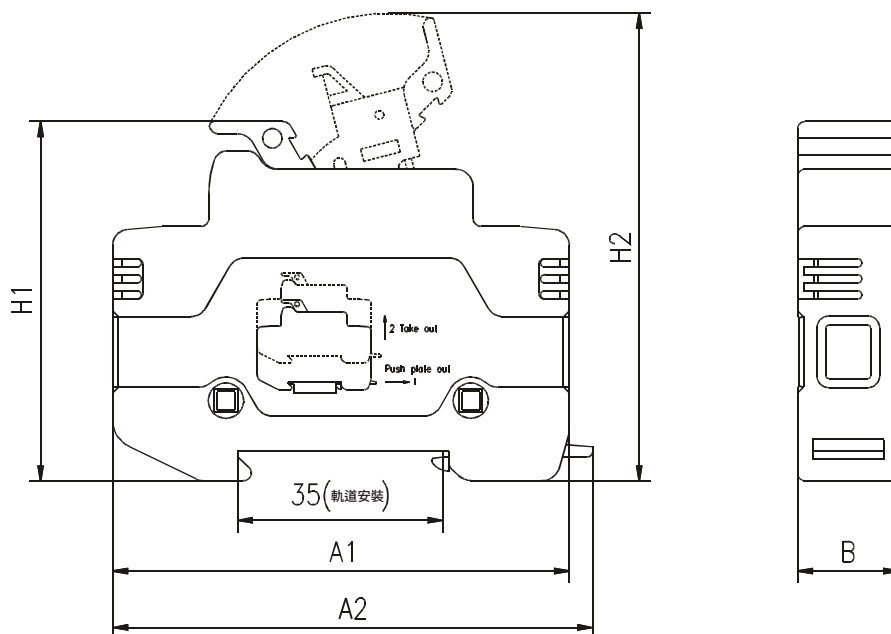




FT18-32系列交流熔斷器及座 產品規格書





一、適用範圍：Application

本系列熔斷器適用於交流50Hz、額定電壓至500V、額定電流至32A的電氣線路中作過載及短路保護(gG/gL)。由於熔片不同也可衍生為半導體裝置及其成套裝置的短路保護aR/gR/gS/gtr)、以及電動機的短路保護(aM)。額定分斷能力至100KA。產品符合國際電工委員會標準IEC60269。

This series fuse is suitable for AC 60Hz, rated voltage to 500V, rated current to 32A, for overload and short circuit protection in electrical wiring (gG/gL). Because of different melting tablets, it also may derive for protecting the semiconductor device and its complete set installment from short circuit (aR/gR/gS/gtr) 、 as well as the electric motor from short circuit(aM). The rated breaking capacity up to 100KA. They conform to IEC60269.

二、結構特點：Construction Feature

本系列熔斷器是由熔斷體、熔斷器底座和載熔件組成。熔斷體是由純銅片(或銅絲)製成的變截面積的熔體封裝於由高強度陶瓷製成的熔管內，熔管中充滿經化學處理過的高純度石英砂作為滅弧介質，熔體兩端與接觸帽牢固地電接觸，組成圓筒帽形有填料式熔斷體的結構。熔斷體的熔斷器底座由樹脂或塑膠壓製成的外殼裝上觸點和載熔件後，經鉚接或螺栓連接而成的，可作為相應尺寸熔斷體的支撐件。本系列熔斷器具有體積小、安裝方便、使用安全、外型美觀等特性。

This series fuse consists of fuse link, fuse base and carrier fuse. The variable cross-section fuse body made by pure copper piece(or copper wire, silver wire, silver piece) is sealed in the fusion tube which is made by the high strength porcelain or epoxy glass cloth pipe, there is full of the high-purity quartz sand processed after chemistry to take the extinguishing of arc medium in the tube, the two sides of fuse The is welded and connected with the end plate (or connecting plate) firmly and electrically, forming square knife shaped contact structure. A fuse may have a fuse indicator or an impactor, when fuse is blowing, a fuse (indicator) can be displayed or converted to various signals and an automatic switching circuit (impactor). The fuse base is composed of a high temperature resistant resin base plate/ high strength porcelain base plate and a wedge static contact, open structure, supporting for fuse of corresponding size. This series fuse has the advantages of good heat dissipation condition, high mechanical strength, reliable contact and easy operation.



