

PROJOY
electric

– *Switch To Safety!* –



Installation Guide

PEFS-24V-CN Series

CONTENT

Operation Manual of Panel Level Rapid Shutdown(DC 24V) Control Box

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1 Scope and General

The manual only used to PEFS-24V-CN Series Panel-level Rapid Shutdown(DC 24V) Control Box.

Version	Date	Remark	Chapter
V1.0	2021-10-15	First Edition	-
V2.0	2022-04-20	Content Modified	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 that should be installed by a suitable person who meets local regulations.
- 2) When modifying and existing installation, isolate the inverter from the PV array by turning OFF the DC isolator / switch disconnect or turn OFF the inverter and the AC switch.
- 3) Incorrect connections to the PEFS-24V-CN may cause failure.

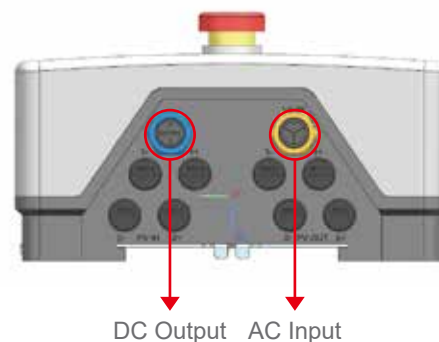
2.3 Cautions:

If the inverter and pv module connectors are not compatible with PEFS connectors, forced connections are unsafe and may cause operational problems.

For the mechanical compatibility of the module / converter and PEFS, use the same connectors from the same manufacturer on both the PEFS and modules, or obtain verification that the connectors to be used are compatible.

3 Introduction

PEFS -24V-CN Emergency Rapid Shutdown Switch Unit (excludes 24 VDC power supply)



4 Installation & Connection

The installation locations and modes of PEFS-24V-CN are shown below.

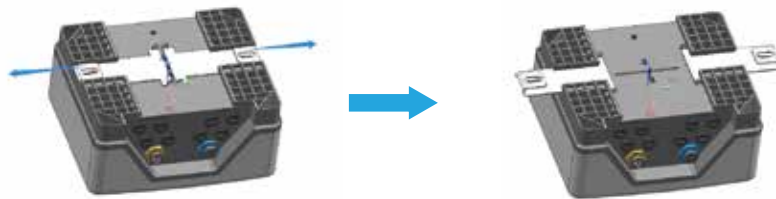
1) Open the box, take out PEFS-24V-CN and parts, read this manual.



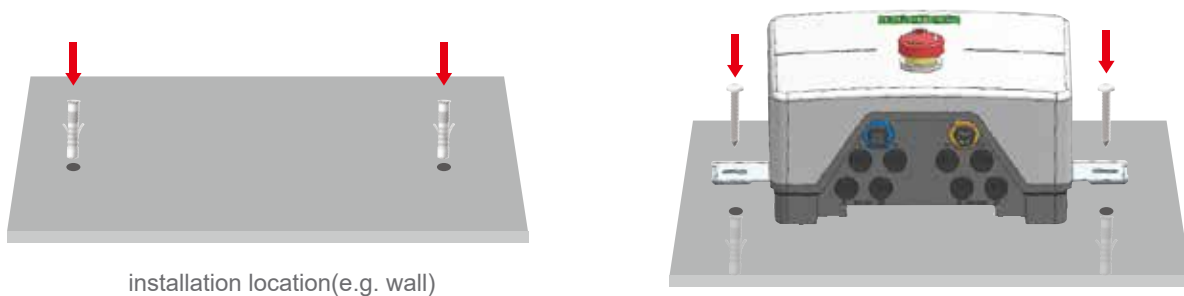
2) Prepare materials and tools.



3) Pull out the clasps to both sides.

