

Rapidplus®

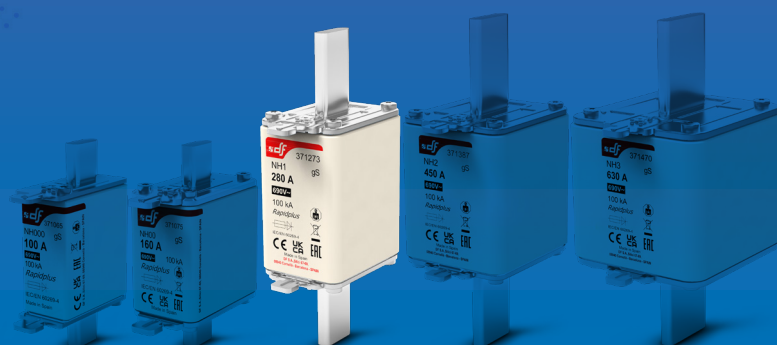


RAPIDPLUS

HIGH SPEED FUSE LINKS FOR SEMICONDUCTORS

gS NH 690V

semiconductor protection
fuse links



PROTECTING THE WORLD



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 switches.

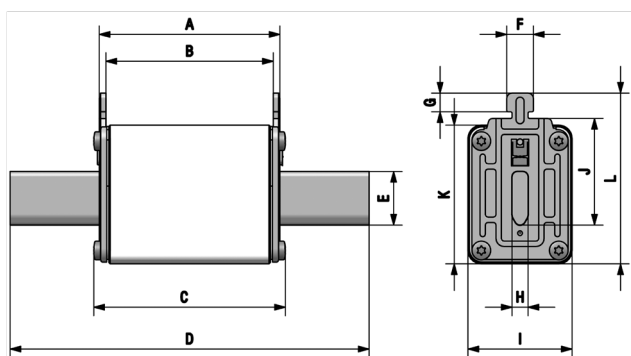
The range comprises the following fuse links:

→ Size NH1 690V AC 125A to 280A

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
68	62	71,5	135	20	10	9,5	6	39	40	52	64

Weight 380gr

Range

I_n (A)	REFERENCE	PACKING Uni /BOX
125	371250	3/30
160	371255	3/30
200	371260	3/30
250	371270	3/30
280	371273	3/30

Technical data

Rated voltage	690V AC 550V DC (L/R=10ms)
Rated current	125A...280A
Rated breaking capacity	100kA @690V AC 30kA @550V DC
Operating class	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



