



## 1500V High Capacity Input Disconnect Combiners

ConnectPV High Capacity Input (HCI) Disconnect Combiners are based on the same high quality product architecture as the standard 1500V Disconnect Combiners with the integration of larger 40A and 50A input fuses in touch safe fuse holders. These higher capacity combiner inputs support more strings per fuse, enabling a single combiner input per tracker, reducing home run wires to the combiners to 2 wires per tracker.

Referencing Image 1 below - a typical single-axis tracker application uses ConnectPV's UL9703 Certified 1500V 3-string Overmolded Wire Harnesses (Crystalline Modules), 1 per SAT, coupled with a single pair of 8 AWG (10mm<sup>2</sup>) Home Runs to a 50A fuse in the combiner - (8) harnesses, (8) home run pairs, and (1) 400A combiner per subarray (some modules may allow up to 9x 50A inputs per 400A combiner).

### Standard Product Features

- ETL Certified to IEC/UL62109-1 - see below
- 250A, 320A, 400A, and 600A Manual Disconnects
- Lock-Out/Tag-Out on Disconnect Handle
- 4-16 Inputs, #8-#4AWG (10mm<sup>2</sup> - 25mm<sup>2</sup>) Wire Range
- 40A and 50A Fuses Available
- Tin Plated C11000 Copper Busbar
- Non-Fused Inputs land on the DC Common Terminal
- M12 Studs provided for double hole output lugs
- Internal Dead Front Cover over all live components
- Class 2, Type 2, 40kA Surge Protective Device
- Fiberglass and Steel Enclosures
  - NEMA 4 or 4X (IP65/66(1m/1h)) Rated
- Unistrut Mounting Brackets installed
- Padlock Latch for Door
- Unique Serial number per unit
- Labeling to meet IEC/UL 62109-1 Requirements
- 5 Year Warranty

### Product Options

- Staubli MC4-Evo2™ connectors Whips
- Breather Vents for High Humidity Locations
- External Accessible Voltage Test Points
- Upsized Enclosures for Larger Output Wires
- Extended Warranty

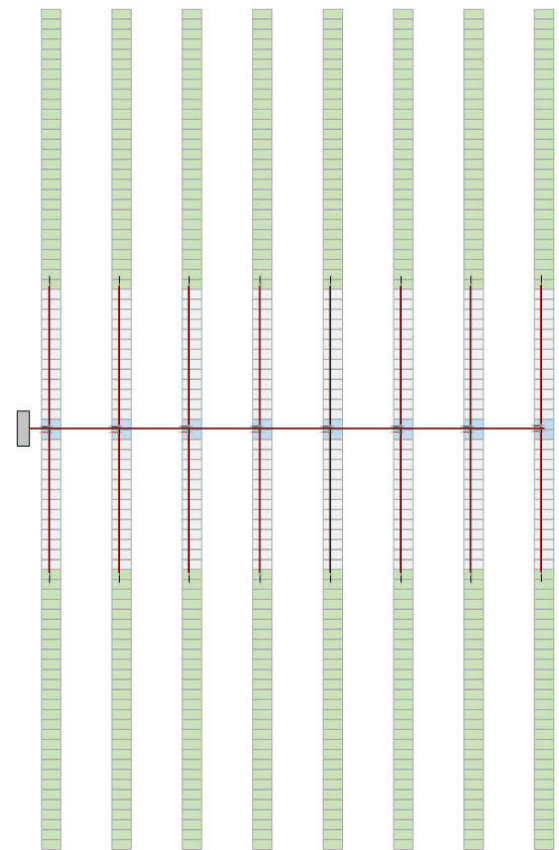


Image 1: Typical 8 Tracker 400A Subarray using 3-string harnesses with 50A Combiner Fusing



Certified Manufacturing



CERTIFICATION IN PROCESS  
IEC62109-1: Feb 2019  
UL62109-1: April 2019



## ConnectPV reduces electrical BOS project costs by simplifying:

### ► Configuration

Design Engineers easily configure our products to meet the project's requirements - *Simplifying design and specification*

### ► Regulation

AHJ Inspectors quickly review and approve our products because we have designed for 100% compliance with the IEC and UL Standards - *Reducing project inspection and approval time*

### ► Installation

Field Installers quickly install our products because they provide ample wiring room - *Reducing installation time and labor cost*

### ► Operations

O&M Personnel reduce field service time because our products use high quality components and are designed for a 30 year life expectancy - *Maximizing system revenue generation*

Example Input Characteristics			Typical Enclosure Sizes	
Disconnect Rating	Fuse Size	# of Inputs Possible	Carbon Steel (in)	Fiberglass (in)
250	40A	7	24x24x8	24x24x8
	50A	5	24x24x8	24x24x8
320	40A	8	30x24x8	30x24x8
	50A	6	30x24x8	30x24x8
400	40A	12	30x24x8	30x24x8
	50A	8	30x24x8	30x24x8
600	40A	16	30x36x8	30x36x8
	50A	12	30x30x8	30x36x8

### More Efficient Use of Inputs:

The 50A High Capacity Inputs support larger preparallel wire harnesses - *using US 1.56 Fuse Derate Rules:*

- Crystalline: 3-string to 10.7A Isc each
- Crystalline: 2-string up to 16.0A Isc each
- FS4 - up to 16 strings on one input
- FS6 - up to 12 strings on one input

*IEC Fuse derate of 1.25 may allow "larger" harnesses.*

*40A and 50A fuses can be mixed within one unit with the condition that the Sum(Isc) is less than the total rating of the unit with the appropriate derate factors applied*

Model Numbers are derived from the following template: CBXVFG-###D(S)-FFAA-EE

VV Voltage	### Disconnect Rating	FF String Count	AA Fuse Rating	EE Enclosure Type
15 = 1500V	250, 320, 400, 600	4-16 1 string increments	40A, 50A	N4 (IP65) = Carbon Steel 4X (IP66) = Fiberglass*

*Additional Options and Accessories Available*

*\*Stainless Steel Available*

## ABOUT CONNECTPV INC.

Based in San Diego, CA, ConnectPV Inc. delivers expertise and experience. We bring over 10 years of Solar PV industry experience in electrical Balance of System products coupled with more than 25 years of high quality, ISO9001:2008 certified, manufacturing expertise. We actively work with our customers to deliver innovative, high quality, and cost effective solutions.