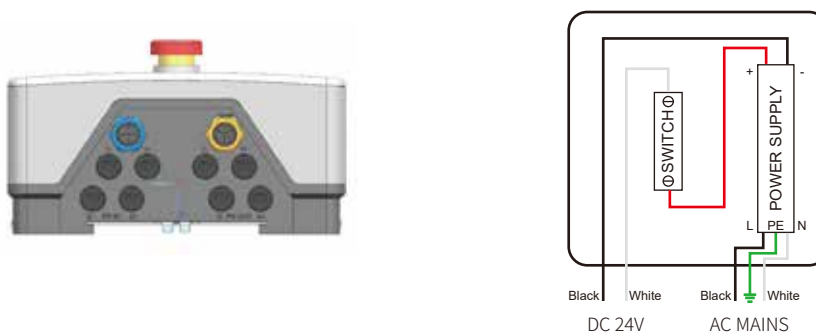


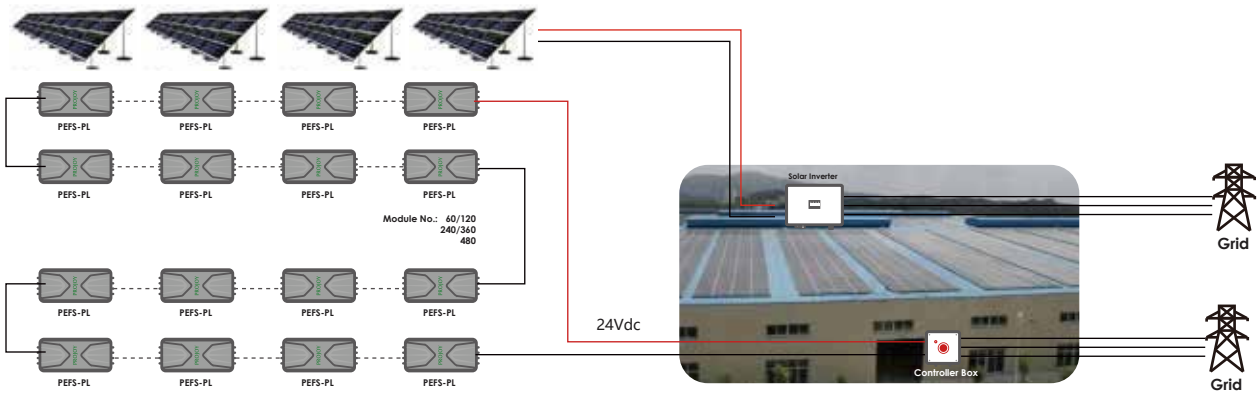
4) Screwing



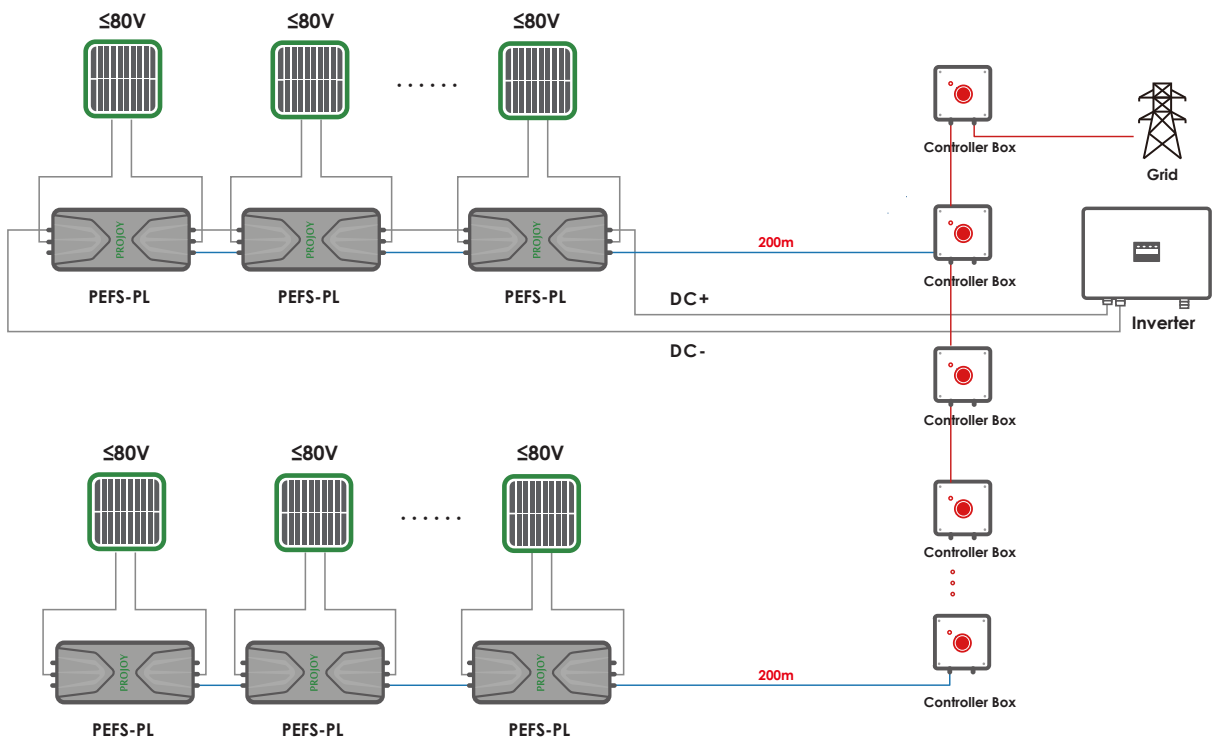
5) Wiring

The Emergency Rapid Shutdown Switch Unit PEFS-24V-CN can be conveniently located anywhere for emergency access and is supplied with an internal 24VDC power supply to interface with the PEFS-24V-CN units.





