

FSP320-2H35-A54H

FEATURES

- Class-I design
- IEC 62368-1 safety compliance
- EN55032 class B conducted emission
- Isolated between 12V and 54V
- Isolated between Protected Earth and Return
- Form factor 3" x 5"



SAFETY STANDARD APPROVAL



DESCRIPTION

This AC-DC switching power supplies in a package of 127 x 76.2 x 31.6 mm (above PCB) is a Class-I (with Protection Earth) safety construction and isolated dual outputs 54V & 12V PSU that suitable for PoE Switch and Networking application. This PSU is capable of delivering 320 watts continuous power at 7 CFM forced air cooling or 150 watts continuous power at convection cooling and 50°C operation temperature.

INPUT SPECIFICATIONS

Input voltage:	90 to 264 VAC
Input frequency:	47-63 Hz
Input current:	≤ 4.2 A (rms) for 115 VAC ≤ 2.1 A (rms) for 230 VAC
Earth leakage current:	≤ 3 mA @ 264VAC, 63Hz
Touch current:	≤ 250 µA @ 264VAC, 63Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Total output power:	320 watts maximum
Ripple and noise:	1% peak to peak maximum
Protection:	OVP Latch off OCP & Shorted Auto recovery OTP Auto recovery
Temperature coefficient:	All outputs ±0.04% /°C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

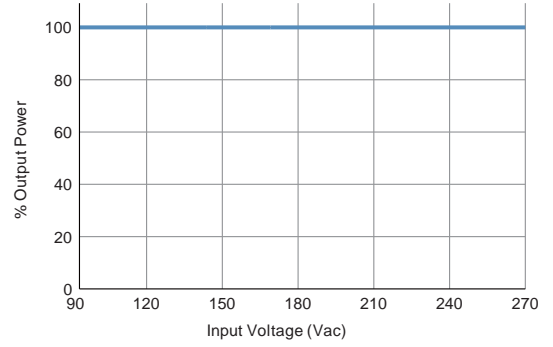
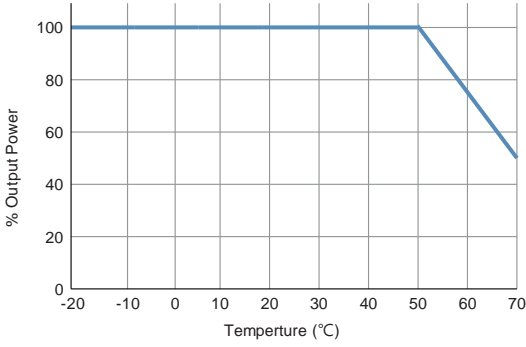
ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20°C to +70°C
Storage temperature:	-40°C to +85°C
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50°C linearly to 50% at +70°C, applicable to convection and forced-air cooling conditions.

GENERAL SPECIFICATIONS

Fuse protection	T6.3AL, 250Vac
Power factor:	0.95 mini. @ 115VAC & 100% load 0.98 mini. @ 230VAC & 100% load
Efficiency:	Refer to rating table
Turn-On Delay Time:	≤ 1.5 sec
Hold-up time:	10 mS mini. @ 115VAC & 230VAC, 100% load
Line regulation:	±0.2% maximum at full load
Inrush current:	No damage to PSU @ 115VAC & 230VAC, 25°C & cold start
Withstand voltage:	3000 VAC from input to output 1500 VAC from input to ground 1500 VAC from output to ground
Isolation resistance:	Input to output 100M ohm @ 500Vdc
MTBF:	350,000 hours mini. at full load, 25°C ambient temperature, calculated per Telcordia SR-332
EMC Performance (IEC60601-1-2)	
EN 55032:	Class B conducted,
EN61000-3-2:	Harmonic distortion, Class D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ±8 KV air and ±4 KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, ±1 KV
EN61000-4-5:	Surge, ±2 KV diff., ±4 KV com.
EN61000-4-6:	Conducted immunity, 3 Vrms Magnetic
EN61000-4-8:	Field immunity, 1 A/m
EN61000-4-11:	Voltage dip immunity @ 230Vac, 50Hz 100% reduction for 10 ms, criteria A 30% reduction for 500 ms, criteria A 100% reduction for 5000 ms, criteria B

