

# 光伏H型汇流件使用说明书

## Photovoltaic H-type combiner box user manual

### MCH-301



修改履历记录表 Revision History Record Form

序号 No.	版本 Version	变更章节 Change Section	变更内容 Change Content	日期 Date	备注 Remark
1	A1	N/A	New version	2026-1-14	New Model

**目录 CONTENTS**

封面 Cover .....	1
目录 Contents .....	2
安全须知 Safety instructions .....	3
技术参数 Product Speciffcations .....	4
零件尺寸 Parts Size .....	5
功能介绍 Function introduction .....	6
快速安装 Quick installation .....	7
电缆布线和电线管理Cable routing and wire management .....	8

**安全须知 Safety instructions****警告 WARNING**

1. 安装前请先阅读使用说明书，并遵守安装说明和安全须知，否则可能会导致因电击、电弧、火灾或系统故障而危及人身安全。
2. 安装前请先检查产品是否完好，请勿使用损坏或者零件缺失的产品。
3. 安装人员须持电工证或受过电气培训合格的人员。
4. 禁止在带电的情况下安装或拆卸本产品，安装或拆卸前必须先切断电源。
5. 本品只能使用一次，安装后勿再调整使用。如有损坏，请更换。
6. 断开的连接器请使用防尘帽，以免异物进入污染。
7. 本品防水等级为IP68(1m1h),但是不能置于水中使用，不能将本品置于屋顶表面。
8. 产品禁止在含小分子油、烃、酚、酮、氨合物等与塑料有腐蚀的环境中使用。禁止在连接器里添加或涂抹任何油脂及润滑剂。
9. 产品安装使用符合光伏组件要求。
10. 本连接器与MC4系列产品连接使用。
11. 请妥善保管使用说明书，并将其移交给后续用户。

1. Please read the manual before installation and follow the installation instructions and safety notices, otherwise would in life-threatening injuries due to electric shock, electric arcs, fire, or failure of the system.
2. Please check that the product is in good condition before installation. Do not use products that are damaged or have missing parts.
3. The installer must have an electrician's license or a qualified person with electrical training.
4. Do Not Disconnect Under Load: PV plug connections must not be disconnected while under load. They can be placed in a no load state by switching off the DC/AC converter or breaking the AC circuit.
5. This product can only be used once. Do not adjust its use after installation.
6. Broken connectors Please use a dust hat to prevent foreign objects from entering the pollution.
7. This product is IP68 (1M1H) classification of waterproof, but can not be used in water, can not be placed on the roof.
8. The product is prohibited from use in environments containing small molecules of oil, hydrocarbons, phenols, ketones, ammonia, etc. that are corrosive to plastics. It is prohibited to add or apply any grease or lubricant to the connector.
9. The product installation and use meet the requirements of PV modules.
10. This connector is compatible with MC4 series products..
11. Please safeguard the instruction manual and hand it over to a subsequent user.

