Connectors and Insulators
Connectors and Insulators

As the nuts and bolts of a marine electrical system, connectors perform important functions on board. By keeping current flowing efficiently, Blue Sea Systems connectors reduce heat and improve efficiency in a boat’s electrical system.

BusBars and other connectors, such as PowerPosts, distribute positive wires or collect negative returns. BusBars range in capacity from 100A to 600A, with a variety of terminal stud configurations. The DualBus Plus combines a positive and negative bus on one block, and has a clear, snap-on cover to meet ABYC and USCG insulation requirements. The new MaxiBus 250A Common BusBars incorporate insert molded stainless steel studs and have optional fully enclosed bases and covers that meet ABYC insulation requirements.

Terminal blocks are another type of connector. They allow termination of wires from a multi-conductor cable in one location. Individual wires can then be split off to various loads. Frequently used for wires to lights and senders, they serve to create neater, safer wiring. Available jumpers allow combination of independent circuits.

All these parts are designed with the attention to detail the industry expects from Blue Sea Systems. Insert molded studs, tin-plated copper buses, and stainless steel screws are just three features that make Blue Sea Systems products stand out.

THE INDUSTRY STANDARD FOR ELECTRICAL BUSBARS

Snap on insulating cover attaches to studs and allows unobstructed wire access
Raised bus provides easy access to multiple wires on a single screw
UL 94-V0 rated base material resists high heat
Stainless steel Phillips screws for easier installation and resistance to stripping
Insert molded stainless steel stud eliminates need for securing nut and allows high torquing for excellent electrical contact
Tin-plated copper bus provides maximum conductivity and corrosion resistance
Captive star type lock washers meet CE requirements for anti-rotation and eliminate handling of small, easily dropped parts
Recessed mounting holes eliminate accidental shorts to aluminum and steel mounting surfaces

CE Conformance verified for AC circuits up to 250 Volts
MiniBus 100A Common BusBars
Provides convenient busing for limited space applications

Specifications
- Continuous Rating: 100A AC/DC
- Voltage Maximum Operating: 300V AC/48V DC
- Mounting Holes: Accepts #10 (M5) Screws
- Bus Material: Tin-Plated Copper CDA 110/UNS C11000
- Regulatory: CE certified

DualBus Plus 150A Common BusBars
Secure, clear polycarbonate cover snaps on easily to meet USCG and ABYC insulation requirements

Specifications
- Continuous Rating: 100A AC/DC
- Voltage Maximum Operating: 300V AC/48V DC
- Mounting Holes: Accept #10 (M5) Screws
- Bus Material: Tin-Plated Copper CDA 110/UNS C11000
- Regulatory: CE certified

* 2306 is DC Only rated  † 2306 mounting holes accept #8 screws

Specifications subject to change. See bluesea.com for current information.
AC/DC

150A Common BusBars

Insert-molded stainless steel stud eliminates need for securing nut and allows high torquing for excellent electrical contact

- The industry standard bus bar for positive distribution
- The industry standard bus bar for the collection of negative or AC ground circuits

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Rating</td>
<td>130A AC/150A DC</td>
</tr>
<tr>
<td>Maximum Operating Voltage</td>
<td>30V AC/48V DC</td>
</tr>
<tr>
<td>Mounting Holes</td>
<td>Accepts #10 (M5) Screws</td>
</tr>
<tr>
<td>Bus Material</td>
<td>Tin-Plated Copper CDA 110/UNS C11000</td>
</tr>
</tbody>
</table>

Regulatory

CE certified

PN | Cover | Terminal Screw | Terminal Stud | Weight lb (kg) |
---|-------|----------------|---------------|----------------|
2301 | - | 10 x #8-32 | 2 x 1/4"-20 | 0.38 (0.17) |
2300 | Yes | 10 x #8-32 | 2 x 1/4"-20 | 0.37 (0.16) |
2302 | - | 20 x #8-32 | 2 x 1/4"-20 | 0.53 (0.24) |
2312 | Yes | 20 x #8-32 | 2 x 1/4"-20 | 0.58 (0.26) |
2303 | - | - | 4 x 1/4"-20 | 0.35 (0.16) |
2307 | Yes | - | 4 x 1/4"-20 | 0.38 (0.17) |
2715 | Cover For BusBar 2301 and 2303 | 0.07 (0.03) |
2716 | Cover For BusBar 2302 | 0.13 (0.06) |

