

BM-90xy 说明书

2026.02.28 版本: B2

△请务必按照本说明进行操作，并且选择本说明指定的工具，否则可能会造成技术指标无法满足标准要求，同时避免可能导致个人伤害、产品损害等潜在危害。

△为防止触电，在安装时请与系统断开。

△请勿在负载下插拔。

△务必使用符合相关光伏标准的线缆。

△推荐使用脱醇型硅胶；如果使用脱肟型硅胶，在生产储存过程中，必须使硅胶中的2-丁酮肟完全挥发出去，否则可能会导致塑料零部件开裂，金属件被腐蚀等不良现象。

△组件装配过程中，不能碰到对连接器有腐蚀作用的异物。

△如果组件安装后连接器没有即刻对插，需要使用防尘帽

△产品若有技术改进、外观变化，以机身铭牌及实物为准，变化将列入新版资料中，恕不另行通知。

△未经人和公司事先书面许可的情况下，严禁以任何形式复制、传递、分发和存储本文档中的内容。

BM-90xy Instruction

Feb. 28 2026, Rev: B2

△Make sure to carefully read and understand the instruction before installation. If tools other than those specified by the instruction used or if the assembly instructions described here are disregarded then compliance with the standard requirements can't be guaranteed. Meanwhile avoid potential hazards which may result in personal injury and product damage.

△For protection against electric shock, while being assembled or disassembled, make sure connectors isolated from the power supply.

△Connectors may not be connected or disconnected under load.

△The cables conformity with relevant photovoltaic standards must be used.

△We recommend you using alcohol-volatilizing silicone. To use Oxime silicone will lead to metal parts corrosion and plastic parts crack if you do not fully volatilize 2-Butanone-oxime during production and storage.

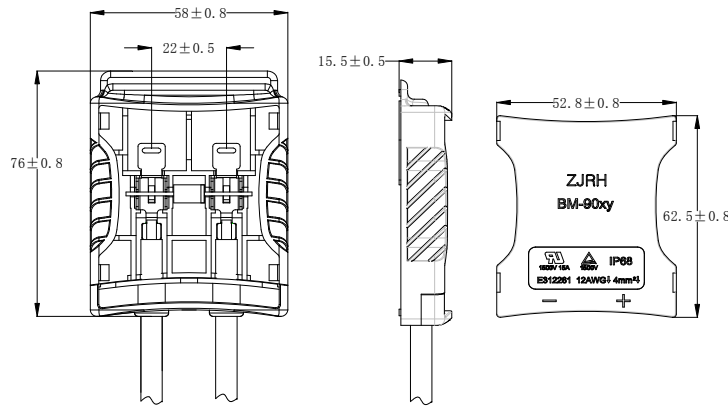
△During the assembly process, keep the connectors away from any corrosive materials.

△For field use, if connector can't be mated immediately, please use dustproof cap to protect connector.

△Technological improvements and appearance changes may occur, please see the nameplate on the connectors and the connectors as the standard. The changes will be included in the new edition of instruction without extra notice.

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成品 Finished Products



主要技术规格 Main Technical Specification:

认证 Certifications	TUV	UL
额定电压 Rated Voltage	1000V & 1500 V	600V & 1000V & 1500V
最大工作电压 Max. Working (module) Voltage	100V	
额定电流 Rated Current	6 A for PZ108 12 A for PS4520	6.5A for type PZ108, rated 1000V, 10A 15A for type PS4520, rated 45V, 20A
应用电缆线 Connecting Capacity	IEC:2.5mm ² / 4mm ²	PV WIRE:12AWG / 14AWG
相对温度指数 RTI Of Insulating Materials	110°C	
安全等级 Safety Class	Class II	
污染等级 Pollution Degree	1 (after potting, inside of box)	
防护等级 Protection Degree	IP65/IP67/IP68	
反向电流 Reverse Current	45A	
最大工作温度 Maximum Operating Temperature	-40 ~+85°C	
应用连接器 Application Connector	TUV1000V: RHC2xyzu, EVO 2,EVO 2A,MC4, H4 Pro,QC4.10 TUV1500V: RHC2xyzu, EVO 2,EVO 2A,H4 Pro,QC4.10	UL600V:RHC2xyzA, MC4, EVO 2, EVO 2A,H4 Pro,QC4.10 UL1000V:RHC2xyzB, MC4, EVO 2, EVO 2A,H4 Pro,QC4.10 UL1500V:RHC2xyzC, MC4, EVO 2, EVO 2A,H4 Pro,QC4.10
连接方式 Type of Connection	线 缆：压接 / Cable: Crimped-type 二 极 管：锡 焊 / Diode: Soldered-type 焊 带：锡 焊 / PV Ribbon: Soldered-type	

