

Rapidplus®



RAPIDPLUS

HIGH SPEED FUSE LINKS FOR SEMICONDUCTORS

gS NH 800V

semiconductor protection
fuse links



NH00



NH1



NH3

PROTECTING THE WORLD



RATED VOLTAGE
800V AC

RATED CURRENT
25A...100A

BREAKING CAPACITY
120kA

STANDARDS

IEC/EN 60269-1
IEC/EN 60269-4



Rapidplus® NH fuse links for semiconductors

RAPIDPLUS NH gS fuse links are capable to 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.

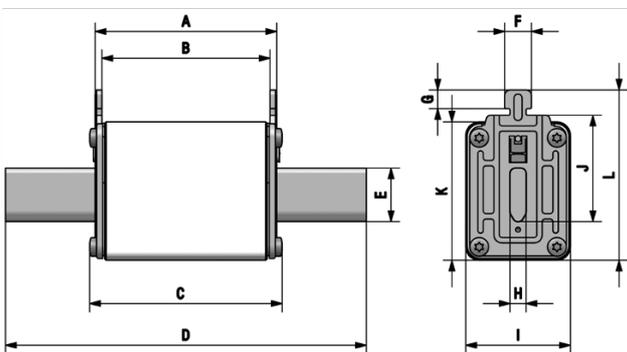
The range comprises the following fuse links:

→ Size NH00 800V AC 25A to 100A

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

In (A)	REFERENCE	PACKING Uni /BOX
25	369030	3/60
32	369035	3/60
40	369045	3/60
50	369050	3/60
63	369055	3/60
80	369060	3/60
100	369065	3/60



Technical data

Rated voltage	800V AC +10%
Rated current	25A ... 100A
Rated breaking capacity	120kA
Operating class	gS
Rated frequency	42Hz ... 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.

Standards

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



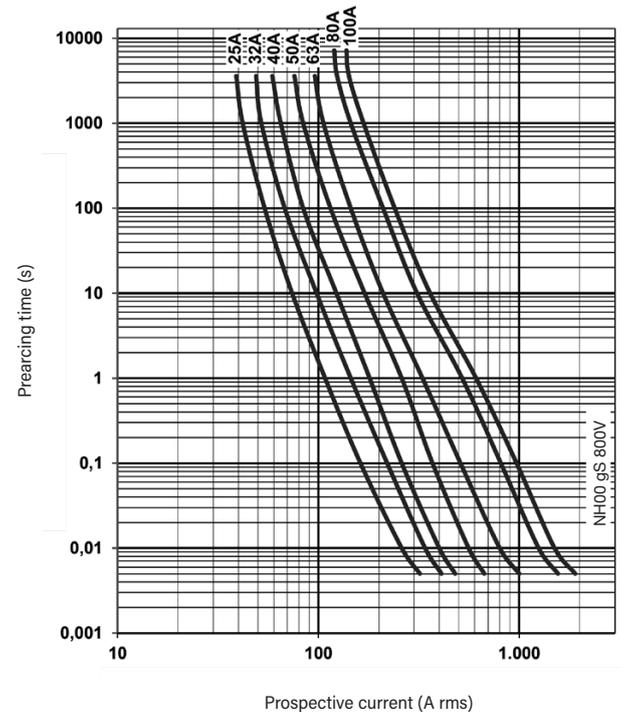
Materials

Body	Ceramic - Steatite C221
Contact blades	Silver plated copper or brass
Plates	Aluminium
Screws	Zinc plated steel

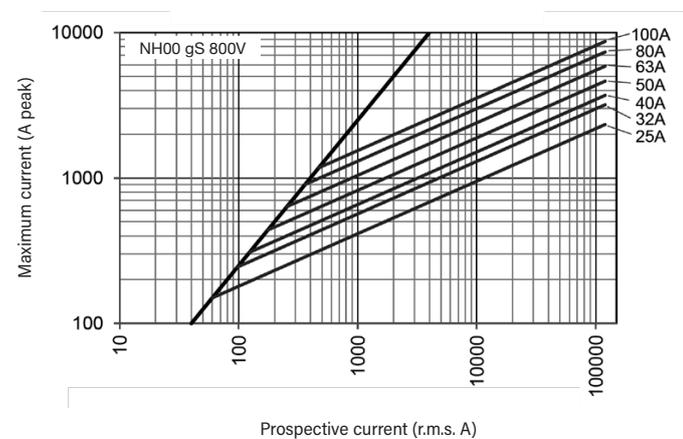
Power dissipation

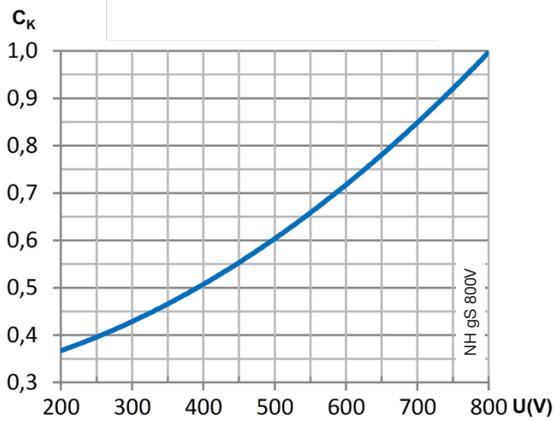
I_n (A)	POWER DISSIPATION I_n (W)	POWER DISSIPATION $0,8 \cdot I_n$ (A ² S)	PREARCING I_t^2 (A ² S)	OPERATING I_t^2 @ 800V (A ² S)
25	4,1	2,4	60	300
32	4,6	2,6	150	800
40	5,6	3,3	200	1300
50	6,1	3,7	500	2500
63	6,8	4,2	900	5000
80	8,3	4,8	1800	9800
100	10,9	6,8	3100	16200