Note:
2715 replaces 2706
2716 replaces 2707

Specifications subject to change. See bluesea.com for current information.
MaxiBus 250A Common BusBars

Now with insert molded stainless steel studs and optional fully enclosed insulating base and cover

- Insulating cover with breakouts for superior electrical insulation
- Insulating cover meets ABYC insulation requirements

Specifications

<table>
<thead>
<tr>
<th>PN</th>
<th>Terminal Studs</th>
<th>Terminal Screws</th>
<th>Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2105</td>
<td>2 x 5/16&quot; -18</td>
<td>12 x #10-24</td>
<td>0.80 (0.36)</td>
</tr>
<tr>
<td>2126</td>
<td>6 x 5/16&quot; -18</td>
<td>-</td>
<td>1.00 (0.45)</td>
</tr>
<tr>
<td>2127</td>
<td>4 x 5/16&quot; -18</td>
<td>-</td>
<td>0.75 (0.34)</td>
</tr>
<tr>
<td>2128</td>
<td>2 x 5/16&quot; -18</td>
<td>6 x #10-24</td>
<td>0.65 (0.29)</td>
</tr>
<tr>
<td>2718</td>
<td>Cover for 2105 and 2126</td>
<td>-</td>
<td>0.40 (0.18)</td>
</tr>
<tr>
<td>2719</td>
<td>Cover for 2127 and 2128</td>
<td>-</td>
<td>0.50 (0.22)</td>
</tr>
</tbody>
</table>

Regulatory

CE certified
Specifications

**IC Continuous Rating**
Amperage rating is determined by wire amperage capacity connected to the PowerBar up to 600 Amps.

**Vmxo Voltage Maximum Operating**
48V DC

**Mounting Holes**
Accepts #10 (M5) Screws

**Bus Material**
Tin-Plated Copper CDA 110/UNS C11000

**Regulatory**
CEE certified

<table>
<thead>
<tr>
<th>PN</th>
<th>Terminal Studs</th>
<th>Insulators</th>
<th>Weight (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2 × 3/8&quot;-16</td>
<td>Included</td>
<td>0.36 (0.16)</td>
</tr>
<tr>
<td>2020</td>
<td>2 × 3/8&quot;-16</td>
<td></td>
<td>0.36 (0.16)</td>
</tr>
</tbody>
</table>

**PowerBar Common BusBars**
Provides compact high-amp busing with 3/8" terminal studs

**PowerBar 600A Common BusBars**
Highest amp rated busbar with 3/8" terminal studs

**AC ~ DC Terminal Blocks**
Employs fully insulated independent terminal blocks for applications where circuits must be isolated

**Terminal Block Jumpers**
Combines independent circuits on a terminal block

- Jumpers allow creation of common circuits on independent connectors
- Five per retail package

**Specifications**
- **Bus Material**: Nickel-Plated Brass
- **Continuous Amperage**: Equivalent to matching block

<table>
<thead>
<tr>
<th>PN</th>
<th>Description</th>
<th>Weight (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9218</td>
<td>For use with 20A Terminal Blocks</td>
<td>0.03 (0.01)</td>
</tr>
<tr>
<td>9217</td>
<td>For use with 30A Terminal Blocks</td>
<td>0.04 (0.02)</td>
</tr>
<tr>
<td>9216</td>
<td>For use with 65A Terminal Blocks</td>
<td>0.05 (0.03)</td>
</tr>
</tbody>
</table>

Specifications subject to change. See bluesea.com for current information.
Terminal Feed Through Connectors

Eliminates chafe and provides strain relief when passing high current through hulls, decks and bulkheads

- Protects large cables that are subject to chafing when passed through holes
- The large terminals have a mounting face that can be gasketed or bedded to provide a water tight installation

Specifications

\[ V_{no} \quad \text{Voltage Maximum Operating} \quad 48 \text{ Volts DC} \]
\[ I_{no} \quad \text{Amperage Maximum Operating} \quad \text{See table below} \]

Stud Material	 Tin-Plated Copper Alloy
Mounting Holes	 Accepts #10 (M5) Screws

Regulatory

Rated IP66—protected against powerful water jets

![Mounting Diagram](image)

- Perfect for antenna installation
- Save the expense of removing and replacing connectors
- Avoid poor connections from removing factory connectors
- Use 1001 for GPS antenna cables, 1002 for VHF antenna cables, 1003 for Radar antenna cables

