

UTILITY PRODUCTS

JUNCTION BARS



J BAR

Patton & Cooke offers a diverse group of 200, 600 and 900 Amp junction bars for separable insulated connectors.

Patton & Cooke's junction bars are designed for vault or apparatus applications and can be used for looping, tapping and sectionalizing. Our junction bars are manufactured in 200 Amp, 600 Amp, 900 Amp or a combination of both ratings. The 200 Amp units incorporate a universal bushing well design, making it possible to use either a loadbreak or deadbreak bushing insert.

Patton & Cooke junction bars are fully shielded, fully submersible, thoroughly resistant to harsh chemicals and are for use on applications up to 35 kV.

All in-line junctions can be equipped with universal mounting brackets that can provide mounting angles from 0 to 90°, "U" straps or special mounting arrangements required for installation in sectionalizing cubicles. Parking stands are available in a variety of configurations for use in standard or custom applications. Patton & Cooke mounting brackets are manufactured of stainless steel or, where applicable, powder coated mild steel. Parking stands are exclusively made of stainless steel.

Patton & Cooke also manufactures a variety of junction bars - the "stacked style" junction bar, the L Splice and the Y Splice - which have unique configurations for limited space installations. The JBS-2B/1A/2B-19 (shown to the left) features a central 200 Amp interface providing a ground point and 600 Amp interfaces, which equipped with vacuum switches, allow the junction bar to function as a four point disconnect.

For more information on stacked style junction bars see page 3. For information on the L Splice or Y Splice, contact factory.



*Stacked Style
Junction Bars,
JBS-2B/1A/2B-19,
Functions as
a Disconnect
when Equipped
with Vacuum
Switches*



*Manufactured to ANSI/IEEE Standard 386
Vault Installation using 6 Point Stacked Style Junction Bars*



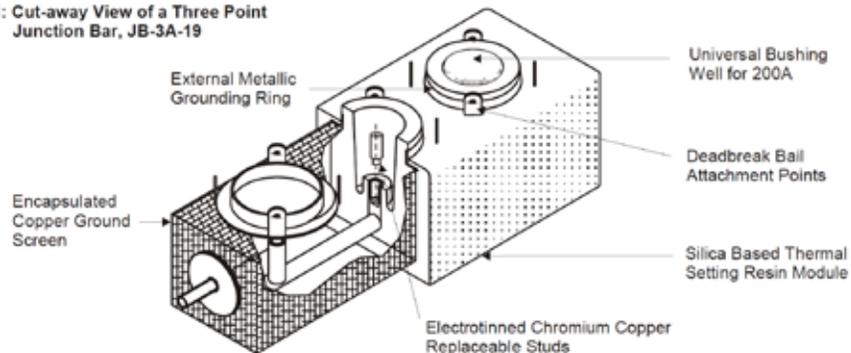
PATTON & COOKE CO.
High Voltage Equipment Solutions. Design and Manufacturing.

#100 - 7795 128th Street
Surrey, BC • V3W 4E6 • Canada
Email: contact@pattonandcooke.com
www.pattonandcooke.com

