



NRZ28-20

Solar Photo voltaic System Protection Fuse

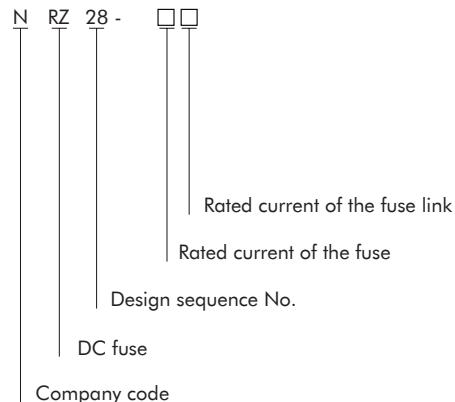
1.General

NRZ28-20 PV system protection fuse is applicable for short circuit protection of distribution lines with rated voltage not exceeding DC1000V, rated current not exceeding 20A, and rated short-circuit capacity not exceeding 20kA. NRZ28-20 series is a compact, high-capacity, low-power fuse series specifically developed by Chint Electric for photovoltaic power system, mainly for the solar photovoltaic system protection fuses, this series of fuse adopts high-quality materials and passes stringent tests by well-known manufacturers.

The main material of base is DMC-2; that of conductive socket is H62. Breaking range and utilization category: NRZ28-20 fuse link is "gPV" type, "gPV" represents the fuse link used for PV system with a full range of DC breaking capacity. This product complies with GB/T 13539.6, IEC60269-6, and has obtained CQC, TUV, CE and other domestic and international certification.

2.Type designation

2.1 Type designation of fuse base



3. Normal operating conditions and installation conditions

3.1 Ambient temperature: The ambient temperature does not exceed 40°C, of which average value measured over 24h does not exceed 35°C, and average value measured over one year is lower than this value; the lowest value of the ambient air temperature is -5°C.

3.2 Atmospheric conditions: The air is clean, with relative humidity not exceeding 50% when the maximum temperature is 40°C. Higher relative humidity is possible when the temperature is lower. For example, at 20°C, the relative humidity can attain 90%. Measures are taken against condensation on the product body due to temperature variation.

3.3 Class of pollution: Class III

3.4 Installation category: Class III

3.5 Installation conditions: The fuse should be installed in places free of significant shaking and shock vibration.

3.6 Altitude: See the table below for correction coefficients of operating current at different altitudes:

Altitude	≤2000m	2000m~3000m	≥3000m	Example
Current correction factor	1	0.9	0.8	Product with rated current of 10A at altitude of 2500m The rated current after derating is $0.9 \times 10 = 9A$

3.7 If the operating conditions of fuse are different from those in the above table, please consult with the manufacturer.

4. Technical data

4.1 The main technical parameters (see Table 1)

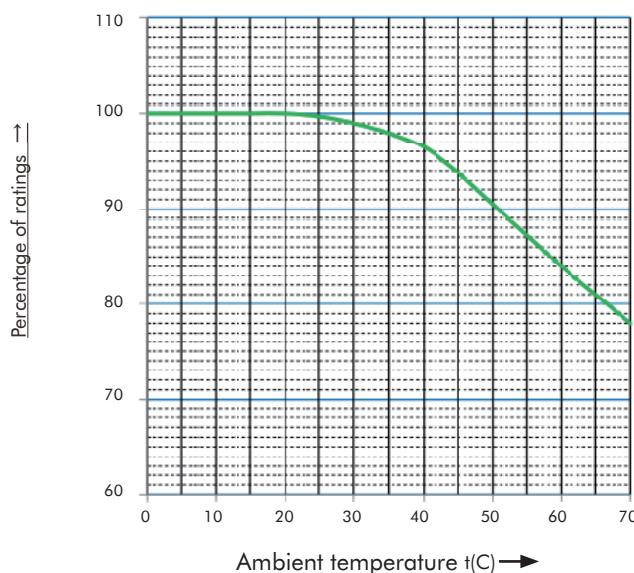
Table 1

Model	Rated voltage (DC)V	Breaking capacity (kA)	Rated dissipation power (W)	Temperature rise (K)	Rated current (A)
NRZ28-20	1000	20, 35(15A)	≤3	≤70	2,4,6,8,10,12,15,16,20

4.2 Derating effect

At the 20 °C ambient temperature, we recommend the actual operating current of fuse link shall not exceed the rated current value. take the environment and working conditions into account when selecting fuse link, such as extent of enclosure, air flow, size of connection cable (length, cross-section) and changes in the instantaneous peak and other aspects; current carrying capacity test of fuse link is conducted at 20 °C ambient temperature, and is affected by changes in ambient temperature during actual use. The higher the ambient temperature is, the higher the operating temperature of the fuse link is, and the shorter its life expectancy is. Instead, the life of the fuse link will be extended if running at lower temperatures.

