

# RAPIDPLUS

#### Rapidplus®



# GS NH 690V semiconductor protection fuse links



































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RATED VOLTAGE 690V AC

RATED CURRENT 20A...100A

BREAKING CAPACITY 100kA

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 switches.

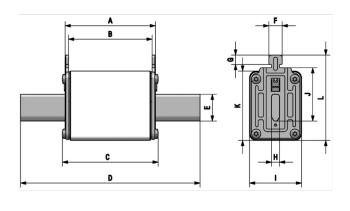
The range comprises the following fuse links:

#### → Size NH000 690V AC 20A 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**



Weight 120gr

G H

J K L

35 40 53

#### Range

In (A)	REFERENCE	PACKING Uni /BOX
20	371025	3/90
25	371030	3/90
32	371035	3/90
40	371045	3/90
50	371050	3/90
63	371055	3/90
80	371060	3/90
100	371065	3/90

BCDE

52 78,5

15 10 9,5





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#### **Technical data**

Rated voltage	690V AC 440V DC (L/R=10ms)	
Rated current	20A100A	
Rated breaking capacity	100kA @690V AC 30kA @440V DC	
Utilization category	gS	
Storage temperature	-40°C 80°C	
Operating temperature *	-25°C 60°C	

<sup>\*</sup> 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



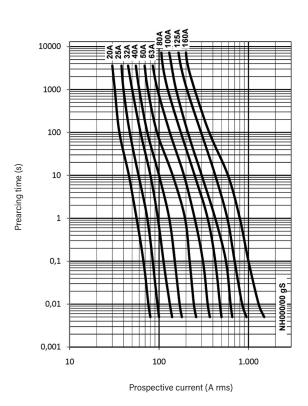
#### **Materials**

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

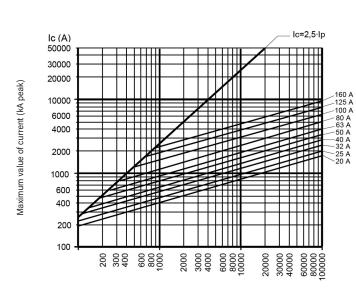
## **Power dissipation**

In	POWER DISSIPATION In	POWER DISSIPATION 0,8 · In	PREARCING I2t	OPERATING I <sup>2</sup> t
(A)	(VV)	(A <sup>2</sup> S)	(A <sup>2</sup> S)	(A <sup>2</sup> S)
20	5,1	2,9	31	116
25	5,6	3,2	49	181
32	6,6	3,9	96	355
40	7,2	4,2	196	724
50	8,5	5,1	331	1224
63	9,1	5,3	782	2897
80	11	6,3	1420	5270
100	12,5	7,1	2400	8880

#### t-I characteristics



#### **Cut-off characteristics**

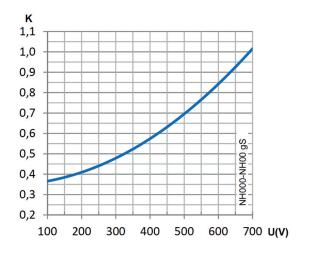






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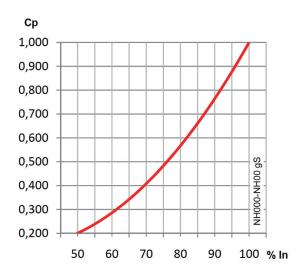




#### I<sup>2</sup>t Correction factor

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

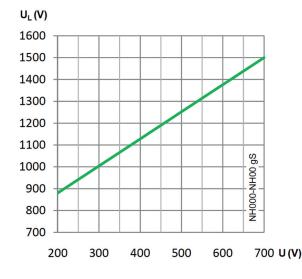
For other voltages, the clearing I<sup>2</sup>t is found by multipliying by correction factor, K.



# **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,  $\rm U_L$ , wich 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.



# PROTECTING THE WORLD

















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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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