**应用范围 Intended use**

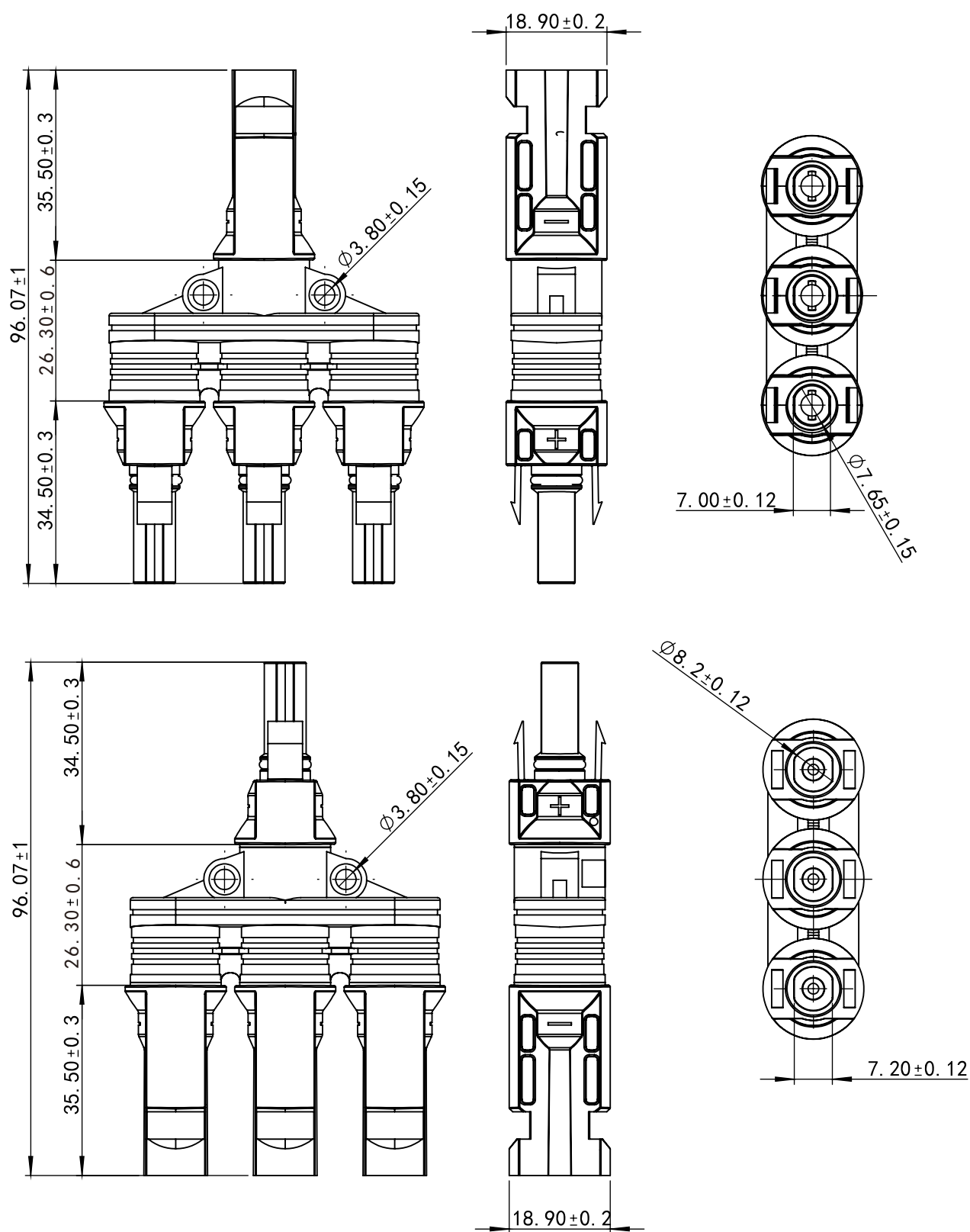
本品用于光伏直流 (DC) 电路中的电气连接，亦可用作低压直流 (LVDC) 部件。如果需要作其他用途，则需要符合本品技术参数的前提下使用。

This product is used for electrical connections in PV direct current (DC) circuits, and can also be used as low voltage direct current (LVDC) components. If additional use is required, it shall be used in compliance with the technical parameters of this product.

## 技术参数 Product Specifications

连接器系统 Connector system	Φ4mm
额定电压 Rated Voltage	1000V
额定电流 Rated current	30A
环境温度范围 Operating Temperature range	-40℃~85℃
防水等级 Waterproof class	Insertion: IP68; Non-insertion: IP2X
自锁系统 Self-locking system	Embedded
连接系统 Connected system	Multipoint connection
导体 Conductor	Copper tin-plated
绝缘材质 Insulation material	ppo

