

PROJOY
electric

– Switch To Safety! –



User Manual

PEFS-24V-CN Series

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User Manual of RSD Controller (DC 24V)

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1 Scope and General

This manual is applicable to PEFS-24V-CN Series product only.

Version	Date	Remark	Chapter
V1.0	2021-10-15	First Edition	-
V2.0	2022-04-20	Content Modified	4 Installation & Connection/ 5 Technical Specification
V3.0	2022-06-02	Content Modified	3 Introduction 4 Installation & Connection/ 5 Technical Specification

2 Important Safety Precautions

2.1 Disclaimer

PROJOY assumes no responsibility for any loss, in particular for circuit damage, resulting from any violation of the specifications recommended and referred to in this specification. PROJOY assumes no responsibility for the damage of the product caused by the maintenance, improper use, wrong installation or wrong system design of the product by non-designated personnel.

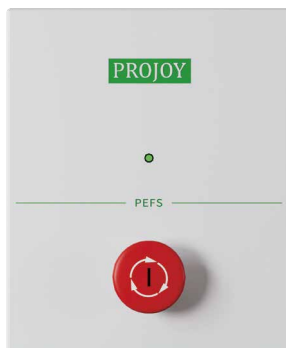
2.2 Safety instructions:

- 1) PEFS is an electrical product which should be installed by qualified people.
- 2) Turn OFF the DC isolator / switch when do maintenance
- 3) Incorrect wiring may cause PEFS-24V-CN got failed.

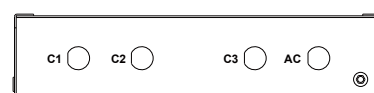
3 Introduction

Controller with Power Supply

PEFS-24V-C60

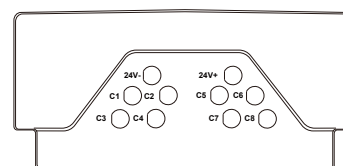


PEFS-24V-C180



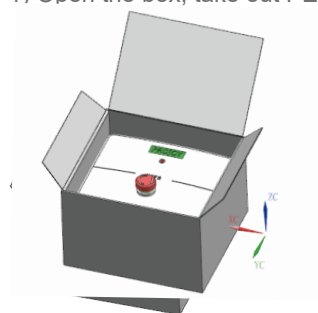
Controller without Power Supply

PEFS-24V-C480



4 Installation & Connection

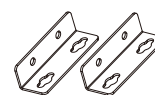
1) Open the box, take out PEFS-24V-CN and parts, read this manual.



Product



* 2*0.8mm²-core wire
20/30/100m Optional



L-shaped Clasps



Manual

* PEFS-24V-C60/C180 Type provide

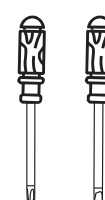
2) Prepare materials and tools.



expansion bolt



ST4.8x38



cross/straight screwdriver

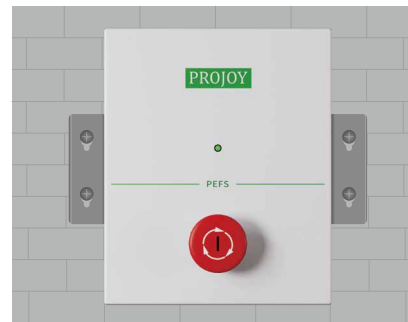
3) The installation modes of PEFS-24V-CN are divided into the following two situations.

Controller with Power Supply (Take PEFS-24V-C60 for example)

a) Align the round hole of the L-shaped calsp with the round hole of the box and fix them with screws.

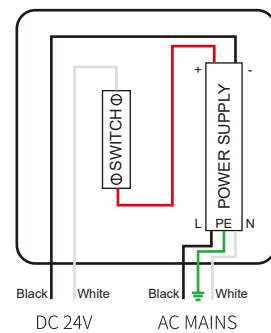


b) Mount the controller to the appropriate location through the gourd-shaped hole.



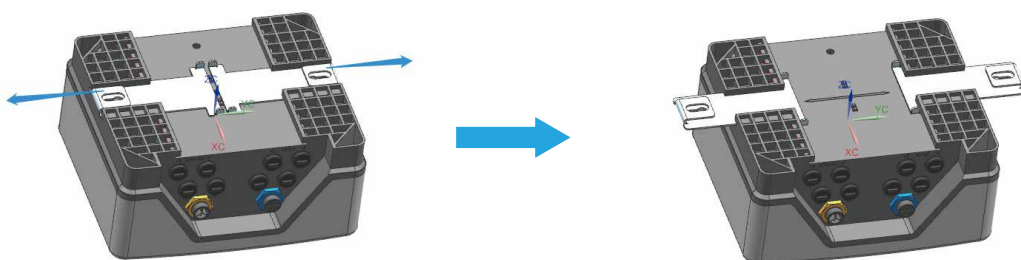
installation location(e.g. wall)

c) Wiring.