三、產品的分類：Classification of products

1. 熔斷器的結構型式與使用人員有關，主要分為；

The structure of the fuse is related to the operator, mainly divided into:

- a. 專職人員使用的熔斷器：Fuses for full-time personnel;
- b. 非熟練人員使用的熔斷器。 Fuses used by unskilled persons.

2. 依分斷範圍和使用類別分類；

Sort by breaking range and using categories:

①. 依分斷範圍：Sort by breaking range

a. “g” 熔斷體 “g” fuse

b. “a” 熔斷體 “a” fuse

②. 依使用類別分類：Sort by using categories

a. “G” 熔斷體 “G” fuse

b. “M” 熔斷體 “M” fuse

c. 其它 other

四、分斷能力範圍和使用類別：Range of breaking capacity and using categories:

1. 分斷能力範圍 Range of breaking capacity

“g” 熔斷體 - 全範圍分斷能力熔斷體；

“g” fuse - full range breaking capacity fuse;

“a” 熔斷體 - 部分範圍分斷能力熔斷體。

“a” fuse - partial range breaking capacity fuse.

2. 使用類別 Using categories

“gG” 表示一般用途全範圍分斷能力的熔斷體；

“gG” fuse for general use, full range breaking capacity;

“aM” 表示保護電動機電路的部分範圍分斷能力熔斷體；

“aM” fuse for protecting the part of the circuit of the motor circuit, part breaking capacity.

“aR” 表示半導體裝置保護用熔斷體。

“aR” fuse for protection of semiconductor device



五、正常工作條件：Normal working conditions

1. 周圍空氣溫度：Ambient air temperature:

- a. 周圍空氣溫度上限不超過40°C ;
The ambient air temperature shall not exceed 40°C;
- b. 周圍空氣溫度24h的平均值不超過35°C ;
The average ambient air temperature 24h shall not exceed 35°C;
- c. 周圍空氣溫度下限不低於 - 5°C 。
The ambient air temperature shall not less than -5°C.

2. 海拔：Altitude:

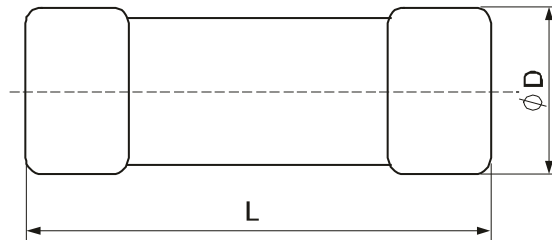
安裝地點的海拔不超過2000m 。
The installation site shall be no more than 2000m above sea level.

3. 大氣條件：Atmospheric condition

大氣相對濕度在周圍空氣溫度為40°C時不超過50%；在較低溫度下可以有較高的相對濕度（例如：在20°C下，相對濕度可達到90%）；最濕月的月平均最大相對濕度不超過90%，同時該月的月平均最低溫度不超過25°C，並考慮到因溫度變化而發生的溫度變化。
The relative humidity of the atmosphere is not exceed 50% when the ambient air temperature is 40°C; At lower temperatures, there can be a higher relative humidity(For example: the relative humidity can reach 90% at 20°C); the maximum monthly relative humidity of the wettest month is not exceed 90%, and the average temperature not exceed 2°C, and consider condensation on the products because of the changed temperature.

六、外形尺寸：Installation size

圖1 Figure 1



保險絲型號 Fuse model	額定電壓 Rated voltage (V)	額定電流 Rated current (A)	外型尺寸/尺碼(mm) Dimension		耗散功率 Wasted power (W)
			圖號 Figure NO.	D×L	
F015	380V/500V	1、2、4、6、8、10、12、 16、20、25、32	1	10×38	≤3

