



## BCBS 600Vdc and 1000Vdc Series Standard Combiner Boxes

### Features

- 4 to 24 Input circuits
- 600Vdc or 1000Vdc Rated units
- Finger-safe Cooper Bussmann modular fuse holders\*
- Configured for both positive and negative grounded arrays
- Single or dual 90°C output terminals
- Negative input terminal blocks
- Steel or fiberglass NEMA 3R, 4 or 4X enclosures with seamless door gaskets
- Operating temperature -40°C to 50°C
- Common configurations in stock for fast shipment\*\*



BCBS Series Standard Box

| Specifications                          |   |                 |                 |  |                 |                 |
|---|---|-----------------|-----------------|--|-----------------|-----------------|
| Voltage                                 | 600Vdc Series   |                 |                 | 1000Vdc Series                                   |                 |                 |
| Rating standard                         | Listed to UL1741<br>cETL Certified to CSA Standard C22.2 No. 29 |                 |                 | IEC Rated Components<br>Self-Certified Fuse Gear |                 |                 |
| Fuse type                               | 600Vdc Midget fuses***  |                 |                 | 1000Vdc PV fuses†                                |                 |                 |
| Number of input circuits                | 4 to 12   | 16              | 20 to 24        | 4 to 12  | 16              | 20 to 24        |
| Input conductor range                   | 4-16AWG   | 4-16AWG         | 4-16AWG         | 4-16AWG  | 4-16AWG         | 4-16AWG         |
| Number of output conductors             | 1 or 2  | 1 or 2          | 1 or 2          | 1 or 2   | 1 or 2          | 1 or 2          |
| Output conductor range                  | 350kcmil-6AWG   | 350kcmil-6AWG   | 350kcmil-6AWG   | 350kcmil-6AWG                                    | 350kcmil-6AWG   | 350kcmil-6AWG   |
| Max fuse size††                         | 25A††   | 20A             | 20A             | 25A  | 20A             | 20A             |
| Max rated current (DC continuous)       | 310A  | 400A            | 400A            | 310A   | 400A            | 400A            |
| Steel enclosure dimensions (in), weight | 16x12x6, 30 lbs   | 16x16x6, 36 lbs | 20x20x6, 46 lbs | 16x12x6, 30 lbs                                  | 16x16x6, 36 lbs | 20x20x6, 46 lbs |
| Fiberglass enclosure dim. (in), weight  | 16x14x7, 18 lbs   | 20x16x8, 22 lbs | 24x20x8, 35lbs  | 16x14x7, 18 lbs                                  | 20x16x8, 22 lbs | 24x20x8, 35lbs  |

### Part Number System Standard Combiner Box Part Number System†

**Example: BCBSK-12-10F S06 R**

|                                      |                               |                                  |                              |
|--------------------------------------|-------------------------------|----------------------------------|------------------------------|
| <b>Series Prefix</b>                 | BCBS – Standard Combiner Box  | Blank - for 600Vdc systems       | K - for 1000Vdc systems      |
| <b>Number of Poles</b>               | 04 08 12 16 20 24             |                                  |                              |
| <b>600Vdc Fuses (Amps)††</b>         | 00 – No Fuses Included        | 01 02 03 04                      |                              |
| <b>1000Vdc Fuses (Amps)</b>          | 01 02 03 04 05 06 08 10 12 15 |                                  | (see Max fuse size in table) |
| <b>Enclosure</b>                     | R – NEMA 3/3R                 | 4 – NEMA 4 (Powder Coated Steel) | F – NEMA 4X (Fiberglass)     |
| <b>Surge Protective Device (SPD)</b> | S06 - 600Vdc                  | S10 - 1000Vdc                    |                              |
| <b>SPD Remote Contact Signaling</b>  | R - With remote signaling     | Blank - no remote contact        |                              |

### Typical Layout



**Standard BCBS Series**  
4 to 24 Circuits  
BCBS-12-00F Pictured

\* See Data Sheet 2053 for details.

\*\* Please verify stocked configurations with your Cooper Bussmann sales representative.

\*\* Certain specifications may be modified to meet requirements, please consult factory.

