

# MCG Surge

MODELS: 150M•125M•90M

## Branch Panel Surge Protector

The Surge Free 150M, 125M, and 90M offer powerful modular protection at the branch panel. It is ideal when extensive diagnostics are not required, but brute-force surge protection is a #1 priority. The 150/125/90M models are backed by a twenty-year, no-nonsense warranty.

### Standout Feature:

- Economical, compact, and modular

### Features:

- I<sub>peak</sub>=160,000A/Phase (150M)  
120,000A/Phase (125M)  
80,000A/Phase (90M)
- Two times redundant surge paths per phase
- Field-replaceable modules
- Front panel LEDs for status indication
- Audible fault alarm with mute switch (optional)
- Filtering is standard
- Easy installation - 30 minutes or less
- All modes protected: L-G, L-N, L-L, N-G
- NEMA 1, Powder Coated Steel Enclosure
- Optional outdoor non-metallic enclosure kit (NEMA 4X)

Made in the

**USA**



**I<sub>peak</sub> = 160,000/120,000/80,000A**

**UL 1449 5th Edition Listed**

**20-Year Protector Warranty**  
Lifetime Module Replacement

#### Filter Attenuation

MIL STD 220a (50 Ohm)	120VAC	220VAC	240VAC	277VAC	347VAC	480VAC
-30db	25kHz	25kHz	25kHz	50kHz	50kHz	50kHz
-40db	125kHz	180kHz	180kHz	100kHz	100kHz	100kHz
-50db	210kHz	210kHz	210kHz	180kHz	170kHz	170kHz
-60db	250kHz	250kHz	250kHz	200kHz	190kHz	190kHz

SPD Type: Type 2  
I(n): 10kA

Maximum Continuous Operating VAC (MCOV): 115% Rated Line Voltage

Varistor MCOV: 125% Rated Line Voltage Minimum

SCCR: 100kA AIC

Surge Current/Phase (8/20μs): 1 Event - 150M: 160kA; 125M: 120kA; 90M: 80kA

Surge Life/Phase(8/20μs): 10,000 Events - 150M: 6kA, 125M: 4kA, 90M: 2kA

Surge Current/Mode (8/20μs) 150M: L-N: 160kA; L-G: 80kA; N-G: 80kA; L-L: 160kA

Surge Current/Mode (8/20μs) 125M: L-N: 120kA; L-G: 80kA; N-G: 80kA; L-L: 120kA

Surge Current/Mode (8/20μs) 90M: L-N: 120kA; L-G: 80kA; N-G: 80kA; L-L: 80kA

Response Time: <5 ns

Energy Absorption (8/20μs) in Joules: 35,328 - 151,200J

Status Indicators: LED Status Indicators, Protected Dry Contacts

Operating Altitude: 13,000ft. (4000m)

Temp. (Operating/Storage): -40 degrees to +70 degrees C/-40 degrees to +85 degrees C

Enclosure: NEMA 1, 14 gauge steel, powder coated

Dimensions: 8" x 8" x 4" (203mm x 203mm x 120mm)

Mounting: 8.75" x 6".313" ID - 4 holes, 222mm x 152mm/7.9mm ID - 4 holes

Cable Connection: #10 AWG Cable

Weight: 150M: 11 lbs., (5kg); 125M: 10 lbs., (4.58kg), 90M: 9 lbs., (4.1kg)

UL File Number: E322161

UL Certification: UL Listed to 1449 5th Edition

ARRA Certification: Complies with ARRA 1605 requirements

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# Specifications: 150/125/90M

- ANSI / IEEE C62.41-2002
- IEC 61643-1-1998
- UL 1449, 5th Edition

MODEL 150M	SERVICE	VPR L-N	VPR L-G	VPR N-G	VPR L-L	16kV (1.2X50µs) 8kA (8X20µs)
-120Y	120/208VAC, 3Φ, 4W+G	700	1200	700	1200	584
-120T	120/240VAC, 1Φ, 3W+G	700	1200	700	1200	584
-120S	120VAC, 1Φ, 2W+G	700	1200	700	n/a	584
-220Y	220/380VAC, 3Φ, 4W+G	1200	2500	1200	2500	1096
-220S	220VAC, 1Φ, 2W+G	1200	2500	1200	n/a	1096
-240Y	240/415VAC, 3Φ, 4W+G	1200	2500	1200	2500	1096
-240S	240VAC, 1Φ, 2W+G	1200	2500	1200	n/a	1096
-240DCT*	240/120/120VAC, 3Φ, 4W+G	700/1200	1200/2500	700	1200/1800	1096/584
-277Y	277/480VAC, 3Φ, 4W+G	1200	2500	1200	2500	1096
-277S	277VAC, 1Φ, 2W+G	1200	2500	1200	n/a	1096

MODEL 125M	SERVICE	VPR L-N	VPR L-G	VPR N-G	VPR L-L	10kV (1.2X50µs) 5kA (8X20µs)
-120Y	120/208VAC, 3Φ, 4W+G	700	1500	700	1200	490
-120T	120/240VAC, 1Φ, 3W+G	700	1500	700	1200	490
-120S	120VAC, 1Φ, 2W+G	700	1500	700	n/a	490
-220Y	220/380VAC, 3Φ, 4W+G	1200	2500	1200	2500	1050
-220S	220VAC, 1Φ, 2W+G	1200	2500	1200	n/a	1050
-240Y	240/415VAC, 3Φ, 4W+G	1200	2500	1200	2500	1050
-240S	240VAC, 1Φ, 2W+G	1200	2500	1200	n/a	1050
-240DCT*	240/120/120VAC, 3Φ, 4W+G	700/1200	1200/2500	700	1200/1800	1050/490
-277Y	277/480VAC, 3Φ, 4W+G	1200	2500	1200	2500	1050
-277S	277VAC, 1Φ, 2W+G	1200	2500	1200	n/a	1050

MODEL 125M	SERVICE	VPR L-N	VPR L-G	VPR N-G	VPR L-L	10kV (1.2X50µs) 5kA (8X20µs)
-120Y	120/208VAC, 3Φ, 4W+G	700	1500	800	1200	520
-120T	120/240VAC, 1Φ, 3W+G	700	1500	800	1200	520
-120S	120VAC, 1Φ, 2W+G	700	1500	800	n/a	520
-220Y	220/380VAC, 3Φ, 4W+G	1200	2500	1200	2500	920
-220S	220VAC, 1Φ, 2W+G	1200	2500	1200	n/a	920
-240Y	240/415VAC, 3Φ, 4W+G	1200	2500	1200	2500	920
-240S	240VAC, 1Φ, 2W+G	1200	2500	1200	n/a	920
-240DCT*	240/120/120VAC, 3Φ, 4W+G	700/1200	1200/2500	800	1200/1800	520/920
-277Y	277/480VAC, 3Φ, 4W+G	1200	2500	1200	2500	920
-277S	277VAC, 1Φ, 2W+G	1200	2500	1200	n/a	920

\*High-leg Delta Center Tapped \*\*High-Leg