

PQ PROTECTION SURGE PROTECTION DEVICES

PQ480 SERIES



PQ480 is a high-performance, robust 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. PQ480 is intended for Service Entrance and large equipment applications, incorporating integral rotary disconnect switch.

The PQ480 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 PQ480-F with EMI Filter option is UL Type 2 listed and can be installed after the service equipment overcurrent device. The PQ480-F series protects your facility equipment from internally generated transients such as oscillatory ring waveforms which are typically due to switch-mode power supplies (most modern electronic equipment).

The PQ480 is automatic in operation, resetting after activation to provide continuous protection of electrical equipment.

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

PRODUCT SPECIFICATIONS

Status Indication	Two tri-color LEDs per phase, Audible Alarm with Silence Function, Rotatable Color Graphics LCD for Status, Resettable Surge and TOV Counter, Event History with time & date stamp
Disconnecting means	Integral rotary disconnect switch
Certifications	UL® 1449 Edition 5 Type 1 / Type 2, 20 kA I_n – (Standard Models) UL® 1449 Edition 5 Type 2, 20 kA I_n , UL® 1283 Edition 7 (EMI Filter Models)
Complies With	UL® 96A and NEC® Article 242 (Article 285 - prior to 2020) ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.1-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.45-2002 Cat A, Cat B, Cat C MIL-STD-220A (EMI Filter Models)
Short Circuit Current Rating (SCCR)	200 kA
Maximum Discharge Current (I_{max})	480 kA per phase / 240 kA per mode - 8/20 μ s
Nominal Discharge Current (I_n)	20 kA
Impulse Life	10,000 Impulses at 10 kA 8/20 μ s
Frequency	0 – 600 Hz
Filtering (EMI Filter Models)	-30 dB > 50 kHz, -45 dB > 250 kHz
Operating Temperature	-31° to 167°F (-35 to 75°C)
Mounting	Flange Mount
Enclosure Rating	NEMA® Type 4, UL® 50E Type 4, suitable for indoor or outdoor installation
Enclosure Material	Metal
Depth	7.23 in.
Width	13.19 in.
Height	16.79 in.
Weight	18.2 lb.
Lug Terminations - Conductor Size	10 – 4 AWG
Remote Monitoring Contacts	Form C, 5 A @ 240 V, 22-14 AWG stranded - IoT, BMS, and SCADA compatible
Warranty	Ten (10) Years

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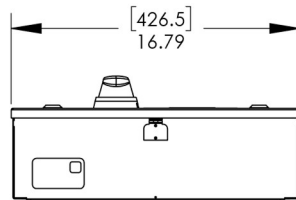
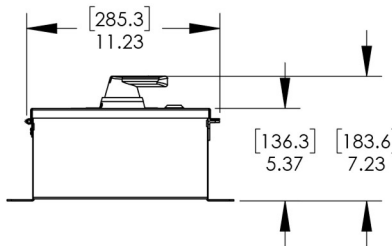
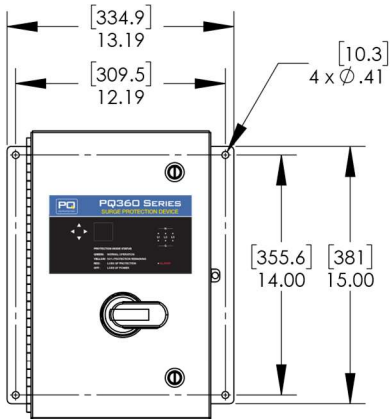
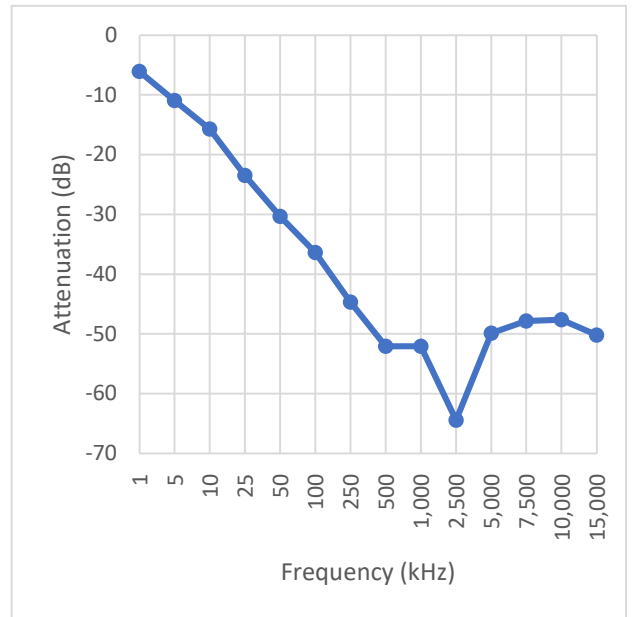


STANDARD MODELS PQ480		MCOV	VPR			
Model Number	Configuration	(V)	L-G (V)	L-N (V)	N-G (V)	L-L (V)
PQ480-120/208-3Y	120/208V, 3-phase Wye, 4W+G	150 / 300	800	800	800	1000
PQ480-277/480-3Y	277/480V, 3-phase Wye, 4W+G	320 / 700	1200	1200	1200	2000
PQ480-347/600-3Y	347/600V, 3-phase Wye, 4W+G	420 / 880	1500	1500	1500	2500
PQ480-240-3D	240V, 3-phase Delta, 3W+G	280	1000	-	-	1200
PQ480-480-3D	480V, 3-phase Delta, 3W+G	550	1800	-	-	1800

EMI FILTER MODELS PQ480-F		MCOV	VPR			
Model Number	Configuration	(V)	L-G (V)	L-N (V)	N-G (V)	L-L (V)
PQ480-F-120/208-3Y	120/208V, 3-phase Wye, 4W+G	150 / 300	800	800	800	1000
PQ480-F-277/480-3Y	277/480V, 3-phase Wye, 4W+G	320 / 700	1200	1200	1200	2000
PQ480-F-347/600-3Y	347/600V, 3-phase Wye, 4W+G	420 / 880	1500	1500	1500	2500
PQ480-F-240-3D	240V, 3-phase Delta, 3W+G	280	1000	-	-	1200
PQ480-F-480-3D	480V, 3-phase Delta, 3W+G	550	1800	-	-	1800

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.



CONFIGURATIONS (Conceptual - refer to IOM for installation instructions)

