

专注熔断器研发制造
Focus on Fuse Development And Production



产品选型手册 
Product Selection Guide

新能源产品保护用熔断器
Fuse For New Energy Products

浙江弗而兹电气科技有限公司
ZHEJIANG FUERZI(FRSI)ELECTRIC TECHNOLOGY CO.,LTD.



企业简介

Company Profile

我们是谁？

浙江弗而兹电气科技有限公司（以下简称弗而兹电气）是一家新成立的高技术公司。公司主营生产产品为低压熔断器和隔离开关，覆盖电力、通信、新能源等领域。公司秉承德国和日本的经营理念，以市场为主导，专注于电力保护行业的细分市场，即熔断器保护，做精做专，力争成为全国乃至全球领先的熔断器保护服务商。

我们为社会带来什么？

为客户创造价值，为行业注入新鲜血液和活力。弗而兹电气积极开拓市场合作伙伴，坚持以市场为导向，技术为支持，以市场带领技术，以技术服务市场的原则，为电力、通信和新能源行业提供可靠的、与时俱进的熔断器保护解决方案。

推动产业良性发展。弗而兹电气主张开放、合作、共赢，与客户合作伙伴及友商合作创新，积极参与和支持行业主流标准和新标准的制定，为产业发展贡献自己的力量。推动社会可持续发展。作为负责任的企业公民，弗而兹电气始终坚持和响应国家的环保号召，在生产过程中尽全力消除污染，最终实现无污染。弗而兹电气投身于开发新能源电动汽车电池保护用熔断器和充电桩保护用熔断器，为新能源电动汽车的安全提供可靠的产品和技术支持，从而推动新能源电动汽车行业的发展，实现降低汽车污染的目标。

为奋斗者提供舞台。弗而兹电气为所有奋斗的员工提供一个公平竞争的舞台，以责任贡献来评价和提升员工，使有才华有能力有担当的人才，能够快速成长，实现自我价值。

我们坚持什么？

弗而兹电气坚持聚焦在自己的专业领域，抵制其他诱惑，不走捷径，拒绝机会主义，踏踏实实，放眼未来，厚积薄发；坚持以客户为中心，以市场为中心，以技术为中心，艰苦奋斗，勇闯未来。

Who we are?

Zhejiang Fuerzi Electric Technology Co.,Ltd. is a leading company in the electrical fuse and switch industry. We focus on designing, manufacturing and selling electrical fuse and fuse-switch-disconnector. We also provide fuse protection solutions for our clients.

What we bring to clients and society?

We create values for our clients, and bring fresh energy to the industry. We are proud to be recognized by markets, and believe that the spirit of engineering and craftsman will lead us to a further success.

We promote development for the industry. We always propose more corporation and finally achieve an all-win result. Thus, we proactively participate in most of the industrial activities, to contribute our efforts.

We insist the sustainable development to society. As a responsible corporate citizen, we are trying our best to eliminate the pollution during the production, and provide products which are environment-friendly to our clients.

What do we insist on?

We provide an impartial platform for our employees. We are more concerned on the personality of our employees, and encourage them to be more innovative and effective. Employees are evaluated and promoted by their contribution to the company, such as innovation, concentration and professionalism. We, FRSI, will always look forward to the corporation with you!



储能用快速熔断器系列

Fast Fuse Series For Energy Storage

- 02** FRB系列储能用直流快速熔断器(MB型)
FRB series DC Energy Storage Fast Fuse(MB Style)
- 02** FRG系列储能用直流快速熔断器(LB型)
FRG series DC Energy Storage Fast Fuse(LB Style)
- 03** FRM系列储能用直流快速熔断器(Z/LUN/LB型)
FRM series DC Energy Storage Fast Fuse(Z/LUN/LB Style)
- 05** FRM系列储能用直流快速熔断器(P/MB/UN型)
FRM series DC Energy Storage Fast Fuse(P/MB/UN Style)
- 10** FRM/FDM系列储能用直流快速熔断器(LB型)
FRM/FDM series DC Energy Storage Fast Fuse(LB Style)
- 11** FRC系列储能用直流快速熔断器
FRC series DC Energy Storage Fast Fuse
- 11** FRC系列储能用直流快速熔断器底座
FRC series DC Energy Storage Fast Fuse

太阳能光伏保护用熔断器系列

Fuses Series For Solar Photovoltaic Protection

- 13** 圆筒形帽FPV系列太阳能光伏系统保护用熔断体
FPV Cylindrical Series Fuse For solar Photovoltaic System Protection
- 14** 圆筒形帽FPV系列太阳能光伏系统保护用熔断体底座
FPV Cylindrical Series Fuse For Solar Photovoltaic System Protection
- 15** FPVH系列太阳能光伏系统保护用熔断体
FPV H Series For Solar Photovoltaic System Protection
- 15** FPVH系列太阳能光伏系统保护用熔断体底座
FPV H Series For Solar Photovoltaic System Protection
- 16** FPV系列太阳能光伏系统保护用熔断体(P/MB/UN型)
FPV Series For Solar Photovoltaic System Protection(P/MB/UN Style)
- 17** FRM系列太阳能光伏系统保护用熔断体(P/MB/UN型)
FRM Series For Solar Photovoltaic System Protection(P/MB/UN Style)
- 18** FRM太阳能光伏系统保护用熔断体(Z型)
FRM Series For Solar Photovoltaic System Protection(Z Style)
- 18** FRM太阳能光伏系统保护用熔断体底座(Z型)
FRM Series For Solar Photovoltaic System Protection(Z Style)

充电桩保护用直流快速熔断器系列

DC Fast Fuse Series For Charging Pile Protection

- 20** FRB螺栓式充电桩保护用直流快速熔断器(MB型)
FRB DC Fast Fuse For FRB Charging Pile Protection(MB Style)
- 21** FRM方型充电桩保护用直流快速熔断器(P/UN型)
FRM DC Fast Fuse For Charging Pile Protection(P/UN Style)
- 22** FRM方型充电桩保护用直流快速熔断器(LUN/LB型)
FRM DC Fast Fuse For Charging Pile Protection(LUN/LB Style)
- 23** FRG系列充电桩保护用直流快速熔断器(LB型)
FRG Series DC Fast Fuse For Charging Pile Protection(LB Style)

电动汽车保护用直流快速熔断器系列

DC Fast Fuse Series For Electric Vehicles Protection

- 25** FRG系列直流快速熔断器(LB型)
FRG Series DC Fast Fuse(LB Style)
- 26** FRB系列直流快速熔断器(MB型)
FRB Series DC Fast Fuse(MB Style)
- 26** FRM系列直流快速熔断器(P/MB/UN型)
FRM Series DC Fast Fuse(P/MB/UN Style)
- 28** FRM系列直流快速熔断器(LB型)
FRM Series DC Fast Fuse(LB Style)



储能用快速熔断器系列 Fast Fuse Series For Energy Storage

概述 Overview

- 符合UL248-13、IEC60269-4、GB/T 13539.4等标准
- 额定电压：DC250V~2400V
- 更高直流电压请与公司技术部门联系
- 功能等级：aR, gR
- aR用于半导体器件短路故障系统保护, gR用于半导体器件短路系统保护及提高线路上的电缆和导线系统保护
- 额定分断能力：DC30kA、DC50kA、DC100kA
- 功耗及I²t数据可向技术部门索取

注：重量及装箱数可向公司市场部索取

- Conforms to UL248-13、IEC60269-4、GB/T 13539.4
- Rated voltage: DC250V~2400V
- For higher DC voltage, please contact the company's technical department
- Utilization category: aR, gR
- aR for short-circuit fault system protection of semiconductor devices, gR for shortcircuit system protection of semiconductor devices and for improving cable and wire system protection on lines.
- Rated breaking capacity: DC20kA、DC50kA、DC100kA
- Power loss and I²t data can be obtained by technical department

Note: Weight and packing number can be obtained from the marketing department of the company.

工作环境 Working Environment

- 周围空气温度: 周围空气温度上限不超过+90℃, 下限不低于-40℃。
- 大气条件: 大气相对湿度在周围空气温度为40℃时不超过50%; 在较低温度下可以有较高的相对湿度; 最湿月的月平均最大相对湿度不超过90%, 同该月平均最低温度不超过25℃, 并考虑到因温度变化发生在产品表面上的凝露。
- 污染等级: 熔断器的污染等级为II级。
- 安装条件: 熔断器应安装在无显著摇动和冲击, 无足以腐蚀金属和破坏绝缘的气体及导电尘埃的场所中。

注：当熔断器使用条件和规定不相符时，用户应与我公司协商。

- Ambient air temperature: the upper limit is not more than +9℃, and the lower limit is not less than -40℃.
- Atmospheric conditions: atmospheric relative humidity does not exceed 50% when the ambient air temperature is 40℃; higher relative humidity can be obtained at lower temperatures; maximum monthly average relative humidity does not exceed 90%, and minimum monthly average temperature does not exceed 25℃, taking into account that condensation occurs on the product surface due to temperature changes.
- Pollution Level: Pollution Level II.
- Installation Conditions: Fuses shall be installed in places where there is no significant shaking and impact, and where there is no corrosion of metals and damage of insulated gases and without conductive dust.

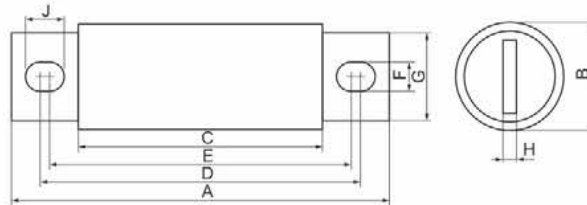
Note: Users should consult with our company when the fuse operating conditions and regulations do not conform.

