

Features, Benefits and Functions

Pow-R-Way III Offers a Full Line of Low Voltage Busway to Meet the Needs of the Global Marketplace

Eaton has combined the requirements of NEMA, UL, CSA and IEC into one design to present a world-class product in Pow-R-Way III. With standard features that include a two-piece aluminum housing, finger-safe plug-in outlets, an integral ground path and high 6-cycle short-circuit withstand ratings, Pow-R-Way III provides a busway system that can be used over a broad spectrum of industrial, commercial and institutional applications worldwide.

Product Offering

- **Plug-In Busway**
225–5000 A copper and 225–4000 A aluminum straight sections of plug-in busway are available in 2 ft (0.6 m) incremental lengths from a 2 ft (0.6 m) minimum to 10 ft (3 m) maximum. Plug-in busway is also available as sprinkler proof
- **Feeder Busway**
225–5000 A copper and 225–4000 A aluminum straight sections of indoor and outdoor feeder busway available in any length in 1/8-inch (3.2 mm) increments from a 16-inch (406 mm) minimum to a 10-foot (3 m) maximum. A wide range of fittings are available in indoor sprinkler-proof, or outdoor feeder busway

• **Plug-In Units**

A full family of busway plug-in units is available. Standard plug-in units include fusible or circuit breaker protection. Advanced plug-in units include Visor Series surge suppression, communicating IQ Energy Sentinel and OPTIM circuit breakers, and Advantage combination contactors and starters. A full line of receptacle plug-in units are available

Product Features and Benefits

- The all-aluminum two-piece housing provides durability and product integrity
- The lightweight and compact design results in easy installation
- The housing combined with a true sandwich design in both plug-in and feeder busway contributes to improve coordination and high short-circuit ratings
- An epoxy insulation process ensures optimum conductor and system protection
- Silver-plated joint and contact surfaces provide high-quality connections
- Highly automated manufacturing processes result in a superior product
- The Pow-R-Bridge joint package and torque indicating bolt gives a rugged, yet flexible and easy-to-install connection
- Corner joint elbows contribute to successful layouts and minimize space limitations

- High 6-cycle short-circuit ratings optimize coordination between busway and power equipment
- This world-class product design and manufacturing meets the requirements of NEMA, CSA, Seismic and ISO® and IEEE®
- Plug-in busway design and an enhanced bus plug-in unit facilitates installation and improves safety
- Flexible ground and neutral options provide solutions for any application problem
- A full family of plug-in units is available for every power need
- Advanced bus plugs provide protection, communication and coordination capabilities

Busway Capabilities

- The busway manufacturing plant in Greenwood, SC, is able to meet your emergency or quick ship requirements with quick ship lead-times from 3 days to 2 weeks
- Customer approval drawings can be available in *2 weeks or less* to meet your project requirements
- Eaton's final field fit program ensures accurate layout and allows for minor last-minute modifications during installation
- Advanced system tools including Bid Manager™ programs provide quick and accurate product information

Standards and Certifications

- Pow-R-Way III meets the requirements of NEMA, UL 857, CSA C22.2 No. 27-94, IEEE, ANSI, IEC 439-1 and 2, IEC 529 and is manufactured in an ISO 9001 certified facility
- Pow-R-Way III meets the International Building Code standards and is certified in the Uniform Building Code® and the California Building Code to exceed Zone 4 requirements
- ANSI, NEMA, IEEE, CSA, UL 857
- 10 kAIC rms symmetrical
- Fused duplex—40 A maximum
- Single—70 A maximum
- Quad—125 A maximum

**Product Support**

Busway product and application support is available from a professional team of Eaton employees that includes field sales engineers, application engineers, engineering service systems and the greenwood busway product engineering services.

Additional Programs

Final Field Fit—This program was established to effectively manage the dimensional uncertainties that are often inherent in bus duct layouts. This program provides the assurance of an exact fit the first time. It allows for bus duct runs to be released for manufacture when certain dimensions are not yet determined. It also eliminates the costly delays that can occur when sections have to be remade in order to accommodate last-minute job site changes in routing. For program details, please see publication SA01702001E.

Field Measurements

For larger and more complex projects, Eaton will provide factory assistance with taking busway layout measurements. We will take full accountability of all measurements and will ensure an exact fit. Contact your local Eaton sales office for pricing and availability.