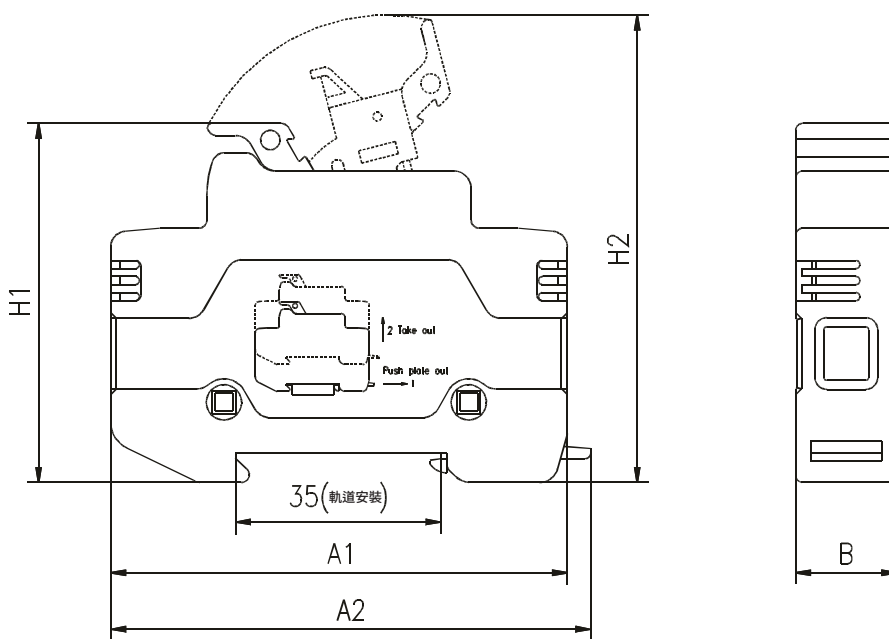
保險絲參數表 Fuse parameter table

產品型號 18：設計代號，用於區分不同系列或版本的產品。
32：規格代號，代表此熔斷器的額定電流為32A。

產品型號 Model	額定電流 Rated current (A)	耗散功率 Wasted power (W)	0.01s的弧前 The front arc of 0.01s	0.01s的熔斷 Fusing of 0.01s
			$I^2 t_{min}$	$I^2 t_{max}$
FT18-32	1	0.45	1.1	15
F015	2	0.85	1.5	23
	4	0.94	6	90
	6	1.43	24	225
	8	1.61	49	420
	10	1.81	100	576
	12	1.83	160	750
	16	2.12	300	1000
	20	2.22	500	1800
	25	2.46	980	3200
	32	2.81	1750	5100



圖2 Figure 2



保險絲座型號 Base model	配裝保險絲尺碼 Matched fuse size	額定電壓 Rated voltage (V)	額定電流 Rated current (A)	外型尺寸/尺碼 Dimension (mm)						
				圖號 Figure NO.	A1	A2	B	H1	H2	Φd
FT18-32/1P Base	10×38	380V 500V	32	2	79	81	18	62	80	-
FT18-32/2P Base					79	81	36	62	80	-
FT18-32/3P Base					79	81	54	62	80	-



七、特性：Character

1. 額定電壓：Rated voltage

交流熔斷器的額定電壓值建議選380V、500V；

It is recommended that the rated voltage of the AC fuse be 380V or 500V.

2. 額定電流：Rated current

熔斷體的額定電流值建議在下列中選用：2、4、6、8、10、12、16、20、25、32A；如有特殊要求，例如長期在高溫或低溫下進行工作的電流選型另定。

The rated current value of the fuse is recommended to be selected in the following: 2, 4, 6, 8, 10, 12, 16, 20, 25, 32A; If there are special requirements, such as long-upterm.

3. 熔斷器支援件的額定電流：Rated current of fuse support:

除非另有規定，熔斷器支援件的額定電流應從熔斷體的額定電流中選取，對於「gG」和「aM」熔斷器，熔斷器支援件的額定電流表示配用熔斷體的最大額定電流。

Unless otherwise specified, the rated current of the fuse support shall be selected from the rated current of the fuse body. For "gG" and "aM" fuses, the rated current of the fuse support indicates the maximum rated current of the fuse body to be used.

4. 熔斷體的額定耗散功率和熔斷器支撐件的額定接受功率：

The rated dissipation power of the fuse and the rated acceptance power of the fuse support:

若熔斷體的分標準沒有規定，熔斷體的額定耗散功率由製造廠規定。

若熔斷器的分標準沒有規定，熔斷器支撐件的額定接受功率由製造廠規定，額定接受功率在規定試驗的條件下，不超過熔斷器支撐件所能承受的最大耗散功率以及規定的溫升，即鍍錫的觸頭溫升不超過65K；鍍鎳的觸頭溫升不超過70K（aR類熔斷器不適用）。

If the sub-standard of the fuse body is not specified, the rated power dissipation of the fuse body is specified by the manufacturer.