## 零件尺寸 Parts Size(mm)





## 功能介绍 Function introduction

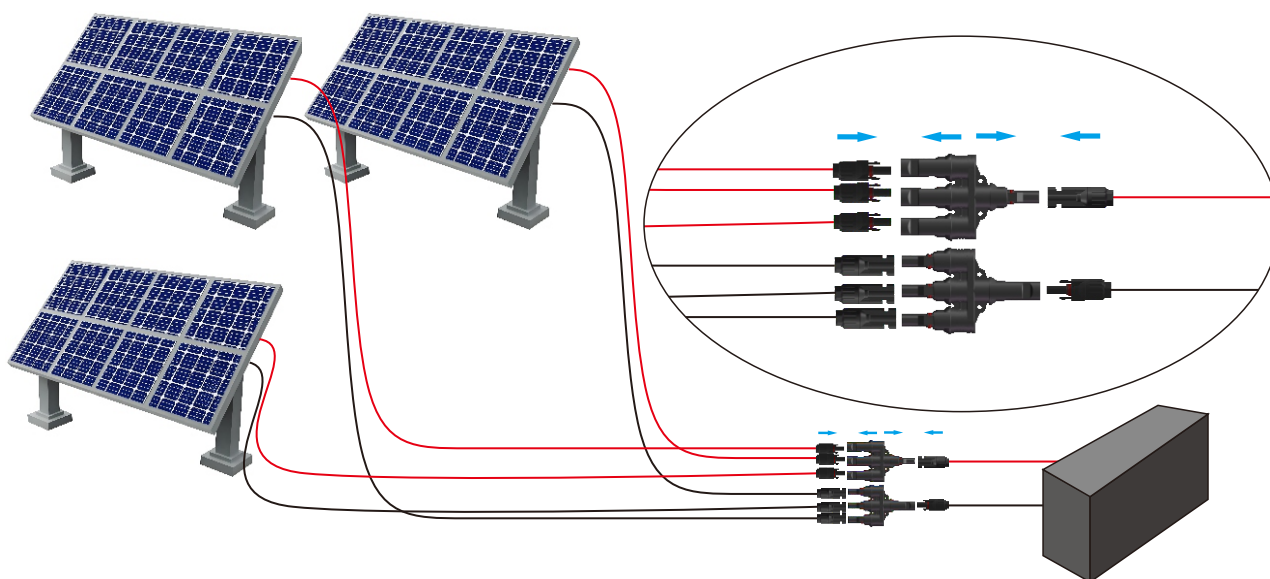
本汇流套件使用光伏电缆和光伏连接器组装成型，具有高稳定性、便于安装等优势。常用于光伏汇流，将多组光伏组件的电流汇入到一个输出口。

This combiner kit is assembled using photovoltaic cables and connectors, offering high stability and easy installation. It is commonly used for photovoltaic combiner applications, merging the currents from multiple photovoltaic modules into a single output port.

## 快速安装 Quick installation

安装前请检查产品是否完好，电流安培量是否匹配需求。

Before installation, make sure the product is undamaged and the current amperage matches your requirements.



将光伏汇流件MCH-301安装在光伏系统中对应正负极，正极接上光伏保险丝再用光伏连接器连接。  
将连接器公母座对插，直到啮合，轻拉连接器（ $\text{Max} \leq 20\text{N}$ ），确保连接器已经啮合。

Install the fuse connector in the positive circuit of the photovoltaic system and connect it using a PV connector.

Plug the male and female of the connector together until they are mated. Check correct engagement by gently pulling the connector (maximum pulling force  $\leq 20\text{ N}$ ).

## 电缆布线和电线管理 Cable routing and wire management



使用连接器时请使用扎带或线码来固定  
When using connectors, employ cable ties or wire clamps for fixation



正确布线示意图  
Correct wiring diagram

⚠ 注意：\*不要让连接器受到污染；  
\*不要置于屋顶表面；  
\*不要置于水中；  
\*不要让连接器受到机械压力。



禁止连接器悬空吊着使用  
Prohibit the use of connectors with dangling (unterminated) ends



错误布线示意图  
Incorrect wiring diagram

NOTE: \*Do not allow connectors to be contaminated by the environment;  
\*Do not allow that the connector is directly on the roofing surface;  
\*Do not allow that the connector is in standing water;  
\*Do not subject the connector to mechanical stress.

感谢阅读  
Thanks for reading