



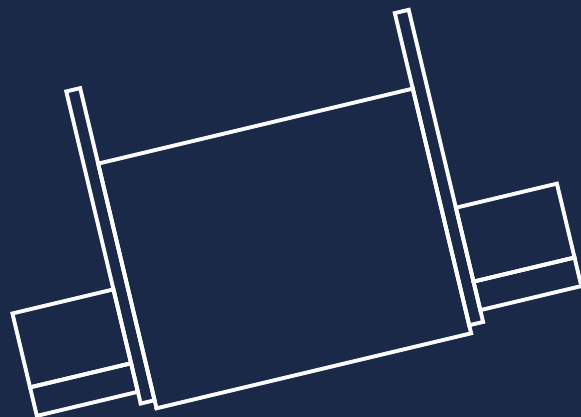
PRODUCTS DATASHEET

FRM系列 Z型 AC690V IEC AC700V UL

FRM series Z Type AC690V IEC AC700V UL

产品规格书

Product Specification



1. 规格型号 Overview

1.1 额定电压 Rated Voltage: AC690V IEC AC700V UL

1.2 额定电流 Rated Current: 10~400A

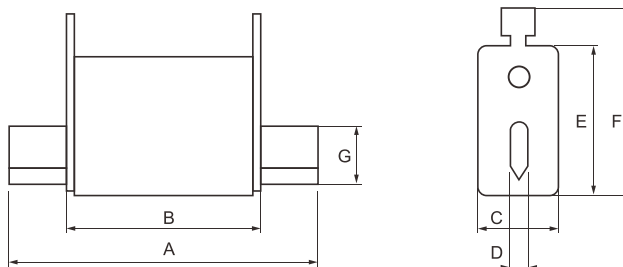
1.3 功能等级 Function Class: aR / gR

1.4 分断能力 Breaking Capacity: 100kA

2. 符合标准及规范 Standard: IEC60269-4 GB/T13539.4

3. 产品外形尺寸 Dimension

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage	额定电流(A) Rated current	尺寸Dimension(mm)						
					A	B	C	D	E	F	G
FRM	000	Z78	690/700	10~315	78±1.5	54	21	6±0.2	36	48±1.5	15
FRM	00	Z78	690/700	25~400	78±1.5	54	30	6±0.2	48	60±1.5	15



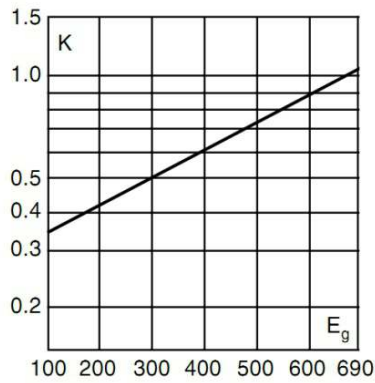
4. 产品技术参数 Technical parameters

4.1 弧前I²t Pre-arc/熔断I²t Clearing/额定功率 Watts Loss

型号 Model	尺码 Size	安装方式 Installation	电压(V) Voltage	电流(A) Current	I ² t(A ² S)		功耗(W) Watts Loss	曲线图 Curve
					弧前Pre-Arcing	熔断Clearing		
FRM	000	Z78	690/700	10	3.8	25.5	3.0	图Figure 1 图Figure 3
				16	7.2	48	5.5	
				20	11.5	78	7	
				25	19	130	9	
				32	40	270	10	
				40	69	460	12	
				50	115	770	15	
				63	215	1450	16	
				80	380	2550	19	
				100	695	4650	24	
				125	1200	8500	28	
				160	2300	16000	32	
				200	4200	28000	37	
				250	7750	51500	42	
315	12000	80500	52					

型号 Model	尺码 Size	安装方式 Installation	电压(V) Voltage	电流(A) Current	I ² t(A ² S)		功耗(W) Watts Loss	曲线图 Curve
					弧前Pre-Arcing	熔断Clearing		
FRM	00	Z78	690/700	25	19	130	6	图Figure 2 图Figure 4
				32	28.5	195	7	
				40	50	360	9	
				50	95	640	10	
				63	170	1200	12	
				80	310	2100	15	
				100	620	4150	20	
				125	1000	6950	25	
				160	1900	13000	30	
				200	3400	23000	35	
				250	6250	42000	45	
				315	10000	68500	55	
				350	13500	91500	60	
				400	18000	125000	70	

