

CAT. NO. 51120-3R NEMA 3R-RATED OUTDOOR PANEL MOUNT SURGE PROTECTIVE DEVICE (SPD)

UL 1449 Transient Voltage Surge suppressors



APPLICATION

The Cat. No. 51120-3R outdoor panel mount SPD is designed for use at the service entrance, utility kWh meter or other outdoor equipment locations in homes, pumping stations, radio towers and small businesses where protection from high-energy, high-voltage transients is desired. The Cat. No. 51120-3R features a NEMA 3R-rated steel enclosure for protection against falling rain, sleet and external ice formations.

STANDARDS SPECIFICATIONS

The Cat. No. 51120-3R outdoor panel mount Surged Protective Device (SPD) is designed for use on AC power lines. The steel enclosure is NEMA 3R-rated for outdoor use. This device has been tested to ANSI/IEEE C62.41 standards for Categories A, B, and C environments. The Cat. No. 51120-3R is backed by Leviton's 5-year Limited Warranty.

FUNCTIONAL AND PERFORMANCE REQUIREMENTS FOR CAT. NO. 51120-3R OUTDOOR PANEL MOUNT SPD

Circuit Type—The Cat. No. 51120-3R incorporates high-energy 40mm metal-oxide varistor circuitry to protect each phase.

Configuration—Leviton Cat. No. 51120-3R is used for 120/240V single-phase operation.

Diagnostic LED's—The Cat. No. 51120-3R incorporates one diagnostic LED per phase. While the unit is in a power ON state each LED illuminates, indicating that each phase of the SPD is active and operating properly. Failure of the green LED to illuminate indicates line power failure and the Cat. No. 51120-3R should be replaced (use replacement module No. 120-3R).

PERFORMANCE	
The Cat. No. 51120-3R panel mount device provides SPD protection to the performance values described by the test data below:	
Cat. No. 51120-3R 120/240V Single-Phase	
Rated Single Pulse Transient Energy (10 x 1000 μ s Joules)	950J
Max. Single Pulse Transient Current (8 x 20 μ s, Amperes Peak)	50,000A
Clamping Response Time	Instantaneous
Cat. B3 Combination Wave (8 x 20 μ s) Clamping Voltage	640V
UL 1449 Rating (L-N)	800V

ELECTRICAL REQUIREMENTS	
Cat. No. 51120-3R 120/240V Single-Phase	
Line Voltage	120VAC
Max. Continuous Line-Neutral Voltage (VRMS)	180V
Phase/Wire Designation	L1—Black, L2—Red, N—White, G—Green
Operational Frequencies	50, 60Hz

PHYSICAL SPECIFICATIONS	
Operating Temperature Range: -10°C to 60°C	
Storage Temperature Range: -20°C to 85°C	
Dimensions	8.0" (203.2mm) x 6.0" (152.4mm) x 4.0" (101.6mm) NEMA-3R enclosure
Agency Approval: UL Standard 1449/CSA	

MECHANICAL REQUIREMENTS

Housing—The Cat. No. 51120-3R external housing consists of a NEMA-3R all-metal enclosure. External housing dimensions are 8.0" (203.2mm) x 6.0" (152.4mm) x 4.0" (101.6mm). The Cat. No. 51120-3R circuitry is enclosed in an internal housing constructed of UL approved impact-resistant and fire-retardant plastic. Internal housing dimensions are 3.0" (76.2mm) x 3.0" (76.2mm) x 2.7" (68.58mm). A wiring harness for connection is mounted on the device module.

The Panel Mount SPD plastic enclosure face is secured to a DIN rail module to permit LED visibility and provide an easy means for replacement.

Mounting— The module is installed by engaging the module mounting clip on left side of rail. Right side is then pressed down until locked. The module slides down until it contacts the ground block to line up LED's with cover lenses. Then the pigtail ground wire is connected to a terminal on the rail-mounted ground block.

