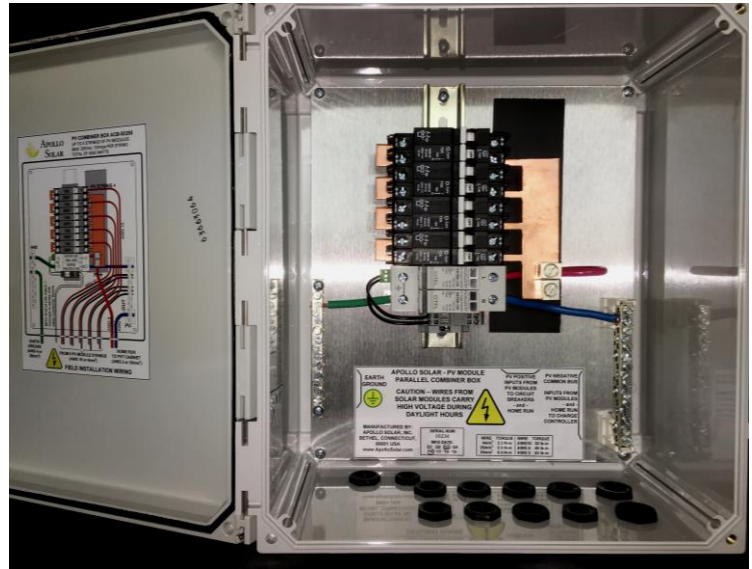




## ACB5X250



## 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 75kA Surge Protection with remote reading end-of-life on MOVs**
- **High Voltage DC Circuit Breakers meet UL requirements for T80HV even above 180volts Voc.**
- **Hydraulic-Magnetic Circuit Breakers are insensitive to temperature change and always hold 100% rated current**
- **Enclosure certified to NEMA 4 (IP66) for complete weather protection with water-tight cable glands and lockable door**

### **Surge Protection Device built-in as standard**

Every Apollo Solar Combiner Box is equipped with an internal surge protector which is designed to protect equipment against lightning surges. The Combiner Box is the place to catch surges and shunt them to earth before they reach sensitive equipment.

The surge protector is based on high energy 75kA 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. Many Apollo systems provide Remote Reporting of Alarms such as this end of life indication on the MOVs. The MOVs are enclosed in a pluggable module which allows an easy and fast maintenance.

### **Superior Hydraulic-Magnetic Circuit Breakers**

Apollo Solar uses only Hydraulic-Magnetic type circuit breakers. This technology is superior to the thermal type breakers which can cause nuisance trips when the ambient temperature is high. Because of their accuracy, the Hydraulic- Magnetic type circuit breakers can be used at 100% of their rated capacity.

Rated for use at 250 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.

# APOLLO SOLAR – ACB5X250 COMBINER BOX -- SPECIFICATIONS

Number of PV Input Circuits .....	5 standard, 3, 4 or 6 available
Maximum Total Output Current .....	60 Amps
PV Input wire connectors.....	Up to AWG 10 (4mm <sup>2</sup> )
Home Run Output wire connectors.....	Up to AWG 2 (35mm <sup>2</sup> )
Earth Ground wire connector.....	Up to AWG 4 (25mm <sup>2</sup> )
Physical Size .....	394 x 338 x 185mm (15.5" x 13.3" x 7.3")
Box Material .....	Fiberglass Reinforced Plastic
Finish .....	Natural Gray
Weight .....	15 lbs (6.7kg)
Shipping Weight .....	17 lbs (7.7kg)

## Internal Surge Protection Device

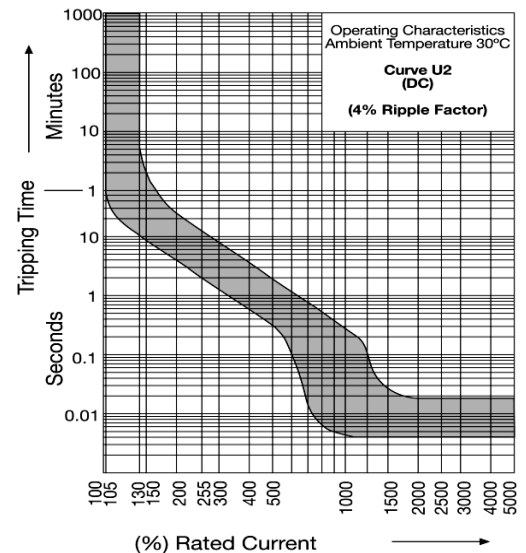
Network Voltage .....	120 volts
Maximum Operating Voltage .....	255 volts
Nominal Discharge Current .....	20kA
Maximum Discharge Current 8/20uS ...	75kA
Protection Level @In .....	620 volts DC
Thermal Disconnect .....	Internal
Operating Temperature .....	-40°C to +85°C

### 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 String Circuit Breakers

Hydraulic-Magnetic type .....	QY
Current Rating .....	15 Amps
Delay Curve .....	U2 see chart
Maximum DC Voltage .....	250 volts DC
Maximum Interruption Capacity .....	10kA
Agency Certifications: .....	IEC 60947-2, UL489A, and SANS VC8036



# APOLLO SOLAR

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