



## 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 cETL Certified to CSA Standard C22.2 No. 29			IEC Rated Components 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	20 25 (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
	070 080 090 100 (100 amp fuse case size)
	125 150 175 200 (200 amp fuse case size)
<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
<b>SPD Remote Contact Signaling</b>	R - With remote signaling
	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™* Visual status indication
- Available with remote contact signaling
- Operating temperature -40°C to 80°C
- Five year warranty†



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

*easyID™*  
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.

The only controlled copy of this Data Sheet is the electronic read-only version located on the Cooper Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.