4.2 熔断 I²t 修正系数K Melting I²t Correction Factor K



计算方法: $I^2t(\text{修正}) = I^2t(\text{额定}) \times K$

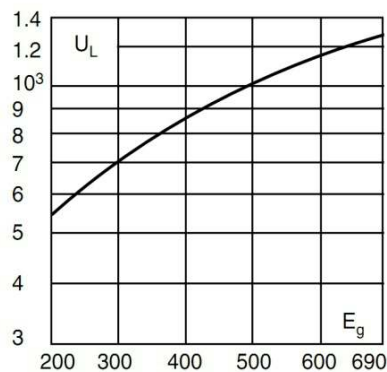
Calculation Method:

$I^2t(\text{correction}) = I^2t(\text{rated}) \times K$

注: Eg为工作电压

Note: Eg is the working voltage

4.3 电弧电压峰值 Peak Value of Arc Voltage



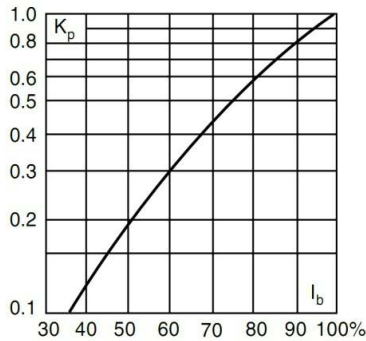
Eg为工作电压; 此图为功率因数为

注: U_L 为电弧电压峰值; Eg为工作电压; 此图显示的是功率因数为15%的情况。
Note: U_L is the peak value of arc voltage; Eg is the working voltage; This figure shows the case when the power factor is 15%.

4.4 功耗修正系数 Power consumption correction factor Kp

额定功耗已在4.1给出，低于额定电流的功耗可按下图计算。

The rated power consumption is given in 4.1, and the power consumption below the rated current can be calculated as shown below.

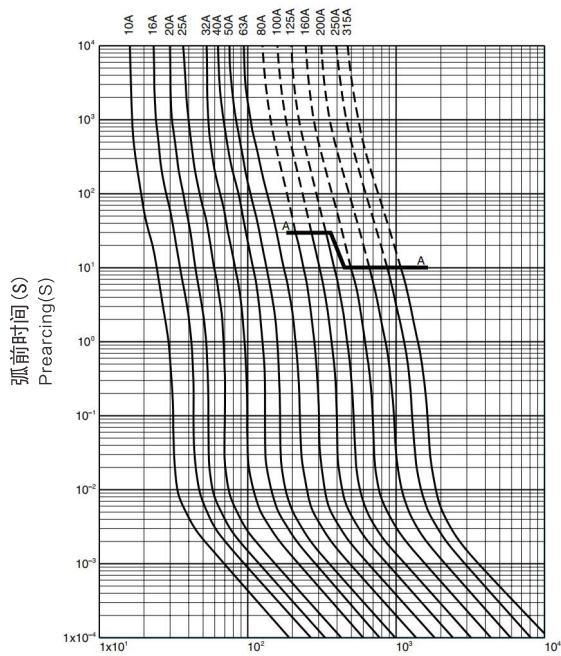


计算方法：W (修正)=W (额定) × Kp

Calculation Method:

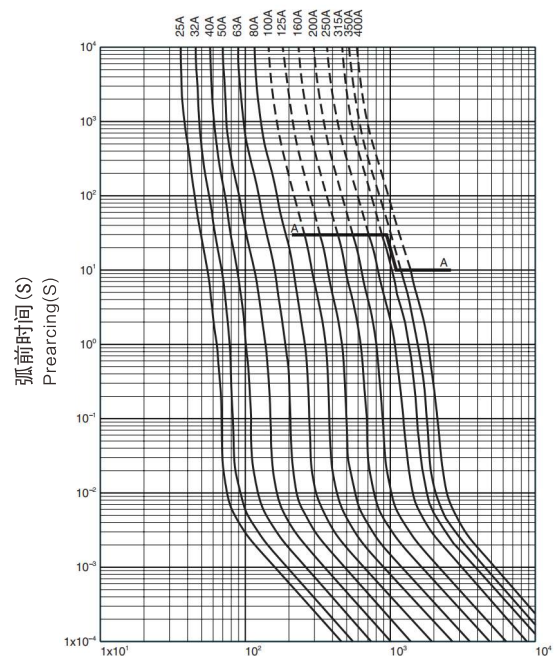
W (correction) = W (rated) × Kp

4.5 时间-电流曲线 Time-current characteristics curves



预期电流有效值 (A)
Prospected Current (A)