FRB系列储能用直流快速熔断器 (MB型)
FRB series DC Energy Storage Fast Fuse(MB Style)

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
					A	B	C	D	E	F	G	H	J
FRB	21	MB62	DC250V	35~160	81	21	40	66	56	9	15	3.2	14
	31	MB58		125~315	88	31	40	72	63	9	22	5	12.5
	38	MB66		225~600	98	38	40	75	57	10.5	25	6	19
	51	MB68		450~800	99	51	40	80	60	10.5	40	6	20
FRB	21	MB61	DC500V	50~150	81	21	40	66	57	8.5	16	4	13
	25	MB72		100~250	92	25	44	72	67	8.5	18	4	11
	31	MB72		200~400	92	31	47	73	66	8.5	24	5	12
	38	MB80		350~600	110	38	53	88	73	10.5	25	6	16
FRB	21	MB89	DC700V	35~100	109	21	68	93	85	8.5	16	3.2	13
	25	MB91	IEC	125~200	110	25	66	94	90	8.5	16	3.2	11
	38	MB99	DC750V	100~400	129	38	72	108	93	10.5	25	6	18
	51	MB100	UL	500	129	51	72	109	90	10.5	38	6	20
FRB	25	MB102	DC1000V	35~125	123	25	79	107	98	9	18	3.2	13.5
	38	MB108		125~300	141	38	83	117	100	10.5	26	6	19
	51	MB120		250~500	148	51	89	128	117	10.5	38	6	20
	63	MB136		500~700	182	63	88	152	128	13.5	50	10	31

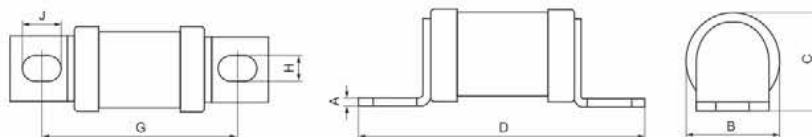


FRG系列储能用直流快速熔断器 (LB型)
FRG series DC Energy Storage Fast Fuse(LB Style)

分断能力 Breaking Capacity:DC=30kA 功能等级 Function Class:aR/gR



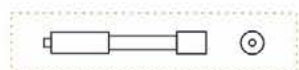
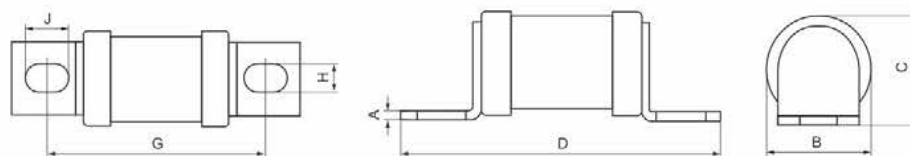
型号 Model	尺码 Size	安装方式 Installation	额定电流(A) Rated current	额定电压(V) Rated Voltage	尺寸Dimension(mm)						
					A	B	C	D	G	H	J
FRG	18	LB42	20~180	DC250V	2	18	19	56	42	6.5	9
	21	LB42	60~200		2.5	21.3	22	58	42	9	11
	27	LB58	90~315		3	26.8	28	80	58	9	11
	36	LB60	150~400		3	33	35	85	58	11	19
	48	LB65	225~500		3.5	47.5	51	90	65	11	16



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	C	D	G	H	J
FRG	18	LB64	DC500V	20~125	2	18.2	19	76	62	6.5	9
	21	LB70		60~160	2.5	21.3	22	90	70	9	11
	24	LB77		125~200	3	23	25.5	98	77	9	14
	27	LB70	DC700V IEC	90~225	3	26.8	28	90	70	9	11
	36	LB81	DC750V UL	150~355	3	33	36	106	81	11	19
	38	LB85		180~355	3	38	44	109	85	11	16
	48	LB85		315~600	3.5	47.5	51	113	85	11	19

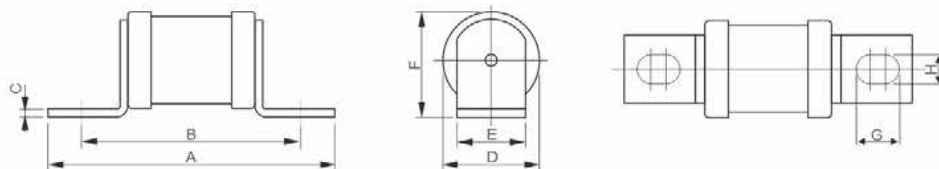


注: 如有要求带信号(远程控制)请注明, 并向销售部或技术部取得联系
 Note: If you require signal (remote control), please specify and contact the Sales Department or Technical Department.

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压 Rated voltage(V)	额定电流 Rated current(A)	尺寸Dimension (mm)							
					A	B	C	D	E	F	G	H
FRG	27	LB99	DC1000V	20~160	120	98	3	27	20	28	11	9
	38	LB114		200~315	142	114	3	38	25	42	16	11

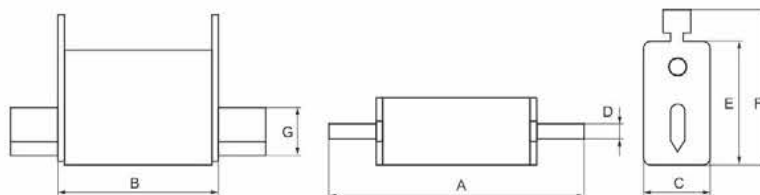


FRM系列储能用直流快速熔断器(Z/LUN/LB型) FRM series DC Energy Storage Fast Fuse(Z/LUN/LB Style)

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



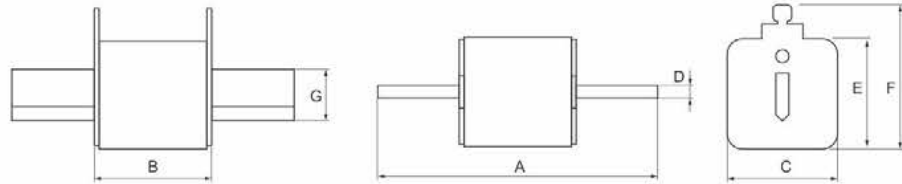
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	C	D	E	F	G
FRM	000	Z78	DC500V	10~315	78	54	21	6	40	53	15
	00	Z78		25~400	78	54	30	6	48	61	15



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



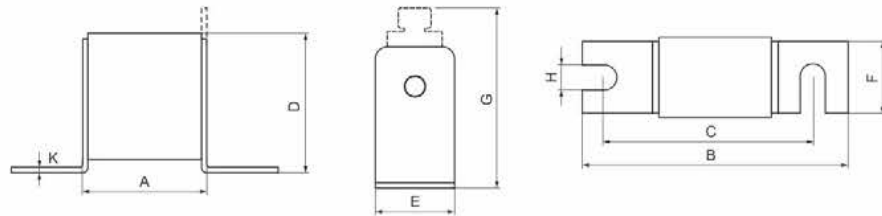
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	C	D	E	F	G
FRM	61	Z135	DC500V	40~400	135	75	48	6	48	65	20
	62	Z150		200~700	150	75	58	6	58	73	25
	63	Z150	DC700V/750V	500~900	150	75	68	6	74	86	32



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



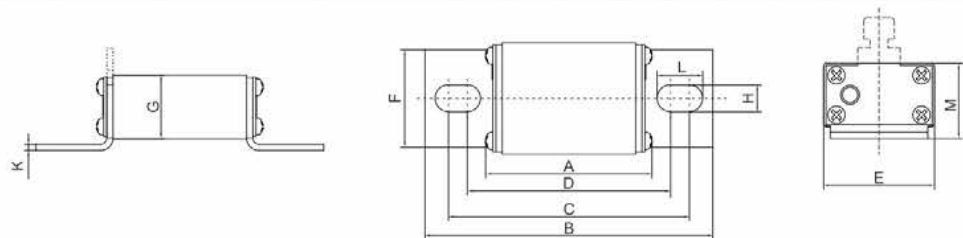
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
					A	B	C	D	E	F	(G)	H	K
FRM	000	LUN80(T)	DC500V	10~315	54	100	78	40	21	20	51	8	2
	00	LUN80(T)	DC700V/DC750V	25~400	54	100	78	51	30	28	67	10	2



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



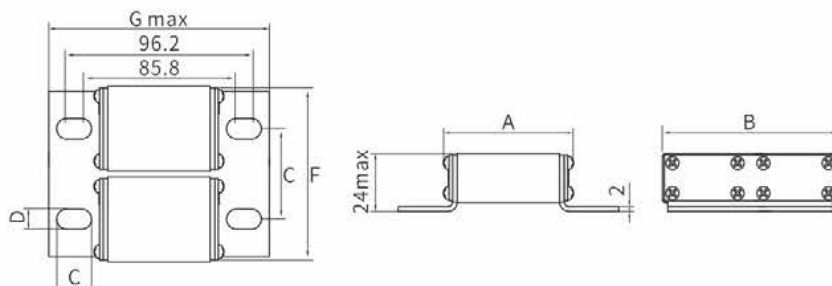
型号 Model	尺码 Size	安装方式 Installation	额定电压 Rated Voltage (V)	额定电流(A) Rated current	尺寸Dimension(mm)										
					A	B	C	D	E	F	G	H	K	L	M
FRM	000	LB70	DC700V IEC	25~250	57	96	79	68.5	36.5	32	21	8.5	2	14	24
	000	LB70T		25~250	57	96	79	68.5	36.5	32	21	8.5	2	14	24
	00	LB70	DC750V UL	25~350	57	96	79	68.5	48	41	28.5	9	2	14	32
FRM	000	LB90	DC1000V	25~250	75	113.5	96.5	86	36.5	32	21	8.5	2	14	24
	000	LB90T		25~250	75	113.5	96.5	86	36.5	32	21	8.5	2	14	24
	00	LB90	25~350	75	113.5	96.5	86	48	41	28.5	9	2	14	32	



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
					A	B	C	D	E	F	G	H	I
FRM	230	LB90	DC1000V	200~500	73	78	40	8.8	14	74.1	115	96.2	85.8

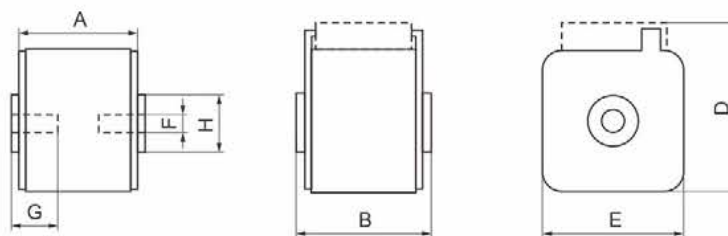


FRM系列储能用直流快速熔断器(P/MB/UN型) FRM series DC Energy Storage Fast Fuse(P/MB/UN Style)

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



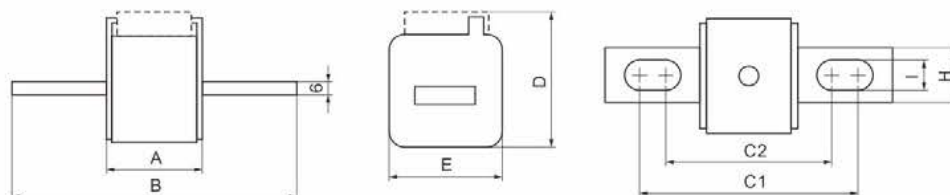
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	D	E	F	G	H
FRM	30	P51(K)	DC250V	40~630	50	51	43(59)	43	M8	5	17
	31	P51(K)		200~800	50	51	50(69)	50	M8	8	20
	32	P51(K)	DC500V	400~1250	50	51	60(77)	60	M10	10	24
	33	P51(K)		500~2000	50	51	75(92)	75	M12	12	40



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



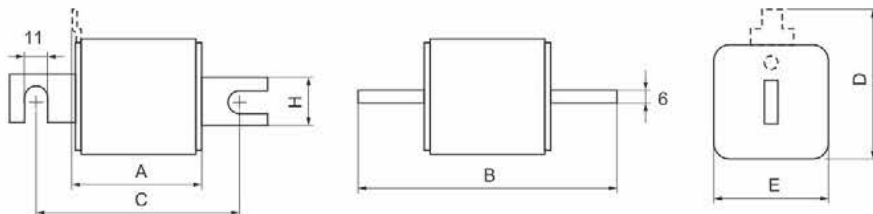
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
					A	B	C1	C2	D	E	H	I	
FRM	30	MB78(K)	DC250V	40~630	50	110	85	72	59	43	20	10	
	31	MB90(K)		200~900	50	135	106	80	69	50	25	14	
	32	MB90(K)	DC500V	400~1250	50	135	105	81	77	60	25	14	
	33	MB90(K)		500~2000	51	135	106	78	92	75	36	16	



