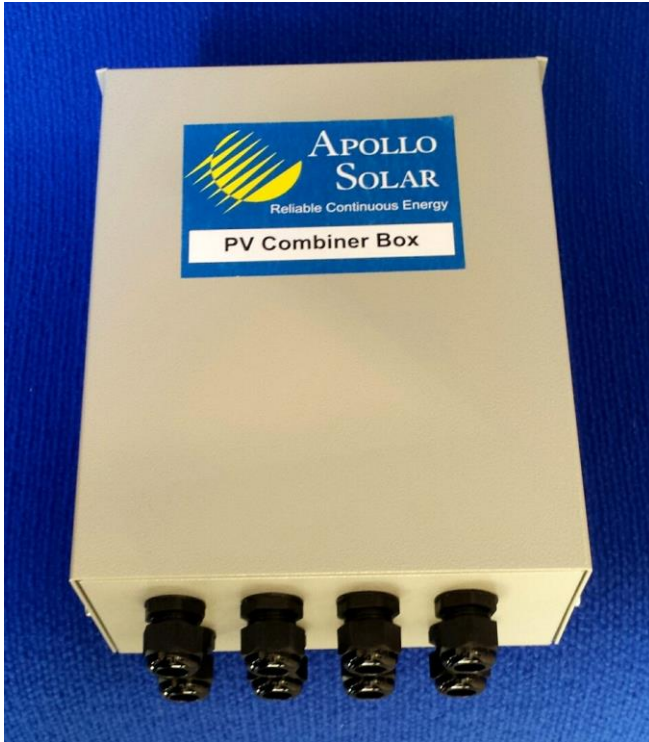
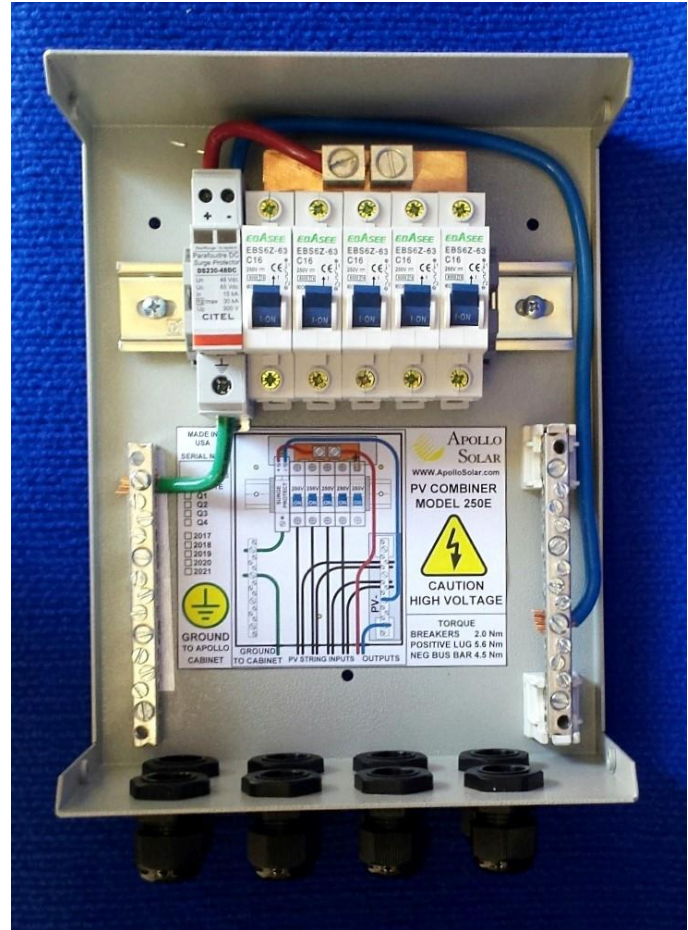




## MODEL 250E



## PV STRING COMBINER BOX



- **Designed to connect multiple PV modules in parallel and to provide short circuit and over current protection for each string**
- **Available for 3, 4, 5, or 6 parallel strings - ideal for T80HV string sizing**
- **Internal 40kA Surge Protection with remote reading end-of-life on MOVs**
- **High Voltage DC Circuit Breakers meet UL requirements for T80HV even above 180volts Voc.**

### Circuit Breakers

Rated for use at 220 volts DC, the breakers allow use with PV strings which take advantage of the 180 volt input capability of the Apollo Solar T80HV MPPT Charge Controllers. The breakers are IEC 60947-2 certified.

