



## Technical Services Bulletin

### ReadyWatt™ 10x10 Combiner Box for PV Installations

- Intended Use
- Provided Components
- Code Compliant Installation

#### Intended Use

The ETL listed ReadyWatt™ 10x10 Combiner Box is intended to provide a secure, economical and code compliant method of combining multiple PV source circuits into one source circuit. The combiner box also provides a convenient location to begin the necessary conduit run from the PV array to the power conditioning equipment. This 10x10 Combiner Box can accommodate up to 6 low voltage circuits using breakers or up to 5 high voltage circuits using Touchsafe™ fuse holders and fuses.

Low Voltage Option – EO Part#: 600COMB10X10LV

High Voltage Option – EO Part#: 600COMB10X10HV

#### Components

##### Includes the following components:

- NEMA 3R 10" x 10" enclosure (grounded)
- DIN rail holding up to (6) low voltage breakers or (5) high voltage fuse holders
- (1) positive terminal fingered bus bar
- (1) 15 position negative terminal bus bar
- (1) 2 position ground terminal block

##### Optional components specified at purchase:

- Cord grips with 2 or 3 conductor inserts
- High voltage option: Up to (5) 30A, 600VDC Touchsafe™ fuse holders and fuses – 10A, 15A or 20A
- Low voltage option: Up to (6) single pole, 125 VDC breakers – 10A, 15A or 20A



#### Special Features

The ReadyWatt™ Combiner Box is an elegant, professional solution to the need for combining and staging your photovoltaic array wire runs. It features:

- Extra heavy duty enclosure
- Easy wire terminations
- ETL listed to UL 508A standard

#### Applicable Code Sections

The ReadyWatt™ Combiner Box complies with NEC requirements including but not limited to: 690.8, 314.40 and 690.9.

## Code Compliant Installation

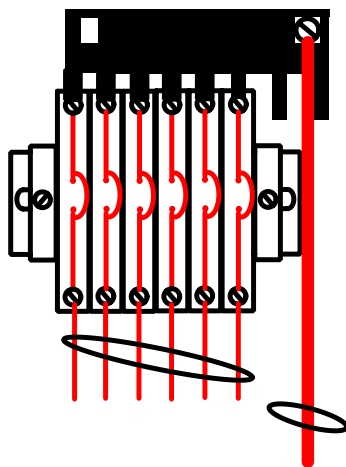
The PV combiner NEMA 3R enclosure must be mounted in an upright orientation since a 1/4" weep hole is pre-drilled in the bottom to drain any moisture that may accumulate inside. Mount the combiner on a flat wall, strut frame or on the side-of-pole.

**Low Voltage Option:** Push the breakers onto the DIN rail. Insert the fingered bus bar into the line side of the breakers. Loosen the DIN rail end brackets and slide them together so they hold the breakers together. Retighten the end brackets.

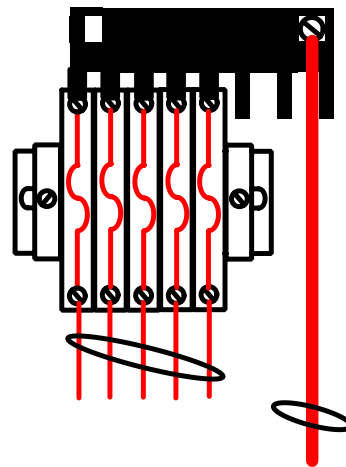
**High Voltage Option:** Push the fuse holders onto the DIN rail. Insert the fingered bus bar into the line side of the fuse holders. Loosen the DIN rail end brackets and slide them together so they hold the breakers together. Retighten the end brackets.

**All Options:** Remove the appropriate knockouts on the bottom of the enclosure and install conduit fittings or liquid tight cord grips. Insert the input conductors (USE-2 cable in free-air with quick connects or THHN/THWN-2 in conduit) into the box and strip back enough insulation for proper contact with the terminals. Connect the positive input conductors to the load side of the fuse holder or breaker. Connect the negative conductors to the PV negative bus bar and the ground conductors to the ground terminal block. Connect the output conductors (14 AWG up to 1/0 cable) to the appropriate bus bars. Use the torque table below to correctly torque all connections.

Terminal Torque Specs	
Negative/ Ground bus bars, small hole.	35 in-lbs
Negative/ Ground bus bars, large hole.	50 in-lbs
Positive fingered bus bar, output terminal	50 in-lbs
Ground block terminals	50 in-lbs
Breaker	20 in-lbs



Low voltage option



High voltage option