UTILITY PRODUCTS

| BENEFITS | FEATURES |
|---|---|
| All junction products are made exclusively with high conductivity copper components | <ul style="list-style-type: none"> No aluminum busbar ratings to worry about Higher current capacity than products made with aluminum components |
| Module vacuum cast from silica based thermal setting resin | <ul style="list-style-type: none"> Possesses high dielectric strength (600V/mil) Resistant to extreme temperatures Resistant to all acids, alkalis and solvents, e.g. cable cleaner, petro-chemicals Superior resistance to mechanical stress fracturing Reduces risk of amalgamation with rubber inserts and elbows |
| Integral mechanical cast design is solid | <ul style="list-style-type: none"> Module is rigid and will not deform under cable loading Provides excellent fault current withstand |
| Encapsulated copper screen for ground shielding | <ul style="list-style-type: none"> Solid ground between internal screen and surface of module, providing absolute ground fault protection Increases strength of module casting Internal ground system can not be damaged compared to an external system, extending the life of the module Module ground integrity is not compromised by external abuse or caustic environments Provides superior safety Reduces liability |
| Available with combinations of 200 Amp universal bushing wells and 600 Amp bushings | <ul style="list-style-type: none"> Saves space, all separable connectors can be mounted on one plane Saves time and money, as only one component is required Reduces inventory |
| Accepts both loadbreak and deadbreak inserts | <ul style="list-style-type: none"> Offers universal installation capabilities |
| 200 Amp universal bushing wells are standard equipped with deadbreak bail attachment points | <ul style="list-style-type: none"> Prevents inadvertent removal of deadbreak elbow Increases safety |
| Metallic ring on 200 Amp universal bushing well | <ul style="list-style-type: none"> Ground shield is permanent Extends product life |
| 200 Amp universal bushing well supplied with replaceable studs | <ul style="list-style-type: none"> Replaceability of individual components lengthens lifespan of unit Reduces downtime |
| Replaceable studs are electrotinned high strength chromium copper | <ul style="list-style-type: none"> Reduces damage resulting from over-torquing Eliminates galling between similar metals |
| Replaceable studs have full length internal hex | <ul style="list-style-type: none"> Allows removal of stud regardless of its size or condition |
| Both vault and sectionalizing cubicle mounting brackets are available | <ul style="list-style-type: none"> Adapts to all mounting requirements |
| Available for 200, 600 or 900 Amp current ratings | <ul style="list-style-type: none"> Product is available for any system requirement |
| Both inline and stacked styles available | <ul style="list-style-type: none"> Accommodates standard and limited space installations |

FIGURE 1: Cut-away View of a Three Point Junction Bar, JB-3A-19



UTILITY PRODUCTS

ELECTRICAL RATINGS FOR SEPARABLE CONNECTORS

| Description | 15 kV Class Ratings | 25 kV Class Ratings | 35 kV Class Ratings |
|--|---------------------|--|---------------------|
| OPERATING VOLTAGE (Maximum continuous line-to-ground, 100% insulation system) | 8.3 kV | 15.2 kV | 21.1 kV |
| BIL (@1.2 50 microseed | 95 kV | 125 kV | 150 kV |
| WITHSTAND VOLTAGE AC (1 minute) | 34 kV 53 kV | 40 kV 78 kV | 50 kV 103 kV |
| CORONA EXTINCTION LEVEL (min. @ 3pC) | 11 kV | 19 kV | 26 kV |
| CURRENT 200 Amp Class Products Continuous operation Short-time 600 Amp Class Products Continuous operation Short-time | | 200 A* 10 kA sym. 10 Cycles 600 A* 25 kA sym. 10 Cycles | |

All separable connectors are designed and manufactured to ANSI/IEEE Standard 386 and tested in accordance with IEEE #48.

Ratings are based on ANSI/IEEE standard and do not reflect maximum levels.

Application Considerations: This product is designed for use on grounded "Y" systems.

*Designed for 90°C maximum continuous operating temperature.

"STACKED STYLE" JUNCTION BAR FOR SEPARABLE CONNECTORS CATALOGUE NUMBERS

5 POINT

| Illustration (not to scale) | Description | Catalogue Number | Dimensions | | | Weight |
|---|--|-----------------------|-------------------|-------------------|------------------|--------------------|
| | | | Length | Width | Height | |
|  | 5 Point 5 x 200 Amp | JBS-2A/3A-X | 14 1/2" 368 mm | 8" 203 mm | 4 3/4" 121 mm | 30.0 lb 13.5 kg |
|  | 5 Point 2 x 200 Amp | JBS-2A/3B-X | 14 1/2" 368 mm | 8" 203 mm | 8" 203 mm | 39.0 lb 17.5 kg |
|  | 5 Point 2 x 600 Amp 1 x 200 Amp 2 x 600 Amp | JBS-2B/1A/2B-X | 11 1/2" 292 mm | 10 1/2" 267 mm | 10" 254 mm | 50.0 lb 23.0 kg |