If the sub-standard of the fuse is not specified, the rated accepted power of the fuse support part shall be specified by the manufacturer, and the rated accepted power shall not exceed the maximum dissipation power that the fuse support part can withstand and the specified temperature rise under the specified test conditions, that is, the temperature rise of the tinned contact shall not exceed 65K; The temperature rise of nickel-plated contacts does not exceed 70K (not applicable to aR fuses).



八、試驗方式：Test mode

1. 約定時間、約定電流 Contract time and current

表1 “gG” 和 “gM” 熔斷體的約定時間和約定電流

Table 1 Contract time and current of fuse “gG” and “gM”

“gG” 熔斷體額定電流 Rated current of fuse “gG” “gM” “gM” 熔斷體特性電流 Characteristic current of fuse “gM”	約定時間 Contract time (h)	約定電流 Contract current	
		Inf	If
≤4	1	1.5In	2.1In
>4~<16	1	1.5In	1.9In
≥16~63	1	1.25In	1.6In
>63~125	2	1.25In	1.6In

表2 “aM” 熔斷體 (額定電流) 的臨界值

Table 2 「aM」 Fuse (full rated current) threshold

	4 In	6.3 In	8 In	10 In	12.5 In	19 In
t熔斷 t blow	—	60 s	—	—	0.5 s	0.10 s
t弧前 t forearc	60s	—	0.5 s	0.2 s	—	—

表3 “aR” 熔斷體的約定時間和約定電流

Table 3 Contract time and current of fuse

“aR” 熔斷體額定電流 Rated current of fuse “aR” A	約定時間 Contract time (h)	約定電流 Contract current	
		Inf	If
In	4	1.1In	
In	0.02”		8In



2. 熔斷器性能試驗：Fuse performance test

a. 定期試驗一般不超過5年一次，至少不少於10只以上，其包含對熔斷器外形尺寸、外觀、銘牌標誌、內電阻值的測量、安裝尺寸、約定不熔斷試驗、約定熔斷的檢驗試驗、熔斷體及熔斷底座的額定耗散功率的檢驗；

a. Regular trials are generally not available over 5 years, not less than 10 pcs, it contains fuse dimension, appearance, nameplate, measurement of internal resistance, installation size, conventional non fusing test, inspection test of prescribed fuse, test for rated dissipation power of fuse and fuse base;

b. 常規檢驗為每批熔斷器必須進行100%檢驗，其包含對熔斷器外形尺寸、外觀、銘牌標誌、內電阻值的測量、安裝尺寸的檢驗；

b. The routine test is that each batch of fuses has to be checked for 100%, it contains measurements of dimensions, appearance, nameplate marks, internal resistance, and mounting dimensions.

c. 出廠的抽樣試驗是每批熔斷器不少於5只以上，依照IEC-60269的規定進行調整二次型的試驗，外形尺寸、外觀、銘牌標誌、約定不熔斷試驗、約定熔斷的檢驗試驗、熔斷體及熔斷底座的額定耗散功率的檢驗。

c. The sampling test of out of the factory is no less than 5 pcs per batch, make adjustment of the two type test according to IEC60269, inspection of dimensions, appearance, nameplates, conventions non fusing tests, tests for prescribed fuses, tests for rated dissipation power of fuse and fuse base.

九、標示、包裝、運輸與儲存 Marking, packaging, transportation and storage

1. 標誌：Marking

標誌應清晰，易於辨認，且不會因歷時過久而模糊不清。標誌不應標在可移去的部件上，熔斷器處於正常安裝位置時，標誌應明顯可見。

The markings should be clear, easy to recognize, and not too vague for too long. The mark should not be marked on removable parts, the mark shall be visible when the fuse is in the normally installed position.