产品命名 Product's name
1、 TUV 命名

产品名称为 BM-90xy, 其中 xy 为变量,表示的信息如下/Product's name is BM-90xy, xy is variable,

x, 额定电流和电压信息/Rated current and system voltage information; y =为预留号/y is the reserved, the information they stand for is as follows. y =blank

x	blank	Rated current is 6 A, system voltage is 1000 V, 1000V construction.
	A	Rated current is 12 A, system voltage is 1000 V, 1000V construction.
	B	Rated current is 6 A, system voltage is 1500 V, 1500V construction.
	C	Rated current is 12 A, system voltage is 1500 V, 1500V construction.
	E	Rated current is 6 A, system voltage is 1000 V, 1500V construction.
	F	Rated current is 12 A, system voltage is 1000 V, 1500V construction.
y	blank	Reserved

2、 UL 命名 (UL name):

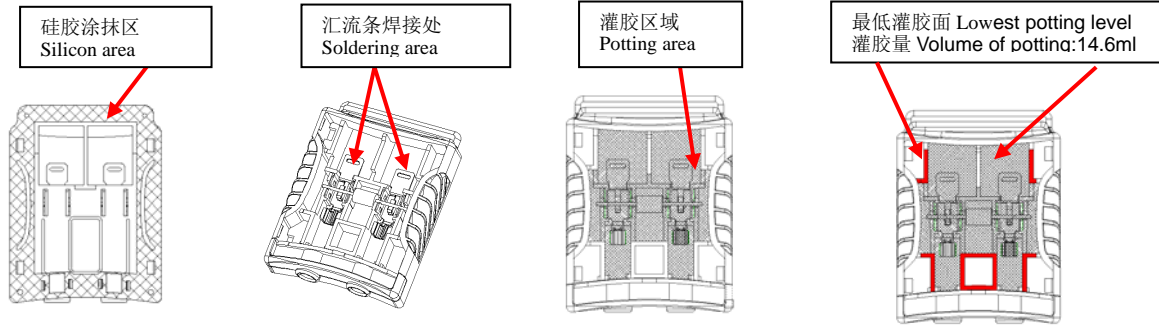
产品完整名称为 BM-90xy ABCDE, 其中 ABCDE 为变量,表示的信息如下:

Product's full name is BM-90xy ABCDE. And the suffix ABCDE is variable, and the information they stand for is as follows.

A, 材料信息/Material information; B, 连接器信息/Connector information; C, 额定电流信息/Rated Current information; D, 线缆信息/ Cable information; E, 系统电压信息/System voltage information.

