



**COMPONENT  
 LEVEL FUSING**

# HS-P-SP Models



## GENERAL SPECIFICATIONS

**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 UL1449 Second Edition, UL1283, Telecommunications circuit UL497A, CSA

**Manufacturer Qualifications:** ISO 9001:1994 Quality System Certification BSI FM 30833

## MECHANICAL SPECIFICATIONS

**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)

## ELECTRICAL/PERFORMANCE SPECIFICATIONS

**Application:** Dedicated 120 or 250 Vrms 1φ AC power circuits operating at ≤30 Amps or ≤60 Amps, feeding variable frequency drives, process controllers, PLCs, power supplies, micro-processor based loads, CNCs & a wide variety of other mission critical & 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 (N/O, N/C) Dry Relay (Volt Free) contacts rated at 1 Amp @ 30 VDC, .5 Amp @ 125 VAC

**Short Circuit Current Rating:** 200 kAIC with 30 Amp or 60 Amp Class R Fuse

## TELECOM ELECTRICAL/PERFORMANCE SPECIFICATIONS

**Application:** Modular jacks are: RJ11 (1 pair) or RJ14 (2pair). Compatible with standard voice grade lines including ISDN

**Protection Modes:** All mode: Normal/Transverse – tip to ring, Common/Longitudinal – tip to ring & ring to ground

**Frequency Range:** 0-16 MHz

**Data Rate:** ≤1.6 Mbps

**Series Resistance:** ≈ 10 ohms

**UL Listing:** UL497A

**Continuous Current Maximum:** 100 mA

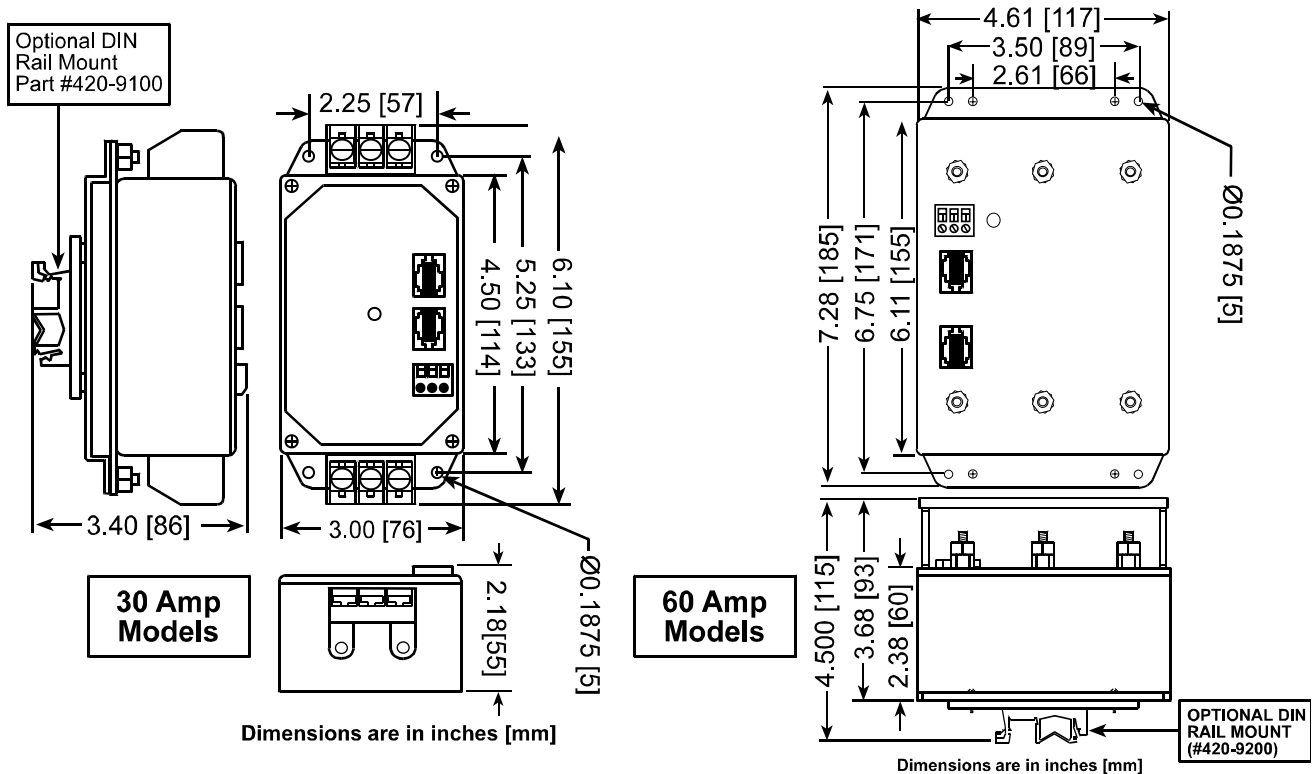
**Pairs Protected:** (1-4) (203)

**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 & ring to ground

# HS-P-SP Models



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° Phs Angle	A1 Ring Wave 2 kV, 67 A 90° Phs Angle	B3/C1 Impulse Wave 6 kV, 3 kA 90° Phs Angle	C3 Impulse Wave 20 kV, 10 kA 90° Phs 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