2. 包裝：Packaging

熔斷器的外包裝必須能防止運送時損壞並能防雨、防潮。包裝箱內一般應附有裝箱單、產品合格證及必要的運輸、安裝、使用及維修說明書等。

The outer packing of the fuse must be able to prevent damage during transit and to prevent rain and moisture. The packing case shall be accompanied by a packing list, a certificate of conformity, and necessary instructions for transportation, installation, use and maintenance.

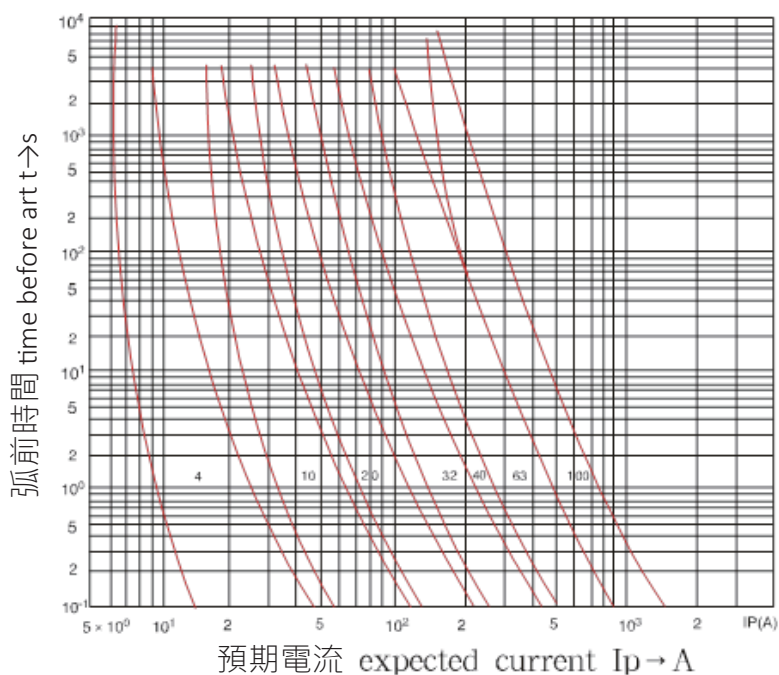
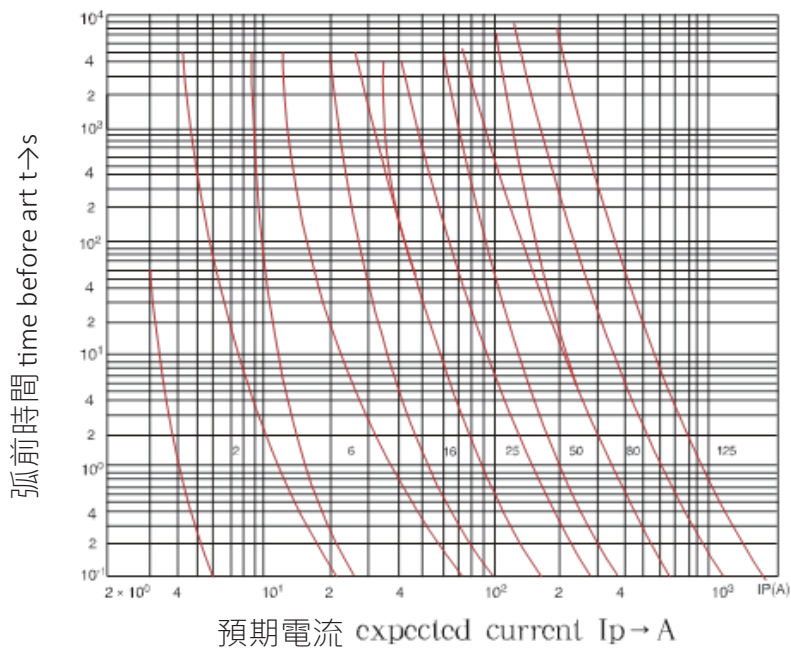
3. 運輸與儲存：Transportation and storage

由產品標準規定（不低於-25°C）。

Specified by the product standard (not lower than -25°C).




十、“gG” 熔斷體熔化特性曲線圖 "gG" fuse melting characteristics diagram





日揚國際事業股份有限公司
JD Auspice Co., Ltd.



 www.jdauspice.com



 [@jdauspice](https://www.facebook.com/jdauspice)



 ID : @jdapv