Additional Information

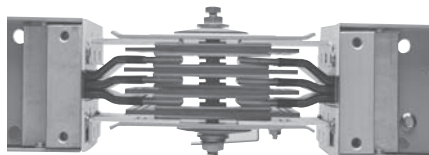
- Product Brochure: BR01701001E
- Technical Data: TD01701003E
- Consulting Application Guide: CA08104001E
- Electrical Solutions Catalog: CA08105001E
- ABCs of Planning/Installation: IM01701002E
- Services and Solutions: BR01701002E

Pow-R-Way III

- Technical Data: TD01701003E
- ABCs of Busway: IM01701002E
- Brochure: BR01701001E

Service and Solutions

- Installation and Maintenance: IB01701001E
- Selling Policy: 25-000
- Discount Symbol: CE3-LV Busway
CE4-LV Busway Devices

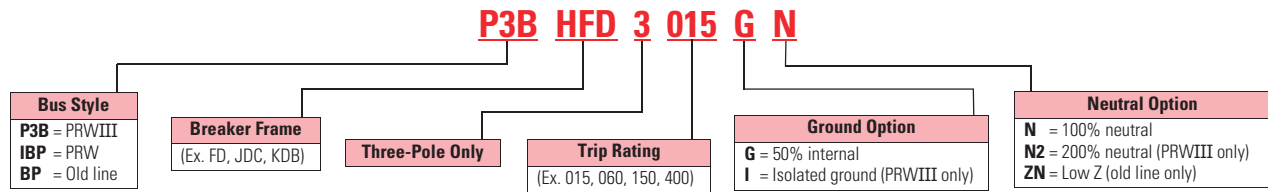
**Bridge Joint Assembly**

6.1 Low Voltage Busway

Pow-R-Way III

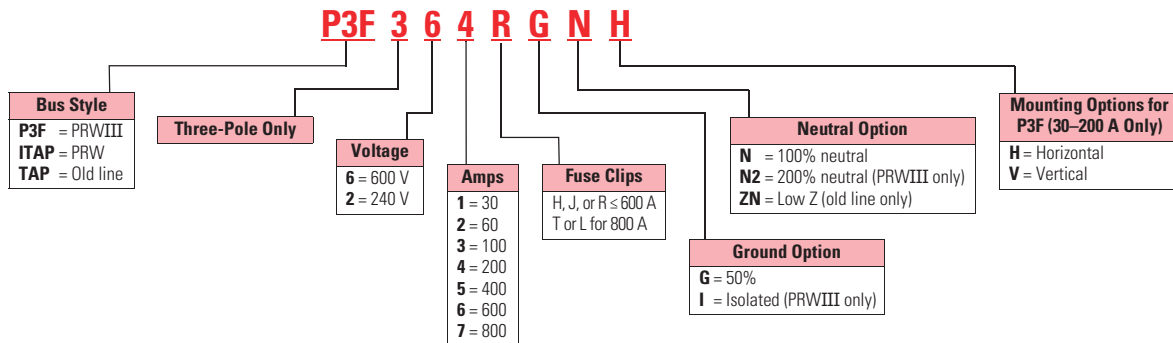
Catalog Number Selection

Breaker Unit

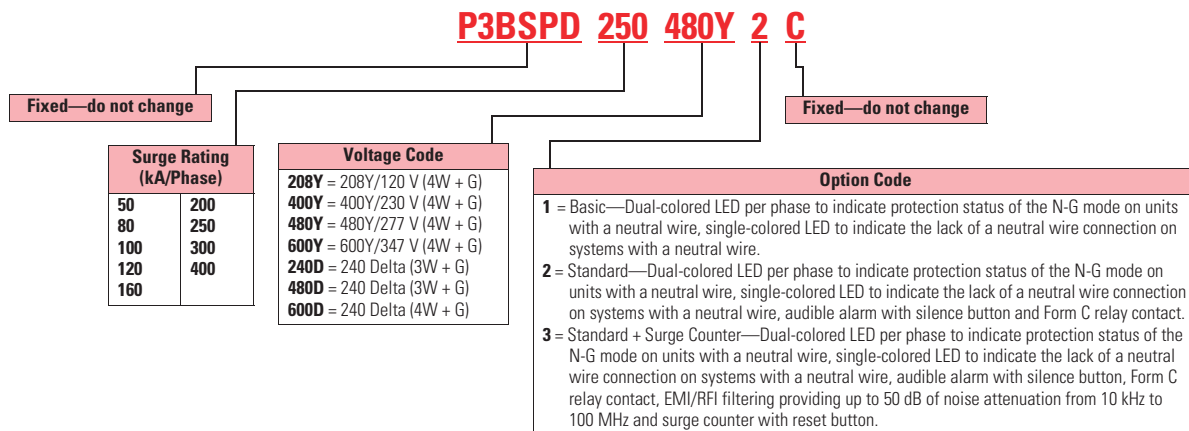


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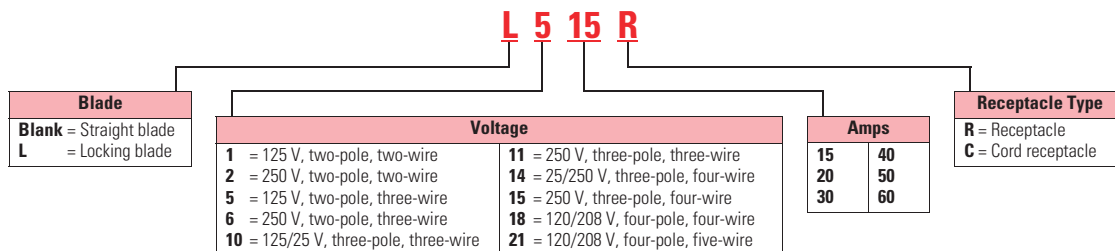
Fusible Unit



SPD Series Bus Plug



NEMA Receptacle Configuration



Notes

"H" clips are standard for PRW and old line unless specified by adding "R" in catalog number.

Please call Greenwood low voltage busway department for help in assigning a catalog number for a specific application.

Do not leave spaces between characters. Example: P3BFD3100N; ITAP361N.

All plug-in units come fully assembled.

Product Selection

Circuit Breaker Plug-In Units

Horizontal Install
(Front View)Horizontal Install
(Rear View)

Circuit Breaker Plug-In Units

Breaker Frame	Ampere Rating	Plug-In Enclosure Catalog Number ^①	100% Neutral Stab Catalog Number	50% Internal Ground Stab Catalog Number	50% Isolated Ground Stab Catalog Number	200% Neutral Stab Catalog Number
ED, EDH, EHD, EDC, FDB, FD, HFD, FDC	10–225	P3BFD	P3FDN100	P3FG100	P3FDI100	P3FD2N100