Specifications

- Ring Material: UV-Stabilized Thermoplastic
- Seal Material: UV-Stabilized Buna-N Rubber
- Screws: Stainless Steel

PN	Connector Opening in (mm) | Weight lb (kg)
---|---|---
1001	0.68 (17.27) | 0.15 (0.07)
1002	0.83 (20.95) | 0.20 (0.09)
1003	1.39 (35.18) | 0.30 (0.14)

CableClams

Provides a waterproof pass-through for antenna cables without requiring removal of the factory installed connector

- Perfect for antenna installation
- Save the expense of removing and replacing connectors
- Avoid poor connections from removing factory connectors
- Use 1001 for GPS antenna cables, 1002 for VHF antenna cables, 1003 for Radar antenna cables

Specifications

- Ring Material: UV-Stabilized Thermoplastic
- Seal Material: UV-Stabilized Buna-N Rubber
- Screws: Stainless Steel

PN	Connector Opening in (mm) | Weight lb (kg)
---|---|---
1001	0.68 (17.27) | 0.15 (0.07)
1002	0.83 (20.95) | 0.20 (0.09)
1003	1.39 (35.18) | 0.30 (0.14)
**PowerPost Cable Connectors**

Insulated single stainless steel stud terminates multiple large conductors

- Connects high amperage cables securely
- Includes insulator

**Specifications**

| Continuous Rating: | Not rated—amperage flows between terminals stacked on post and is determined by wire and terminals used. |

| V_max | Voltage Maximum Operating: | 48V DC |

<table>
<thead>
<tr>
<th>Mounting Holes</th>
<th>Accepts #8 Screws (2010/2011)</th>
</tr>
</thead>
</table>

**Regulatory**

<table>
<thead>
<tr>
<th>PN</th>
<th>Terminal Stud</th>
<th>Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>#10-32 x 5/8”</td>
<td>0.06 (0.03)</td>
</tr>
<tr>
<td>2011</td>
<td>1/4”-20 x 3/4”</td>
<td>0.10 (0.05)</td>
</tr>
<tr>
<td>2001</td>
<td>1/4”-20 x 1-1/16”</td>
<td>0.20 (0.09)</td>
</tr>
<tr>
<td>2002</td>
<td>5/16”-18 x 7/8”</td>
<td>0.25 (0.11)</td>
</tr>
<tr>
<td>2003</td>
<td>3/8”-16 x 7/8”</td>
<td>0.27 (0.12)</td>
</tr>
</tbody>
</table>

**PowerPost Plus Cable Connectors**

Enables connection of multiple smaller wires in spaces where a traditional bus bar may not fit

- 150 Amp bus allows small wire connections at high amperage cable connections
- Includes insulator

**Specifications**

<table>
<thead>
<tr>
<th>Continuous Rating:</th>
<th>150A DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>V_max</td>
<td>48V DC</td>
</tr>
</tbody>
</table>

| Mounting Holes | Accepts 1/4” Screws |

**Regulatory**

<table>
<thead>
<tr>
<th>PN</th>
<th>Terminal Stud</th>
<th>Terminal Screws</th>
<th>Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2101</td>
<td>1/4”-20 x 1”</td>
<td>8 x #8-32</td>
<td>0.29 (0.13)</td>
</tr>
<tr>
<td>2102</td>
<td>5/16”-18 x 3/4”</td>
<td>8 x #8-32</td>
<td>0.30 (0.14)</td>
</tr>
<tr>
<td>2103</td>
<td>3/8”-16 x 3/4”</td>
<td>8 x #8-32</td>
<td>0.34 (0.15)</td>
</tr>
</tbody>
</table>

**Dual PowerPost Cable Connectors**

Provides a termination point for extending the length of outboard harnesses or other conductors

- 2016/2017 are designed for connecting high amp conductors
- 2018 is designed for outboard engine installation when factory cables need to be extended
- Includes insulators 4002 and 4003 (see page 67)