OUTPUT POWER DERATING CURVE



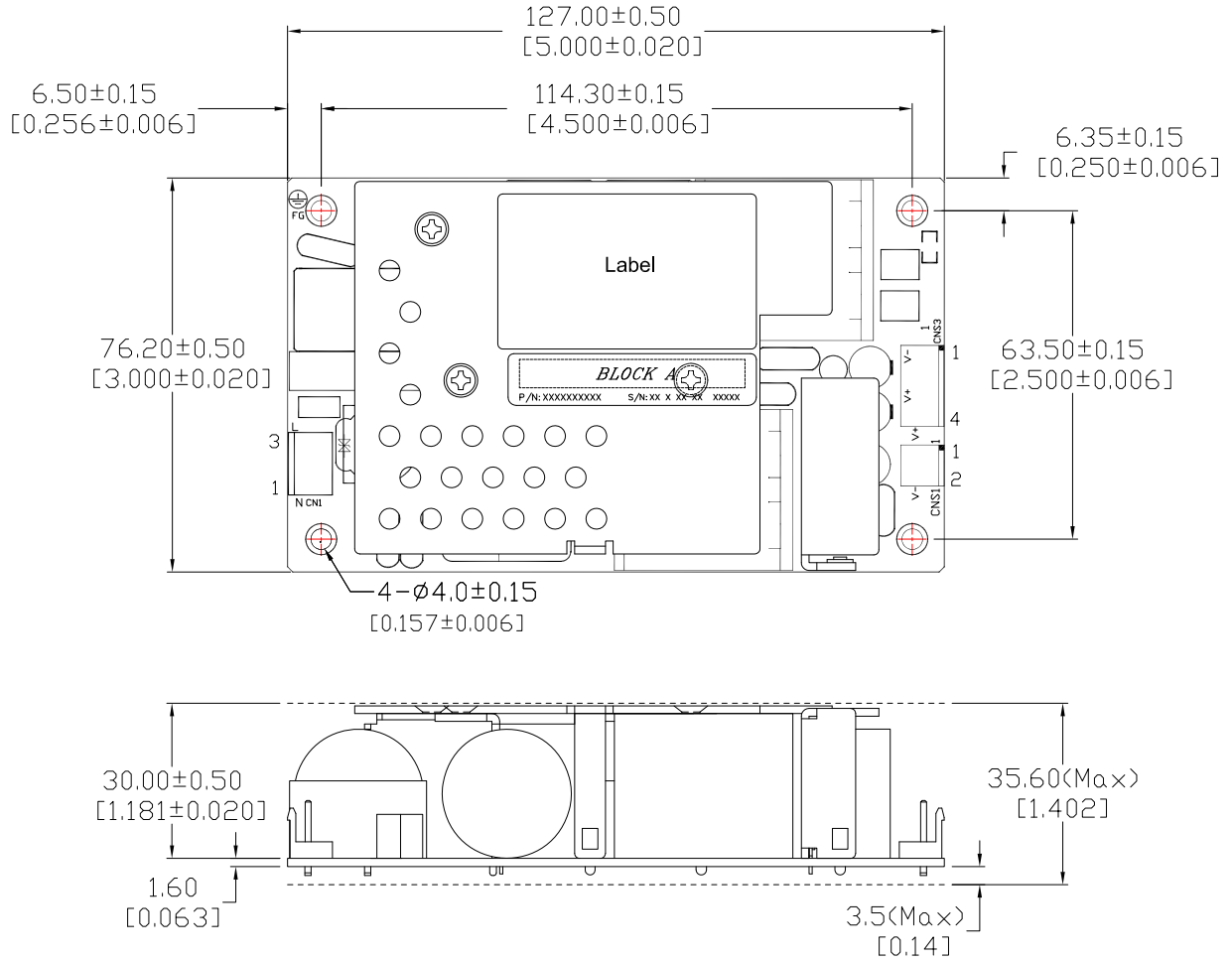
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output						Efficiency (typical) @ 115 / 230 VAC
	Voltage	Min. Load	Max. Load ⁽¹⁾	Tolerance	Ripple & Noise ⁽²⁾	Power ⁽¹⁾	
FSP320-2H35-A54H	54 V	0 A	4.07 A	±3 %	400 mV	220 W	90 / 93%
	12 V	0 A	8.34 A	±3 %	250 mV	100 W	

NOTES:

1. Forced air 7 CFM to be provide by user.
2. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 μ Ftantalum (or electrolytic) capacitor in parallel with a 0.1 μ Fceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



CONNECTOR PIN CHART

CONNECTOR	CN1			CNS1		CNS3	
PIN NO.	1	2	3	1	2	1, 2	3, 4
OUTPUT	Neutral		Line	+54V	+54V_Return	+12V_Return	+12V

NOTES:

- Dimensions shown in mm
- Connector CN1: JWT A3963WV2-3P-D or equivalent.
- Connector CNS1: JWT A3963WV2-2P or equivalent.
- Connector CNS3: JWT A3963WV2-4P or equivalent.
- To ensure compliance with level B emissions, connect the four PCB mounting holes with metallic standoffs to the chassis.

Weight: 378 grams (0.833 lbs.) approx.