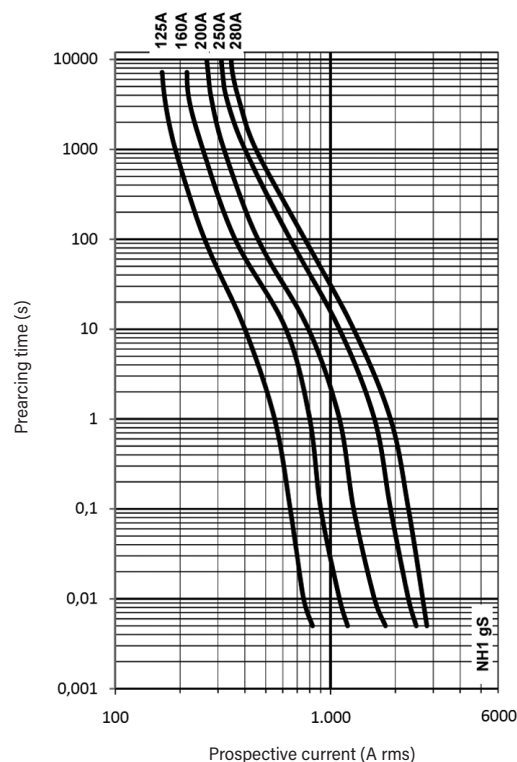
Materials

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

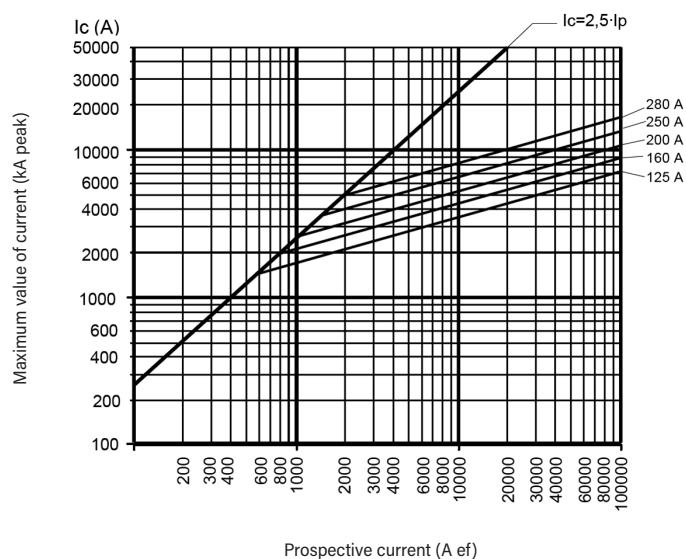
Power dissipation

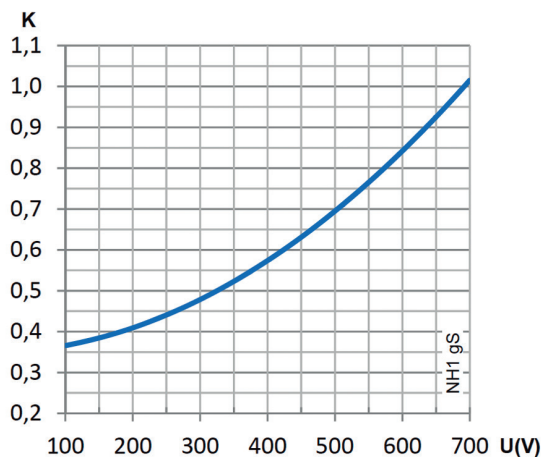
I_n	POWER DISSIPATION I_n	POWER DISSIPATION $0,8 \cdot I_n$	PREARcing I^2t	OPERATING I^2t
(A)	(W)	(A²S)	(A²S)	(A²S)
125	19,7	10,7	3800	11680
160	25,3	14,5	6290	19300
200	26,2	15	15220	46720
250	31,5	17,5	31000	95000
280	35,7	20,1	37590	115370

t-I characteristics



Cut-off characteristics

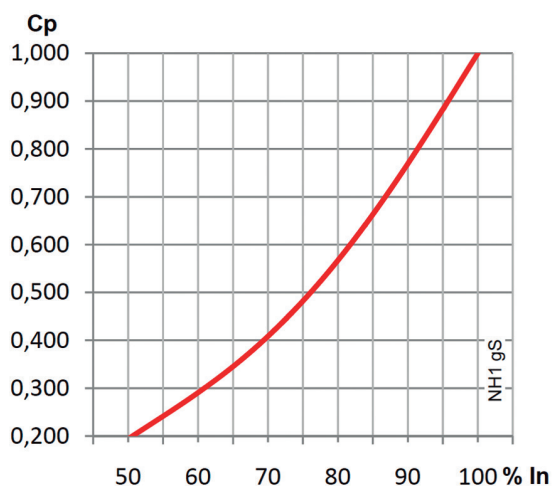




I²t Correction factor

The total clearing I²t at rated voltage and at power factor of 0,15 are given in the electrical characteristics.

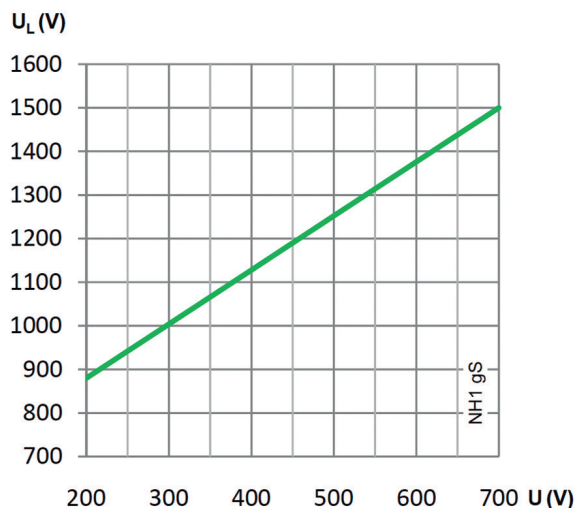
For other voltages, the clearing I²t is found by multiplying by correction factor, K.



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.

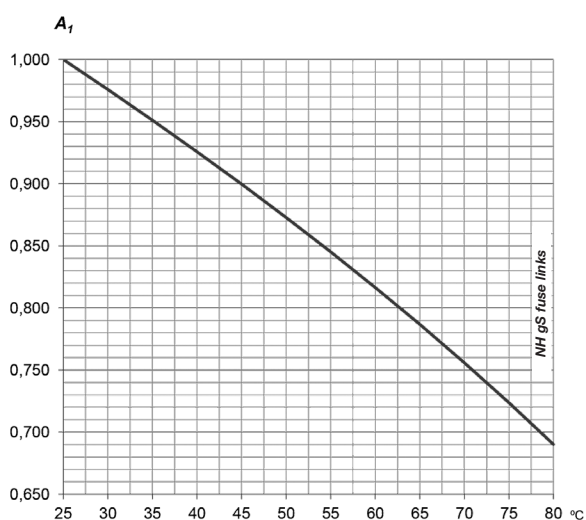


Peak arc voltage

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_f** to find the maximum operating current.





