



HS 60 Ampere Model

Introduction

Since 1980, Eaton's Innovative Technology has provided Surge Protective Devices (SPDs) to power quality equipment users around the world. Whatever your electrical surge protection need may be, Eaton's Innovative Technology has a Surge Protective Device to fill it!

General Features

- Peak Surge Current — 80 kA per phase; 40 kA per mode
- Description — Series wired, terminal strip connected, Multi-stage hybrid **Active Tracking Network (ATN®)** sine wave tracking surge protective device with remote alarm capability and 2 pair (RJ14) telecommunication circuit protection
- Warranty — Ten-Year Free Replacement
- Unit Listings — Recognized components under UL®1449 Second Edition, UL 1283, Telecommunications circuit UL 497A, CSA®
- Manufacturer Qualifications — ISO® 9001:1994 Quality System Certification BSI FM 30833

Mechanical and Electrical Features

- Enclosure — ABS Plastic UL94-5VA
- Connection — Wire clamping box terminals on 30 Amp models; Stud-lugs on 60 Amp models
- Weight — ≈2 lb (9 kg); 60 Amp models ≈3 lb (1.5 kg)
- Operating Temperature — -40°F (-40°C) to +140°F (+60°C)
- Application — Dedicated 120 or 250 Vrms single-phase ac power circuits operating at ≤30 Amps or ≤60 Amps, feeding variable frequency drives, process controllers, PLCs, power supplies, microprocessor-based loads, CNCs and a wide variety of other mission-critical and general-purpose loads
- Protection Modes — All mode: L-N (normal mode), L-G, N-G (common mode)
- Input Power Frequency — 47 – 64 Hz (ac)
- Response Time — ac – Active <1 nanosecond

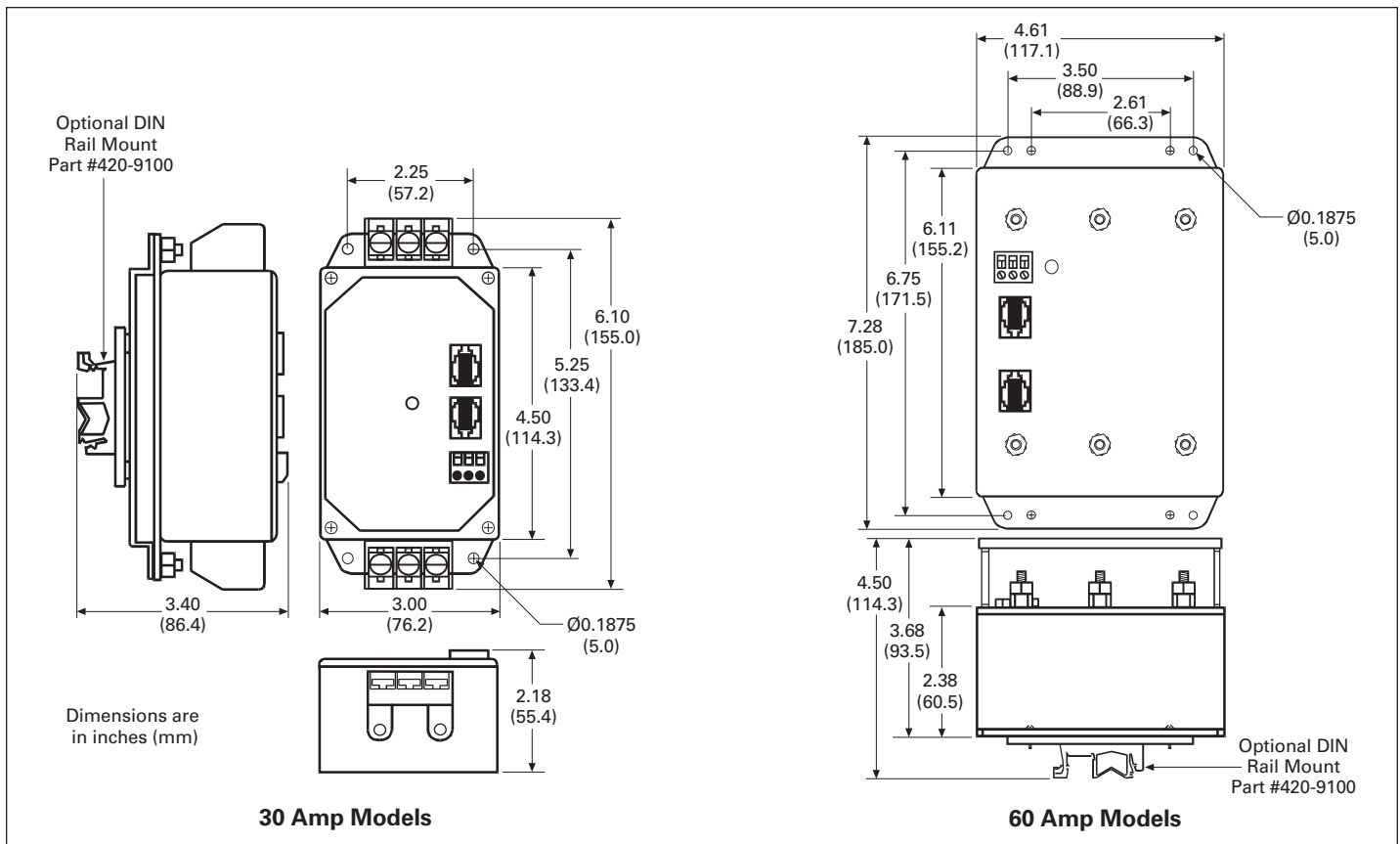
Maximum EMI/RFI Attenuation — Mil-Std-220

