

# **Combiner Boxes for Solar Power Systems**

# Up to 600Vdc, 30 Amps, 2 to 24 Poles







**BCBS Series Standard Box** 



BCBD Series Integrated Disconnect Box

### **BCBC Series Compact Combiner Box Specifications\***

| Number of Input Circuits          | 2 to 4           | 5 to 6           |  |  |
|-----------------------------------|------------------|------------------|--|--|
| Input Conductor Range             | 6-14AWG          | 6-14AWG          |  |  |
| Number of Output Conductors       | 1                | 1                |  |  |
| Output Conductor Range            | 6-14AWG          | 6-14AWG          |  |  |
| Max Fuse Size                     | 30A              | 30A              |  |  |
| Max Rated Current (DC Continuous) | 76A              | 76A              |  |  |
| NEMA Enclosure Ratings            | 4X               | 4X               |  |  |
| Enclosure Dimensions (in), Weight | 6.5x6.5x4, 4 lbs | 6.5x9.5x4, 4 lbs |  |  |

# **BCBS Series Standard Combiner Boxes and BCBD Series with Integrated Disconnect**

- 4 to 24 Input circuits
- ETL Listed to UL1741 Standard
- cETL Certified to CSA Standard C22.2 No. 29
- 600Vdc Midget fuses\*\* for overcurrent protection
  Finger-safe Cooper Bussmann modular fuse holders\*\*\*
- Continuous duty rated at 600Vdc
- Configured for both positive and negative grounded arrays
- Single or dual 90°C output terminals
- Steel or fiberglass NEMA 3, 3R, 4 or 4X rated enclosures with seamless door gaskets
- Negative Input Terminal Blocks
- All products are assembled in the USA
- Operating temperature -40°C to 50°C

With Integrated Disconnect Only

• 28, 55, 75, 150 and 245A Integrated disconnects

## **BCBC Series Compact Combiner Boxes**

- 2 to 6 Input circuits
- ETL Listed to UL1741 Standard
- cETL Certified to CSA Standard C22.2 No. 29
- Continuous duty rated at 600Vdc
- 600Vdc Midget fuses\*\* for overcurrent protection Finger-safe Cooper Bussmann modular fuse holders\*\*\*
- NEMA 4X Polycarbonate enclosure
- Ground blocks included
- · External mounting feet included
- Operating temperature -40°C to 50°C

#### **BCBS Series Standard Combiner Box\***

| Number of Input Circuits                     | 4 to 12         | 16              | 20 to 24        |
|--|-----------------|-----------------|-----------------|
| Input Conductor Range                        | 4-16AWG         | 4-16AWG         | 4-16AWG         |
| Number of Output Conductors                  | 1 or 2          | 1 or 2          | 1 or 2          |
| Output Conductor Range                       | 350kcmil-6AWG   | 350kcmil-6AWG   | 350kcmil-6AWG   |
| Max Fuse Rating                              | 30A             | 30A             | 30A             |
| Max Rated Current (DC Continuous)            | 310A            | 400A            | 400A            |
| Max Voltage                                  | 600Vdc          | 600Vdc          | 600Vdc          |
| NEMA Enclosure Ratings                       | 3, 3R, 4, 4X    | 3, 3R, 4, 4X    | 3, 3R, 4, 4X    |
| Steel Enclosure Dimensions (in), Weight      | 16x12x6, 30 lbs | 16x16x6, 36 lbs | 20x20x6, 46 lbs |
| Fiberglass Enclosure Dimensions (in), Weight | 16x14x7,18 lbs  | 20x16x8, 22 lbs | 24x20x8, 35lbs  |

- \* Refer to back page for part number configuration.
- \*\* See Data Sheet 2038 (DCM) or 2020 (KLM) for details.
- \*\*\* See Data Sheet 2053 for details.

