

POWER RAIL™ 200A

Methode Electronics, Inc. power products divisions, Network Bus Products and Cableco Technologies have leveraged their expertise in bus bar and power cable systems to develop the next generation power distribution technology. The PowerRail 200A is an easy-to-install bus bar and cable interconnect system that is capable of rapid connect/disconnect, increasing equipment up-time. The PowerRail is a double rail model of variable length, from six inches to six feet. Multiple rail systems are also available and can be customized for a wide range of voltage applications. A variety of interconnect options are available to meet customer specific application needs.

Product Series Number

CPR 200*

Material and Plating

PowerRail

Conductor: C11000 Copper

Plating: Silver per QQ-S-365 over Nickel per QQ-N-290 (Standard)**

Contact: C17200 Beryllium Copper

Blade Connector - Cable Assembly

Conductor: Brass

Housing: Nylon, 94 V-0 rated

Plating: Silver per QQ-S-365 over Nickel per QQ-N-290 (Standard)**

Cable: See Cableco PowerFlex™ product specification at www.cablecotech.com

**Contact Factory for Other Plating Options

Housing and Endcaps

Glass filled Nylon, 94 V-0 rated

Voltage

PowerRail System: 600 Volts

Current

PowerRail: 200A

Power Contact: 50A/linear inch

Temperature:

-40°C to +125°C

Length:

Variable up to 72"

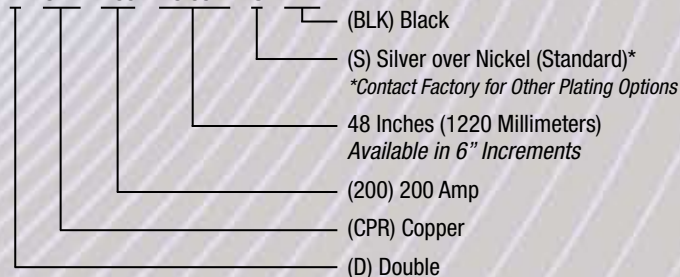
*750 Amp, 1000 Amp, and 2000 Amp models also available, please contact Methode for more information.



Rail Part Numbering System

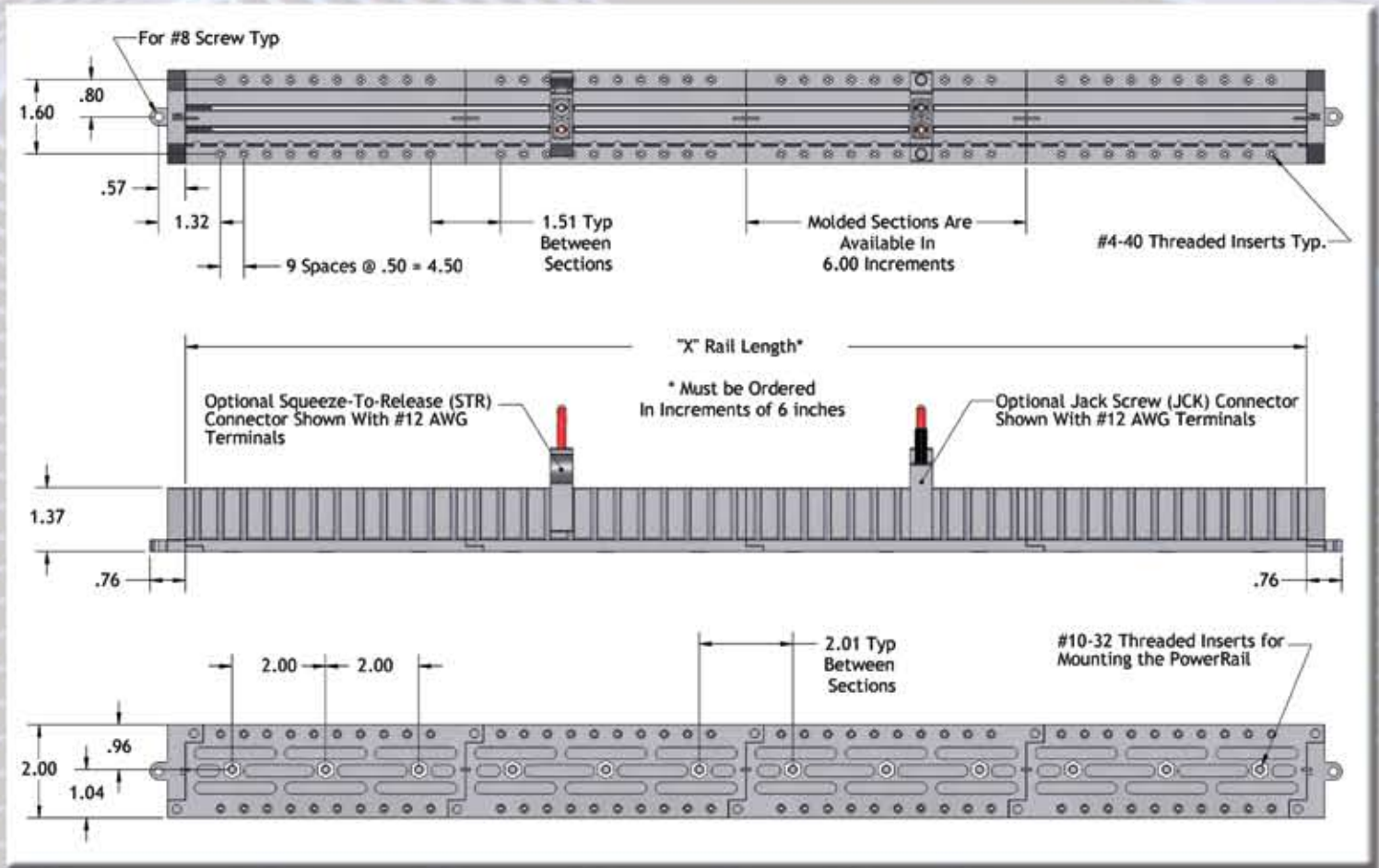
Example:

D - CPR - 200 - 48.00IN - S - BLK

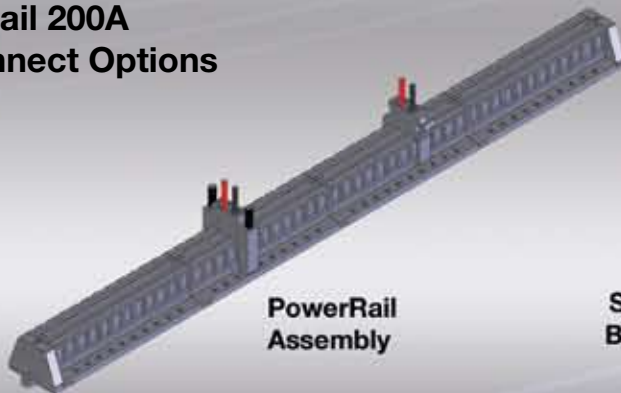


✓ RoHS Compliant

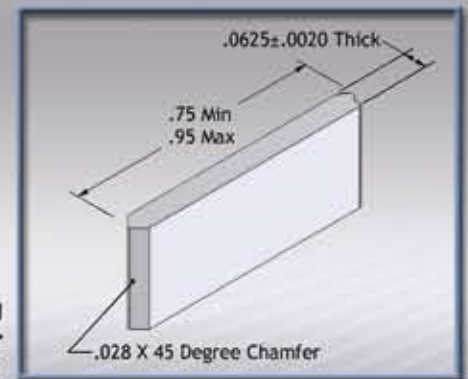
PowerRail 200A



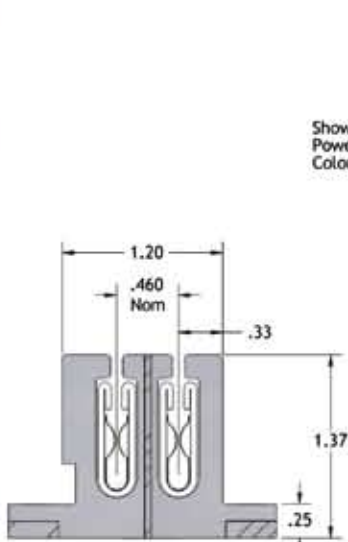
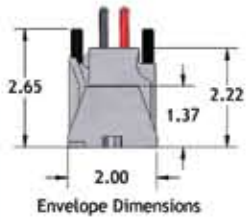
PowerRail 200A Interconnect Options



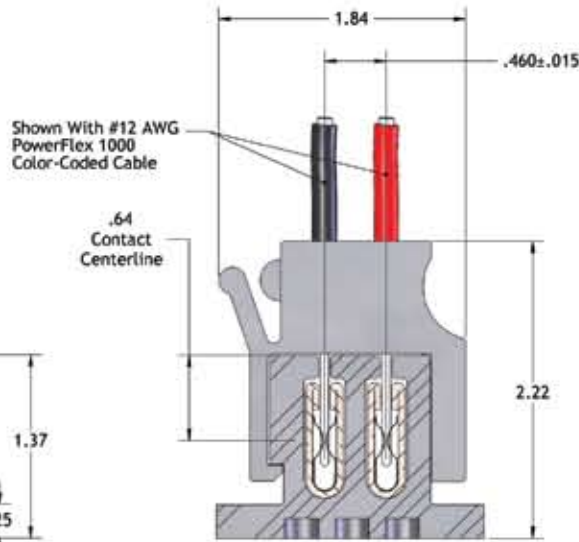
Suggested Mating Blade and Bus Bar Tab Dimensions



