

# PQ PROTECTION SURGE PROTECTION DEVICES

## PQ240 SERIES



PQ240 is a high-performance, robust, modular surge protective device (SPD) with advanced features, protecting your facility's electrical equipment from damaging electrical power surges due to lightning; utility power generation/distribution systems; and inductive load switching equipment within your facility. Intended for service entrances, distribution panels, MCCs, branch panels, lighting panels, and large equipment applications (e.g., HVAC).

The PQ240 standard series is UL Type 1 listed (automatically suitable for UL Type 2) and can be installed before or after the service equipment overcurrent device, with or without a dedicated circuit breaker for the SPD.

The PQ240-F with EMI Filter option is UL Type 2 listed and can be installed after the service equipment overcurrent device. The PQ240-F EMI Filter series protects your facility equipment from internally generated transients such as oscillatory ring waveforms – typically due to switch-mode power supplies (most modern electronic equipment).

The PQ240 is automatic in operation, resetting after activation to provide continuous protection of electrical equipment. PQ240 SPDs feature remote monitoring contacts and RS-485 interface/serial port. Individual modules are easily replaced, if required.

ISO 9001:2014 Quality Management System, ISO 17025:2007 Laboratory Certification (UL DAP Program), and 100% Quality Tested prior to shipping.

### PRODUCT SPECIFICATIONS

<b>Status Indication</b>	Individual LED indicators for Normal and Alarm Status, Mechanical flag status indication for each mode, Audible Alarm with Silence Function, Resettable Surge and TOV Counter
<b>Certifications</b>	UL® 1449 Edition 5 Type 1 / Type 2, 20 kA I <sub>n</sub> (Standard Models) UL® 1449 Edition 5 Type 2, 20 kA I <sub>n</sub> , UL® 1283 Edition 7 (EMI Filter Models)
<b>Complies With</b>	UL® 96A and NEC® Article 242 (Article 285 - prior to 2020) ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C MIL-STD-220A (EMI Filter Models)
<b>Short Circuit Current Rating (SCCR)</b>	200 kA
<b>Maximum Discharge Current (I<sub>max</sub>)</b>	240 kA per phase / 120 kA per mode - 8/20 μs
<b>Nominal Discharge Current (I<sub>n</sub>)</b>	20 kA
<b>Frequency</b>	50 – 60 Hz
<b>Filtering (EMI Filter Models)</b>	-29 dB @ 100 kHz
<b>Operating Temperature</b>	-31° to 185°F (-35 to 85°C)
<b>Mounting</b>	Flange Mount, prepped for 1" conduit connector, optional Side Mount and Flush Mount kits
<b>Enclosure Rating</b>	NEMA® Type 4X, UL® 50E Type 4, suitable for indoor or outdoor installation
<b>Enclosure Material</b>	Metal with polycarbonate front cover
<b>Depth</b>	3.87 in.
<b>Width</b>	8.76 in.
<b>Height</b>	13.02 in.
<b>Weight</b>	10.98 – 12.02 lb.
<b>Lug Terminations - Conductor Size</b>	14 - 6 AWG
<b>Remote Monitoring - Contacts</b>	Form C, 2 A @ 240 V, 28-16 AWG stranded - IoT, BMS, and SCADA compatible
<b>Remote Monitoring - Interface / Serial Port</b>	ANSI® TIA®-485 - IoT, BMS, and SCADA compatible
<b>Warranty</b>	Ten (10) Years

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STANDARD MODELS   PQ240		MCOV	VPR			
Model Number	Configuration	(V)	L-G (V)	L-N (V)	N-G (V)	L-L (V)
PQ240-120/208-3Y	120/208V, 3-phase Wye, 4W+G	150 / 300	700	700	600	1200
PQ240-277/480-3Y	277/480V, 3-phase Wye, 4W+G	350 / 700	1200	1200	1200	2000
PQ240-240-3D	240V, 3-phase Delta, 3W+G	275	1000	-	-	1000
PQ240-480-3D	480V, 3-phase Delta, 3W+G	510	1800	-	-	1800
PQ240-120/240-HLD	120/240V, High-leg Delta, 4W+G	150 / 275	1200 / 1000	800 / 1500	1500 / 1000	1500 / 1500
PQ240-120/240-SP	120/240V, Split-phase, 3W+G	150 / 350	700	600	600	1000

EMI FILTER MODELS   PQ240-F		MCOV	VPR			
Model Number	Configuration	(V)	L-G (V)	L-N (V)	N-G (V)	L-L (V)
PQ240-F-120/208-3Y	120/208V, 3-phase Wye, 4W+G	150 / 300	700	700	700	1200
PQ240-F-277/480-3Y	277/480V, 3-phase Wye, 4W+G	350 / 700	1200	1200	1000	1800
PQ240-F-240-3D	240V, 3-phase Delta, 3W+G	275	1000	-	-	1000
PQ240-F-480-3D	480V, 3-phase Delta, 3W+G	510	1800	-	-	1800
PQ240-F-120/240-HLD	120/240V, High-leg Delta, 4W+G	150 / 275	1200 / 1000	800 / 1500	1500 / 1000	1500 / 1200
PQ240-F-120/240-SP	120/240V, Split-phase, 3W+G	150 / 350	700	600	600	1000

Contact factory for replacement module part numbers.

The EMI Filter option mitigates oscillatory ring waveforms – generally caused by non-linear loads inside the facility.

Typical oscillatory ring waveform sources include “transformer-less” switching power supplies for computers, IT equipment (network, monitors, printers), TVs, electronic ballasts for lighting, UPS, Inverter, Rectifier systems and Variable Frequency (speed) Drives.

