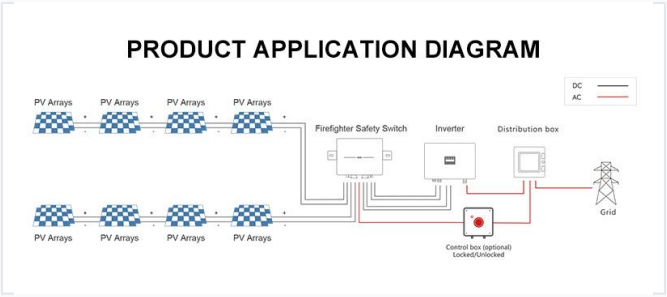
Solar Array Rapid Shutdown Device

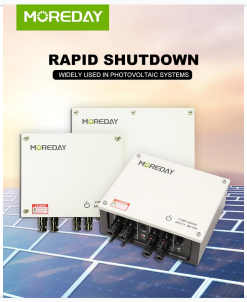
This device allows for the rapid disconnection of PV arrays, reducing electrical hazards during emergencies. It is crucial for firefighter safety and compliance with rapid shutdown requirements.

ADDITIONAL IMAGES

Overview



Application diagram illustrating system integration with PV arrays, inverter, and safety switch.



Essential for firefighter safety, providing rapid DC power disconnection during emergency scenarios.

Solar Array Rapid Shutdown Device

This solar array-level rapid shutdown device is designed to enhance safety in photovoltaic (PV) systems by ensuring quick disconnection of the PV array during emergencies, such as fires or natural disasters. It is fully compliant with National Electric Code (NEC) section 690.12, requiring system shutdown within 10 seconds of an emergency signal. The device is built for reliability, featuring a robust, weather-resistant enclosure and automated thermal shutdown capabilities to protect both first responders and system infrastructure.

Electrical Performance

Max DC Voltage

1500 Vdc
Max DC Voltage

Max DC Current

55 A
Max DC Current

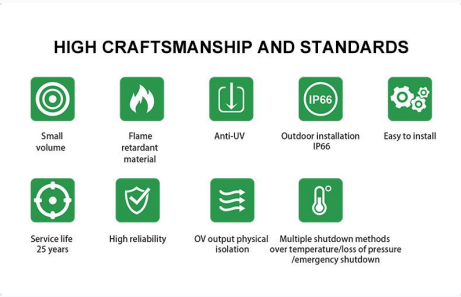
String Capacity

10 strings
Max Strings

AC Control Loop

- Nominal Voltage: 230 Vac
- Operating Voltage: 100-270 Vac
- Nominal Frequency: 50 Hz
- Operating Frequency: 47-53 Hz

Design & Construction



Engineered for durability with IP66 protection, flame-retardant materials, and a 25-year service life.

Protection Rating

IP66

Shutdown Activation Methods

- Motor-driven switch disconnection
- Automatic thermal shutdown (>70°C)
- Remote emergency signal activation

Integrated Features

- Breathing valve (prevents condensation)
- MC4 connectors
- Cable glands
- Knock-outs for easy wiring

Enclosure Material	PC+ABS

Compliance & Standards

Certifications	CE, EN 60947-3, NEC 690.12 compliant