



# IntelliString™ Smart Combiner Box

Quality, Accuracy and Ease of Installation

String-level performance data is a valuable tool for PV system owners because it enables fast diagnosis of PV system underperformance due to failed modules, shading or soiling. Until now this important tool was primarily used on large expensive systems due to the high cost of monitoring at the string level. Now the IntelliString™ line of smart string combiner boxes offer a solution that is practical and affordable enough to use on all commercial installations.

AE IntelliString™ combiner boxes are among the most robust in the industry with a 5-year warranty and NEMA 4X construction. Coupled with our industry-leading support team, buying combiner boxes from AE simplifies the procurement and site management of your solar installation, therefore, maximizing output.



## Features

- UL1741, CSA 22.2, CE listed at 1000VDC
- Robust NEMA 4X fiberglass enclosure as a standard feature
- Suitable for either positive or negative grounded arrays with no mechanical changes required
- Solid busbar eliminates messy wiring to fuse blocks
- Finger safe fuse holders
- Lockable exterior latch and all stainless steel hardware
- 5 year warranty
- Open Modbus communications compatible with industry leading monitoring providers

## Specifications

|                                  | IntelliString 8   |                | IntelliString 12 |                | IntelliString 16 |                | IntelliString 24 |                |
|----------------------------------|-------------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------|
|                                  | Standard          | Disco          | Standard         | Disco          | Standard         | Disco          | Standard         | Disco          |
| Maximum Number of input strings  | 8                 |                | 12               |                | 16               |                | 24               |                |
| Continuous Current Rating (A)    | 120               | 128            | 180              | 192            | 240              | 250            | 360              | 384            |
| Maximum DC Voltage Input (V)     | 1000 VDC          |                |                  |                |                  |                |                  |                |
| Dimensions (W x H x D)           | 14" x 12" x 6"    | 20" x 16" x 8" | 14" x 12" x 6"   | 20" x 16" x 8" | 16" x 14" x 8"   | 20" x 16" x 8" | 20" x 16" x 8"   | 24" x 24" x 8" |
| Maximum Output Wire Size (MCM)*  | 1x 350            |                | 1x 350           |                | 1x 350           |                | 2 x 350          |                |
| Power Supply (Customer Supplied) | 12-28VDC          |                |                  |                |                  |                |                  |                |
| Communications                   | Modbus via RS-485 |                |                  |                |                  |                |                  |                |

\* Lugs provided by customer

Specifications are subject to change without notice.



Advanced Energy Industries, Inc. • 20720 Brinson Blvd. PO Box 7348 • Bend, 97708 OR U.S.A.  
 T: 877.312.3832 • sales.support@aei.com • www.advanced-energy.com/solarenergy  
 Please see www.advanced-energy.com for worldwide contact information.

© Advanced Energy Industries, Inc. 2011  
 All rights reserved. Printed in U.S.A.  
 55-600100-70-C 0M 10/11



PV Powered™ solAron® siteGuard®

## String Combiner Boxes

Advanced Energy's DC String Combiner Boxes are Reliable, Safe and Convenient

Advanced Energy's DC String Combiner Box provides a means of combining multiple positive or negative grounded source circuits into a single DC output. With no hardware changes required for positive or negative grounded systems, AE combiner boxes are ideally suited for bi-polar or mono-polar applications. Each source circuit is fused separately using a touch-safe fuse holder. The combiner box allows for fail-safe operation of the system in the unlikely event that a problem with a source circuit leads to abnormally high current. In addition, the combiner box provides a convenient means of accessing the DC portion of a PV system for routine maintenance and troubleshooting.



String Combiner 24 Inside Panel



String Combiner 12 Inside Panel

### Features

- UL1741, CSA C22.2, CE listed @ 1000VDC
- NEMA 4X fiberglass enclosure as a standard feature
- Suitable for either positive or negative grounded arrays with no mechanical changes required
- Solid busbar eliminates messy wiring to fuse blocks
- Finger safe fuse holders
- Lockable exterior latch and all stainless steel hardware
- 5 year warranty to be consistent with intellistring list

| Specifications                  | Combiner 8     |                | Combiner 12    |                | Combiner 16    |                | Combiner 24    |                |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Model                           | Standard       | Disco          | Standard       | Disco          | Standard       | Disco          | Standard       | Disco          |
| Maximum Number of input strings | 8              |                | 12             |                | 16             |                | 24             |                |
| Continuous Current Rating (A)   | 120            | 250            | 180            | 250            | 240            | 250            | 360            | 400            |
| Maximum Current per Pole (A)    | 15             | 30             | 15             | 20             | 15             | 15             | 15             | 16             |
| Maximum DC Voltage Input (V)    | 1000 VDC       |                |                |                |                |                |                |                |
| Dimensions (W x H x D)          | 16" x 14" x 8" | 20" x 16" x 8" | 16" x 14" x 8" | 20" x 16" x 8" | 16" x 14" x 8" | 24" x 20" x 8" | 20" x 16" x 8" | 24" x 24" x 8" |
| Maximum Output Wire Size (MCM)* | 1x 350         |                | 1x 350         |                | 1x 350         |                | 2 x 350        |                |

\* Lugs provided by customer

Specifications are subject to change without notice.



Advanced Energy Industries, Inc. • 20720 Brinson Blvd. PO Box 7348 • Bend, 97708 OR U.S.A.  
 T: 877.312.3832 • sales.support@aei.com • www.advanced-energy.com/solarenergy  
 Please see www.advanced-energy.com for worldwide contact information.

© Advanced Energy Industries, Inc. 2011  
 All rights reserved. Printed in U.S.A.  
 55-600100-70-C 0M 10/11