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



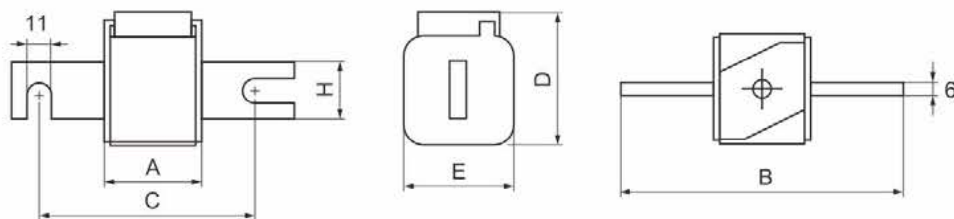
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)					
					A	B	C	D	E	H
FRM	30	UN80(T)	DC250V	40~630	50	104	78	43(58)	43	20
	31	UN80(T)		200~900	50	108	78	50(66)	50	25
	32	UN80(T)	DC500V	400~1250	50	108	78	60(75)	60	25
	33	UN80(T)		500~2000	50	109	78	75(90)	75	36



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



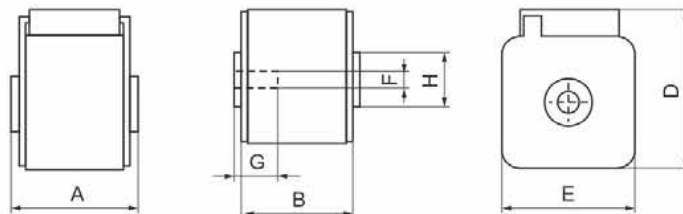
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)					
					A	B	C	D	E	H
FRM	30	UN80(K)	DC250V	40~630	50	104	78	43(58)	43	20
	31	UN80(K)		200~900	50	108	78	50(66)	50	25
	32	UN80(K)	DC500V	400~1250	50	108	78	60(75)	60	25
	33	UN80(K)		500~2000	50	109	78	75(90)	75	36



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



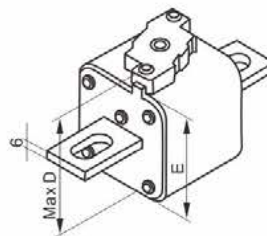
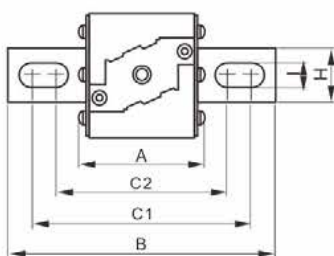
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	D	E	F	G	H
FRM	61(S)	P75(K)	DC700V IEC	50~400	74	75	43(59)	43	M8	5	17
	61	P75(K)		160~630	74	75	50(69)	50	M8	8	20
	62	P75(K)	DC750V UL	250~800	74	75	60(77)	60	M10	10	24
	63	P75(K)		315~1400	74	75	75(92)	75	M12	10	40



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



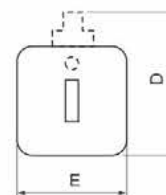
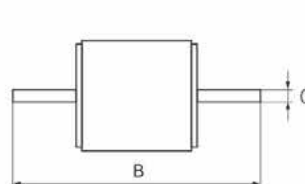
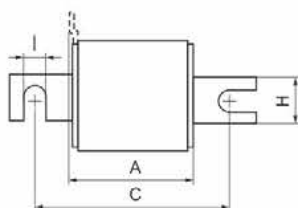
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C1	C2	D	E	H	I
FRM	61(S)	MB115(K)	DC700V IEC	50~400	73	156	130	101	59	43	20	10
	61	MB115(K)		160~630	73	160	127	102	69	50	25	14
	62	MB115(K)	DC750V UL	250~800	73	160	127	102	77	60	25	14
	63	MB115(K)		500~1400	73	160	128	102	92	75	36	16



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



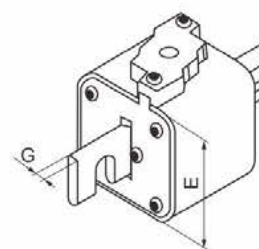
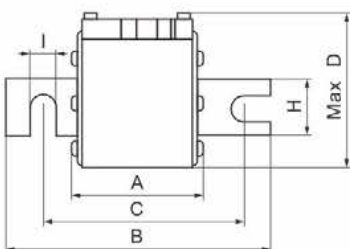
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C	D	E	G	H	I
FRM	61(S)	UN110(T)	DC700V IEC	50~400	80	138	108	61	43	6	20	11
	61	UN110(T)		160~630	80	138	108	66	50	6	25	11
	62	UN110(T)	DC750V UL	250~800	80	138	108	71	60	6	25	11
	63	UN110(T)		315~1400	80	138	108	92	75	6	36	11



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



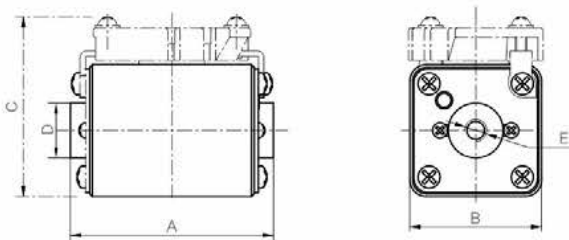
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C	D	E	G	H	I
FRM	61(S)	UN110(K)	DC700V IEC	50~400	80	134	108	61	43	6	20	8.5
	61	UN110(K)		160~630	80	138	108	69	51	6	25	11
	62	UN110(K)	DC750V UL	250~800	80	138	108	75	60	6	25	11
	63	UN110(K)		315~1400	80	138	108	92	75	6	36(40)	11



分断能力 Breaking Capacity:DC=50kA/100kA 功能等级 Function Class:aR/gR



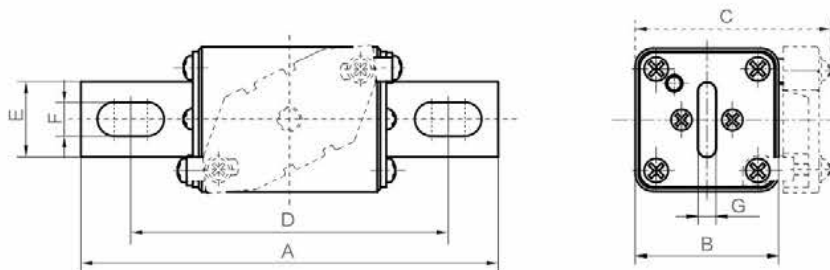
型号 Model	尺码 Size	安装方式 Installation	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)				
					A	B	C	D	E
FRM	61(S)	P80(K)	DC1000	50~400	81	43	61	17	M8x10
	61	P80(K)		450~500	81	51	67	20	M8x10
	62	P80(K)		250~700	81	60	76	24	M10x12



分断能力 Breaking Capacity:DC=50kA/100kA 功能等级 Function Class:aR/gR



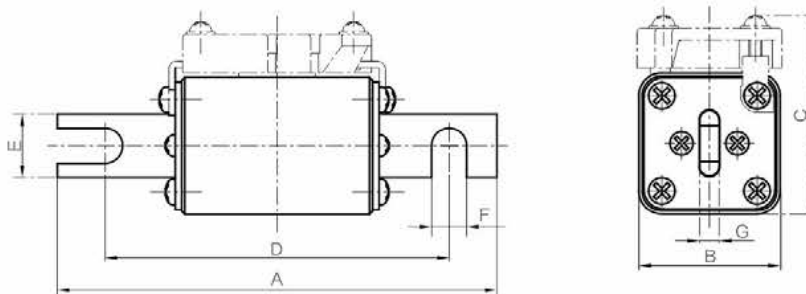
型号 Model	尺码 Size	安装方式 Installation	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)						
					A	B	C	D	E	F	G
FRM	61(S)	MB120(K)	DC1000	50~400	146	43	61	115	20	8.5	6
	61	MB120(K)		450~500	146	51	67	115	25	11	6
	62	MB120(K)		250~700	146	60	76	115	25	11	6



分断能力 Breaking Capacity:DC=50kA/100kA 功能等级 Function Class:aR/gR

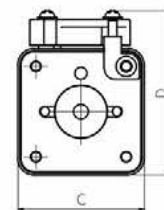
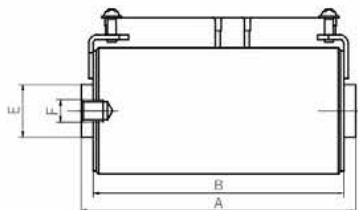


型号 Model	尺码 Size	安装方式 Installation	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)						
					A	B	C	D	E	F	G
FRM	61(S)	UN110(K)	DC1000	50~400	134	43	61	108	20	8.5	6
	61	UN110(K)		450~500	138	51	67	108	25	11	6
	62	UN110(K)		250~700	138	60	76	108	25	11	6



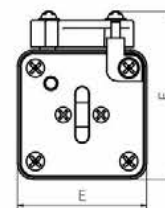
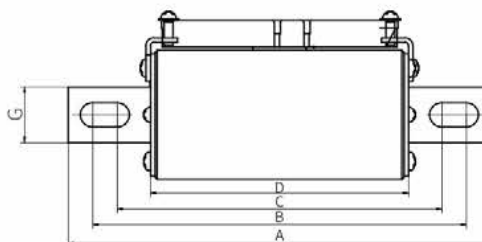
分断能力 Breaking Capacity: DC=100kA 功能等级 Function Class: aR/gR

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
FRM	112	P130(K)	DC1500V	100~450	127	116	60±2	75.4±2	Φ24	M10



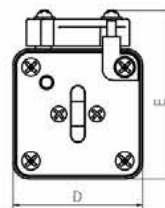
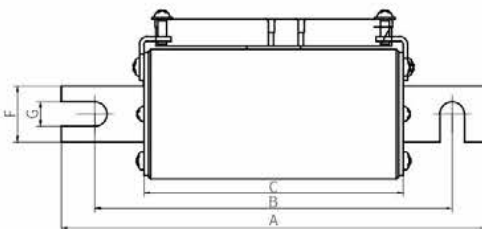
分断能力 Breaking Capacity: DC=100kA 功能等级 Function Class: aR/gR

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	112	MB160(K)	DC1500V	100~450	190±3	160±3	146	116	60±2	75.4±2	25



分断能力 Breaking Capacity: DC=100kA 功能等级 Function Class: aR/gR

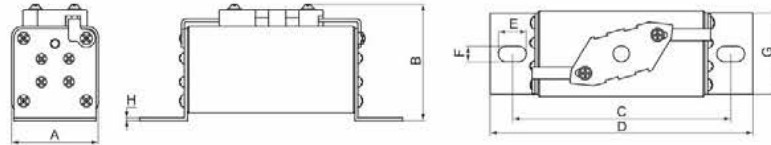
型号 Model	尺寸 Size	安装方式 Installation	额定电压(V) Rated voltage	额定电流(A) Rated current	尺寸Dimension(mm)						
					A	B	C	D	E	F	G
FRM	112	UN160(K)	DC1500V	100~450	190±3	160±3	116	60±2	75.4±2	25	10



FRM/FDM系列储能用直流快速熔断器(LB/型)
FRM/FDM series DC Energy Storage Fast Fuse(LB Style)