PROTECTING THE WORLD

HEAD OFFICE AND FACTORY

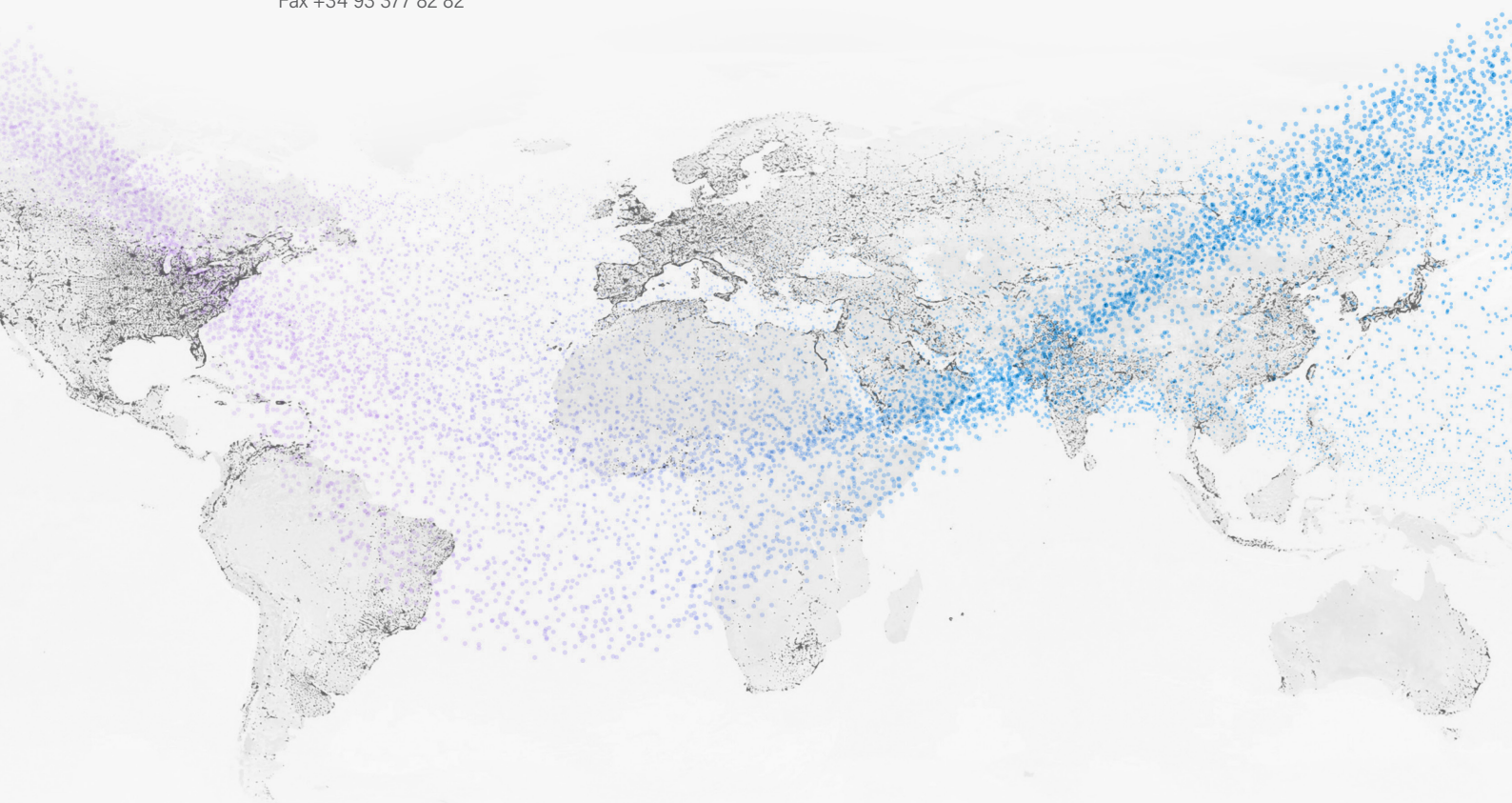
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According to the waste of electrical and electronic equipment directive, electrical material should not be part of the usual waste. This symbol alerts users that these products should be recycled according to local environmental waste disposal regulations.



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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