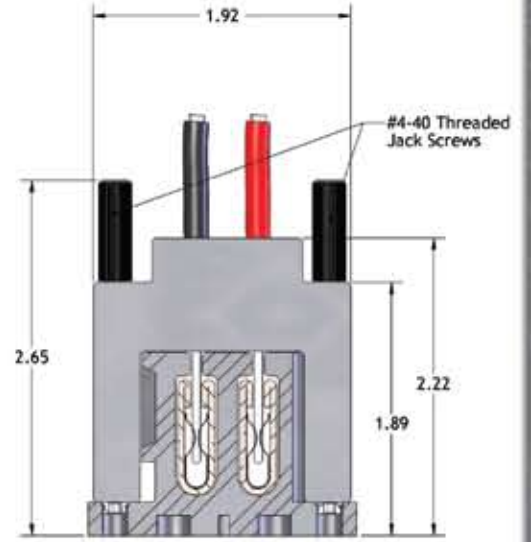
PowerRail 200A



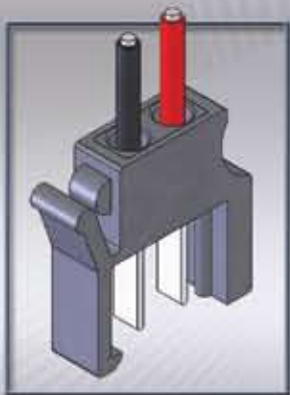
SECTION A-A
SCALE 1.5 : 1



SECTION B-B
SCALE 1.5 : 1
Shown With Optional Squeeze-To-Release (STR) Connector Shown Latched to the PowerRail

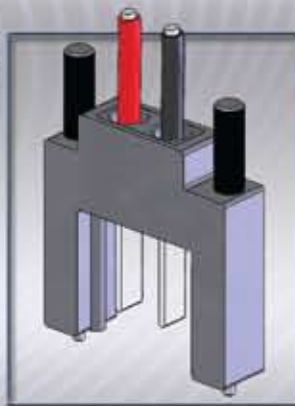


SECTION C-C
SCALE 1.5 : 1
Shown With Optional Jack Screw (JCK) Connector Attached to the PowerRail and Secured With Jack Screws



Squeeze-to-Release (STR) Connector

Jack Screw (JCK) Connector



Interconnect Part Numbering System

Example:

D-TAB-200-STR-8-S

- (S) Silver over Nickel (Standard)*
- *Contact Factory for Other Plating Options
- (8) AWG
- (STR) Squeeze-to-Release
- (JCK) Jack Screw
- (200) 200 Amp
- (TAB) Tab Blade Connector
- (D) Double

*Finish of the blade should be the same as the internal finish of the PowerRail.

PowerRail 200A

Electrical Requirements

| Description | Test Condition | Results |
|---------------------------------------|---|-----------------------|
| Insulation Resistance (EIA-364-21) | Apply 500 VDC between terminals and ground. | 5,000 Megohms Minimum |
| Dielectric Strength (EIA-364-20) | Apply 1500 VDC for 1 minute between terminals and ground. | No Breakdown |

Mechanical Requirements

| Description | Test Condition | Results |
|--|--|---|
| Durability w/o Environment (EIA-364-09) | Mate connector with rail 250 cycles at a maximum rate of 10 cycles per minute. | Resistance: 0 cycles – TBD 250 cycles – TBD |
| Blade Insertion | .250 inch wide contact. | 5 lb max |
| Blade Retention | | 8 oz min |
| Locking Insulator to Rail | | 20 lb min |

Environmental Requirements

| Description | Test Condition | Results |
|----------------------------------|--|--|
| Vibration (EIA-364-28) | Mate connectors with rail and vibrate per EIA-364-28, test condition VII, letter “D” 15 minutes each axis. | No damage to PowerRail after vibration in all three axes. |
| Shock (EIA-264-27) | Mate connector with rail and shock at 50g with 1/2 sine waveform (11 milliseconds) shocks in the X, Y, Z axes (18 shocks total). | No damage to PowerRail after being subjected to shock loads. |
| Humidity (EIA-264-31) | Mate connectors with rail, expose to 40+/-2°C with relative humidity of 90-95% for 96 hours. | TBD |
| Thermal Shock (EIA-364-TP-32) | Mate connectors with rail, expose to 5 cycles from -40° to 125°C per EIA-364-TP-32. | TBD |
| Temperature Life (EIA-364-17) | Mate connectors with rail, expose to 240 hours at 105°. | TBD |

✓ RoHS Compliant

www.thepowerrail.com

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