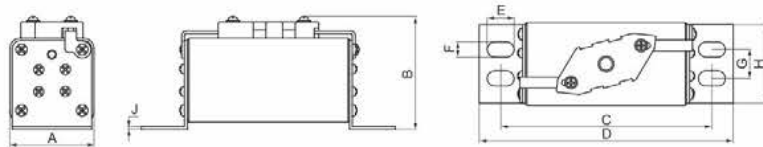
分断能力 Breaking Capacity:DC=100kA 功能等级 Function Class:aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C	D	E	F	G	H
FRM	90	LB140(K)	DC1500V	20~315	39	66	137±2	164±2	14	9	38	3
	90	LB195(K)	DC2000V	50~315	39	66	195	217	14	9	38	3

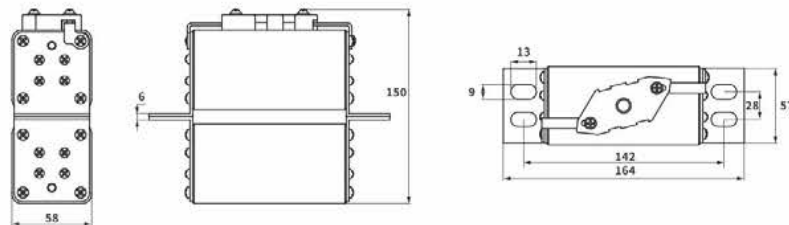


分断能力 Breaking Capacity:DC=100kA 功能等级 Function Class:aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
					A	B	C	D	E	F	G	H	J
FRM	92	LB140(K)	DC1500V	160~400	58	83	142	164	13	9	28	57	3
	92	LB195(K)	DC2000V	160~400	58	83	195	213	13	9	28	57	3

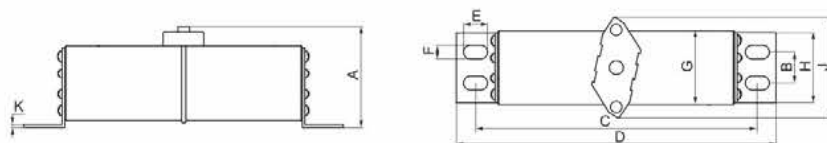


FRM-92-LB140(K)电流大于400A;FRM-92-LB195(K)电流大于400A;请使用双拼,如下图所示
The current of FRM-92-LB140(K) is greater than 400A; the current of FRM-92-LB195(K) is greater than 400A; please use double-piecing, as shown in the figure below.



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)									
					A	B	C	D	E	F	G	H	J	K
FDM	JC	LB203	DC2400V	100~400	98	28	246	268	13	9	75	60	80	3

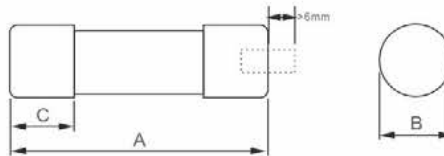


FRC系列储能用直流快速熔断器 FRC series DC Energy Storage Fast Fuse

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



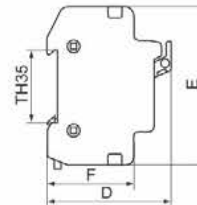
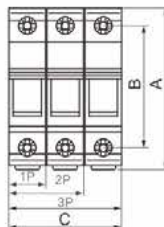
型号 Type	尺码 Size	额定电压(V) Rated Voltage	电流等级(A) Rated Current	尺寸Dimension(mm)		
				A	B	C(Max)
FRC10	10 × 38	DC500V DC700V IEC DC750V UL	2~25	38±0.6	10.3±0.1	10.5
FRC14 FRC14Z	14 × 51		2~50	51 ^{+0.6} ₋₁	14.3±0.1	13.8
FRC22 FRC22Z	22 × 58		50~100	58 ^{+0.1} ₋₂	22.2±0.1	16



FRC系列储能用直流快速熔断器底座 FRC series DC Energy Storage Fast Fuse



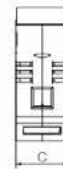
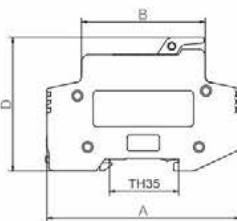
型号 Type	尺码 Size	额定电压(V) Rated Voltage	电流等级(A) Rated Current	尺寸Dimension(mm)								
				A	B	C				D	E	F
RT18-32	10x38	DC1000V	32	80.5	62	17.5	35	52.5	70	62	78.5	43
RT18-32X	10x38											



RT18-32, RT18-32X, X代表带指示灯
本产品是模块化可组合2P, 3P, 4P
RT18-32, RT18-32X, X stands for Light Indicator
Can be modularized to be 2P, 3P, 4P



型号 Type	尺码 Size	额定电压(V) Rated Voltage	电流等级(A) Rated Current	尺寸Dimension(mm)					
				A	B	C	D	E	F
RT18-63 RT18-63X	14X51	DC1000V	63	96	61.5	26.2	66.4	-	-
RT18-125 RT18-125X	22X58								



RT18-63, RT63X
本产品是模块化可组合2P, 3P, 4P
X:代表指示灯
RT18-63, RT63X
Can be modularized to be 2P, 3P, 4P
X: stands for Light Indicator

RT18-125, RT125X
本产品是模块化可组合2P, 3P, 4P
X:代表指示灯
RT18-125, RT125X
Can be modularized to be 2P, 3P, 4P
X: stands for Light Indicator



太阳能光伏保护用熔断器系列 Fuses Series For Solar Photovoltaic Protection

概述 Overview

- 符合GB/T 13539.6、IEC60269.6和UL2579等标准及CB认证
- 额定电压：DC1000V-1500V
- 功能等级：gPV
- gPV用于太阳能光伏系统保护
- 额定分断能力 $\geq 10\text{kA}$
- 功耗及 I^2t 数据可向技术部门索取
- 外接导线最少耐温75℃的铜导线
- 适用导线规格按电流大小而选择
- 安装扭矩按国际GB13539.1标准
- 注意事项请勿带负载开合

注：重量及装箱数可向公司市场部索取

- Conforms to GB/T13539.6, IEC60269.6 and UI2579 Standards and CB Certificate
- Rated voltage: DC24V-1500V
- Utilization Category :gPV
- gPV for solar photovoltaic protection
- Rated breaking capacity $\geq 10\text{kA}$
- Power loss and I^2t data please consult Technical department.
- External Copper conauctors with minimum temperature resistance of 75℃
- Applicable wire specifications are selected according to current
- Installation torque according to GB13539.1
- Attention not operate with load

Note: Weight and packing number can be obtained from the marketing department.

工作环境 Working Environment

- 周围空气温度：周围空气温度上限不超过+90℃，下限不低于-40℃。
- 大气条件：大气相对湿度在周围空气温度为40℃时不超过50%；在较低温度下可以有较高的相对湿度；最湿月的月平均最大相对湿度不超过90%，同该月平均最低温度不超过25℃，并考虑到因温度变化发生在产品表面上得凝露。

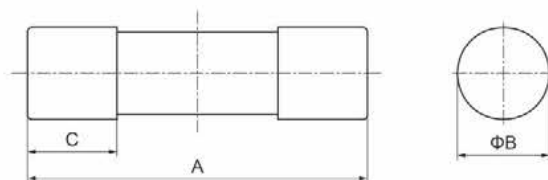
- 污染等级：熔断器的污染等级为 II 级。
- 安装条件：熔断器应安装在无显著震动和冲击，无足以腐蚀金属和破坏绝缘的气体及导电尘埃的场所中。
- 注：当熔断器使用条件和规定不相符时，用户应与我公司协商。
- Ambient air temperature: the upper limit is not more than +90℃, and the lower limit is not less than -40℃.
- Atmospheric conditions: atmospheric relative humidity does not exceed 50% when the ambient air temperature is 40℃; higher relative humidity can be obtained at lower temperatures; maximum monthly average relative humidity does not exceed 90%, and minimum monthly average temperature does not exceed 25℃, taking into account that condensation occurs on the product surface due to temperature changes.
- Pollution Level: Pollution Level II.
- Installation Conditions: Fuses shall be installed in places where there is no significant shaking and impact, and where there is no corrosion of metals, damage of insulated gases and without conductive dust.

Note: Users should consult with our company when the fuse operating conditions and regulations do not conform.

圆筒形帽FPV系列太阳能光伏系统保护用熔断体 FPV Cylindrical Series Fuse For solar Photovoltaic System Protection

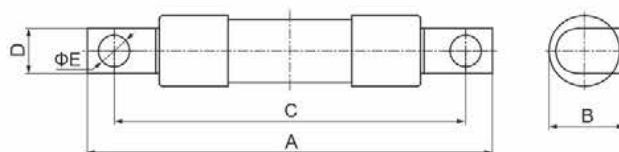
分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV

产品型号 Type	尺码 Size	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸 Dimension(mm)		
				A	ΦB	C
FPV10	10	DC1000	1~20	38	10.3	10
FPV14	14		25~50	51	14.3	13.8
FPV22	22		63~100	58	22.2	14



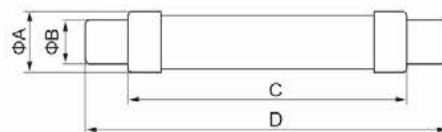
分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV

产品型号 Type	尺码 Size	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸 Dimension(mm)				
				A	B	C	D	ΦE
FPV10L	10	DC1000	2~15	63.5	11	51.5	6.6	4.1



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV

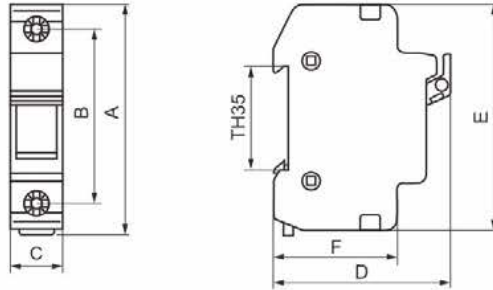
产品型号 Type	尺码 Size	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸 Dimension(mm)				证书 Certification
				ΦA	ΦB	C	D	
FPV15	10	DC1500	2~32	14.3	10.3	65	85	TUV



圆筒形帽FPV系列太阳能光伏系统保护用熔断体底座
FPV Cylindrical Series Fuse For Solar Photovoltaic System Protection

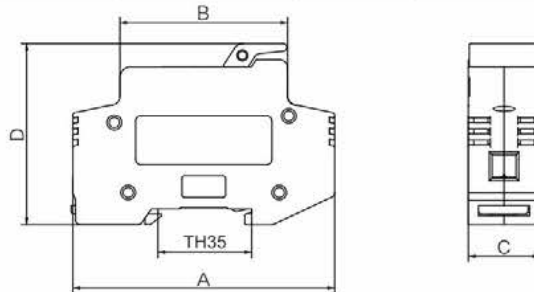
分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV

产品型号 Type	尺码 Size	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)					
				A	B	C(Max)	D	E	F
FCH10	10	DC1000	32	80.5	62	18	62	78.5	43
FCH10X									