\*\*\* See Data Sheet 2038 (DCM) or 2020 (KLM) for details.

† See Data Sheet 720110 for details.

†† 12 Circuit inputs are limited to 20A fuses.

‡ Total system ampacity (poles x fuse amp rating) may not exceed 400 amps.

‡‡ When fuses are specified, 600Vdc midget fuses are installed in holders.



## Recombiner (Array Combiner) Boxes

### Features

- ETL Listed to UL1741 Standard
- cETL Certified to CSA Standard C22.2 No. 29
- 4 to 12 Input circuits
- Continuous duty rated at 600Vdc
- 600Vdc PVS-R Fuses\* for overcurrent protection
- 100A and 200A Fuse case sizes
- 70A – 200A Fuse ampacity configurations
- Steel or fiberglass NEMA 3R, 4 or 4X rated enclosures with seamless door gaskets
- Operating temperature -40°C to 50°C



| Fuse Case Size                    | Specifications** |                 |                  |                 |                  |                  |
|-----------------------------------|------------------|-----------------|------------------|-----------------|------------------|------------------|
|                                   | 100              |                 |                  | 200             |                  |                  |
| Number of input circuits          | 4                | 8               | 12               | 4               | 8                | 12               |
| Number of output conductors       | 2                | 4               | 4                | 2               | 4                | 4                |
| Input conductor range             | 6-2/0AWG         | 6-2/0AWG        | 6-2/0AWG         | 6-4/0AWG        | 6-4/0AWG         | 6-4/0AWG         |
| Output conductor range            | 4-500kcmil       | 4-500kcmil      | 4-500kcmil       | 4-500kcmil      | 4-500kcmil       | 4-500kcmil       |
| Max fuse rating                   | up to 100A       | up to 100A      | up to 100A       | up to 200A      | up to 200A       | up to 200A       |
| Max rated current (DC continuous) | 760A             | 1520A           | 1520A            | 760A            | 1520A            | 1520A            |
| Enclosure dimensions (in), weight | 24x24x6, 34 lbs  | 36x36x8, 94 lbs | 42x36x8, 110 lbs | 36x36x8, 94 lbs | 48x36x8, 135 lbs | 60x36x8, 160 lbs |

### Recombiner Box Part Number System

**Example:** BCBR100-08-125R-S06R = B C B R 1 0 0 - 0 8 - 1 2 5 R S 0 6 R

|                                      |   |
|--------------------------------------|---|
| <b>Series Prefix</b>                 | BCBR – Recombiner Box   |
| <b>Fuse Case Size</b>                | 100 200   |
| <b>Number of Circuits</b>            | 04 08 12  |
| <b>Fuses (Amps)***</b>               | 000 – No Fuses Included<br>070 080 090 100 (100 amp fuse case size)<br>125 150 175 200 (200 amp fuse case size) |
| <b>Enclosure</b>                     | R – NEMA 3/3R<br>4 – NEMA 4 (Powder Coated Steel)<br>F – NEMA 4X (Fiberglass)                                   |
| <b>Surge Protective Device (SPD)</b> | S06 - 600Vdc  |
| <b>SPD Remote Contact Signaling</b>  | R - With remote signaling<br>Blank - no remote contact  |

\* See Data Sheet 4203 for details.

\*\* Certain specifications may be modified to meet requirements, please consult factory.

\*\*\* Fuse ampacity must coincide with fuse case size specified e.g., 100A or 200A.

## Integrated Surge Protective Device\*

### Features

- Only true UL 1449 3<sup>rd</sup> Edition (Type 2)\*\*
- IEC 61643-11 Type 2, IEC 61643-1 Class II
- Available in standard and disconnect combiner boxes\*\*\*
- UL 94V0 Thermoplastic material
- IP20 Finger-safe
- 600Vdc, 1000Vdc, 1200Vdc configurations
- *easyID*<sup>™</sup> Visual status indication
- Available with remote contact signaling
- Operating temperature -40°C to 80°C
- Five year warranty†



BSPH \_\_\_\_\_ YPV(R)