			P3FDN225	—	P3FDI225	P3FD2N225
JDB, JD, HJD, JDC	70–250	P3BJD	P3JDN150	—	P3JDI150	P3JD2N150
			P3JDN250	P3JDG250	P3JDI250	P3JD2N250
KDB, KD, DK, HKD, KDC	100–400	P3BKD	P3KDN400	P3KDG400	P3KDI400	P3KD2N400
LDB, LD, HLD, LDC	300–600	P3BLD	P3MDN800	P3MDG800	P3MDI800	—
MDL, HMDL	400–800	P3BMD	P3MDN800	P3MDG800	P3MDI800	—
ND, HND, NDC	400–800	P3BND	P3NDN800	P3NDG800	P3NDI800	—
FB TRI-PAC	15–100	P3FBFP	P3FBPN100	P3FBPG100	P3FBPI100	—
LA TRI-PAC	75–400	P3BLAP	P3LAPN400	P3LAPG400	P3LAPI400	—
NB TRI-PAC	500–800	P3BNBP	P3NBPN800	P3NBPG800	P3BNBPI800	—

- Refer to **Page V2-T6-22** for breaker data; for reference only

- The enclosure, circuit breaker, neutral and ground are ordered and shipped assembled

- Housing ground connection supplied as standard at no additional charge

Circuit Breaker Plug



Advanced Circuit Breaker Plug-Ins

Digitrip OPTIM	Ampere Rating	Plug-In Enclosure Catalog Number	100% Neutral Catalog Number	50% Internal Ground Catalog Number	50% Isolated Ground Catalog Number
L-Frame	70–600	P3BORPL	P3BORPLN600	P3BORPLG600	P3BORPLI600

- The P3BFD, P3BJD and P3BKD plug-in units can be modified to accept breaker mounted IQ Energy Sentinels

- The IQ Energy Sentinel and the OPTIM breaker plug-in units permit multiple meters, remote monitoring, and interconnection with programmable logic controllers and building-management systems. Applications may range from revenue metering for tenant billing to a full-power management system. Consult with an Eaton application engineer or the busway product line for assistance

Notes

^① Enclosure not sold separately. Refer to **Page V2-T6-14** for assembled bus plug catalog number. See **Page V2-T6-14** for plug assembled style number configuration.