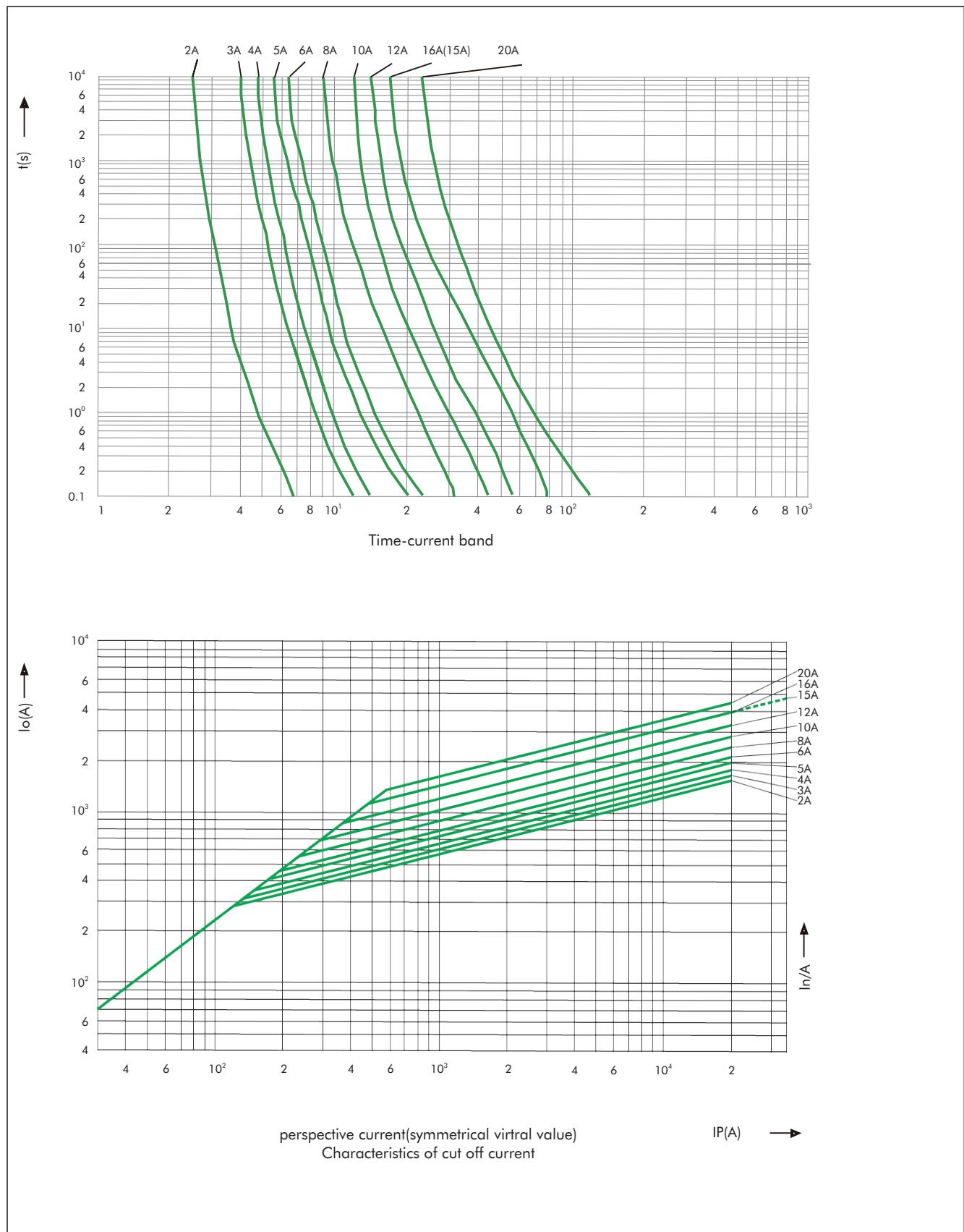
The diagram below shows a typical curve of the impact of ambient temperature on the current carrying capacity



For example: When the ambient temperature of use is 20 °C, select rated current of "gPV" type fuse link $I_n = 16A$, if these fuse links are used in 60 °C high temperature environment, must additionally reduce the operating current, the curve A on the left indicates percentage of ratings at 70 °C is 0.78, to ensure that the fuse link does not malfunction, should re-select the rated current of the fuse link: $I_n = 16A/0.78 = 20.512A$; according to standard current rating of fuse link select $I_n = 20A$.