### Surge Protection Device built-in as standard

The Apollo Solar Combiner Box is equipped with an internal surge protector which is the first line of defense against nearby lightning strikes.

The surge protector is based on high energy 40kA Metal Oxide Varistors (MOV) matched with the DC operating voltage. The MOVs are equipped with internal thermal dis-connectors in order to provide safe end of life. The indication of the disconnection status is provided by a mechanical indicator and is also transmitted through a remote signal. Apollo systems provide Remote Reporting of Alarms such as this MOV end-of-life indication. The MOVs are enclosed in a pluggable module which allows an easy maintenance.

# APOLLO SOLAR – MODEL 250E COMBINER BOX -- SPECIFICATIONS

Number of PV Input Circuits .....	5 standard, 3, 4 or 6 available
Maximum Total Output Current .....	60 Amps
PV Input wire connections .....	Up to 16mm <sup>2</sup> (AWG 6)
Earth Ground wire connector.....	Up to 25mm <sup>2</sup> (AWG 4)
Home Run Output wire connectors.....	Up to 35mm <sup>2</sup> (AWG 2)
Physical Size .....	213 x 292 x 102mm (8.4" x 11.5" x 4")
Box Material .....	Aluminum
Finish .....	Powder Coated Light Grey (RAL7035)
Weight .....	1.9kg (4.2lbs)
Shipping Weight .....	2.3kg (5.0lbs)

### Internal String Circuit Breakers

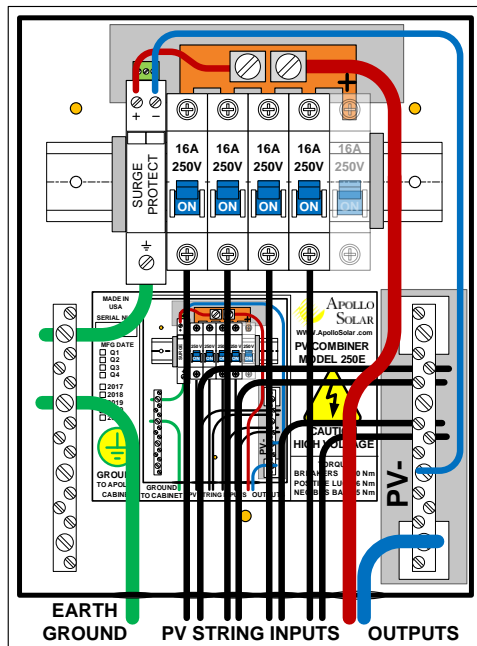
Current Rating .....	16 Amps
Time Constant .....	10mS
Maximum DC Voltage .....	220 volts DC
Maximum Interruption Capacity .....	10kA
Mechanical Lifespan .....	20,000 cycles
Agency Certification: .....	IEC 60947-2

### Internal Surge Protection Device

Network Voltage .....	130 volts DC
Maximum Operating Voltage .....	180 volts DC
Nominal Discharge Current .....	20kA
Maximum Discharge Current 8/20uS ...	40kA
Protection Level @In .....	620 volts DC
Thermal Disconnect .....	Internal
Operating Temperature .....	-40°C to +85°C

#### Agency Certifications:

International ...	IEC 61643-1 Low Voltage SPD Class II
USA .....	UL1449 3 <sup>rd</sup> Ed. Type 4, Type 2 Location
Canada .....	CSA C22.2 No. 8-M1986, Class 9091 32 & 92
France .....	NF EN 61643-11 Low Voltage SPD Class II



Internal Wiring for a Typical installation



## APOLLO SOLAR

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