*easyID*<sup>™</sup>  
Visual Status Indication



Remote Signal  
Contact Available



| Specifications                    |                                     |               |         |
|-----------------------------------|-------------------------------------|---------------|---------|
| Max Continuous Operating Voltage  | 600Vdc                              | 1000Vdc       | 1200Vdc |
| Total Discharge Current           | 40kA                                | 40kA          | 30kA    |
| Voltage Protection Level          | <2.5kV                              | <4.0kV        | <4.5kV  |
| Voltage Protection Level at 5kA   | <2.0 kV                             | <3.5kV        | <4.0kV  |
| Integrated Fuse Breaking Capacity | 30kA                                | 30kA          | 30kA    |
| Nominal Discharge Current         | 12.5kA                              | 12.5kA        | 12.5kA  |
| Max Discharge Current             | 25kA                                | 25kA          | 25kA    |
| Response time                     | <25ns                               | <25ns         | <25ns   |
| Min Conductor Ratings             |                                     | 60/75°C 14AWG |         |
| Max Conductor Ratings             | 60/75°C 2AWG Stranded 4AWG Flexible |               |         |

### Dimensions - mm



Shown with optional remote contact signaling

### Module Circuit Diagrams



BSPH \_\_\_\_\_ YPV(R)

Shown with optional remote contact signaling

\* See Data Sheet 2055 for additional details.

\*\* Does not apply to 1200Vdc unit.

\*\*\* Surge module may increase the enclosure size requirement, please see factory for specific sizes.

† See Cooper Bussmann SPD Limited Warranty Statement (3A1502) for details at [www.cooperbussmann.com/surge](http://www.cooperbussmann.com/surge).

## Current Monitoring Device

### Features

- Available in standard and disconnect combiner boxes\*
- Uses Obvius Solar Current Monitor (SCM) unit
- Unique “Mesh” technology optimizes routing communications with no configuration
- Twisted pair output or wireless communication
- 8 or 16 Input circuit monitoring units
- Monitors 4 to 24 input circuits



| Specifications         |   |
|------------------------|---|
| <b>Processor</b>       | 60MHz Arm7 embedded CPU processor   |
| <b>LEDs</b>            | 3 x RF, 2 x RS 485, 2 x pulse, alive, alarm   |
| <b>Protocol</b>        | Modbus RTU  |
| <b>Address Setting</b> | Modbus address may be set from 1 to 247 via DIP switch  |
| <b>Inputs</b>          | <ul style="list-style-type: none"> <li>- 2 pulse inputs, dry contact</li> <li>- Monitor consumption/rate/min/max</li> <li>- Pulse rate/width user selectable to 10Hz, 50Hz, 100Hz, or 250Hz.</li> <li>- Pulse rate option: 10Hz, minimum pulse width 50ms</li> <li>- Pulse rate option: 50Hz, minimum pulse width 10ms</li> <li>- Pulse rate option: 100Hz, minimum pulse width 5ms</li> <li>- Pulse rate option: 250Hz, minimum pulse width 2ms</li> <li>- Contact closure threshold 100W to 2.5kW user selectable</li> <li>- Pulse count values are stored in non-volatile memory.</li> </ul> |
| <b>Communications</b>  | 1 RS-485 (+, -, S), 9600/19200 baud, N, 8, 1, two wire. Supports up to 32 external devices per ModHopper (expandable)   |
| <b>RF</b>              | Frequency Hopping, ISM band, -SN Option: 400MHz Receive Only (Sensor Network)   |
| <b>Environmental</b>   | North America: Temperature 0° – 50°C, 0 – 95% humidity, non-condensing. Pollution degree 2, altitude up to 2000M  |
| <b>EMC</b>             | FCC CFR 47 Part 15, Class A   |
| <b>Size</b>            | 6.5x4.5x2" (260x64x45mm)  |
| <b>Weight</b>          | 1.25lbs (0.67 kg)   |
| <b>Power Input</b>     | 9-30Vdc, 200mA  |

\*Monitoring module may increase the enclosure size requirement, please consult factory for specific sizes.

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- Поставка более 17-ти миллионов наименований электронных компонентов;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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