



## 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.

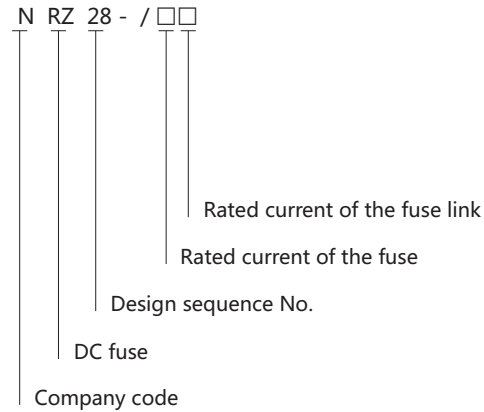
NRZ28-20 series is a compact, high-capacity, low-power fuse series specifically developed by Chint Electric for photovoltaic power system, mainly for the solar photovoltaic system protection fuses, this series of fuse adopts high-quality materials and passes stringent tests by well-known manufacturers.

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. Operating conditions

#### 3.1 Ambient temperature: -25 °C~+60 °C

Temperature of the air directly surrounding the fuse link, should not be confused with room temperature. In many practical situations, the fuse link temperature is very high, which is because the fuse link is conditioned to support pieces / base of different structures and the entire fuse is enclosed in the distribution / control cabinet.

#### 3.2 Atmospheric conditions: Temperature: relative humidity of the air at the mounting site does not exceed 50% when the maximum temperature is +60 °C; a higher relative humidity is allowed at the lowest temperature, the monthly average minimum temperature of the wettest month does not exceed -25 °C, the monthly average maximum relative humidity does not exceed 90%. Measures must be taken in the case of condensation on the product due to temperature changes.

#### 3.3 Pollution degree: 3

#### 3.4 Mounting category: III

#### 3.5 Mounting place: fuse should be a place without significant shake or shock and vibration

#### 3.6 If the conditions are different from above, please consult with the manufacturer.

#### 3.7 Altitude: Current correction coefficient used in different altitudes is in the following table:

Altitude	≤2000m	2000m~3000m	≥3000m	Example
Current correction coefficient	1	0.9	0.8	The rated current of 10A rated current product at 2500m altitude after derating is 0.9X10 = 9A

#### 4. Technical data

4.1 The main technical parameters (see Table 1)

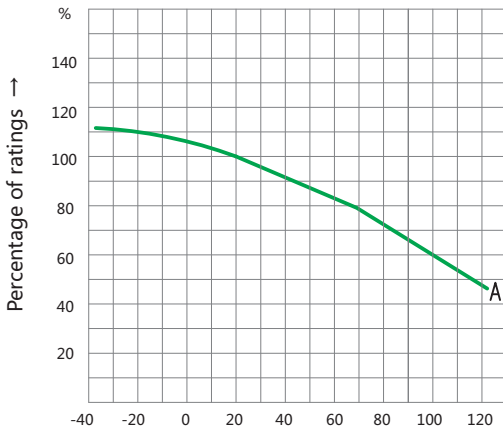
Table 1

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, 3, 4, 5, 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