6 POINT

| Illustration (not to scale) | Description | Catalogue Number | Dimensions | | | Weight |
|---|--|-----------------------|---------------|--------------|------------------|--------------------|
| | | | Length | Width | Height | |
|  | 6 Point 6 x 200 Amp | JBS-3A/3A-X | 17" 432 mm | 8" 203 mm | 4 3/4" 121 mm | 36.0 lb 16.5 kg |
|  | 6 Point 3 x 200 Amp 1 x 600 Amp 2 x 200 Amp | JBS-3A/1B/2A-X | 17" 432 mm | 8" 203 mm | 8" 203 mm | 39.0 lb 17.5 kg |
|  | 6 Point 3 x 200 Amp 1 x 200 Amp 2 x 600 Amp | JBS-4A/2B-X | 17" 432 mm | 8" 203 mm | 8" 203 mm | 42.0 lb 19.0 kg |



PATTON & COOKE CO.
High Voltage Equipment Solutions. Design and Manufacturing.

#100 - 7795 128th Street
Surrey, BC • V3W 4E6 • Canada
Email: contact@pattonandcooke.com
www.pattonandcooke.com

UTILITY PRODUCTS

| Illustration (not to scale) | Description | Catalogue Number | Dimensions | | | Weight | Illustration (not to scale) | Description | Catalogue Number | Dimensions | | | Weight |
|--------------------------------|--------------------|---------------------|------------------|--------------|------------------|--------------------|--------------------------------|--|----------------------|---------------|--------------|--------------|--------------------|
| | | | Length | Width | Height | | | | | Length | Width | Height | |
| | 2 Point 200 Amp | JB-2A-x | 8 1/2" 216 mm | 4" 102 mm | 4 3/4" 121 mm | 9.0 lb 4.0 kg | | 3 Point 1 x 200 Amp 2 x 600 Amp | JB-1A/2B-x | 13" 330 mm | 4" 102 mm | 8" 203 mm | 21.0 lb 9.5 kg |
| | 3 Point 200 Amp | JB-3A-x | 13" 330 mm | 4" 102 mm | 4 3/4" 121 mm | 14.0 lb 6.5 kg | | 3 Point 1 x 600 Amp 1 x 200 Amp 1 x 600 Amp | JB-1B/1A/1B-x | 13" 330 mm | 4" 102 mm | 8" 203 mm | 21.0 lb 9.5 kg |
| | 4 Point 200 Amp | JB-4A-x | 17" 432 mm | 4" 102 mm | 4 3/4" 121 mm | 19.0 lb 8.5 kg | | 3 Point 2 x 200 Amp 1 x 600 Amp | JB-2A/1B-x | 13" 330 mm | 4" 102 mm | 8" 203 mm | 18.0 lb 8.0 kg |
| | 5 Point 200 Amp | JB-5A-x | 21" 533 mm | 4" 102 mm | 4 3/4" 121 mm | 23.0 lb 10.5 kg | | 4 Point 1 x 200 Amp 3 x 600 Amp | JB-1A/3B-x | 17" 432 mm | 4" 102 mm | 8" 203 mm | 27.0 lb 12.0 kg |
| | 6 Point 200 Amp | JB-6A-x | 25" 635 mm | 4" 102 mm | 4 3/4" 121 mm | 27.0 lb 12.0 kg | | 4 Point 2 x 200 Amp 2 x 600 Amp | JB-2A/2B-x | 17" 432 mm | 4" 102 mm | 8" 203 mm | 24.0 lb 11.0 kg |
| | 2 Point 600 Amp | JB-2B-x | 8 1/2" 216 mm | 4" 102 mm | 8" 203 mm | 18.0 lb 8.0 kg | | 4 Point 3 x 200 Amp 1 x 600 Amp | JB-3A/1B-x | 17" 432 mm | 4" 102 mm | 8" 203 mm | 21.0 lb 9.5 kg |
