

# RT18 Series Cylindrical Cap Fuse



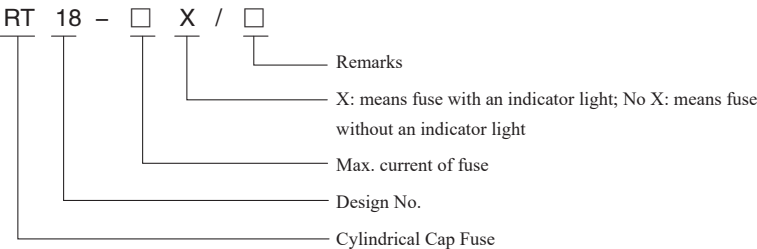
## 1 Overview

The RT18 series cylindrical cap fuse is used in the power distribution equipment of the AC 50Hz industrial electric installation with the rated voltage up to 690V 800V 1140V and rated current up to 125A for overload and short circuit protection of the lines. (It is not recommended to use this type of fuse in the capacitor box; for the application of the capacitor box, the RT16-00 is used instead of it)

Fuse-base signal device formed by LED lamp and resistor Code “X”.

Standard: IEC60269-2.

## 2 Type Designation



## 3 Operating Conditions

- 3.1 Ambient temperature: No more than 40°C; the mean temperature measured in 24 hours does not exceed 35°C, and the mean temperature measured in a year is lower than the above value. The minimum ambient air temperature is -5°C.
- 3.2 Altitude: No more than 2000m.
- 3.3 Atmospheric conditions: The air is clean, and its relative humidity does not exceed 50% at a maximum of 40°C; higher relative humidity is allowed at lower temperatures, for example, the relative humidity can be up to 90% at 20°C. The moderate condensation may occur incidentally due to temperature changes under these conditions.
- 3.4 Pollution degree: Level 3.
- 3.5 Installation category: Class III.
- 3.6 If the working conditions are different from the above, please consult the manufacturer.

## 4 Electrical characteristics

- 4.1 Test conditions

All tests should be carried out at ambient temperature of 20°C±5°C.
- 4.2 Load capacity test

When the fuse link is applied with conventional non-fusing current for testing, the circuit should not open within the agreed time, the fuse link shall not be fused by the current, and the fuse tube is not broken.
- 4.3 Breaking Capacity

The breaking capacity of the fuse link shall meet the breaking capacity requirements specified in the table below. When the fuse opens the circuit, the fuse link and its parts can be decolored or cracked, but they must be kept as an integral before the fuse link is removed from the fuse carrier or test rack and the insulation resistances on both ends shall not be less than 0.1MQ.

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Rated voltage	Breaking current
AC 500V/690V	120kA/50kA
AC800V/AC1140V	100kA

### 4.4 Time-Current Characteristics

When the fuse link is applied with the current specified in the table below, the fusing time must meet the requirements of the table below.

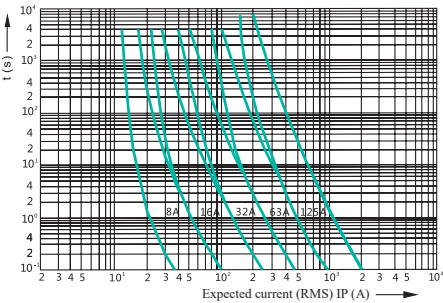
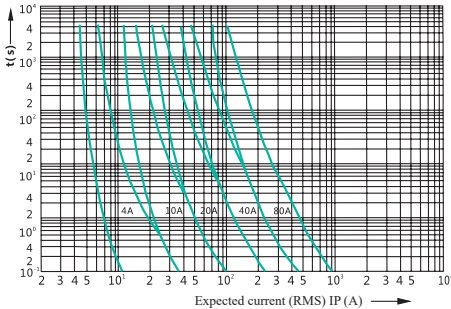
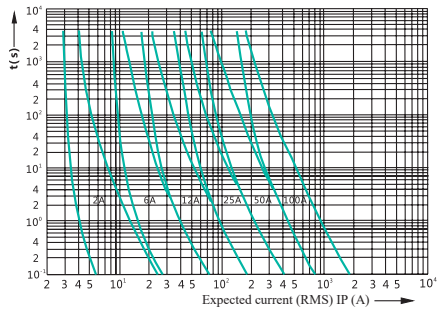
Rated current (A)	Agreed time	Conventional current	
		Conventional non-fusing current (A)	Conventional non-fusing current (A)
$I_n \leq 4$	1h	$1.5I_n$	$2.1I_n$
$4 < I_n < 16$	1h	$1.5I_n$	$1.9I_n$
$16 \leq I_n \leq 63$	1h	$1.25I_n$	$1.6I_n$