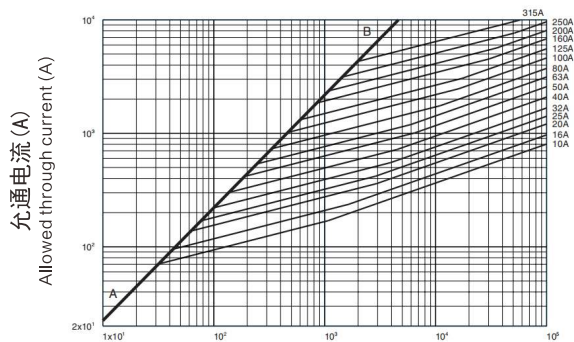
图Figure 1



预期电流有效值 (A)
Prospected Current (A)

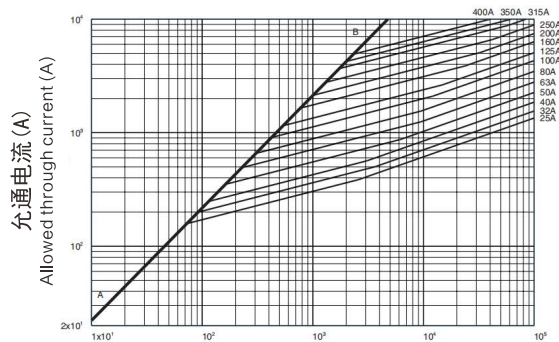
图Figure 2

4.6 截断电流特性 Cut-off current characteristics



预期截断电流有效值 (A)
Prospected Cut-off Current (A)

图Figure 3



预期截断电流有效值 (A)
Prospected Cut-off Current (A)

图Figure 4

1. 规格型号 Overview

1.1 额定电压 Rated Voltage: 690Vac IEC 700Vac UL

1.2 额定电流 Rated Current: 40A~2500A

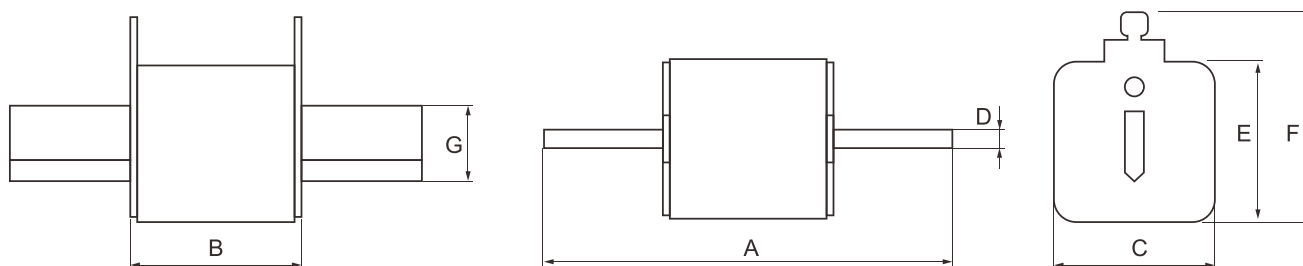
1.3 功能等级 Function Class: aR

1.4 分断能力 Breaking Capacity: 100kA

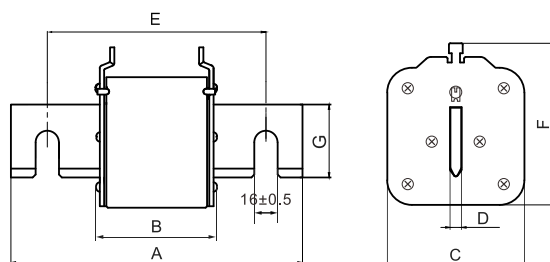
2. 符合标准及规范 Standard: IEC60269-4 GB/T13539.4

3. 产品外形尺寸 Dimension

型号 Model	尺寸 Size	安装方式 Installation	额定电压(V) Rated voltage	额定电流(A) Rated current	尺寸Dimension(mm)						
					A	B	C	D	E	F	G
FRM	61	Z135	AC690VIEC	40~700	135	75	48	6	48	65	20
	62	Z150		400~1000	150	75	58	6	58	73	25
	63	Z150	AC700VUL	500~1400	150	75	68	6	74	86	32
	65	Z200		630~2500	200	90	100	8	150	118	50