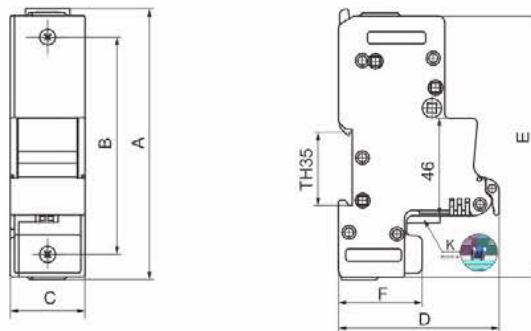
分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV

产品型号 Type	尺码 Size	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)			
				A	B	C	D
FCH14	14	DC1000	63	96	61.5	26.2	66.4
FCH14X							



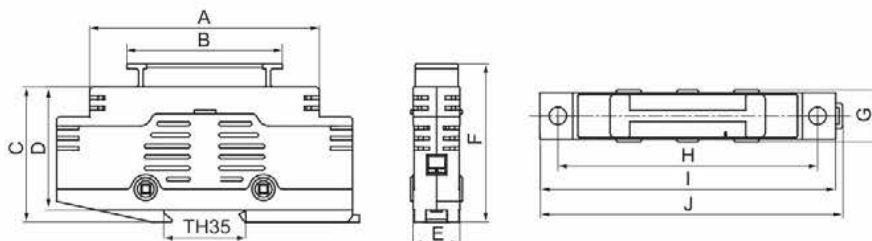
分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV

产品型号 Type	尺码 Size	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)					
				A	B	C	D	E	F
FCH22	22	DC1000	125	128	103	35.5	76	123	39.6
FCH22X									



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV

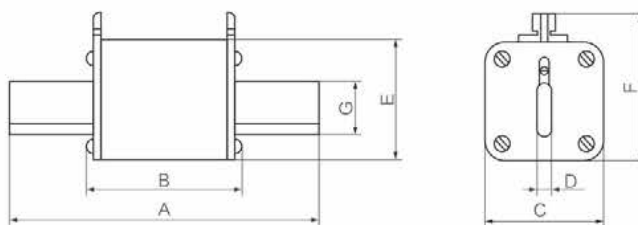
产品型号 Type	尺码 Size	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)									
				A	B	C	D	E	F	G	H	I	J
FCH15	10	DC1500	32	99	67	58	53	20	68	22.5	112	127	131
FCH15X													



FPVH系列太阳能光伏系统保护用熔断体 FPV H Series For Solar Photovoltaic System Protection

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV

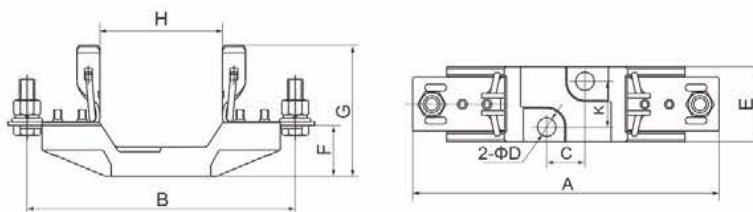
型号 Model	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)						
			A	B	C	D	E	F	G
FPVH1(FRM61PV-Z)	DC1000	63~250	145	80	51	6	51	69	20
FPVH2(FRM62PV-Z)		160~400	160	80	60	6	60	77	25
FPVH3(FRM63PV-Z)		200~630	160	80	74	6	74	88	32



FPVH系列太阳能光伏系统保护用熔断体底座 FPV H Series For Solar Photovoltaic System Protection

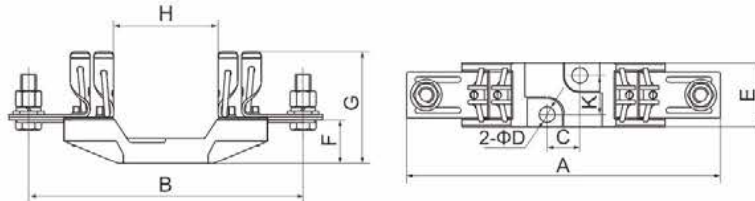
分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV

产品型号 Type	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
			A	B	C	ΦD	E	F	G	H	K
FBH1-250	DC1000	250	200	175	25	12	50	35	83	80	30
FBH2-400		400	225	200	25	12	50	35	85	80	30



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV

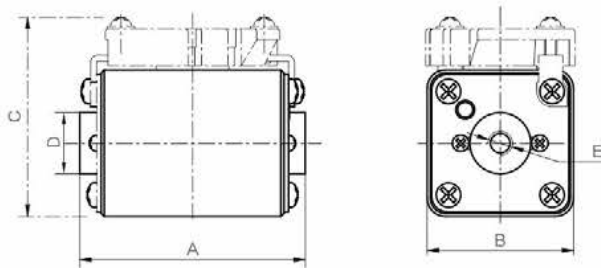
产品型号 Type	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
			A	B	C	ΦD	E	F	G	H	K
FBH3-630	DC1000	630	240	210	25	12	50	35	88	80	30



FPV系列太阳能光伏系统保护用熔断体 (P/MB/UN型)
FPV Series For Solar Photovoltaic System Protection (P/MB/UN Style)

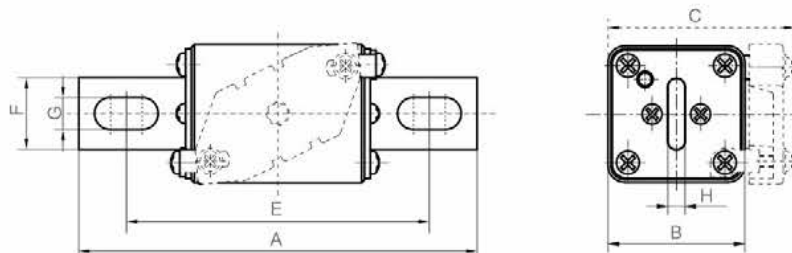
分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV

型号 Model	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)				
			A	B	C	D	E
FPV1-P(FRM61PV-P)	DC1000	63~250	81	51	67	20	M8x8
FPV2-P(FRM62PV-P)		160~400	81	60	76	24	M10x10
FPV3-P(FRM63PV-P)		200~630	81	75	92	40	M12x10



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV

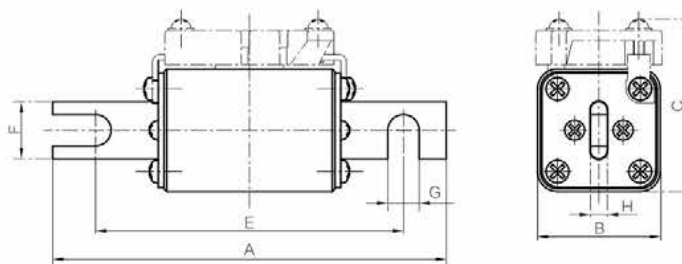
型号 Model	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)						
			A	B	C	E	F	G	H
FPV1-MB(FRM61PV-MB)	DC1000	63~250	146	51	67	115	25	11	6
FPV2-MB(FRM62PV-MB)		160~400	146	60	76	115	25	11	6
FPV3-MB(FRM63PV-MB)		200~630	146	75	92	115	40	11	6



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV



型号 Model	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)						
			A	B	C	E	F	G	H
FPV1-UN(FRM61PV-UN)	DC1000	63~250	138	51	67	108	25	11	6
FPV2-UN(FRM62PV-UN)		160~400	142	60	76	108	25	11	6
FPV3-UN(FRM63PV-UN)		200~630	142	75	92	108	40	11	6

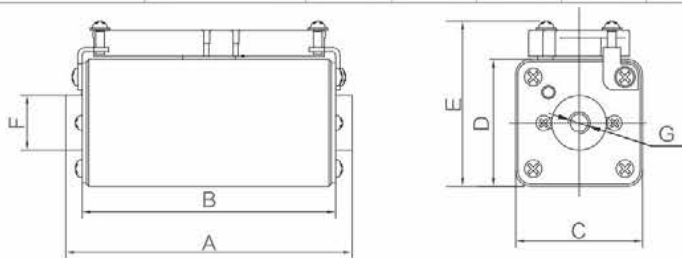


FRM系列太阳能光伏系统保护用熔断体(P/MB/UN型) FRM Series For Solar Photovoltaic System Protection(P/MB/UN型)

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV



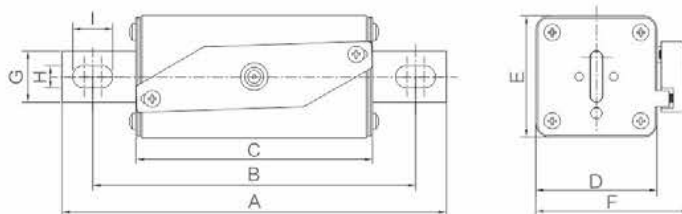
产品型号 Type	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
			A	B	C	D	E	F	G
FRM112PV-0XL-P	DC1500	50~160	128	123	43	43	59	17	M8
FRM112PV-1XL-P		80~250	128	123	51	51	69	20	M8
FRM112PV-2XL-P		160~400	128	123	60	60	77	24	M10
FRM113PV-3L-P		200~630	128	123	74	74	92	40	M12



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: gPV



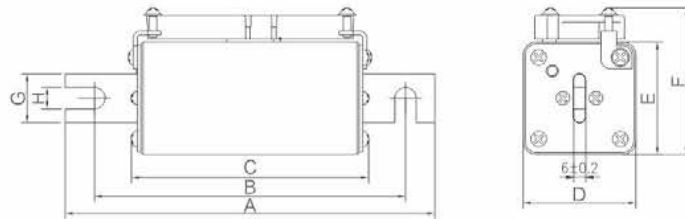
产品型号 Type	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
			A	B	C	D	E	F	G	H	I
FRM112PV-0XL-MB	DC1500	50~160	190	150	123	43	43	59	20	8.5	19.5
FRM112PV-1XL-MB		80~250	190	160	123	51	51	69	25	11	19.5
FRM112PV-2XL-MB		160~400	190	160	123	60	60	77	25	11	19.5
FRM113PV-3L-MB		200~630	198	168	123	74	74	92	40(30)	11	19.5



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV



产品型号 Type	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
			A	B	C	D	E	F	G	H
FRM112PV-0XL-UN	DC1500	50~160	176	150	133	43	43	59	20	8.5
FRM112PV-1XL-UN		80~250	190	160	133	51	51	69	25	11
FRM112PV-2XL-UN		160~400	190	160	133	60	60	77	25	11
FRM113PV-3L-UN		200~630	198	168	133	74	74	92	40	11

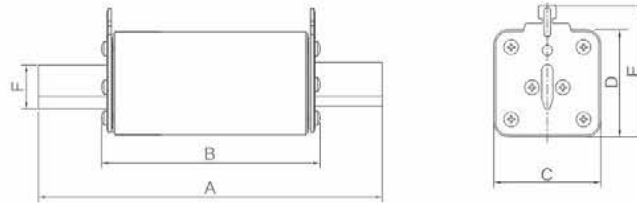


FRM 太阳能光伏系统保护用熔断体 (Z型)
FRM Series For Solar Photovoltaic System Protection(Z Style)