Note:  $I_n$  is the rated current

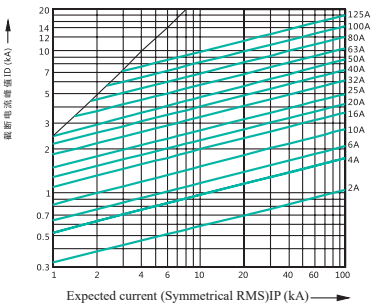
### 4.5 Power Loss

When the fuse link is applied with rated current, the product of the voltage and current at both ends of the fuse is the power loss of the fuse when the temperature change is less than 10C within 0.5 hours.

## 5 Fuse Characteristic Curve



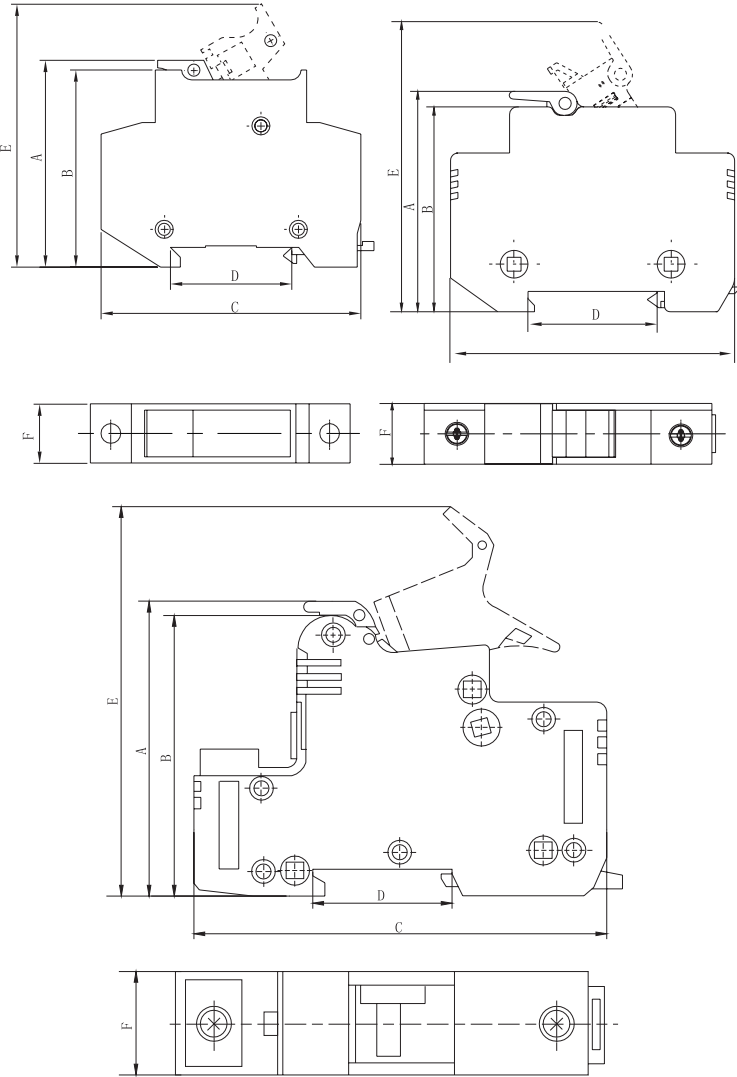
"gG" fuse link time – current band



"gG" fuse link cut-off current characteristic curve

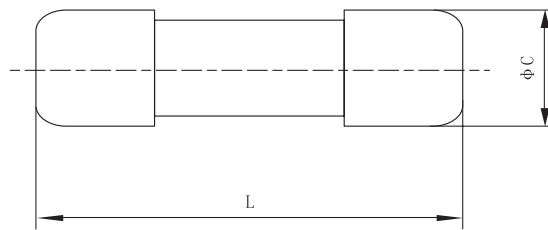
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6 Product Outline Drawing and Installation Dimensions



## RT18 Series Cylindrical Cap Fuse

Model	Rated voltage (V)	Rated current (A)	Number of poles	Dimensions (mm)					
				A	B	C	D	E	F
RT18-32 RT18-32X	690	32	1P	62	60	79	35	80	18
	690	32	2P	62	60	79	35	80	36
	690	32	3P	62	60	79	35	80	54
	690	32	4P	62	60	79	35	80	72
RT18-63 RT18-63X	690	63	1P	77	75.5	103	35	107	25
	690	63	2P	77	75.5	103	35	107	50
	690	63	3P	77	75.5	103	35	107	75
	690	63	4P	77	75.5	103	35	107	100
RT18-63L	800/1140	63	1P	77	73	108	35	100	27
	800/1140	63	2P	77	73	108	35	100	54
	800/1140	63	3P	77	73	108	35	100	81
	800/1140	63	4P	77	73	108	35	100	108
RT18L-125 RT18XL-125 (X means with indicator, L means plastic shell)	690	125	1P	77	73	126	35	104	36
	690	125	2P	77	73	126	35	104	72
	690	125	3P	77	73	126	35	104	108
	690	125	4P	77	73	126	35	104	144



Model	Size $\phi C \times L$	Rated voltage (V)	Rated current (A)	Dissipation power (W)	Rated breaking capacity (kA)