Bus Plugs for Any Application

Pow-R-Flex plug-in protective devices have been designed to meet any low ampere application. Standard circuit breaker plugs are available in a traditional cable out style. Additionally, customized receptacle plugs are available with receptacle or connector options to meet any requirement. These plugs come with one to four devices feeding separate receptacles in an enclosure. Pow-R-Flex plugs and connectors can be ordered in a variety of combinations, cord lengths, and short circuit ratings.



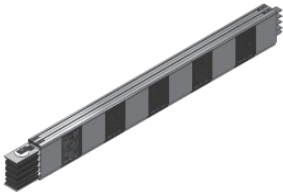
Breaker Plug

**Short-Circuit Ratings—
Three-Cycle rms
Symmetrical**

Ampere Rating	Plug-In Short-Circuit Rating	Feeder Short-Circuit Rating
Aluminum		
150	22,000	22,000
225	35,000	35,000
300	35,000	35,000
400	42,000	42,000
Copper		
225	22,000	22,000
400	35,000	35,000
500	42,000	42,000
600	42,000	42,000

High 3-Cycle Short-Circuit Ratings Optimize Coordination Between Busway and Power Equipment and Meet High Quality Standards

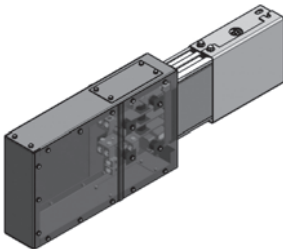
All ratings of Pow-R-Flex have been tested to 3-cycle standards and have achieved a minimum rating of 22 kA and a maximum rating of 42 kA rms symmetrical.



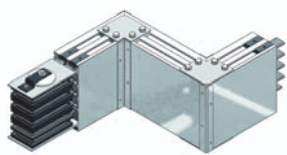
Straight Lengths

A Full Line of Fittings to Meet Any Routing Requirement

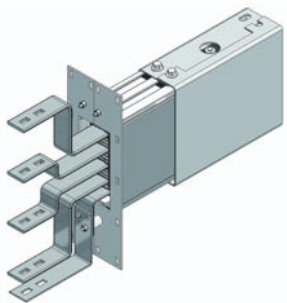
Pow-R-Flex Busway offers fittings to meet any need or application. End cable tap boxes, elbows, and end closers are all available for the most common runs. For more complex runs, equipment flanges, offsets, phase transpositions, and tees are available to accommodate any routing requirement.



End Cable Tap Box



Forward Offset



Standard Switchboard Flange



Joint Cover Assembly

6.2

Low Voltage Busway

Pow-R-Flex

General Information

Determine the total footage, all fittings, and accessories for the entire busway run. Price the total footage by type and system requirements. Round footage up to the nearest foot. Add the fabrication charge for the fittings. Add any additional accessories required for the total price of the busway run.

Plug-In

Straight sections of plug-in busway are available in 2 ft (0.6 m) increments from a 2 ft (0.6 m) minimum to a 10 ft (3 m) maximum.

Feeder

Straight sections of feeder busway are available in 1/2-inch (12.8 mm) increments from 24-inch (609.6 mm) minimum to 10-ft (3 m) maximum. Pow-R-Bridge joint is included.

Ground

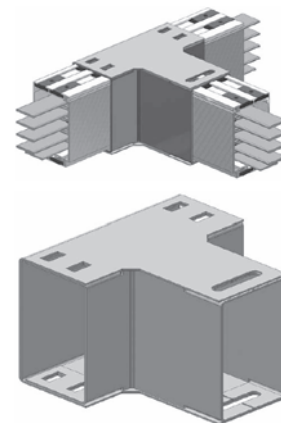
A 50% integral housing ground is provided as standard. The housing ground can be used in combination with the internal ground or the isolated ground to achieve a 100% ground rating.

Traditional Indoor and Outdoor Elbows

Elbows are used to make 90° changes in the direction of busway runs. The four types that are available are forward, rearward, upward and downward.

Tees

A tee is a busway fitting suitable for connection in three directions.



Wall Flanges

Wall flanges fit around the busway and are designed to close off the wall gap opening around the busway, made to allow the busway to pass through a wall. Wall flanges are primarily for cosmetic purposes and do not provide any type of vapor or fire barrier.

