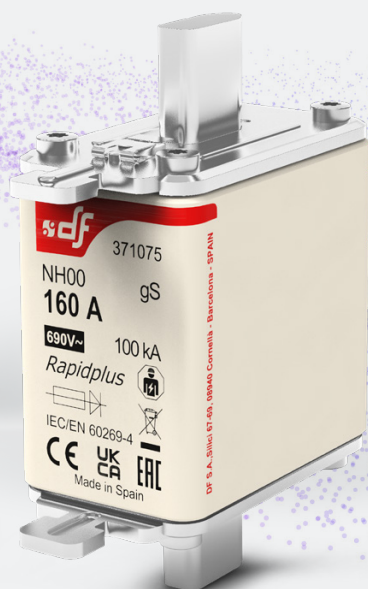


**Rapidplus®**



# RAPIDPLUS

HIGH SPEED FUSE LINKS FOR SEMICONDUCTORS

## gS NH 690V

semiconductor protection  
fuse links



## PROTECTING THE WORLD



RATED VOLTAGE

690V AC

RATED CURRENT

125A | 160A

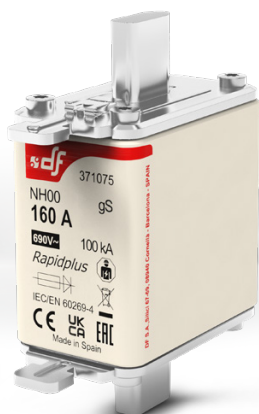
BREAKING CAPACITY

100kA

STANDARDS

IEC/EN 60269-1

IEC/EN 60269-4



## Rapidplus®

### NH fuse links for semiconductors

RAPIDPLUS NH gS fuse links are capable of clearing all types of overcurrents, overloads as well as shortcircuits, thus the fuse links protect semiconductors as well as cables and all switchgear of installation.

They are optimized to have reduced power dissipations that allow the utilization of a wide range of fuse bases, disconnectors and fuse-switch disconnectors.

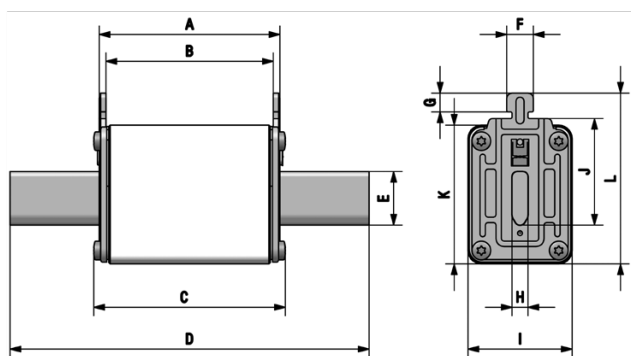
The range comprises the following fuse links:

→ Size NH00 690V AC 125A and 160A

Typical application comprise protection of semiconductors (diodes, thyristors, triacs, etc) used in power rectifiers, UPS, converters, motor drives (AC and DC), soft starters, solid state relays, photovoltaic inverters, welding inverters and any application where it is necessary to protect semiconductor devices.



## Dimensions



| A  | B  | C  | D    | E  | F  | G   | H | I  | J  | K  | L  |
|----|----|----|------|----|----|-----|---|----|----|----|----|
| 49 | 44 | 52 | 78,5 | 15 | 10 | 9,5 | 6 | 29 | 35 | 47 | 59 |

Weight 180gr

## Range

| $I_n$<br>(A) | REFERENCE     | PACKING<br>Uni /BOX |
|--------------|---------------|---------------------|
| 125          | <b>371070</b> | 3/60                |
| 160          | <b>371075</b> | 3/60                |



## Technical data

|                         |                               |
|-------------------------|-------------------------------|
| Rated voltage           | 690V AC<br>440V DC (L/R=10ms) |
| Rated current           | 125A   160A                   |
| Rated breaking capacity | 100kA                         |
| Utilization category    | gS                            |
| Storage temperature     | -40°C ... 80°C                |
| Operating temperature * | -25°C ... 60°C                |