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV



产品型号 Type	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)					
			A	B	C	D	E	F
FRM112PV-0XL-Z	DC1500	50~160	185	123	43	43	47	20
FRM112PV-1XL-Z		80~250	185	123	51	51	69	20
FRM112PV-2XL-Z		160~400	202	123	60	60	72	25
FRM113PV-3L-Z		200~630	202	123	74	74	88	32

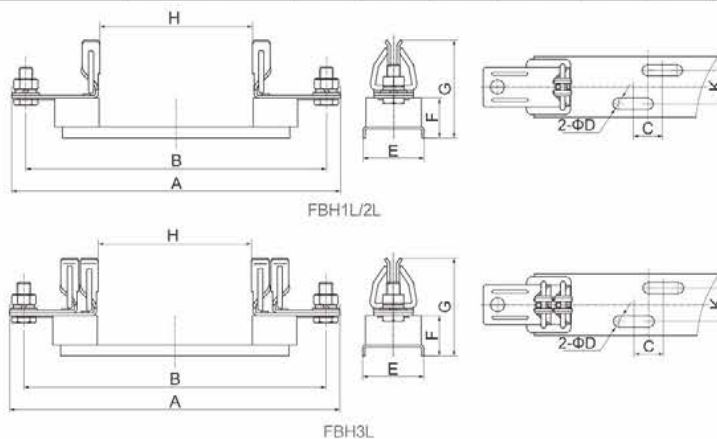


FRM 太阳能光伏系统保护用熔断体底座 (Z型)
FRM Series For Solar Photovoltaic System Protection(Z Style)

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:gPV



产品型号 Type	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
			A	B	C	ΦD	E	F	G	H	K
FBH1L-250	DC1500	250	256	230	25	10	55	37	85	137	30
FBH2L-400		400	285	260	25	10	55	37	87	137	30
FBH3L-630		630	300	270	25	10	55	37	90	137	30





充电桩保护用直流快速熔断器系列 DC Fast Fuse Series For Charging Pile Protection

概述 Overview

- ☞符合UL248-13、IEC60269-4、GB/T 13539.4等标准
- ☞额定电压：DC500~1000V
- ☞更高直流电压请与公司技术部门联系
- ☞功能等级：aR, gR
- ☞aR用于半导体器件短路故障系统保护, gR用于半导体器件短路系统保护及提高线路上的电缆和导线系统保护
- ☞额定分断能力：DC20kA、DC50kA
- ☞功耗及 I^2t 数据可向技术部门索取

注：重量及装箱数可向公司市场部索取

- ☞Conforms to UL248-13、IEC60269-4、GB/T 13539.4
- ☞Rated voltage: DC500~1000V
- ☞For higher DC voltage, please contact the company's technical department
- ☞Utilization category: aR, gR
- ☞aR for short-circuit fault system protection of semiconductor devices, gR for shortcircuit system protection of semiconductor devices and for improving cable and wire system protection on lines.
- ☞Rated breaking capacity: DC20kA、DC50kA
- ☞Power loss and I^2t data can be obtained by technical department

Note: Weight and packing number can be obtained from the marketing department of the company.

工作环境 Working Environment

- ☞周围空气温度: 周围空气温度上限不超过+90℃, 下限不低于-40℃。
- ☞大气条件: 大气相对湿度在周围空气温度为40℃时不超过50%; 在较低温度下可以有较高的相对湿度; 最湿月的月平均最大相对湿度不超过90%, 同该月平均最低温度不超过25℃, 并考虑到因温度变化发生在产品表面上的凝露。
- ☞污染等级: 熔断器的污染等级为II级。
- ☞安装条件: 熔断器应安装在无显著摇动和冲击, 无足以腐蚀金属和破坏绝缘的气体及导电尘埃的场所中。

注：当熔断器使用条件和规定不相符时, 用户应与我公司协商。

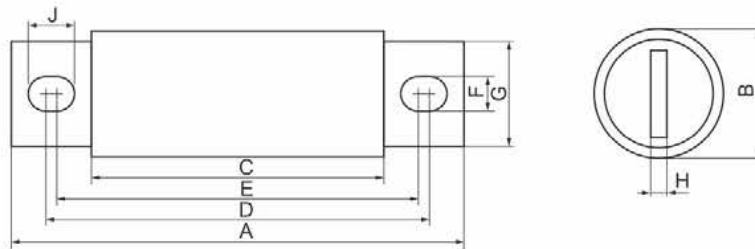
- Ambient air temperature: the upper limit is not more than +9°C, and the lower limit is not less than -40°C.
 - Atmospheric conditions: atmospheric relative humidity does not exceed 50% when the ambient air temperature is 40°C; higher relative humidity can be obtained at lower temperatures; maximum monthly average relative humidity does not exceed 90%, and minimum monthly average temperature does not exceed 25°C, taking into account that condensation occurs on the product surface due to temperature changes.
 - Pollution Level: Pollution Level II.
 - Installation Conditions: Fuses shall be installed in places where there is no significant shaking and impact, and where there is no corrosion of metals and damage of insulated gases and without conductive dust.
- Note: Users should consult with our company when the fuse operating conditions and regulations do not conform.

FRB螺栓式充电桩保护用直流快速熔断器 (MB型)
FRB DC Fast Fuse For FRB Charging Pile Protection(MB Style)

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



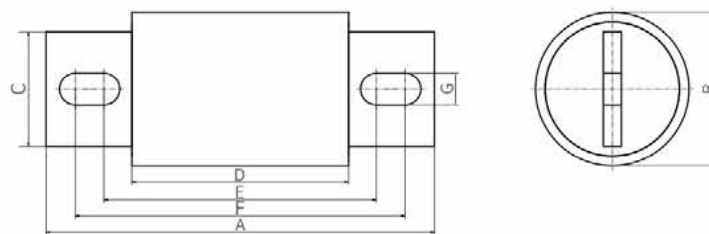
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
					A	B	C	D	E	F	G	H	J
FRB	21	MB61	DC500	35~125	81	21	40	66	57	8.5	16	4	13
	25	MB70		70~200	92	25	44	72	67	8.5	18	4	11
	31	MB70		125~300	92	31	47	73	66	8.5	24	5	12
	38	MB80		225~500	110	38	53	88	73	10.5	25	6	16
	51	MB80		450~700	110	51	53	90	71	10.5	38	6	20
FRB	21	MB89	DC700V IEC	35~100	109	21	68	93	85	8.5	16	3.2	13
	25	MB91		70~160	110	25	66	94	90	8.5	16	3.2	11
	38	MB99	DC750V UL	125~400	129	38	72	108	93	10.5	25	6	18
	51	MB100		225~600	129	51	72	109	90	10.5	38	6	20
FRB	25	MB107	DC1000	35~100	127	25	79	106	102	8.5	18	4	11
	31	MB102		70~160	123	31	78	105	98	8.5	24	5	12
	38	MB114		125~300	143	38	83	122	106	10.5	25	6	18
	51	MB114		250~500	146	51	89	126	107	10.5	38	6	20



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压 Rated Voltage (V)	额定电流 Rated Current (A)	尺寸Dimension (mm)						
					A	B	C	D	E	F	G
FRB	51	MB106	DC1000	50~550	136±2	51±0.5	38±0.5	79±1	97.5±1.5	116.5±1.5	10.5

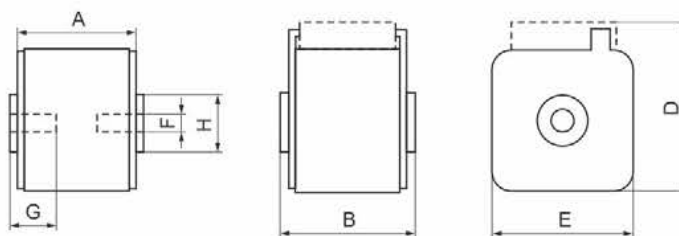


FRM方型充电桩保护用直流快速熔断器 (P/UN型) FRM DC Fast Fuse For Charging Pile Protection(P /UN Style)

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



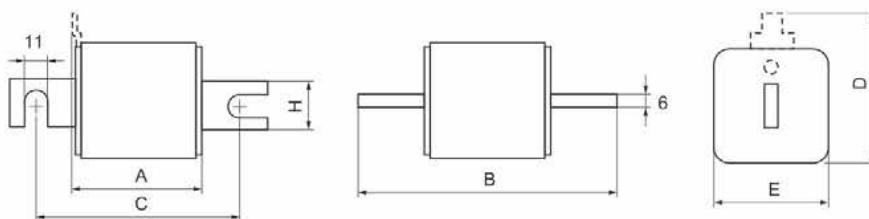
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	D	E	F	G	H
FRM	30	P51(K)	DC500V	40~630	50	51	43(59)	43	M8	5	17
	31	P51(K)		200~800	50	51	50(69)	50	M8	8	20
	32	P51(K)		400~1250	50	51	60(77)	60	M10	10	24
	33	P51(K)		500~2000	50	51	75(92)	75	M12	12	40



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



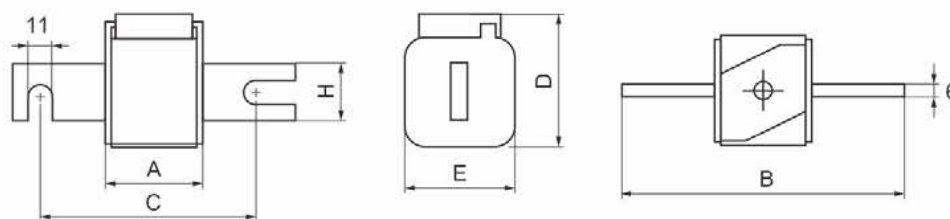
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)					
					A	B	C	D	E	H
FRM	30	UN80(T)	DC500V	40~630	50	104	78	43(58)	43	20
	31	UN80(T)		200~900	50	108	78	50(66)	50	25
	32	UN80(T)		400~1250	50	108	78	60(75)	60	25
	33	UN80(T)		500~2000	50	109	78	75(90)	75	36



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR

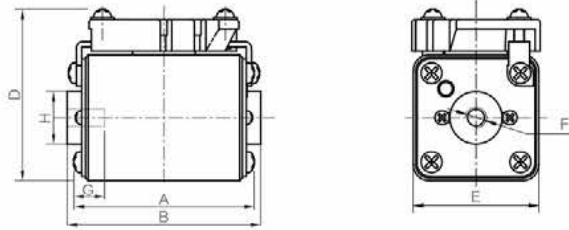


型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)					
					A	B	C	D	E	H
FRM	30	UN80(K)	DC500V	40~630	50	104	78	43(58)	43	20
	31	UN80(K)		200~900	50	108	78	50(66)	50	25
	32	UN80(K)		400~1250	50	108	78	60(75)	60	25
	33	UN80(K)		500~2000	50	109	78	75(90)	75	36



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR

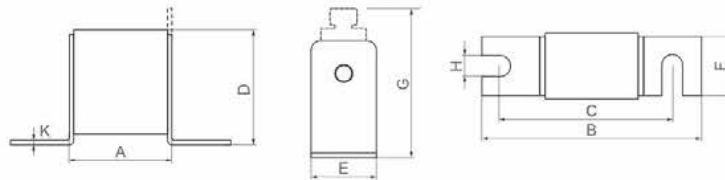
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸 Dimension(mm)						
					A	B	D	E	F	G	ΦH
FRM	61(S)	P80(K)	DC1000V	32~400	80	81	59	43	M8	5	17
	61	P80(K)		160~500	80	81	69	50	M8	8	20
	62	P80(K)		250~630	80	81	77	60	M10	10	24



