

PQ PROTECTION SURGE PROTECTION DEVICES

PQ120 SERIES



PQ120 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 PQ120 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 PQ120-F with EMI Filter option is UL Type 2 listed and can be installed after the service equipment overcurrent device. The PQ120-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 PQ120 is automatic in operation, resetting after activation to provide continuous protection of electrical equipment. PQ120 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

Status Indication	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
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® C62.41.1-2002 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)
Short Circuit Current Rating (SCCR)	200 kA
Maximum Discharge Current (I_{max})	120 kA per phase / 60 kA per mode - 8/20 μ s
Nominal Discharge Current (I_n)	20 kA
Frequency	50 – 60 Hz
Filtering (EMI Filter Models)	-29 dB @ 100 kHz
Operating Temperature	-31° to 185°F (-35 to 85°C)
Mounting	Flange Mount, prepped for 1" conduit connector, optional Side Mount and Flush Mount kits
Enclosure Rating	NEMA® Type 4X, UL® 50E Type 4, suitable for indoor or outdoor installation
Enclosure Material	Metal with polycarbonate front cover
Depth	3.87 in.
Width	4 in.
Height	13.02 in.
Weight	5.95 – 6.78 lb.
Lug Terminations - Conductor Size	14 - 6 AWG
Remote Monitoring - Contacts	Form C, 2 A @ 240 V, 28-16 AWG stranded - IoT, BMS, and SCADA compatible
Remote Monitoring - Interface / Serial Port	ANSI® TIA®-485 - IoT, BMS, and SCADA compatible
Warranty	Ten (10) Years

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STANDARD MODELS PQ120		MCOV	VPR			
Model Number	Configuration	(V)	L-G (V)	L-N (V)	N-G (V)	L-L (V)
PQ120-120/208-3Y	120/208V, 3-phase Wye, 4W+G	150 / 300	700	700	600	1200
PQ120-277/480-3Y	277/480V, 3-phase Wye, 4W+G	350 / 700	1200	1200	1200	2000
PQ120-240-3D	240V, 3-phase Delta, 3W+G	275	1000	-	-	1000
PQ120-480-3D	480V, 3-phase Delta, 3W+G	510	1800	-	-	1800
PQ120-120/240-HLD	120/240V, High-leg Delta, 4W+G	150 / 275	1200 / 1000	800 / 1500	1500 / 1000	1500 / 1500
PQ120-120/240-SP	120/240V, Split-phase, 3W+G	150 / 350	700	700	600	1000

EMI FILTER MODELS PQ120-F		MCOV	VPR			
Model Number	Configuration	(V)	L-G (V)	L-N (V)	N-G (V)	L-L (V)
PQ120-F-120/208-3Y	120/208V, 3-phase Wye, 4W+G	150 / 300	700	700	600	1200
PQ120-F-277/480-3Y	277/480V, 3-phase Wye, 4W+G	350 / 700	1200	1200	1200	2000
PQ120-F-240-3D	240V, 3-phase Delta, 3W+G	275	1000	-	-	1000
PQ120-F-480-3D	480V, 3-phase Delta, 3W+G	510	1800	-	-	1800
PQ120-F-120/240-HLD	120/240V, High-leg Delta, 4W+G	150 / 275	1200 / 1000	800 / 1500	1500 / 1000	1500 / 1200
PQ120-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.