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

## Standards

IEC/EN 60269-1  
IEC/EN 60269-4  
RoHS Compliant



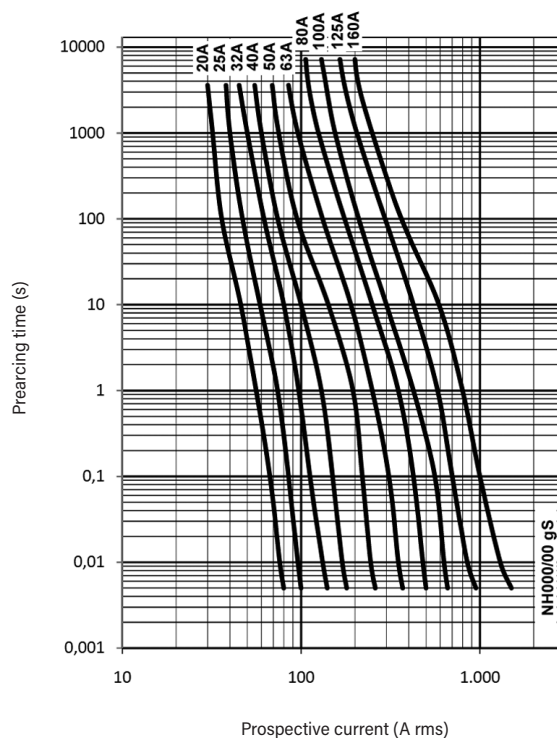
## Materials

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

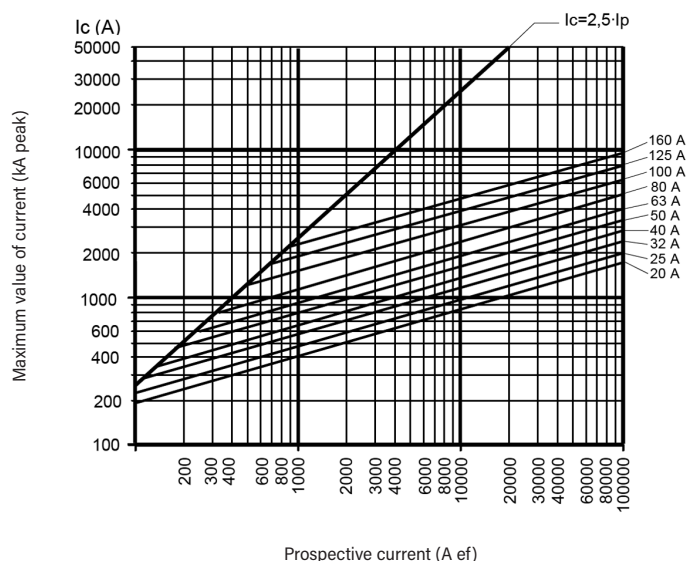
## Power dissipation

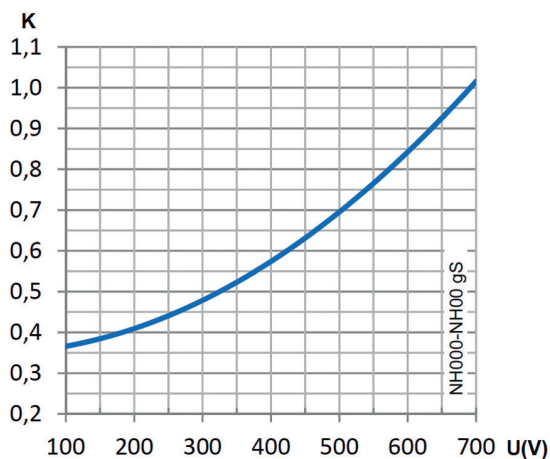
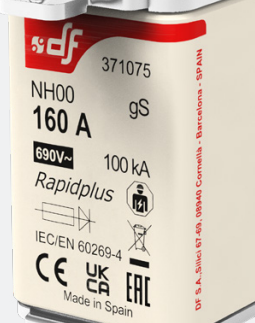
| $I_n$ | POWER DISSIPATION<br>$I_n$ | POWER DISSIPATION<br>$0,8 \cdot I_n$ | PREARCING $I_t^2$ | OPERATING $I_t^2$<br>@ 800V |
|-------|----------------------------|--------------------------------------|-------------------|-----------------------------|
| (A)   | (W)                        | (A²S)                                | (A²S)             | (A²S)                       |
| 125   | 14,7                       | 8,3                                  | 3380              | 6400                        |
| 160   | 18,2                       | 10,5                                 | 6400              | 21840                       |