FRM方型充电桩保护用直流快速熔断器(LUN/LB型)
FRM DC Fast Fuse For Charging Pile Protection(LUN /LB Style)

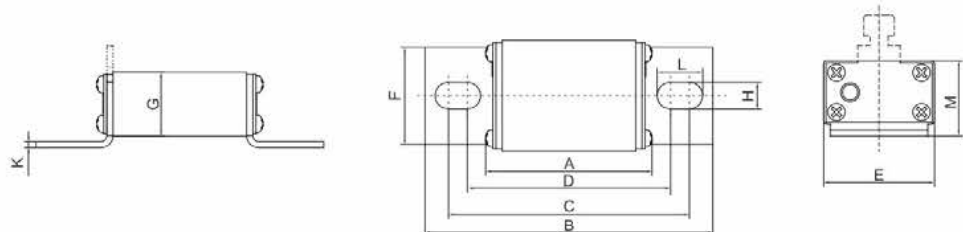
分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸 Dimension(mm)								
					A	B	C	D	E	F	(G)	H	K
FRM	000	LUN80	DC700V IEC	10~315	54	100	78	40	21	20	/	8	2
	000	LUN80T		10~315	54	100	78	40	21	20	51	10	2
	00	LUN80	DC750V UL	25~400	54	100	78	51	30	28	/	10	2
	00	LUN80T		25~400	54	100	78	51	30	28	67	/	/



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class:aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated Voltage (V)	额定电流(A) Rated current	尺寸 Dimension(mm)										
					A	B	C	D	E	F	G	H	K	L	M
FRM	000	LB70	DC700V IEC	25~250	57	96	79	68.5	36.5	32	21	8.5	2	14	24
	000	LB70T		25~250	57	96	79	68.5	36.5	32	21	8.5	2	14	24
	00	LB70	DC750V UL	25~350	57	96	79	68.5	48	41	28.5	9	2	14	32
FRM	000	LB90	DC1000V	25~250	75	113.5	96.5	86	36.5	32	21	8.5	2	14	24
	000	LB90T		25~250	75	113.5	96.5	86	36.5	32	21	8.5	2	14	24
	00	LB90		25~350	75	113.5	96.5	86	48	41	28.5	9	2	14	32



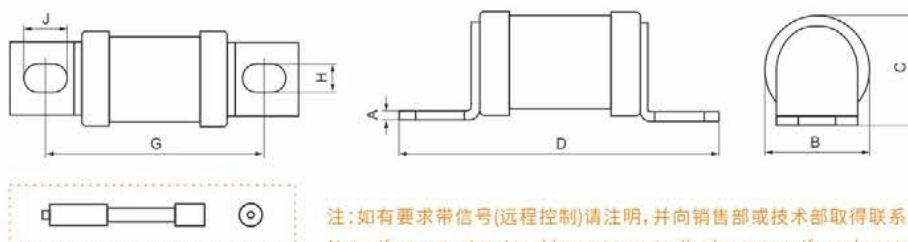
FRG系列充电桩保护用直流快速熔断器(LB型)

FRG Series DC Fast Fuse For Charging Pile Protection(LB Style)

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class: aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	C	D	G	H	J
FRG	18	LB64	DC500V	20~125	2	18.2	19	76	62	6.5	9
	21	LB70		60~160	2.5	21.3	22	90	70	9	11
	24	LB77	DC700V IEC DC750V UL	125~200	3	23	25.5	98	77	9	14
	27	LB70		90~225	3	26.8	28	90	70	9	11
	36	LB81		150~355	3	33	36	106	81	11	19
	38	LB85	180~355	3	38	44	109	85	11	16	
	48	LB85	315~600	3.5	47.5	51	113	85	11	19	

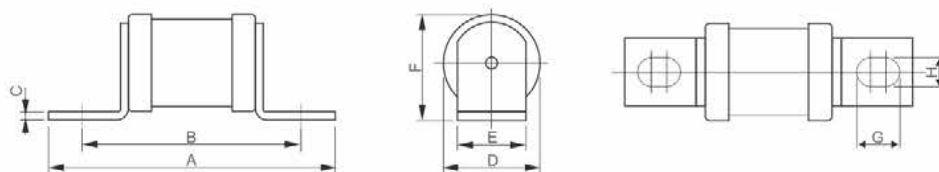


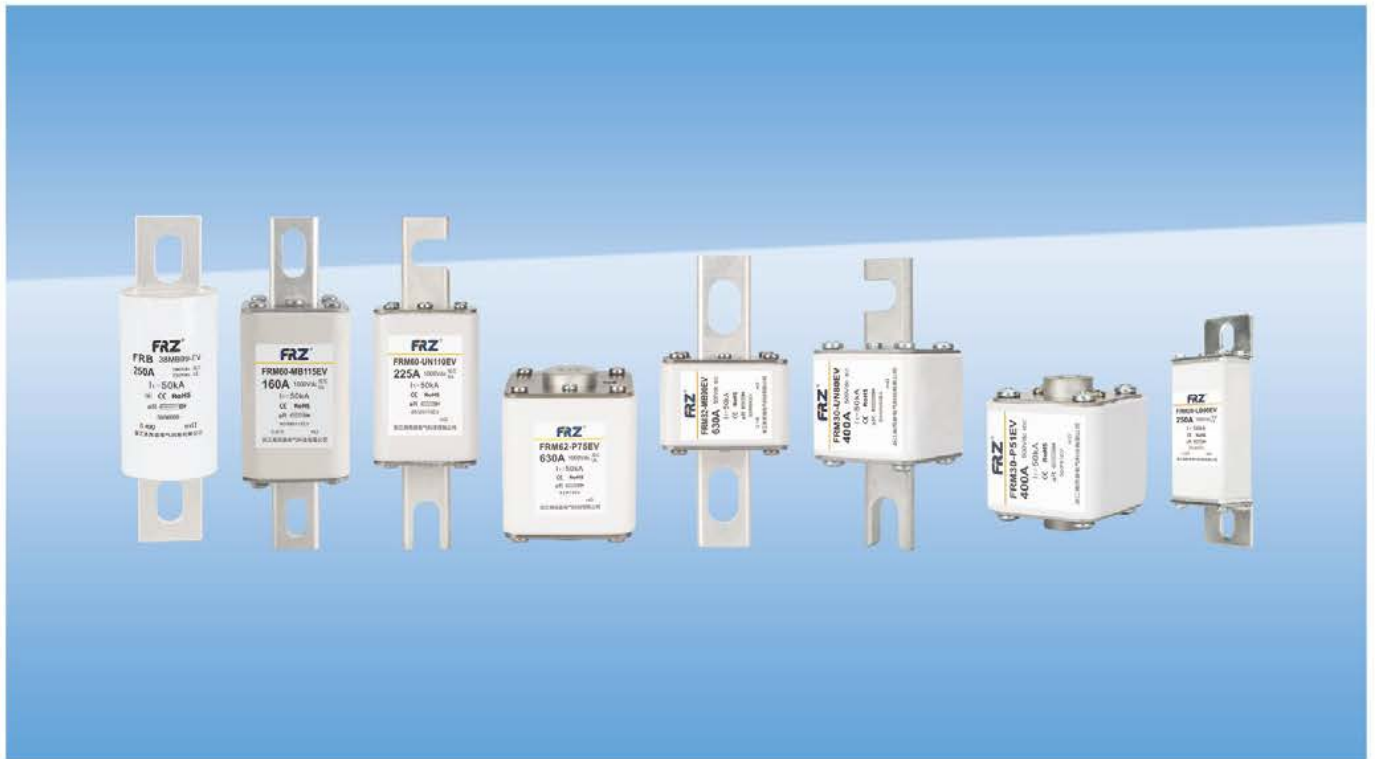
注:如有要求带信号(远程控制)请注明,并向销售部或技术部取得联系
 Note: If you require signal (remote control), please specify and contact the Sales Department or Technical Department.

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class: aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压 Rated voltage(V)	额定电流 Rated current(A)	尺寸Dimension (mm)							
					A	B	C	D	E	F	G	H
FRG	27	LB99	DC1000V	20~160	120	98	3	27	20	28	11	9
	38	LB114		200~315	142	114	3	38	25	42	16	11





电动汽车保护用直流快速熔断器系列 DC Fast Fuse Series For Electric Vehicles Protection

概述 Overview

- 符合ISO8820-8、GB/T31465.6等标准
- 额定电压：DC110~1000V
- 更高直流电压请与公司技术部门联系
- 功能等级：aR, gR
- aR用于半导体器件短路故障系统保护，gR用于半导体器件短路系统保护及提高线路上的电缆和导线系统保护。
- 额定分断能力：DC \geq 10kA
- 功耗及 I^2t 数据可向技术部门索取

注：重量及装箱数可向公司市场部索取

- Conforms to GB/T13539.4, IEC60269-4
- Rated voltage: DC110~1000V
- For higher DC voltage, please contact the company's technical department.
- Utilization category: aR, gR
- aR for short-circuit fault system protection of semiconductor devices, gR for short-circuit system protection of semiconductor devices and for improving cable and wire system protection on lines.
- Rated breaking capacity: DC \geq 10kA
- Power loss and I^2t data conconsult technical department

Note: Weight and packing number can be obtained from the marketing department of the company.

工作环境 Working Environment

- 周围空气温度：周围空气温度上限不超过+90℃，下限不低于-40℃。
- 大气条件：大气相对湿度在周围空气温度为40℃时不超过50%；在较低温度下可以有较高的相对湿度；最湿月的月平均最大相对湿度不超过90%，同该月平均最低温度不超过25℃，并考虑到因温度变化发生在产品表面上的凝露。
- 污染等级：熔断器的污染等级为II级。
- 安装条件：熔断器应安装在无显著震动和冲击，无足以腐蚀金属和破坏绝缘的气体及导电尘埃的场所中。

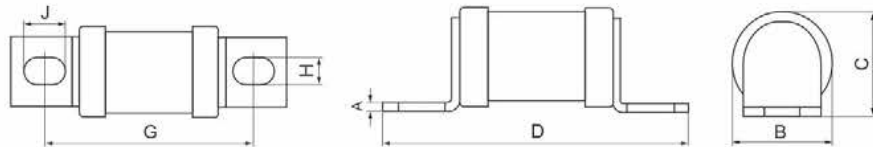
注：当熔断器使用条件和规定不相符时，用户应与我公司协商。

- ◉ Ambient air temperature: the upper limit is not more than +90℃, and the lower limit is not less than -90℃.
 - ◉ Atmospheric conditions: atmospheric relative humidity does not exceed 50% when the ambient air temperature is 40℃; higher relative humidity can be obtained at lower temperatures; maximum monthly average relative humidity does not exceed 90% and minimum monthly average temperature does not exceed 25℃, taking into account that condensation occurs on the product surface due to temperature changes.
 - ◉ Pollution Level: Pollution Level II.
 - ◉ Installation Conditions: Fuses shall be installed in places where there is on significant shaking and impact, and where there is no corrosion of metals and damage of insulated gases and without conductive dust.
- Note: Users should consult with our company when the fuse operating conditions and regulations do not conform.

