

PV Solar Combiner Box

The PV Solar Combiner Box consolidates multiple solar panel inputs into a single output for connection to inverters. It provides protection against environmental factors and incorporates surge protection devices and circuit breakers.



ADDITIONAL IMAGES



Overview

Introduction

The BXPVZ-6/1 lightning protection combiner box combines the DC input and sink of the 6-channel photovoltaic module string into one output, each line is equipped with a fuse, and the output is equipped with a lightning arrester and a circuit breaker, which greatly simplifies the DC power distribution cabinet and the reverse input wiring for the transformer. Provide lightning protection, short circuit protection and grounding protection. The combiner box is divided into two types, intelligent and non-intelligent. The intelligent lightning protection combiner box is equipped with a flow monitoring unit, which can monitor the current input by each photovoltaic cell string, the summed output voltage, the temperature inside the box, the state of the lightning arrester, and the state of the circuit breaker.

And strictly in accordance with the requirements of "Technical Specifications for Photovoltaic Confluence Equipment" CGC/GF 037-2014, to provide users with a safe, simple, beautiful and suitable photovoltaic system products. The product is wall-mounted and can be adapted to a variety of harsh environments. In addition to the relevant core components, others can be customized according to user requirements.

High reliability

- Use PV-specific fuses.
- Use PV-specific surge protectors.
- Use PV-specific DC breaker or rotary isolation switch.

Strong adaptability

- IP65 protection, waterproof, dustproof and UV resistant.
- Strict high and low temperature test, suitable for a wide area.
- The installation is simple, the system wiring is simplified, and the wiring is convenient.
- The box is made of metal materials such as cold rolled steel plate.

BXPVZ-6/1 Lightning protection combiner box schematic and key performance features.

BXPVZ Photovoltaic Combiner Series

The BXPVZ lightning protection combiner box is engineered to consolidate DC inputs from up to 6 photovoltaic strings into a single high-efficiency output. This solution simplifies DC power distribution and transformer input wiring while providing comprehensive lightning, short-circuit, and grounding protection. Designed for durability in harsh environments, it features IP65-rated weather resistance and high-performance safety components.

Technical Specifications

Ingress Protection

IP65 • Dustproof • Waterproof • UV Resistant

Input Channels

6 channels

Built-in Protections

Lightning Protection, Short Circuit Protection, Grounding Protection, Overcurrent Protection

Mounting Method

Wall-mounted

Compliance

CGC/GF 037:2014

Components & Construction

Standard Components

- PV-specific Fuses
- PV-specific Surge Protectors
- PV-specific DC Breaker / Rotary Isolation Switch
- Lightning Arrester

Enclosure Material

Cold rolled steel

Configuration Options

System Type

- Non-intelligent (Standard)
- Intelligent (includes flow monitoring unit)

Intelligent Monitoring Data

Metric

Current input per string

Summed output voltage

Internal box temperature

Lightning arrester status

Circuit breaker status