FRM61~63



FRM65~Z200

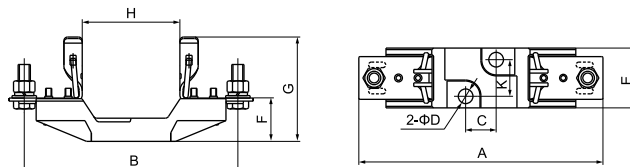
4. 产品技术参数 Technical parameters

4.1 弧前I²t Pre-arc/熔断I²t Cleaing/额定功率 Watts Loss

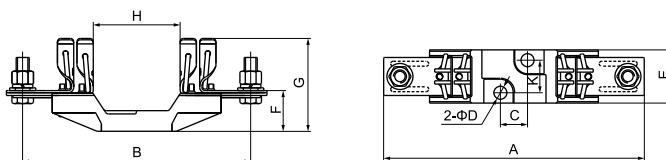
型号 Model	尺寸 Size	安装方式 Installation	电压(V) Voltage	电流(A) Current	I ² t(A ² S)		功耗(W) Watts Loss
					弧前Pre-arc	熔断Cleaing	
FRM	61	Z135	AC690VIEC AC700V UL	40	40	280	4
				50	78	550	5
				63	120	850	7
				80	185	1350	9
				100	360	2600	10
				125	550	3900	11
				160	1150	8250	12
				200	2300	16000	13
				250	4350	31000	16
				315	7300	52000	20
				350	10000	73000	22
				400	16000	115000	23
				450	21000	155000	27
				500	27000	190000	29
630	48000	345000	38				
700	69000	495000	39				
FRM	62	Z150	AC690VIEC AC700V UL	400	11000	79000	29
				450	16000	115000	32
				500	21000	155000	34
				550	29000	215000	36
				630	41000	295000	42
				700	60000	430000	43
				800	86000	610000	48
				900	125000	890000	52
FRM	63	Z150	AC690VIEC AC700V UL	1000	180000	1300000	53
				500	14000	99000	43
				550	19000	140000	44
				630	31000	220000	45
				700	45000	320000	46
				800	69000	490000	48
				900	100000	720000	50
				1000	140000	980000	56
FRM	65	Z200	AC690VIEC AC700V UL	1100	190000	1400000	57
				1250	300000	2100000	61
				1400	380000	2700000	70
				630	31000	210000	105
				700	44500	300000	110
				800	69500	465000	115
				900	100000	670000	120
				1000	140000	945000	125
				1100	190000	1300000	130
				1250	290000	1950000	140
				1400	370000	3100000	155
1600	580000	3900000	160				
1800	880000	5250000	165				
2000	1150000	6350000	175				
2500	1300000	8800000	205				



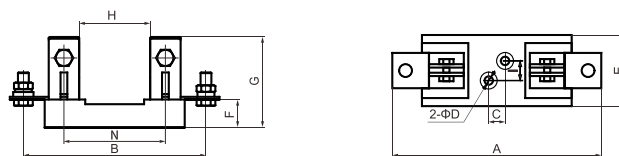
型号 Type	额定电压(V) Rated Voltage	电流等级(A) Rated Current	尺寸Dimension(mm)								
			A	B	C	ΦD	E	F	G	H	K
FH1Z	AC690V/700V	400	200±3.6	175±2.5	25±0.7	12±0.5	50±2	35±2	84±2	80±3	30±0.7
FH2Z	AC690V/700V	630	224±3.6	200±2.5	25±0.7	12±0.5	50±2	35.5±2	88.5±2	80±3	30±0.7



型号 Type	额定电压(V) Rated Voltage	电流等级(A) Rated Current	尺寸Dimension(mm)								
			A	B	C	ΦD	E	F	G	H	K
FH3Z	AC690V/700V	1000	240±3.6	210±3	25±0.7	12±0.5	50±2	38.2±2	92±2	80±3	30±0.7



型号 Type	额定电压(V) Rated Voltage	电流等级(A) Rated Current	尺寸Dimension(mm)									
			A	B	C	ΦD	E	F	G	H	I	N
FH4MN	AC690V/700V	2500	310±3.6	270±3	45±1	10.5±0.5	88±2	40.5±2	134±3	105±3	30±1	150±1.5



样本所述的产品资料以实物为准，若有变更本公司恕不另行通知，欢迎致电咨询。

The product information stated in the sample shall be subject to the material object.
If there is any change without prior notice, please call us for consultation.

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