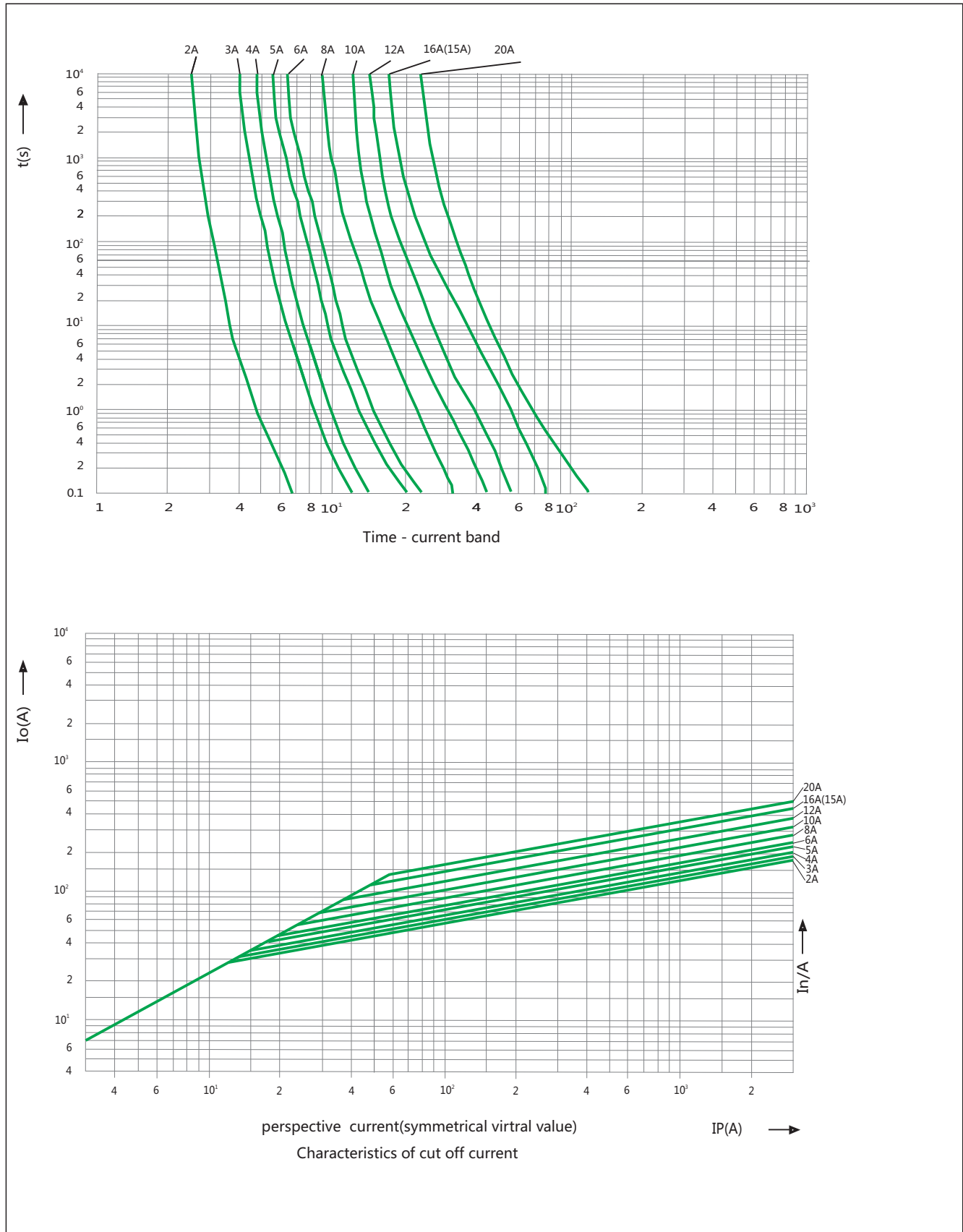


Ambient temperature  $t \rightarrow ^\circ\text{C}$   
 Ambient temperature - carrying capacity curve  
 Where: curve line is "gPV" type fuse link curve for protection

For example: When the ambient temperature of use is 20 °C, select rated current of "gPV" type fuse link  $I_n = 16\text{A}$ , 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:  $I_n = 16\text{A}/0.78 = 20.512\text{A}$ ; according to standard current rating of fuse link select  $I_n = 20\text{A}$ .



4.3 Fuse characteristic curve



## 5. Overall and mounting dimensions

Diagram 1 Overall and mounting dimensions of NRZ28-20 base

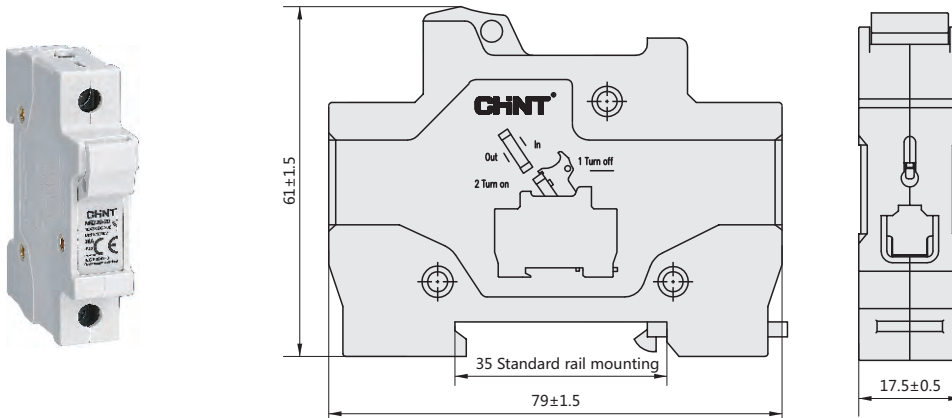
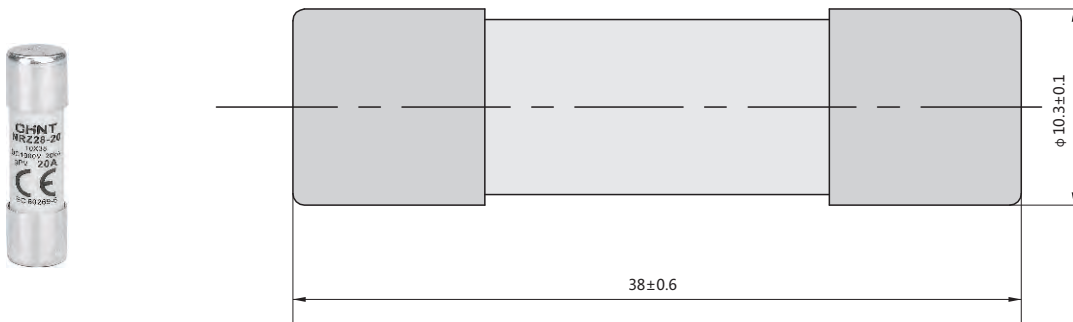


Diagram 2 Overall and dimensions of NRZ28-20 fuse link



## 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 fuse link 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.