#### BCBD Series Combiner Box with Integrated Disconnect\*

| Disconnect Rating (Amps)                     | 28A             | 55A             | 75A             | 150A                                   | 245A             |
|--|-----------------|-----------------|-----------------|--|------------------|
| Number of Input Circuits                     | 4               | 4               | 4 to 12         | 4 to 24                                | 4 to 24          |
| Input Conductor Range                        | 4-14AWG         | 4-14AWG         | 4-14AWG         | 4-14AWG                                | 4-14AWG          |
| Number of Output Conductors                  | 1 or 2          | 1 or 2          | 1 or 2          | 1 or 2                                 | 1 or 2           |
| Output Conductor Range                       | 2/0-14AWG       | 2/0-14AWG       | 350kcmil-6AWG   | 350kcmil-6AWG                          | 350kcmil to 6AWG |
| Max Fuse Size                                | 30A             | 30A             | 30A             | 30A                                    | 30A              |
| Max Rated Current (DC Continuous)            | 28A             | 55A             | 75A             | 150A                                   | 245A             |
| Max Voltage                                  | 600Vdc          | 600Vdc          | 600Vdc          | 600Vdc                                 | 600Vdc           |
| NEMA Enclosure Ratings                       | 4, 4X           | 4, 4X           | 3, 3R, 4, 4X    | 3, 3R, 4, 4X                           | 3, 3R, 4, 4X     |
| Steel Enclosure Dimensions (in), Weight      | 12x10x6, 15 lbs | 12x10x6, 15 lbs | 20x20x6, 42 lbs | 20x20x6, 50 lbs, or<br>20x24x6, 50 lbs | 24x24x6, 55 lbs  |
| Fiberglass Enclosure Dimensions (In), Weight | 14x12x6, 12 lbs | 14x12x7, 12 lbs | 20x16x8, 28 lbs | 24x20x18, 35 lbs, or 24x24x10, 35 lbs  | 24x24x8, 40 lbs  |

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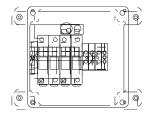
## **Part Number System**

### Compact Combiner Box Part Number System<sup>†</sup>

| Ex                          | ample:    | BCB      | C-04-1 | 0P = | BCBC | - 04 | - 10 | P |
|-----------------------------|-----------|----------|--------|------|------|------|------|---|
| Series I                    | Prefix -  |          |        |      |      | 7-   | 7-   | Τ |
| BCBC - Compact Combiner Box |           |          |        |      |      |      |      |   |
| Number                      | r of Pole | es —     |        |      |      |      |      |   |
| 02                          | 03        | 04       | 05     | 06   |      |      |      |   |
| Fuses (Amps)*               |           |          |        |      |      |      |      |   |
| 00 –                        | No Fuse   | es Inclu | ıded   |      |      |      |      |   |
| 01                          | 03        | 05       | 80     | 10   | 15   | 25   |      |   |
| 02                          | 04        | 06       | 09     | 12   | 20   | 30   |      |   |
| Enclosu                     | ıre —     |          |        |      |      |      |      |   |

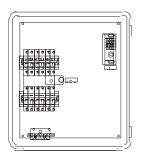
P – NEMA 4X (Polycarbonate)

# **Typical Combiner Box Layouts**



**Compact BCBC Series** 

2 to 6 Circuits - BCBC-04-00P Pictured



Standard BCBS Series

4 to 24 Circuits - BCBS-12-00F Pictured

#### Standard Combiner Box Part Number System<sup>††</sup>

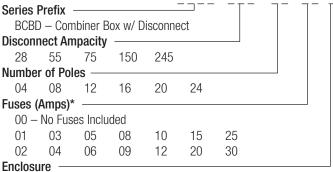
| Ex                     | ample:    | BCE    | S-12-1 | 0F = | BCBS | - 1 | 2 - | 1 0 | F |
|------------------------|-----------|--------|--------|------|------|-----|-----|-----|---|
| Series I               | Prefix -  |        |        |      |      |     | _   | 7   | Ī |
| BCBS                   | S – Stand | dard C |        |      |      |     |     |     |   |
| Numbe                  | r of Pole | es —   |        |      |      |     |     |     |   |
| 04                     | 80        | 12     | 16     | 20   | 24   |     |     |     |   |
| Fuses (Amps)*          |           |        |        |      |      |     |     |     |   |
| 00 - No Fuses Included |           |        |        |      |      |     |     |     |   |
| 01                     | 03        | 05     | 80     | 10   | 15   | 25  |     |     |   |
| 02                     | 04        | 06     | 09     | 12   | 20   | 30  |     |     |   |
| Enclosure —            |           |        |        |      |      |     |     |     |   |

R – NEMA 3/3R

4 – NEMA 4 (Powder Coated Steel)

F - NEMA 4X (Fiberglass)

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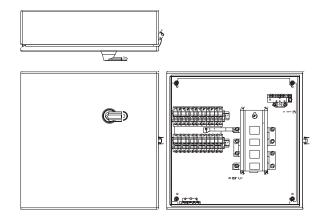


R - NEMA 3/3R

4 – NEMA 4 (Powder Coated Steel)

F – NEMA 4X (Fiberglass)

<sup>\*\*\*</sup> Total system ampacity (poles x fuse amp rating) may not exceed ampacity of selected disconnect switch.



Integral Disconnect on BCBD Series

4 to 24 Circuits - BCBD245-24-00R Pictured

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<sup>&</sup>lt;sup>†</sup> Total system ampacity (poles x fuse amp rating) may not exceed 76 amps.

<sup>&</sup>lt;sup>++</sup> Total system ampacity (poles x fuse amp rating) may not exceed 400 amps.

<sup>\*</sup> When fuses are specified, 600Vdc midget fuses are installed in holders.