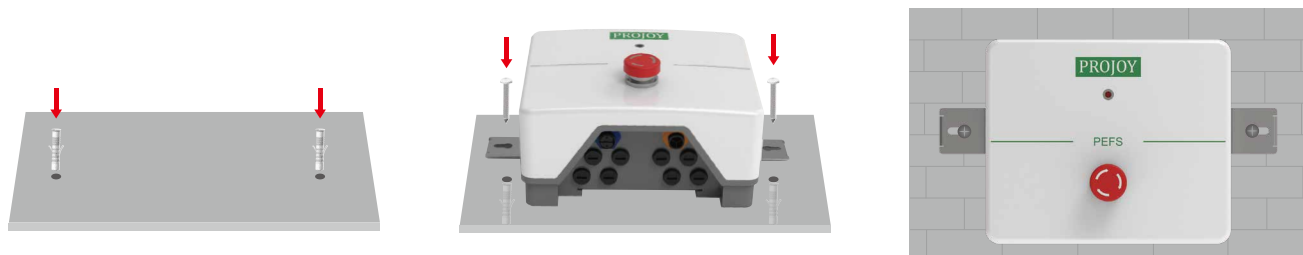


Controller without Power Supply (PEFS-24V-C480)

a) Pull out the clasps to both sides.



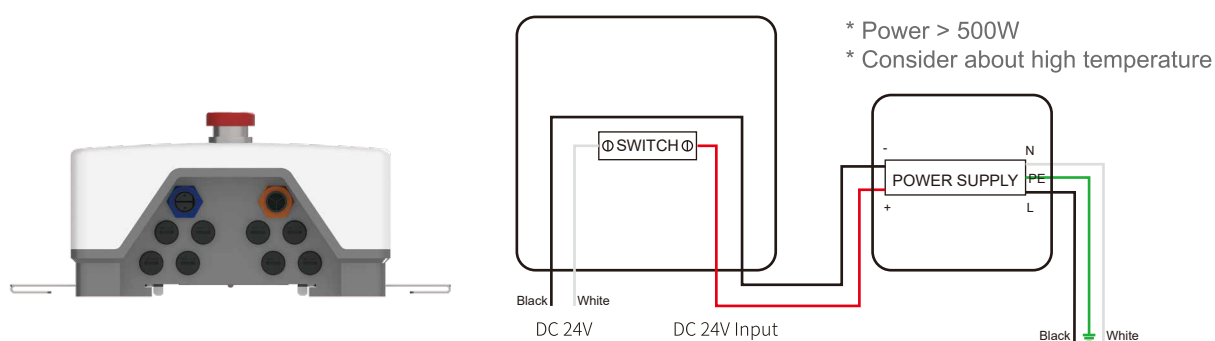
b) Mount the controller on the wall



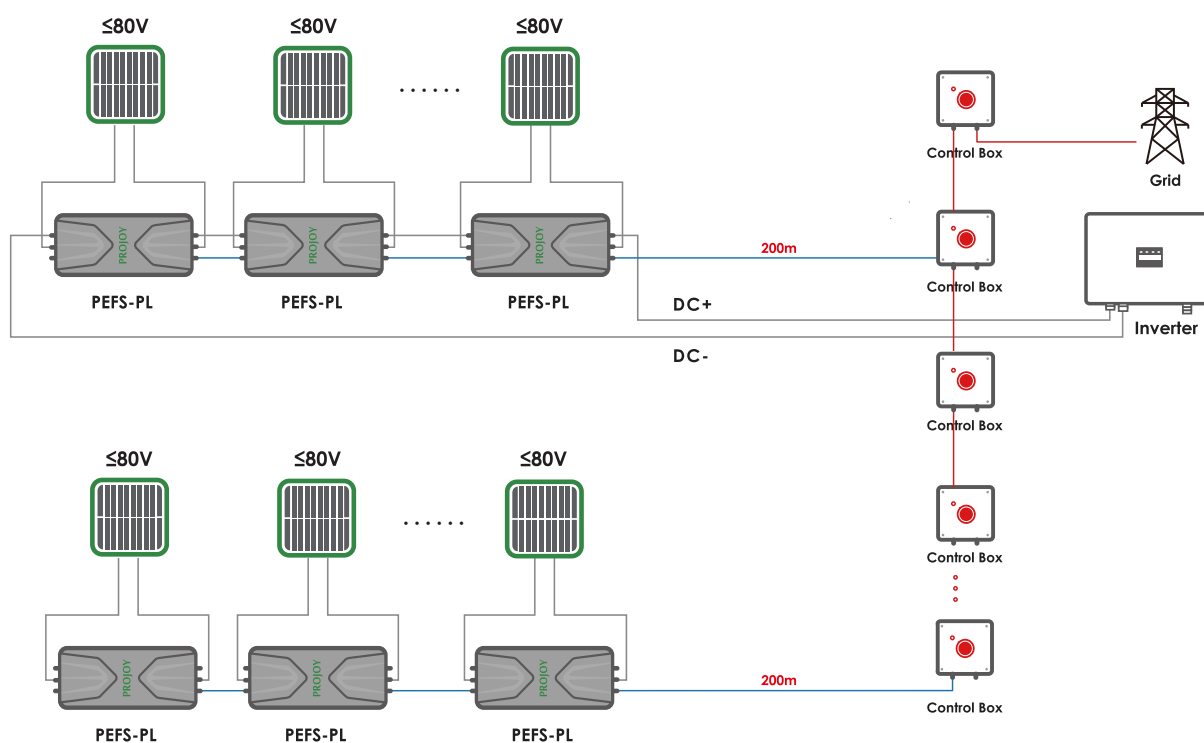
Installation (e.g. wall)