| | 3 Point 600 Amp | JB-3B-x | 13" 330 mm | 4" 102 mm | 8" 203 mm | 24.0 lb 11.0 kg | | 4 Point 1 x 600 Amp 2 x 200 Amp 1 x 600 Amp | JB-1B/2A/1B-x | 17" 432 mm | 4" 102 mm | 8" 203 mm | 24.0 lb 11.0 kg |
| | 4 Point 600 Amp | JB-4B-x | 17" 432 mm | 4" 102 mm | 8" 203 mm | 30.0 lb 13.5 kg | | 5 Point 1 x 200 Amp 4 x 600 Amp | JB-1A/4B-x | 21" 533 mm | 4" 102 mm | 8" 203 mm | 35.0 lb 16.0 kg |
| | 5 Point 600 Amp | JB-5B-x | 21" 533 mm | 4" 102 mm | 8" 203 mm | 38.0 lb 17.0 kg | | 5 Point 2 x 200 Amp 3 x 600 Amp | JB-2A/3B-x | 21" 533 mm | 4" 102 mm | 8" 203 mm | 32.0 lb 12.0 kg |
| | 6 Point 600 Amp | JB-6B-x | 25" 635 mm | 4" 102 mm | 8" 203 mm | 45.0 lb 20.5 kg | | 5 Point 4 x 200 Amp 1 x 600 Amp | JB-4A/1B-x | 21" 533 mm | 4" 102 mm | 8" 203 mm | 26.0 lb 12.0 kg |
| | 2 Point 900 Amp | JB-2H-x | 8 1/2" 216 mm | 4" 102 mm | 8" 203 mm | 18.0 lb 8.0 kg | | 5 Point 1 x 600 Amp 3 x 200 Amp 1 x 600 Amp | JB-1B/3A/1B-x | 21" 533 mm | 4" 102 mm | 8" 203 mm | 29.0 lb 13.0 kg |
| | 3 Point 900 Amp | JB-3H-x | 13" 330 mm | 4" 102 mm | 8" 203 mm | 24.0 lb 11.0 kg | | 6 Point 3 x 200 Amp 3 x 600 Amp | JB-3A/3B-x | 25" 635 mm | 4" 102 mm | 8" 203 mm | 36.0 lb 16.5 kg |
| | 4 Point 900 Amp | JB-4H-x | 17" 432 mm | 4" 102 mm | 8" 203 mm | 30.0 lb 13.5 kg | | 6 Point 1 x 600 Amp 4 x 200 Amp 1 x 600 Amp | JB-1B/4A/1B-x | 25" 635 mm | 4" 102 mm | 8" 203 mm | 33.0 lb 15.0 kg |
| | 5 Point 900 Amp | JB-5H-x | 21" 533 mm | 4" 102 mm | 8" 203 mm | 38.0 lb 17.0 kg | | | | | | | |
| | 6 Point 900 Amp | JB-6H-x | 25" 635 mm | 4" 102 mm | 8" 203 mm | 45.0 lb 20.5 kg | | | | | | | |

SELECTION REMINDERS:

- Standard rating for all junction bars:
Voltage: to 35 kV, Impulse Voltage: 150 kV BIL,
Corona Extinction: to 26 kV BIL
- All junction bars are standard equipped with protective covers and mounting brackets or "U" straps. Parking stands are optional.
- Many combinations of 200, 600 or 900 Amp junction bars are available. Create your unique junction bar requirement, then contact factory.

ORDERING PROCEDURE:

- Determine the following: a) Maximum voltage, kV b) Current rating, Amp c) Number of positions required for installation.
- Select catalogue number of junction bar.
- Provide the maximum voltage, kV and substitute its corresponding corona extinction value for x in the catalog number.
- Specify if mounting brackets, "U" straps or parking stands are required.

Example: 25 kV (corona extinction = 19 kV), 200 Amp, 4 point
Junction Bar Catalogue Number **JB-4A-19**



PATTON & COOKE CO.
High Voltage Equipment Solutions. Design and Manufacturing.

#100 - 7795 128th Street
Surrey, BC • V3W 4E6 • Canada
Email: contact@pattonandcooke.com
www.pattonandcooke.com