**Specifications**

| Continuous Rating: | Not rated—amperage flows between terminals stacked on post and is determined by wire and terminals used. |

| V_max | Voltage Maximum Operating: | 48V DC |

| Mounting Holes | Accepts #10 (M5) Screws |

**Regulatory**

<table>
<thead>
<tr>
<th>PN</th>
<th>Description</th>
<th>Insulating Cover</th>
<th>Stud Height A in (mm)</th>
<th>Stud Height B in (mm)</th>
<th>Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2 x 5/16”-18 Studs with Insulators</td>
<td>Yes</td>
<td>1.50 (38.1)</td>
<td>1.50 (38.1)</td>
<td>0.27 (0.12)</td>
</tr>
<tr>
<td>2016100</td>
<td>2 x 5/16”-18 Studs with Insulators</td>
<td>-</td>
<td>1.50 (38.1)</td>
<td>1.50 (38.1)</td>
<td>0.27 (0.12)</td>
</tr>
<tr>
<td>2017</td>
<td>2 x 3/8”-16 Studs with Insulators</td>
<td>Yes</td>
<td>1.63 (41.3)</td>
<td>1.63 (41.3)</td>
<td>0.27 (0.12)</td>
</tr>
<tr>
<td>2017100</td>
<td>2 x 3/8”-16 Studs with Insulators</td>
<td>-</td>
<td>1.63 (41.3)</td>
<td>1.63 (41.3)</td>
<td>0.27 (0.12)</td>
</tr>
<tr>
<td>2018</td>
<td>1 x 5/16”-18 Stud, 1 x 3/8”-16 Stud with Insulators</td>
<td>Yes</td>
<td>1.50 (38.1)</td>
<td>1.63 (41.3)</td>
<td>0.27 (0.12)</td>
</tr>
<tr>
<td>2018100</td>
<td>1 x 5/16”-18 Stud, 1 x 3/8”-16 Stud with Insulators</td>
<td>-</td>
<td>1.50 (38.1)</td>
<td>1.63 (41.3)</td>
<td>0.27 (0.12)</td>
</tr>
</tbody>
</table>

Specifications subject to change. See bluesea.com for current information.
### Connector Comparison

<table>
<thead>
<tr>
<th>Product</th>
<th>MiniBus 100A Common BusBars</th>
<th>DualBus 100A Common BusBars</th>
<th>DualBus Plus 150A Common BusBars</th>
<th>150A Common BusBars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulating Cover</td>
<td>Cover available</td>
<td>Cover available</td>
<td>Cover available</td>
<td>Cover available</td>
</tr>
<tr>
<td>Terminal Studs</td>
<td>2 x #10-32</td>
<td>4 x #10-32</td>
<td>-</td>
<td>Cover available</td>
</tr>
<tr>
<td>Terminal Screws</td>
<td>5 x #8-32</td>
<td>-</td>
<td>10 per bus x #8-32</td>
<td>10 x #8-32</td>
</tr>
</tbody>
</table>

### Table 1: Connector Comparison

<table>
<thead>
<tr>
<th>Product</th>
<th>MaxiBus 250A Common BusBars</th>
<th>PowerBar Common BusBar</th>
<th>PowerBar 600A Common BusBars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulating Cover</td>
<td>Cover available</td>
<td>Cover available</td>
<td>Cover available</td>
</tr>
<tr>
<td>Terminal Studs</td>
<td>4 x 1/4&quot;-20</td>
<td>2 x 5/16&quot;-18</td>
<td>2 x 3/8&quot;-16</td>
</tr>
<tr>
<td>Terminal Screws</td>
<td>4 x #10-24</td>
<td>12 x #10-24</td>
<td>4 x #8-32</td>
</tr>
</tbody>
</table>

### Table 2: Insulating Cover

<table>
<thead>
<tr>
<th>Product</th>
<th>Terminal Blocks</th>
<th>Terminal Feed Through Connectors</th>
<th>PowerPost Cable Connectors</th>
<th>PowerPost Plus Cable Connectors</th>
<th>Dual PowerPost Cable Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulating Cover</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Table 3: Terminal Studs

<table>
<thead>
<tr>
<th>Product</th>
<th>Terminal Studs</th>
<th>Insulating Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Specifications subject to change. See bluesea.com for current information.**
### Rotating CableCap Insulators
Insulates battery terminals which have integral wing nut posts
- Top rotates 360 degrees to allow cable entry from any angle

### Standard CableCap Insulators
Insulates battery terminals which have added adapter terminals

### Automotive CableCap Insulators
Insulates battery terminals which have standard automotive posts

### Square CableCap Insulators
Insulates battery terminals which have in-line dual posts

### Stud CableCap Insulators
Insulates single stud on alternators, starters, windlasses and high amperage termination points

### Dual Entry PowerPost Cable Insulator
Protects against accidental short circuits
- For use with Dual PowerPost Cable Connectors 2016, 2017, and 2018 (see page 66)