

1500V DC Solar PV Array String Combiner Box

This combiner box merges up to 8 PV DC input channels into one output, with each channel equipped with a fuse. It includes a solar DC disconnect switch and surge baffle to prevent overvoltage.



ADDITIONAL IMAGES



Overview

High-Voltage DC String Consolidation

The SMC Series DC Combiner Box is designed to streamline solar PV installations by combining multiple array strings into a single output. Engineered for high-voltage systems up to 1500V DC, it significantly simplifies wiring between the DC distribution cabinet and the inverter. This pre-installed solution reduces installation time and error susceptibility while providing robust protection for grid-tied and off-grid solar power systems.

Technical Performance

IN-BOX CONFIGURATION



Internal view showing the organized wiring and component layout for high-capacity string consolidation.

Ingress Protection

IP65

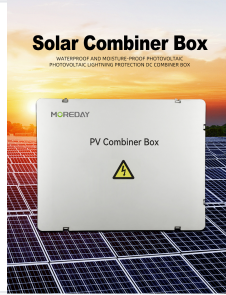
Maximum DC Voltage

1500 V

PV DC Inputs

8-24 Channels

Safety & Protection



Specifically engineered for outdoor reliability with moisture-proof sealing and lightning protection.

Integrated Protection Features

- Lightning protection
- Short-circuit protection
- Grounding protection
- Over-voltage protection
- Reverse connection protection
- Anti-backflow protection
- Overcurrent protection

Internal Components

- True solar DC disconnect switch
- DC surge baffle / protector
- Individual channel fuses
- Fire protection shell

Certifications

Product Certifications

CE, CB, TUV

Construction

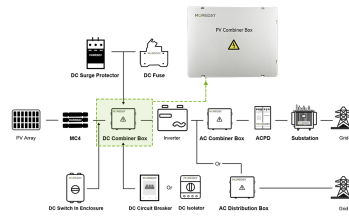


The durable IP65 enclosure provides superior protection against environmental factors and fire hazards.

Enclosure Characteristics

- Durable material housing
- Waterproof and moisture-proof
- Fire-resistant shell
- Outdoor-rated design

SYSTEM DIAGRAM SHOWS



System diagram illustrating the integration of the combiner box between the PV array and the inverter.

Solar System Integration

Acts as the central consolidation point between the PV Array (via MC4 connectors) and the Inverter. It integrates DC fuses, surge protectors, and isolators to ensure safe energy flow from the array to the AC distribution and grid.