RSD	PEFS-PL80S-11			PEFS-PL80S-21		
Module No.	60 / 120	240 / 360	480	30 / 60	120 / 180	240
Control box						



Wiring method of control box

5 Technical Specification

Type	PEFS-24V-C60	PEFS-24V-C120	PEFS-24V-C240	PEFS-24V-C360	PEFS-24V-C480
Operating AC Voltage Range	100~240V AC				
Norminal Frequency	50/60 Hz				
Output Voltage	24V DC				
Output Current	2.2A	2*2.2A	4* 2.2A	6* 2.2A	8* 2.2A
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	60 Unites	120 Unites	240 Unites	360 Unites	480 Unites
Maximum PEFS-PL80S-21	30 Unites	60 Unites	120 Unites	180 Unites	240 Unites
Dimensions (mm)	210*175*105	210*175*105	375*205*95	375*205*95	375*205*160
With Lock	Optional				
Ambient Operating Temperature	-30 C ~ +70 C				
Protection Class	IP65				
Mounting	Wall Mounted				
Max cable length	200m (RSD cable length Excluded)				

6 Trouble Shooting

Problem	Possible Cause	Possible Solution
Panel (pair) voltage is 0V	No mains supply	Check area utility operational
	(LED OFF)	Check mains ON Check mains fuse
	PEFS-24V-CN power supply failure	Check mains voltage between L&N marked terminals Check 24VDC between + & - marked terminals
	PEFS-24V-CN switch activated	Turn red actuator anti-clockwise to release button
	No PEFS-24V-CN switch output	Check 24VDC between switch out terminal & PSU – marked terminal
	Broken cable	Check 24VDC between terminals of remote AMP Superseal connector (pin 1 +24VDC\pin 2 0VDC)
	PV array not connected	Check all PV to PEFS-24V-CN input connections
	Incorrect PEFS-24V-CN polarity connection	Check PV array Positive (+) goes to PEFS-24V-CN Positive (+) and PV array Negative (-) goes to PEFS-PC Negative (-)
	No PEFS-24V-CN output	Replace PEFS-24V-CN
PV Inverter input 0V	No DC isolator (if fitted) input	Check PEFS-24V-CN output connections Check DC inputs to isolator
	DC Isolator (if fitted) OFF	Turn DC Isolator ON
String voltage too low	Incorrect PEFS-24V-CN polarity connection	Check all PV array Positive (+) go to PEFS-PC Positive (+) and PV array Negative (-) goes to PEFS-PC Negative (-)

In the occurrence of a fire, PROJOY recommend that all elements of the PEFS Rapid Shutdown system be assessed for operational suitability by a competent person prior to re-energising.

7 Aftersales service and warranty

This product is manufactured in a sophisticated quality management system. In case of fault, following warranty and after services clauses are applicable.

7.1 Warranty

On the premise of user's compliance with reservation and use specifications of the breaker, for breakers whose delivery date is within 60 months from now and whose seals are intact, PROJOY will repair or replace any of these breakers which are damaged or cannot work normally due to manufacture quality. However, as for faults caused by following reasons, PROJOY would repair or replace the breaker with a charge even it is still in warranty.

- 1) Due to incorrect use, self-modification and improper maintenance, etc.;
- 2) Use beyond the requirements of standard specifications;
- 3) After the purchase, due to falling and damage during installation, etc.;
- 4) Earthquakes, fires, lightning strikes, abnormal voltages, other natural disasters and secondary disasters, etc.

7.2 Aftersales service

- 1) Please contact the supplier or our company's after-sales service department in case of failure;
- 2) During the warranty period: For failures caused by the company's manufacturing problems, free repairs and replacements;
- 3) After the warranty period expires: If the function can be maintained after the repair, make a paid repair, otherwise it can be replaced with a paid.

8 Contact us

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