

FT20x 说明书

2024.07.02 版本: B1

△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, 警示标识刻模在连接器本体上。

△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。

△组件装配过程中, 推荐空气湿度大于 50%, 并且做好防静电措施, 以免损伤二极管。

△如果组件安装后连接器没有即刻对插, 需要使用防尘帽

△为了满足 UL1703, 第三版中 1500V 系统电压爬电距离的要求, 安装时箱体边缘单组分硅胶溢胶需超过 3mm

△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。

FT20x Instruction

July 2nd 2024, Ver.B1

△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, the warning mark is engraved on the connector body.

△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.

△During the assembly process, recommend air humidity is more than 50%, and to prevent to damage the diode, you should do ESD protection.

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

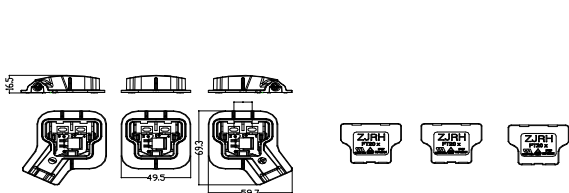
△Junction box sealing (single component silicon rubber based RTV) shall exceed the perimeter of junction box at least 3 mm in end use, to maintain acceptable spacing of 1500 V system voltage per UL 1703, 3rd edition, March 10, 2017

△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.

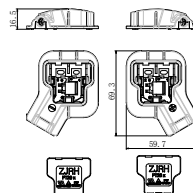
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成品 Finished Products

普通结构 Normal structure



特殊结构 Special structure



主要技术规格/Main Technical Specification:

认证 Certifications	TUV	UL
额定电压 Rated Voltage	1000V & 1500V	600V & 1000V & 1500V
最大工作电压 Max. Working (module) Voltage	100V	
额定电流 Rated Current	16A for PST4020 and PST4020/T 20A for PST4530/T 23A for PST5040D	20A for 12AWG 14A for 14AWG
应用电缆线 Connecting Capacity	IEC:4mm ² & 2.5mm ²	PV WIRE:12 AWG & 14 AWG
相对温度指数 RTI Of Insulating Materials	125°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	
反向电流 Reverse Current	41A	
最大环境温度 Maximum Ambient Temperature	-40 ~+85°C	
应用连接器 Connector	TUV1000V: RHC2xyzu,EVO2,EVO2A,PV4-S1,MC4 TUV1500V: RHC2xyzu,EVO2,EVO2A,PV4-S1	UL600V: RHC2xyzA,MC4,EVO2, EVO2A,PV4-S1 UL1000V: RHC2xyzB,MC4,EVO2,EVO2A,PV4-S1 UL1500V: RHC2xvzC,MC4,EVO2,EVO2A,PV4-S1
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: 产品完整名称为 FT20x, Product's full name is FT20x. x 为变量, 其中 x 为变量, x is variable

x	1	System voltage 1500V,16A positive junction box, type PST4020 or PST4020/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 20A
	2	System voltage 1500V,16A neutral junction box, type PST4020 or PST4020/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 20A
	3	System voltage 1500V,16A negative junction box, type PST4020 or PST4020/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 20A
	4	System voltage 1500V,20A positive junction box, type PST4530/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 30A
	5	System voltage 1500V,20A neutral junction box, type PST4530/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 30A
	6	System voltage 1500V,20A negative junction box, type PST4530/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 30A
	A	System voltage 1000V,16A positive junction box, type PST4020 or PST4020/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 20A
	B	System voltage 1000V,16A neutral junction box, type PST4020 or PST4020/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 20A
	C	System voltage 1000V,16A negative junction box, type PST4020 or PST4020/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 20A
	D	System voltage 1000V,20A positive junction box, type PST4530/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 30A
	E	System voltage 1000V,20A neutral junction box, type PST4530/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 30A
	F	System voltage 1000V,20A negative junction box, type PST4530/T, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V. Average rectifier current 30A
	G	System voltage 1000V, no diode, positive junction box+ negative junction box
	H	System voltage 1500V, no diode, positive junction box+ negative junction box
	O	System voltage 1000V,23A positive junction box, type PST5040D, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 50V. Average rectifier current 40A
	P	System voltage 1000V,23A neutral junction box, type PST5040D, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 50V. Average rectifier current 40A
	Q	System voltage 1000V,23A negative junction box, type PST5040D, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 50V. Average rectifier current 40A
	R	System voltage 1500V,23A positive junction box, type PST5040D, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 50V. Average rectifier current 40A
	S	System voltage 1500V,23A neutral junction box, type PST5040D, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 50V. Average rectifier current 40A
	T	System voltage 1500V,23A negative junction box, type PST5040D, by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 50V. Average rectifier current 40A
	J	1000V system voltage with One positive junction box+one neutral junction box+one negative junction box, rated current 16A,diode module,type PST4020 or PST4020/T,by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V,average rectifier current 20A.
	K	1000V system voltage with One positive junction box+one neutral junction box+one negative junction box, rated current 20A,diode module,type PST4530/T,by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V,average rectifier current 20A.
	L	1500V system voltage with One positive junction box+one neutral junction box+one negative junction box, rated current 16A,diode module,type PST4020 or PST4020/T,by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V,average rectifier current 20A.
	M	1500V system voltage with One positive junction box+one neutral junction box+one negative junction box, rated current 20A,diode module,type PST4530/T,by Renhe Photovoltaic Technology Co., Ltd. Peak reverse voltage 45V,average rectifier current 20A.

2、UL: Product's full name is FT20x yzh/产品完整名称为FT20x yzh, yzh-is suffix of Model No. and parts number (yzh为变量)

x – represents Parts number, may be 1, 2, 3 or 4(x代表1,2,3,4), 1-positive electrode drawn part (正极壳体); 2-no electrode drawn part (中间壳体); 3-negative electrode drawn part (负极壳体); 4-one positive electrode drawn part(no diode)+one negative electrode drawn part (no diode)/一个正极接线盒(无二极管) + 一个负极接线盒(无二极管)

y – represents connector type/y代表连接器型号; z – represents the maximum system voltage/代表系统电压; h – represents System current/代表系统电流

y	M	Types PV-KBT4/6X-UR (male) and PV-KST4/6X-UR (female), rated 600 V; or Type PV-KBT4/6II-UR (male) and PV-KST4/6II-UR (female), rated 1000V / 1500V, by STAUBLI ELECTRICAL CONNECTORS AG (E343181)
	E	Type series PV-KST4-EVO2/6(female) and PV-KBT4-EVO2/6(male), rated 1000V / 1500V, by STAUBLI ELECTRICAL CONNECTORS AG (E343181).
	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.
	N	Connector, type PV4-S1yx,y could be M or F,x could be 4 for 12AWG, rated 1500V
	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.
	None	No connector (when x = 2 only)
z	G	1500V
	Q	1000V
	None	600V
h	A	System current 14A, suitable for 14AWG cable
	B	System current 20A, suitable for 12AWG cable

安装过程 Installation

