



POWER QUALITY SOULTIONS



# What is Hubbell PQS?

Hubbell PQS combines the product offerings of Acme Electric and Powerohm Resistors into a one stop source for power quality of VFD and Servo applications. We have you covered from the input to the output of your motor drive application offering a best in class suite of power quality products and services. Hubbell PQS has the experience and expertise to offer the right solution for your application





- Dynamic Braking Resistors
- Dynamic Braking Choppers
- Braking Modules
- Shunt Kit
- Motor Control Resistors
- Harmonic Filter Resistors
- Control Transformers
- DIT Transformers
- Line Reactors
- Load Reactors
- Dv/Dt Filters
- Sine Wave Filters
- Active Harmonic Filters
- Passive Harmonic Filters





## dV/dT and Sine Wave Filters

The Hubbell PQS Sine Wave Filters remove the high frequency content and voltages peaks, transforming the output of Variable Frequency Drives (VFDs) to a near perfect sinusoidal waveform for the best level of motor protection out to 15,000 feet. The Hubbell PQS dV/dT Filters limits the voltage spikes and reduces common mode currents by increasing the voltage rise time and slowing down the current pulse caused by the PWM (Pulse Width Modulated) waveform of the VFDs and the Reflective Wave Phenomenon for up to 3,000ft.



# APEX Active Harmonic Filters

The Hubbell PQS APEX Active Filter combines a state of the are controller built on a modern 3-Level IGBT Inverter topology for <100 microsecond response time, a 7" touch screen user interface, and a modular design for scalability. The result is the industry's fastest, most reliable, and compact device that is easy to operate and complies with all standard communication protocols.



#### **Line & Load Reactors**

The Hubbell PQS Line/Load Reactors protect both the line side and load side applications from harmonics by absorbing power line disturbances while improving power quality to meet IEEE-519 requirements. Our new designs provide best-in-class performance with lower losses and significant weight reduction.



#### **Drive Isolation Transformers**

The Hubbell Acme Drive Isolation Transformers are specifically designed to handle the mechanical stresses, voltage distortions, and harmonics associated with AC and DC variable speed drives.











## **Dynamic Braking Chopper**

Powerohm PQS Braking Choppers are used in VFD applications where an external dynamic braking circuit is required to manage excessive regenerative energy during deceleration. Incorporating quality U.L. recognized circuit components and IGBT switching technology, Powerohm Braking Choppers avoid VFD shutdown by monitoring rising DC bus voltages and efficiently directing the regenerative energy to a braking resistor. Operating parameters are 208V-720VAC at 9A-1200A RMS. Communications options are Ethernet, Profibus, and Modbus.



# **Dynamic Braking Resistors**

Powerohm PQS Braking Resistors are customized to your Ohm and Watt requirements. Incorporating high quality stainless steel grids and wire across the product line produces low coefficient of resistivity elements that remain within industry standards of your specification at ambient or operating temperatures. Standard enclosures are NEMA1 rated and feature a thermal switch, 2-point terminal block, and mill galvanized finish. Enclosure options are NEMA3R and Stainless Steel construction.



Phone: (800) 838-4694, Ext.1 Email: sales@powerohm.com Web: www.Powerohm.com





# **Braking Module/Shunt Kit**

Powerohm PQS Braking Modules, also known as Shunt Kits, combine a Braking Chopper and Braking Resistor in a common enclosure. In VFD applications they manage excess regenerative energy at the DC bus. In Servo Drive applications they assist in managing excess regenerative energy beyond the capability of the internal shunt resistor. Operating parameters are 240V – 600VAC at 9A-50A RMS. Enclosure finish options are mill galvanized, ANSI-Gray and Stainless Steel.



#### **Motor Control Power Resistors**

Motor Control Power Resistors
Powerohm PQS Power Resistors come in a wide array of construction types and ratings to allow our world class engineering staff to design a quality cost efficient package for your application. Stainless steel grid and wire active elements come standard with plated hardware.



Phone: (800) 334-5214, Ext. 2

Email: acmeorderentry@hubbellacme.com Web: www.hubbell.com/acmeelectric/en