



Total Power Group Rectifier Unit

Description

For over 45 years Total Power Group (TPG) has designed, built and test custom, safe and efficient DC Traction Power Rectifiers of all kinds. TPG designs offer custom, proven solutions for Trolley Bus, Streetcar, Light and Heavy Rail, DC Commuter Rail, APMs (Automated People Movers) systems and industrial applications.

Technology

TPG designs and builds Rectifier Units with proprietary methods to control diode current imbalance and stability of diode imbalance with temperature.

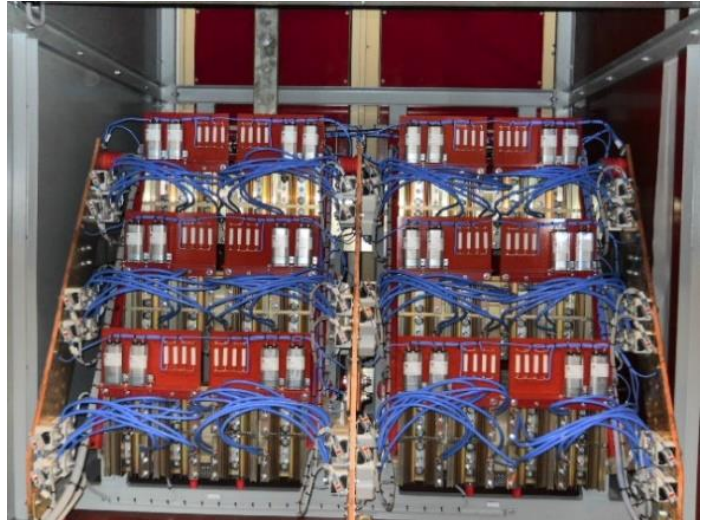
Our diode modules are protected by R-C snubbers and Selenium Voltage Suppressors. Selenium Voltage Suppressors are used for 1st Level suppression due to its softer clamping curve.

All internal main connections are made of copper busbars with plated connections. TPG Rectifier Units deliver 6 or 12 pulse direct current, are convection cooled and are designed to be easily accessible from the front if required.

A real-time touchscreen provides custom information (signals and protection devices) that monitor TPG Rectifier Units.

TPG Rectifier Units proprietary design accomplishes all the following:

- Small rectifier size
- Low audible noise
- Magnetizes at low current
- Long Lifetime



The equipment is tested in-house and rated in accordance with IEEE 1653.2 (RI-9) Traction Power ratings, including Overload Testing per the standards.

Technical data

USUAL CONFIGURATIONS

Trolley Bus	600V DC to 825V DC
Streetcar	600V DC to 900V DC
Light Rail	600V DC to 1,000V DC / 1,500V DC
Heavy Rail	600V DC to 1,000V DC
DC Commuter Rail	1,500V DC

CUSTOM CHARACTERISTICS

Pulse	6- Pulse and 12- Pulse rectifiers
Input Voltages	From 240V AC to 38,000V AC
Output Voltages	From 300V DC to 3,000V DC
Converter Power Range	50 kW to 5 MW
Cooling Systems	Convection Cooling / Forced Air Cooling / Liquid Cooling / Hybrid Cooling



Manufactured in the United States of America.



Customers

Among others, here is a sample of our DC Traction Power Rectifiers:

Trolley Bus	Philadelphia SEPTA, Seattle KCM
Streetcar	Dallas DART and McKinney Ave., Little Rock METRO, Memphis MATA, New Orleans RTA, Philadelphia SEPTA, Portland Streetcar, San Francisco MUNI, Seattle KCA, Tacoma Link, Tampa TECO, Tucson Sun Link
Light Rail	Charlotte CATS, Denver RTD, Los Angeles LA Metro, Philadelphia SEPTA, Pittsburgh PAT, San Diego MTS, San Francisco MUNI, San Jose VTA, Seattle Sound Transit
Heavy Rail	Atlanta MARTA, Boston MBTA, Chicago CTA, Miami-Dade MDT, New York LIRR, New York Metro North, New York NYCTA, Philadelphia SEPTA, San Francisco BART, Washington DC WMATA
DC Commuter Rail	Chicago Metra
APMs	Los Angeles LAX Automated People Mover, New York JFK AirTrain

Available Options

- Flexible Protection Scheme.
- Auxiliary devices either inside the main cubicle or in a separate cubicle.
- Powder coated frame and cubicle.
- Heater, Cooling Fans, Interior Lights.
- Windows.
- Forklift pockets.
- Top mounted lifting eyes.
- Internal Negative Disconnect Switch.
- On-site testing.



Contact us

- Email Christine Poll at cpoll@tpgexperts.com or call us at **(919) 432 1810** for more information.