A	E	Material type "540Z(f1)(c)", by ASAHI KASEI CHEMICALS CORP XYRON POLYMER (QMFZ2.E82268), which applied to enclosure parts and Pinch Ring;
	S	The material type "PX9406P(C)(f1)(IA)", by SABIC INNOVATIVE PLASTICS JAPAN LLC (QMFZ2.E207780), which applied to enclosure parts and Pinch Ring;
	Z	Material type "644Z(f1)(c)", by ASAHI KASEI CHEMICALS CORP XYRON POLYMER (QMFZ.E82268), which applied to enclosure parts and Pinch Ring;
B	M	Connector, type "PV-KBT4 / 6II-UR", manufactured by STAUBLI ELECTRICAL CONNECTORS AG (E343181)
	E	Connector, type PV-KST4-EVO2(female), PV-KBT4-EVO2(male), followed by/6, followed by "I" or "II", followed by - UR, by STAUBLI ELECTRICAL CONNECTORS AG (E343181), rated 1000V / 1500V dc, 35A max with 12AWG cable.
	Q	Connector, Type PV-KST4-EVO 2A/6II (female) and PV-KBT4-EVO 2A/6II (male), STAUBLI ELECTRICAL CONNECTORS AG (E343181), rated 1500V dc,39A max with 12AWG cable.
	T	Connector, type RHC2xMzA, male and female, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E344325), rated 600V dc,35A max with 12AWG cable.
	R	Connector, type RHC2xMzB, male and female, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E344325), rated 1000V dc,35A max with 12AWG cable.
	S	Connector, type RHC2xMzC, male and female, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E344325), rated 1500V dc,35A max with 12AWG cable.
	W	Connector, type RHC2xMzC, male and female, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E344325), rated 1500V dc,35A max with 14AWG cable.
	Y	Connector, type DJ2011-4ab, male and female, by Ningbo shihe new energy technology co ltd. (E344739), rated 600V dc,25A max with 12AWG cable.
	C	type "05-6-xy (x can be "a" or "b", y can be "m" or "n)", manufactured by RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E344325)
	B	type "05-8-xy (x can be "a" or "b" or "c", y must be "m")" (male and female), by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E344325)
	H	type "Helios H4", manufactured by AMPHENOL INDUSTRIAL OPERATIONS (E339277).
	U	type UTX Codefgh (c may be F or M, d may be A or B, e may be 2, 4, f may be A, g may be I, C or M, h may be blank or A) Assembled (male and female), by AMPHENOL INDUSTRIAL OPERATIONS (E469330)
	N	type PV-CM-C-4(male) and PV-CF-C-4(female) by PHOENIX CONTACT GMBH & CO.KG (E477377), rated 1500V dc, 35A dc max with 12 AWG cable.
	D	type H4VMC4DMS (male) and H4VFC4DMS (female), Amphenol Industrial Operations (E339277), rated 1500 Vdc, 35 Adc, with 12 AWG cable.
A	type H4VMC2DMS (male) and H4VFC2DMS (female), Amphenol Industrial Operations (E339277), rated 1500 Vdc, 35 Adc, with 14 AWG cable.	
K	type QC4.10-ABCDEFGF series, where A can be a5, B can be none, b2, b4 or b6, C can be c12 or c13, D can be d1, d3, d5 or d8, E can be e2 or e4, F can be f1, G can be none, g1 or g2, QC SOLAR (SUZHOU) CORP. (E340004), rated 1500 Vdc, 35 Adc, with 12 AWG cable.	
J	type QC4.10-ABCDEFGF series, where A can be a5, B can be none, b2, b4 or b6, C can be c15, D can be d1, d3, d5 or d8, E can be e2 or e4, F can be f1, G can be none, g1 or g2, QC SOLAR (SUZHOU) CORP. (E340004), rated 1500 Vdc, 30 Adc, with 14 AWG cable.	
F	type QC4.10-ABCDEFGF series, where A can be a5, B can be b1, b3, b5 or b7, C can be c12 or c13, D can be d1, d3, d5 or d8, E can be e2 or e4, F can be f1, G can be none, g1 or g2, QC SOLAR (SUZHOU) CORP. (E340004), rated 1500 Vdc, 35 Adc, with 12 AWG cable.	
G	type QC4.10-ABCDEFGF series, where A can be a5, B can be b1, b3, b5 or b7, C can be c15, D can be d1, d3, d5 or d8, E can be e2 or e4, F can be f1, G can be none, g1 or g2, QC SOLAR (SUZHOU) CORP. (E340004), rated 1500 Vdc, 30 Adc, with 14 AWG cable.	
C	1	Rated Current 6.5A, diode type PZ108, manufactured by Renhe Photovoltaic Technology Co., Ltd., rated 10A,1000V.
	2	Rated Current 15A, diode type PS4520, manufactured by Renhe Photovoltaic Technology Co., Ltd., rated 20A,45V.
D	d	PV wire,12AWG, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E332136), sunlight resistant, 90°C wet or dry. Rated 600V, 48-56 strands, 6.2 & 5.7 mm OD.
	g	PV wire,14AWG, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E332136), sunlight resistant, 90°C wet or dry. Rated 2000V, 48-56 strands, 5.9 & 6.6 mm OD.
	n	PV wire,14AWG, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E332136), sunlight resistant, 90°C wet or dry. Rated 600V, 48-56 strands, 5.7 mm OD
	m	PV wire, 12AWG, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E332136), sunlight resistant, 90°C wet or dry. Rated 2000V, 48-56 strands, 6.42 mm OD
	k	PV wire, 12AWG, by Zhejiang RENHE PHOTOVOLTAIC TECHNOLOGY CO LTD (E332136), sunlight resistant, 90°C wet or dry. Rated 2000V, 48-56 strands, 6.3 mm OD, only used for B=Y, D, K or F.
E	Blank	system voltage 600V
	A	system voltage 1000V
	B	system voltage 1500V

安装过程 Installation



The electrical installation instructions shall include a detailed description of the wiring method to be used in accordance with the National Electrical Code, ANSI/NFPA 70. Maximum ambient temperature in degree C 40.