Normal working condition: -5 °C ~ 40 °C. The fuse works under normal conditions and does not require additional corrections. Allowable working condition: -35°C ~ 70°C. When the fuse works below -5°C, the pre-arc time of the fuse's low multiplication overload-overcurrent is slightly extended, and the rated current is slightly increased. Generally, there is no need to increase the rated current of the fuse. When the fuse works above 40°C, the rated current needs additional correction.

4.3 Fuse characteristic curve



5. Overall and mounting dimensions

Diagram 1 Overall and mounting dimensions of NRZ28-20 base

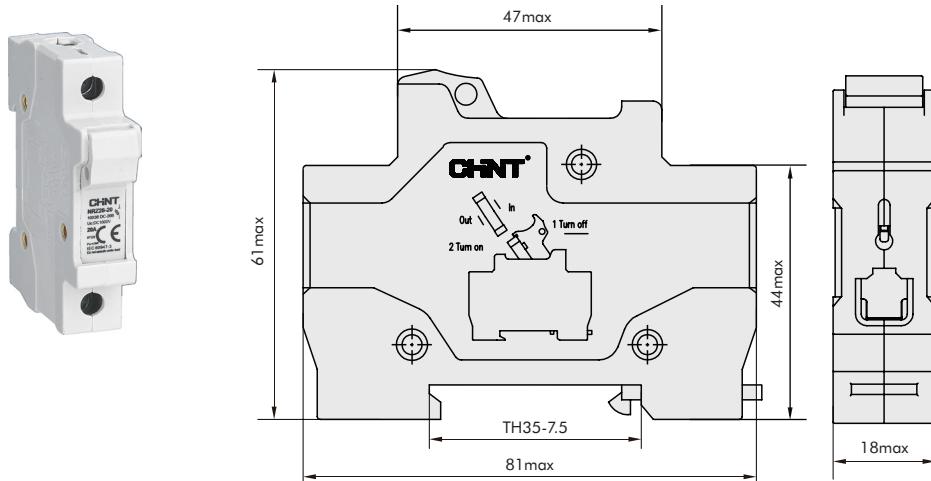
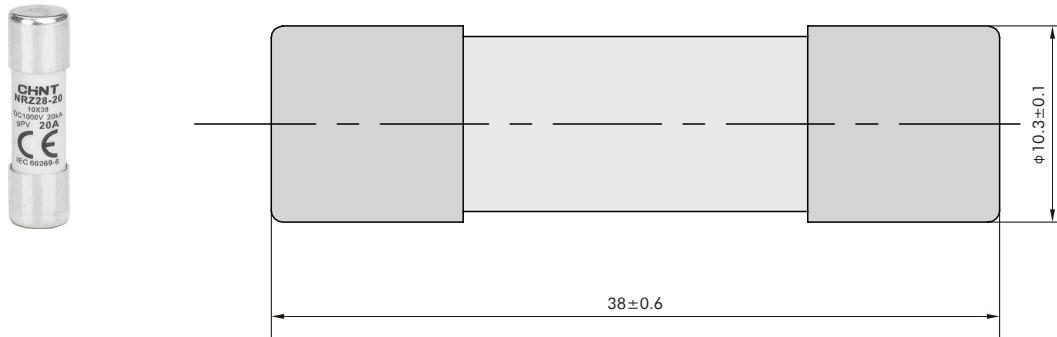


Diagram 2 Overall and dimensions of NRZ28-20 fuse link



6. Ordering information

6.1 The following must be specified when ordering:

6.1.1 The product model, rated current and quantity for the fuse link.

6.1.2 The model specifications for the base, indicating the base, poles and the number of orders.

6.2 Order example Order 100 pieces of NRZ28-20/10A, representing ordering 100 pieces of fuselink of model NRZ28-20 and rated current 10A. 100 pieces of NRZ28-20 (base), representing ordering 100 pieces of fuse base of model NRZ28-20.