FRG系列直流快速熔断器 (LB型)
FRG Series DC Fast Fuse(LB Style)

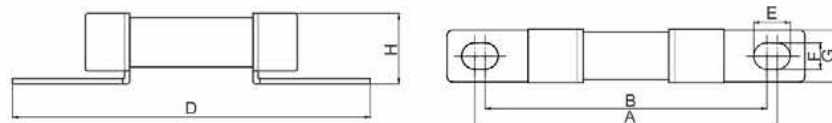
分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	C	D	G	H	J
FRG	18	LB42-EV	DC110V	20~200	2	18.2	19	56	42±3	6.5	9
	21	LB42-EV		60~250	2.5	21.3	21.5	58	42±3	9	11
	27	LB58-EV	DC170V	90~315	3	26.8	27.5	80	58±3	9	11
	36	LB58-EV	DC250V	150~400	3	33	38	85	58±3	10.5	19
	48	LB65-EV		225~500	3.5	47.5	50.5	90	65±3	11	16
FRG	18	LB63-EV	DC500V	20~125	2	18.2	19	76	62.5±3	6.5	9
	21	LB70-EV		60~160	2.5	21.3	21.5	90	70±3	9	11
	27	LB70-EV	90~250	3	26.8	27.5	90	70±3	9	11	
	36	LB81-EV	DC750V	150~355	3	33	39	106	81±3	10.5	19
	48	LB84-EV		315~550	3.5	47.5	50.5	109	84±3	11	16
	24	LB77-EV		40~200	3	23	26	98	77±3	9	14



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	ΦC	D	E	F	G	H
FRG	10	LB54-EV	DC500V	10~50	58±1	54±1	10.3	68.6±1.5	7	5	10	10.3±0.4

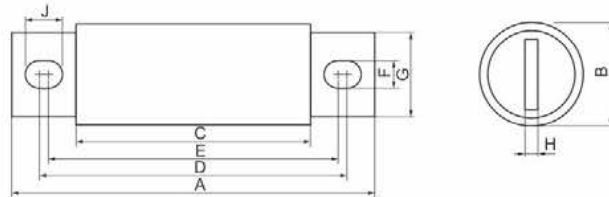


FRB系列直流快速熔断器(MB型)
FRB Series DC Fast Fuse(LB Style)

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)								
					A	B	C	D	E	F	G	H	J
FRB	25	MB52-EV	DC150V	70~400	67	25	29	54	49	8.5	18	3.2	11
	21	MB62-EV		35~150	81	21	40	66	57	8.5	16	3.2	13
FRB	25	MB72-EV	DC250V	70~250	92	25	44	72	67	8.5	18	3.2	11
	31	MB72-EV		125~400	92	31	47	73	66	8.5	24	5	12
	38	MB80-EV	DC500V	225~600	110	38	53	88	73	11	25	6	18
	51	MB80-EV		450~800	110	51	53	90	71	11	38	2	20
FRB	21	MB89-EV	DC700V IEC	35~100	109	21	68	93	85	8.5	16	3.2	18
	25	MB91-EV		70~200	110	25	66	94	90	8.5	16	3.2	11
	38	MB99-EV	DC750V UL	125~400	129	38	72	108	93	11	25	6	18
	51	MB100-EV		225~600	129	51	72	109	90	11	38	6	20
FRB	25	MB107-EV	DC1000V	35~125	127	25	79	106	102	8.5	18	3.2	11
	31	MB102-EV		70~160	123	31	78	105	98	8.5	24	5	12
	38	MB114-EV		125~300	143	38	83	122	106	11	25	6	18
	51	MB114-EV		250~500	143	51	89	126	107	11	38	6	20

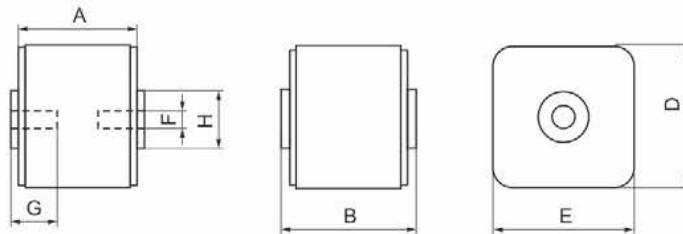


FRM系列直流快速熔断器(P/MB/UN型)
FRM Series DC Fast Fuse(P/MB/UN Style)

分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



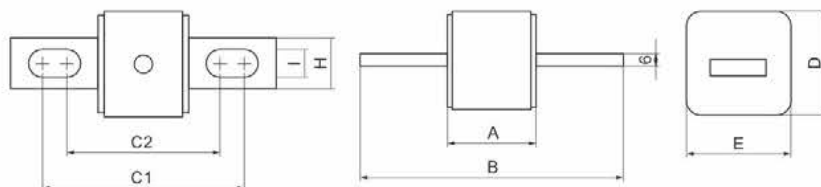
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	D	E	F	G	H
FRM	30	P51-EV	DC500V	100~400	45	51	43	43	M8	5	17
	31	P51-EV		355~700	45	51	50	50	M8	8	20
	32	P51-EV		400~1250	45	51	60	60	M10	10	24



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



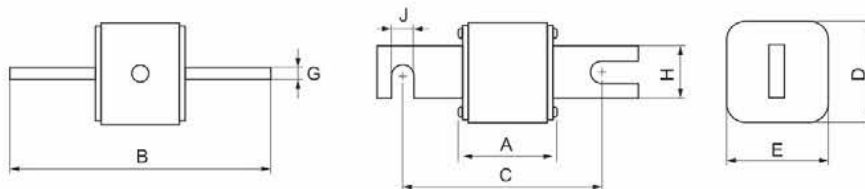
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C1	C2	D	E	H	I
FRM	30	MB78-EV	DC500V	100~400	50	110	85	72	43	43	20	10
	31	MB90-EV		200~800	50	135	106	80	50	50	25	14
	32	MB90-EV		400~1000	50	135	105	81	60	60	25	14



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



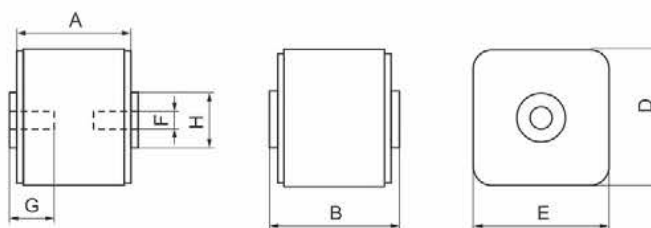
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C	D	E	G	H	J
FRM	30	UN80-EV	DC500V	100~400	50	104	78	43	43	6	20	11
	31	UN80-EV		355~700	50	108	78	50	50	6	25	11
	32	UN80-EV		400~1250	50	108	78	60	60	6	25	11



分断能力 Breaking Capacity: DC=50kA 功能等级 Function Class: aR/gR



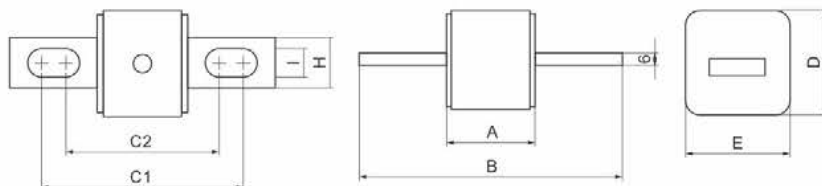
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	D	E	F	G	H
FRM	61(S)	P75-EV	DC800V	50~315	73	75	43	43	M8	5	17
	61	P75-EV		160~500	73	75	50	50	M8	8	20
	62	P75-EV	DC1000V	250~800	73	75	60	60	M10	10	24



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class: aR/gR



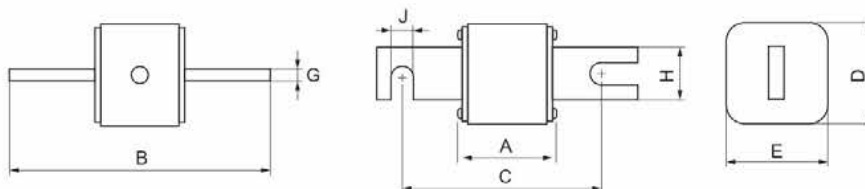
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C1	C2	D	E	H	I
FRM	61(S)	MB115-EV	DC800V	40~400	73	156	130	101	43	43	20	10
	61	MB115-EV		160~630	73	160	130	104	50	50	25	14
	62	MB115-EV	DC1000V	250~800	73	160	130	104	60	60	25	14



分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class: aR/gR



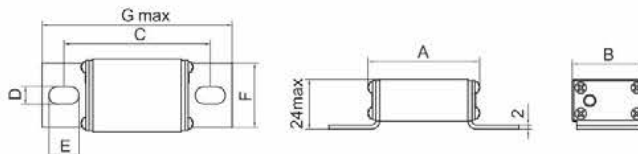
型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)							
					A	B	C	D	E	G	H	J
FRM	61(S)	UN110-EV	DC800V	50~315	80	138	108	43	43	6	20	11
	61	UN110-EV		160~500	80	138	108	50	50	6	25	11
	62	UN110-EV	DC1000V	250~800	80	138	108	60	60	6	25	11



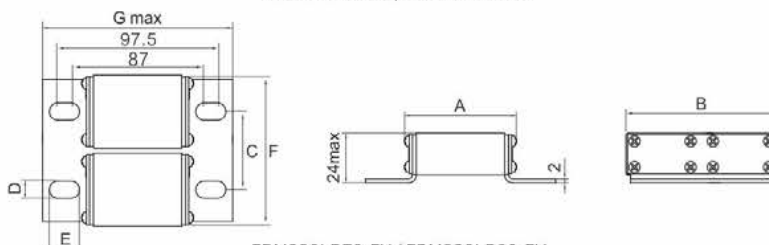
FRM系列直流快速熔断器(LB型)
FRM Series DC Fast Fuse(LB Style)

分断能力 Breaking Capacity:DC=50kA 功能等级 Function Class: aR/gR

型号 Model	尺码 Size	安装方式 Installation	额定电压(V) Rated voltage(V)	额定电流(A) Rated current(A)	尺寸Dimension(mm)						
					A	B	C	D	E	F	G
FRM	30	LB70-EV	DC700V IEC	25~315	54	36	73	8.5	14	32	96
	230	LB70-EV	DC750V UL	250~630	73	78	40	8.5	14	74.1	115
FRM	30	LB90-EV	DC1000V	25~250	73	36	91	8.5	14	32	113.5
	230	LB90-EV		100~500	73	78	40	8.8	14	74.1	115



FRM30LB70-EV / FRM30LB90-EV



FRM230LB70-EV / FRM230LB90-EV

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本目录中的产品外型、技术说明可能与实际有所不同，请以产品实物和使用说明书为准。

产品种类繁多，详情请咨询我公司或经销商。

Models and specifications in this catalog are subject to change without prior notice.

The product appearance and technical description in this catalogue may be different from the actual situation, please refer to the product and operation instruction.

There are many kinds of products, please consult our company or distributor for details.

FRZ[®] 弗而兹电气

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