

# **PQconnect-Enabled Filters:**

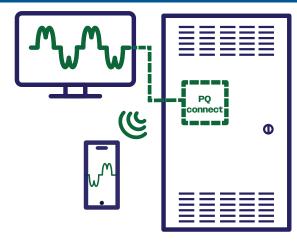
The easy way to do power quality.

TCl's patented PQconnect technology creates the world's first "Smart Filter" by providing internal contactor control to bring the harmonic distortion caused by VFDs within the specified limits. The increasing use of VFDs, Electrically Commutated Motors (ECMs), and other non-linear loads pollute the electrical system by introducing higher frequency loads (harmonics).

TCI filters with PQconnect further provide real-time power quality analysis locally via Bluetooth technology and/or serial communications with a SCADA system. TCI's PQconnect allows the end user, installer, or specifier the ability to validate system performance to ensure specification compliance (IEEE-519 2022) and best operating practices.

PQconnect on TCl's filters also provide critical preventative maintenance and troubleshooting benefits to ensure smooth and long-term functionality. Be assured that your filter is accurately mitigating harmonics, eliminating your power quality issues.

Unlock your harmonic and sine wave filters' full potential with real-time power quality data and intelligent control using PQconnect.



#### **FEATURES & BENEFITS**

- All internal wiring without additional CTs no connecting the filter contactor to the VFD aux contact (if available); everything internal to the filter.
- Real-time line/load current and voltage data allows for system performance checks, troubleshooting, diagnostics and monitoring.
- Instant iTHD/vTHD performance data validates harmonic performance, providing IEEE-519 2022 compliance.
- Automatic filter control for optimum load compatibility removes human error in installation while providing exact control.
- Autonomous harmonic filter and generator compatibility allows for kVAR control, preventing leading Power Factor and generator faults.
- Modbus RTU, EtherNet/IP, and Bluetooth communications available

#### **APPLICABLE ACROSS INDUSTRIES:**



Oil & Gas



HVAC/R



Water/ Wastewater



General Industrial



**Agriculture** 



Food & Beverage



Data Centers









## **PQvision for PQconnect**

Complimentary desktop and mobile application

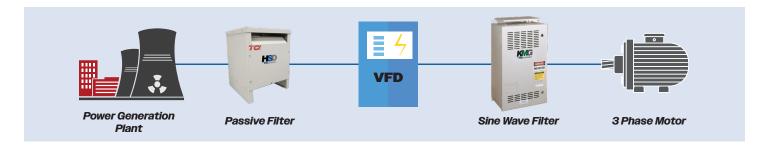
The PQvision desktop software is a free downloadable application directly from our website and available as an Android and iOS mobile application. PQvision provides:

- Automatic contactor control with no external auxiliary contact needed
- Real-time line/load current and voltage wave forms
- · Harmonic spectrum data
- Real-time voltage, current, iTHD, and vTHD
- · Filter diagnostics and Health









### WHY CHOOSE PQCONNECT-ENABLED FILTERS?

**Generator compatibility:** TCl's PQconnect-enabled filters offer generator compatibility with intelligence. Our filters autonomously control the tuning circuit contactor based on your system requirements to ensure worry-free operation for generator based systems.

**Intelligent filter controls:** Auxiliary connection to a VFD is not required with a PQconnect-enabled filter. The filter's digital control will automatically operate the contactor so that harmonic distortion is no longer a problem.

**Serial communication:** TCl's PQconnect-enabled filters offer a variety of serial communication, including Modbus RTU and EtherNet/IP. This allows data monitoring and status updates of the filter to your SCADA system. PQconnect supplies informational alerts to ensure your system operation whileresolving power quality issues.

**Predictive maintenance:** TCl's PQconnect-enabled filters allow for filter data diagnostics in real time. This helps to increase uptime of your power system and alert you of problems before they get serious.