## t-I characteristics



## Cut-off characteristics

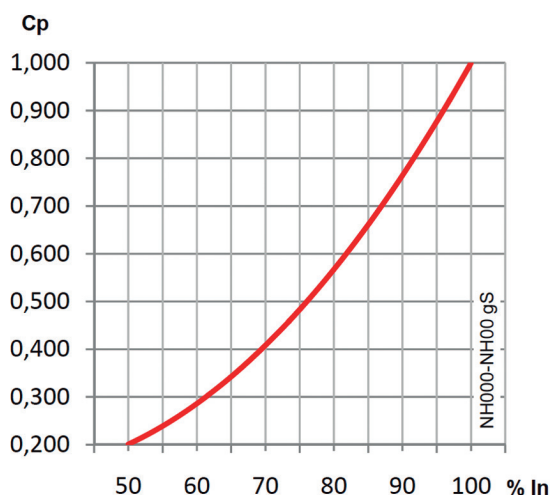




## I<sup>2</sup>t Correction factor

The total clearing I<sup>2</sup>t at rated voltage and at power factor of 0,15 are given in the electrical characteristics.

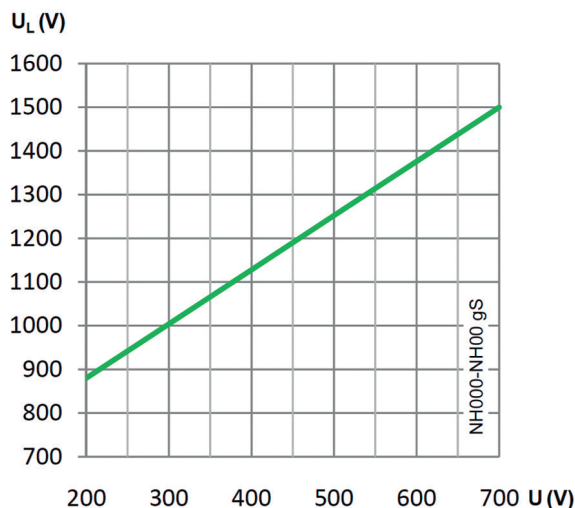
For other voltages, the clearing I<sup>2</sup>t is found by multiplying by correction factor, K.



## Correction factor for power loss

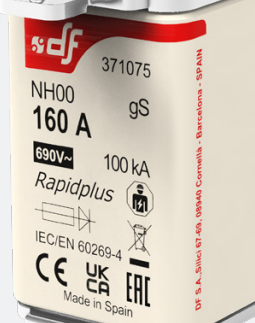
Watts loss at rated current are given in the electrical characteristics. The curve allows the calculation of the power losses at load currents lower than the rated value.

The correction factor Cp, is given as a function of the RMS load current Ib in % of the rated current.



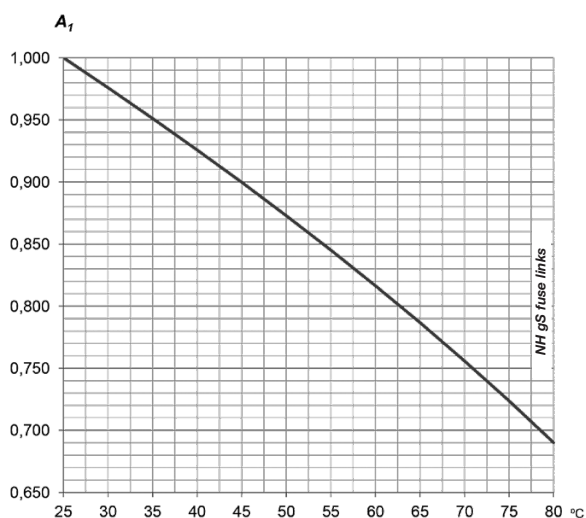
## Peak arc voltage

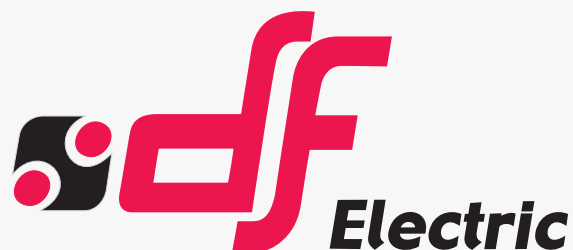
This curve gives the peak arc voltage, UL, which may appear across the fuse during its operation as a function of the applied working voltage, Eg (RMS) at a power factor of 0,15.



# Ambient temperature correction coefficient

Fuse current ratings are established by type tests with an ambient temperature of 25°C. When the utilization ambient temperature is higher than this reference value, the fuse-link must be "de-rated". The rated current of fuse link must be multiplied by a derating factor **A<sub>1</sub>** to find the maximum operating current.