RT18-32	10×38	500/690	2,4,6,8,10,16,20,25,32	≤ 3	120/50
RT18-63	14×51	500/690	2,4,6,8,10,16,20,25,32,40,50,63	≤ 5	120/50
RT18-125	22×58	500/690	16,20,25,32,40,50,63,80,100,125	≤ 9.5	120/50

## RT18 Series Cylindrical Cap Fuse

### 7 Product Sign

- 7.1 The signs on the fuse link should be easily seen.
- 7.2 Each fuse link shall be marked with the following contents:
  - 7.2.1 Trademark: TENGGEN
  - 7.2.2 Breaking range and use category: gG
  - 7.2.3 Rated current: 2A, 4A, 6A, 8A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A, 125A
  - 7.2.4 Rated voltage: AC 500V/690V/800V/1140V
  - 7.2.5 Model marking:
    - Fuse link model RT18-32, RT18-63, RT18-125
    - Support part (base) model: RT18-32, RT18-32X; RT18-63, RT18-63X; RT18L-125, RT18XL-125

### 8 Packaging Requirements

- 8.1 Label
  - The label should include: model, rated voltage, rated current, production month.
- 8.2 All products should be packaged in such a way as to resist vibration during the transportation or storage of the product.

### 9 Ordering Notice

- 9.1 The following must be specified when ordering:
  - 9.1.1 The product model, rated current and quantity of the fuse link.
  - 9.1.2 The model, specification, base, and order quantity of the base.
- 9.2 Order Example:
  - For example, RT18-32/32A 100 units means to order 100 RT18-32 fuse links with a rated current of 32A.
  - For example, RT18-32 base 100 units means to order 100 fuse bases of the RT18-32 modes.