c) Wiring

PEFS-24V-C480 model needs an external power supply to power on



4) Parallel connection of multiple control boxes



5 Technical Specification

Control Box with Power Supply

Model	PEFS-24V-C60	PEFS-24V-C180
Operating AC Voltage Range	100 V-240 V	
Norminal Frequency	50/60 Hz	
Output Voltage	24V DC	
Output Current / Power	2.2A/50W	3*2.2A (3 Channels)/160W
24Vdc Control Cable Size	0.823 mm ² / 18 AWG	
24Vdc Control Cable Length With Standard Connectors	20 m / 30 m / 100 m	
Spare Terminal Connectors	Yes	
Maximum PEFS-PL80S-11	60 Units	3*60 Units
Maximum PEFS-PL80S-21	30 Units	3*30 Units
Dimensions (mm)	155*188*63	265*218*63
Lockable	Optional (IP54)	
Operating Temperature Range	-30°C ~ +70°C (50 °C No degradation)	
Protection Class	IP65	
Mounting	Wall Mounted	
Maximum Distance (Last RSD to Controller Box)	200m	

Control Box Without Power Supply

Model		PEFS-24V-C480	
Operating AC Voltage Range		100 V-240 V	
Norminal Frequency		50/60 Hz	
Output Voltage		24V DC	
Output Current		8*2.2A (8 Channels)	
24Vdc Control Cable Size		0.823 mm² / 18 AWG	
24Vdc Control Cable Length With Standard Connectors		20 m / 30 m / 100 m	
Spare Terminal Connectors		Yes	
Maximum PEFS-PL80S-11 / Per String		8*60 Units	
Maximum PEFS-PL80S-21 / Per String		8*30 Units	
Dimensions (mm)		210*175*105	
Lockable		Optional	
Operating Temperature Range		-30°C ~ +70°C (50 °C No degradation)	
Protection Class		IP65	
Mounting		Wall Mounted	
Maximum Distance (Last RSD to Controller Box)		200m	
External Power Source Requirements	Output Current	≥20A / 500W	
	Maximum PEFS-PL80S-11	480 Units	
	Maximum PEFS-PL80S-21	240 Units	

6 Trouble Shooting

Problem	Possible Cause	Possible Solution
String Voltage drops to 0V	No mains supply	Check AC power
	(LED OFF)	Check the fuse
	PEFS-24V-CN power supply failure	Check mains voltage between L&N marked terminals
		Check the end RSD voltage between + & - marked terminals
	Cable disconnected	Check reliability of cable wiring
	Wrong cable wiring	Check the cable wiring correction
String voltage drops	24V Cable disconnected somewhere	Check the cable wiring
	DC Power drops for high temperature	DC power

7 Aftersales service and warranty

7.1 Warranty

Projoy PEFS Series Module Level Rapid Shutdown controller: Up to 25 years lifespan design, which commencing from 3 months later of the manufacturing date. PROJOY will repair or replace any fault unit which is damaged or cannot work normally due to product quality issue. However, for the faults caused by following reasons, PROJOY would do service with charge even under warranty.

- 1) Inappropriate use or installation, self-modification or improper maintenance, etc.:
- 2) Beyond the prescribed scope of use;
- 3) Earthquakes, fires, lightning strikes, abnormal voltages, other natural disasters and secondary disasters, etc.
- 4) Any lost caused by any inappropriate use out of the scope defined in this manual, Projoy will not take the responsibility

7.2 Aftersales service

Please contact Projoy local distributors for after-sales service

1. Beyond the warranty period;
2. No valid quality assurance card and product serial number;
3. Transportation damage;
4. Improper use, operation and modification;
5. Operating in an environment beyond the specified in this manual;
6. Any installation and use beyond the scope specified in relevant international standards;
7. Damage caused by abnormal natural disasters (earthquake, fire, flood, etc.).

8 Contact us

Projoy Electric Co., Ltd.

Tell: +86-512-6878 6489

Web: <https://en.projoy-electric.com/>

Add: 2nd Floor, Building 3, No. 2266, Taiyang Road, Xiangcheng District, Suzhou