t-I characteristics



Cut-off characteristics

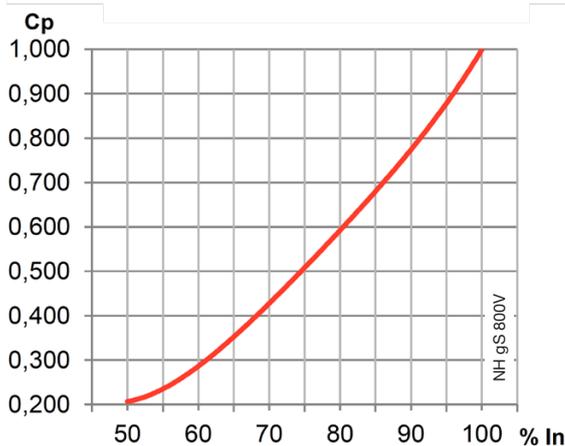




I²t Correction factor

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

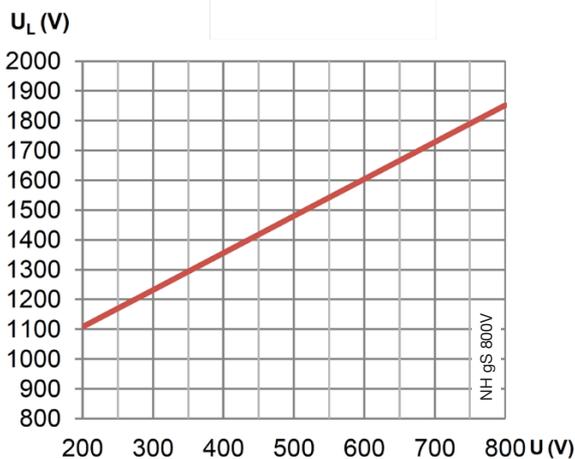
For other voltages, the clearing I^2t is found by multiplying by correction factor, K.



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 C_p , is given as a function of the RMS load current I_b in % of the rated current.



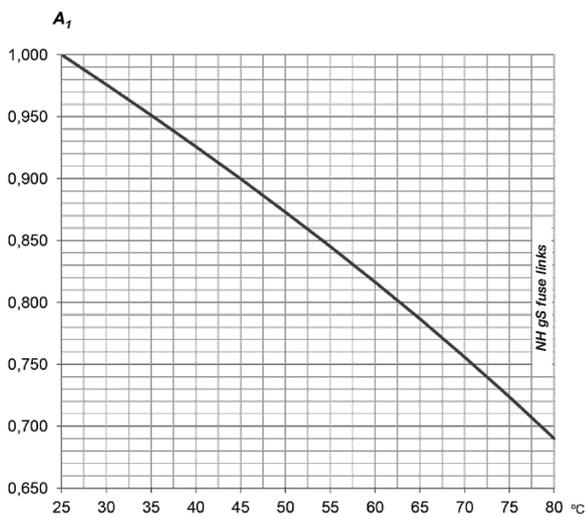
Peak arc voltage

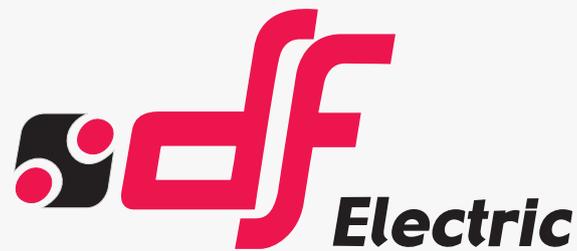
This curve gives the peak arc voltage, U_L , which may appear across the fuse during its operation as a function of the applied working voltage, E_g (RMS) at a power factor of 0,15.



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 **A₁** to find the maximum operating current.





PROTECTING THE WORLD

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According to the waste of electrical and electronic equipment directive, electrical material should not be part of the usual waste. This symbol alerts users that these products should be recycled according to local environmental waste disposal regulations.



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.

The products described in this document have been designed, developed and tested in accordance with specific standard. They are considered components that are integrated as part of installation, machine or equipment. The correct general operation of the referred product is responsibility of the manufacturer of the installation, machine or equipment.

DF ELECTRIC cannot guarantee the characteristics of an installation, machine or equipment that has been designed by a third party. Once a product has been selected, the user must verify that it is appropriate for its application, through the verifications and/or tests that it deems appropriate.

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