# PROTECTING THE WORLD

## HEAD OFFICE AND FACTORY

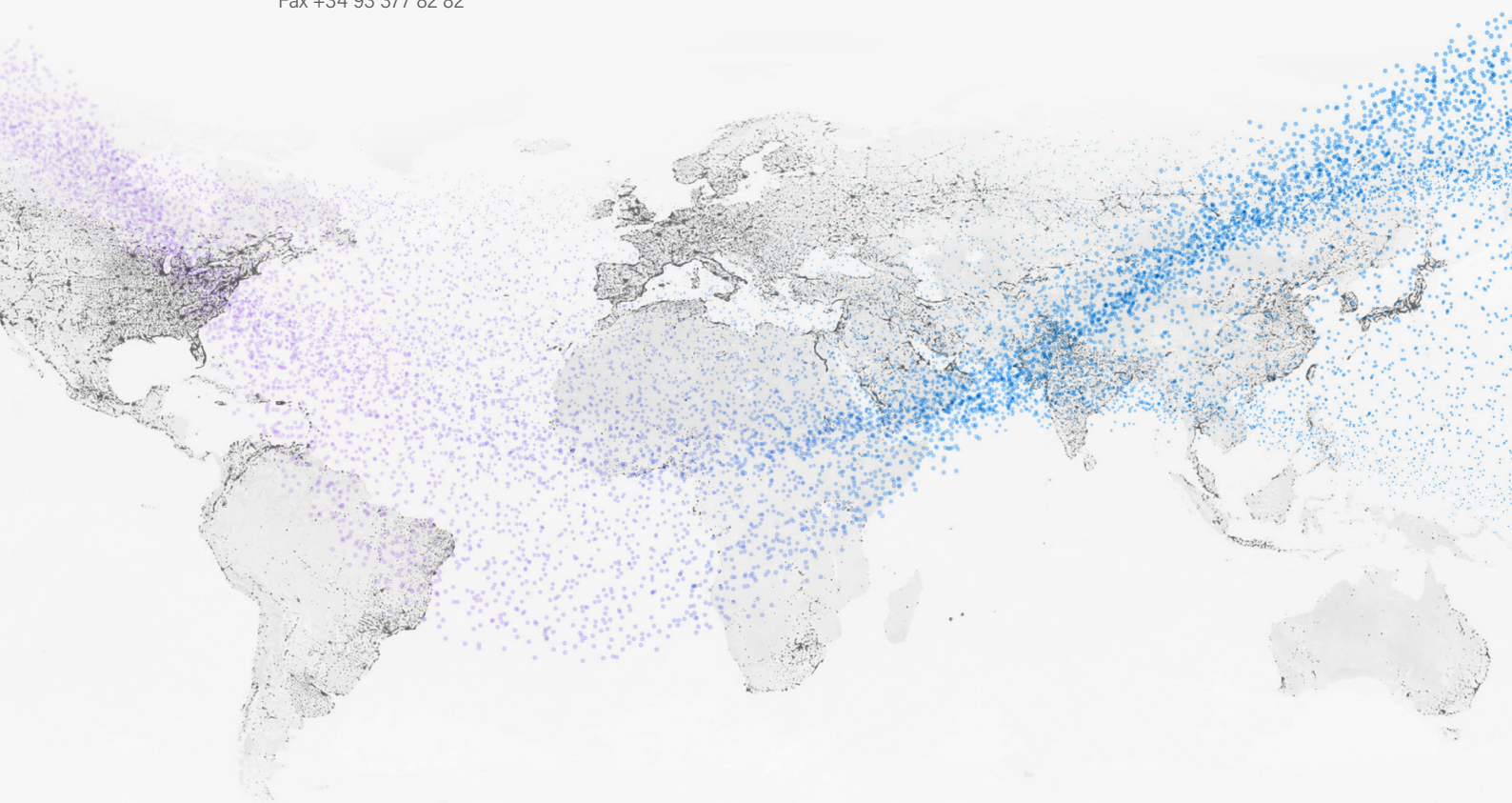
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The "electro technical expert" logo marked on the products included in this data sheet indicates that the installation of these products must be carried out by expert personnel with specialized knowledge.



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.



The data reflected in this technical record are subject to the correct installation of the product in accordance with manufacturer's instructions, relevant installation standards and professional practices, maintained and used in applications for which they were made.

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