

# AC Combiners



Terrasmart AC Combiners provide cost effective means to combine AC equipment. Individual fused inputs facilitate string inverter output aggregation. Terrasmart AC Combiners support all string inverters and are highly configurable to fit any application.

## Benefits

### Better Performance

- Our AC Combiner incorporates fuses which are bi-directional, therefore back feeding is not a concern. Breaker panels are typically designed for load applications and when they are used “backwards” for supply equipment the breakers must be back feed capable.
- Custom output busses allow direct and convenient connection to the transformer.
- Outdoor rated enclosures can be mounted on their back, reducing shading and racking requirements.
- Fuses are better suited to perform in higher temperature environments vs. breakers which often need to be oversized to avoid inconvenient nuisance trips.
- Designed for supply as opposed to load applications. In solar applications, loads are not variable and sources are current limited.



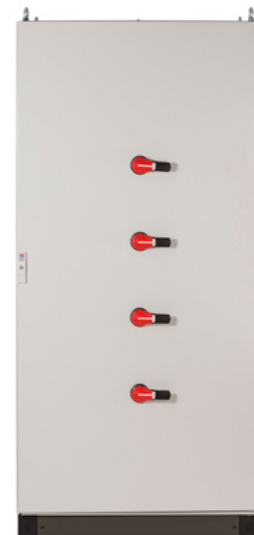
AC Combiner, 600 VAC, 4 input circuits, 200A output disconnect, NEMA-4 steel enclosure

### More Reliable

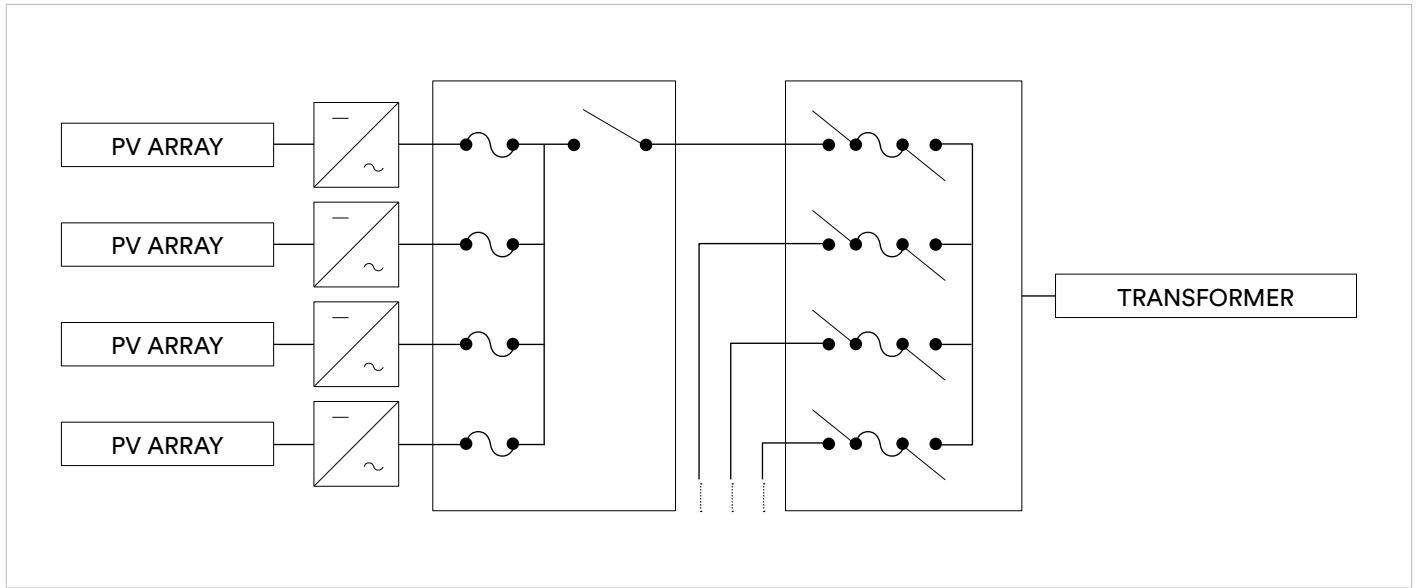
- Fuses are more reliable and maintain 100% operation; while breakers degrade every time they trip or are used as a disconnect, requiring maintenance to ensure they function properly.
- Fuse coordination ratios easily ensure the OCPD trips if an overcurrent event takes place. However, breakers require a more complicated study involving trip curves and are more difficult to replace.
- Current limiting fuses reduce arc flash energy and the level of PPE require for servicing.

### Save Time and Money

- Many string inverters include load break disconnecting means. This allows the use of non-load break fuseholders to isolate inverters and realize significant cost savings.
- Fuses offer a high interrupt rating as a standard (commonly 200kAIC), while breakers' cost increases with the need for higher interrupt rating.



AC Combiner, 600 VAC, 4 input circuits, 400A fused input disconnects, NEMA-4 steel enclosure



Secondary AC Combiners are typical for sites where further aggregation of AC Combiners is needed.

## Product features

- Listed to UL-508A
- 600 VAC
- 200 kAIC
- 2 to 16 input circuits
- 35A to 800A fuse sizes

## Available options

- Integrated output or input disconnect switch(es)
- Neutral terminals
- Transient surge suppression
- Auxiliary breakers
- Convenience receptacles
- Breather and drain vents
- Padlockable enclosures
- NEMA-3R/4 or 4X rated enclosure options
- Custom solutions available upon request

## Specifications

Fuse Sizes (Amps)	35 A to 60 A		70 A to 800 A	
	Disconnect(s)	None	Output Disconnect	None
Disconnect Ampacity	N/A	200A / 400A / 600A / 800A	N/A	200A / 400A / 600A / 800A
Number of Input Circuits	2 to 12	2 to 12	2 to 16	2 to 16
Input Conductor Size (AWG)	#14-2	#14-2	#6 to 350 / #2 to 600	#6 to 350 / #2 to 600
Max Output Current	200A / 400A / 600A / 800A	200A / 400A / 600A / 800A	1280 A / 2560 A	1280 A / 2560 A
Voltage (VAC)	600 VAC 3 $\Phi$	600 VAC 3 $\Phi$	600 VAC 3 $\Phi$	600 VAC 3 $\Phi$
Neutrals	Optional	Optional	Optional	Optional
Output Conductor Size Range (AWG)	#6 to 350 / #2 to 600	#6 to 350 / #2 to 600	#2 to 600	#2 to 600
Typical Enclosure Dimensions (Inches)	20x20x8	30x24x8	36x36x8	60x36x12
Enclosure NEMA Ratings	3R, 4, 4X	3R, 4, 4X	3R, 4, 4X	3R, 4, 4X

\* Other options available upon request. Please note dimensions and weight may vary for any custom solutions. Contact us for details.