1 kHz	10 kHz	100 kHz	1 MHz	10 MHz	Maximum Attenuation Frequency
3.0 dB	21 dB	38 dB	36 dB	15 dB	47 dB @ 16 MHz

- Maximum Continuous Operating Current — 30 Amps or 0 Amps
- Diagnostics — ac only, Form C (NO, NC) Dry Relay (Volt Free) contacts rated at 1 Amp @ 30 Vdc, .5 Amp @ 125 Vac
- Circuit Interrupt — Reference installation instructions for details

Telecom Specifications

- Application — Modular jacks are: RJ11 (1 pair) or RJ14 (2 pair) Compatible with standard voice grade lines including ISDN
- Protection Modes — All mode: Normal/Transverse – tip to ring, Common/Longitudinal – tip to ring and ring to ground
- Frequency Range — 0 – 16 MHz
- Data Rate — ≤1.6 Mbps
- Continuous Current Maximum — 100 mA
- Response Time — ≤1 nanosecond
- EMI/RFI Attenuation — 3 dB point 17 MHz, max attenuation 39 dB @ 38 MHz
- Maximum Continuous Operating Voltage — 127 Vrms tip to ring, tip and ring to ground
- Series Resistance — ≈10 ohms
- UL Listing — UL 497A
- Pairs Protected — (1-4) (203)



Performance Data

ANSI/IEEE C62.41-1991 Measured Limiting Voltage*

UL SVR

Available Models	Maximum Continuous Operating Voltage (Vrms)	ANSI/IEEE C62.41-1991 Measured Limiting Voltage*				UL SVR
		A1 Ring Wave 2 kV, 67 A 180° Phase Angle	A1 Ring Wave 2 kV, 67 A 90° Phase Angle	B3/C1 Impulse Wave 6 kV, 3 kA 90° Phase Angle	C3 Impulse Wave 20 kV, 10 kA 90° Phase Angle	UL 1449-2 Suppressed Voltage Ratings
		L-N L-G, N-G	L-N L-G, N-G	L-N L-G, N-G	L-N L-G, N-G	L-N L-G, N-G
HS-P-SP-120-30-RJ	150 150, 150	30 70, 50	200 240, 50	430 420, 430	500 550, 540	400 400, 400
HS-P-SP-250-30-RJ	275 275, 275	60 90, 50	350 400, 50	760 790, 770	860 880, 890	800 800, 800
HS-P-SP-120-60-RJ	150 150, 150	30 80, 40	190 240, 50	420 450, 430	520 660, 560	400 400, 400
HS-P-SP-250-60-RJ	275 275, 275	20 50, 40	370 400, 50	770 820, 780	890 1000, 950	800 800, 800

*Test environment: Positive polarity. Tested with ac power applied. All units tested at terminals, time base = 1 ms. All measurements referenced from zero volts per NEMA® LS-1.

Telecom	Maximum Continuous Operating Voltage (Vrms)	IEC 801-5 10 x 700 μs Telecommunications Wave Form			
		500 V 25 ohm	1000 V 25 ohm	2000 V 25 ohm	4000 V 25 ohm
		L-G L-L	L-G L-L	L-G L-L	L-G L-L
RJ-14	127 V	170 170	170 170	170 170	170 170

Innovative Technology is a registered service mark of Eaton Corporation. Active Tracking Network (ATN) is a registered trademark of Eaton Corporation. UL is a federally registered trademark of Underwriters Laboratories Inc. CSA is a registered trademark of the Canadian Standards Association. NEMA is the registered trademark and service mark of the National Electrical Manufacturers Association. ISO is the registered trademark and sole property of the International Organization for Standardization.

Eaton Corporation Innovative Technology TVSS Products

1000 Cherrington Parkway
Moon Township, PA 15108-4312
USA
Phone: 1-800-525-2000
Web: www.itvss.com



©2004–2007 Eaton Corporation
All Rights Reserved
Printed in USA
Form No. PS01006027E / Z2990
May 2007