

280W PoE OPEN FRAME

FSP280-2F47-A54H



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FEATURES

- · Class-I design
- · Low inrush current
- · Meet EN 55032 and FCC Class B
- · Isolated between +12V & +54V outputs
- · Isolated between PE and RETURN
- · Surge protection ±2 KV diff, ±4 KV com
- · High altitude 5000 meters operation

SAFETY STANDARD APPROVAL



DESCRIPTION

This AC-DC switching power supplies in a package of 4 x 7.5 inches is an isolated dual outputs 54V & 12V PSU that suitable for PoE Switch & Network application. This PSU is capable of delivering 280 watts continuous power with 7 CFM forced air cooling.

INPUT SPECIFICATIONS

Input voltage: 90-264 VAC Input frequency: 47-63 Hz

2.82 A (rms) for 115 VAC Input current: 1.42 A (rms) for 230 VAC 1.5 mA max. @ 264 VAC, 63 Hz Earth leakage current: Touch current: 250 uA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

See rating chart. Output voltage/current:

Total output power: 280W

Protection:

Over voltage: Set at 110~135% of nominal output

voltage and auto recovery Short circuit & Output protected to short circuit condition and auto recovery Over current: Over temperature: Detected by thermistor and auto

recovery

All outputs ±0.04% /°C maximum Temperature coefficient: Transient response: Maximum excursion of 5% 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~+70°C -40°C~+85°C Storage temperature:

Relative humidity: 5% to 95% non-condensing

Derating: Derate from 100% at +50°C linearly to

50% at +70°C, applicable to both convection and forced-air cooling

conditions

GENERAL SPECIFICATIONS

0.98 min at 100% load and 115VAC Power factor:

0.9 min. at 100% load and 230VAC

Efficiency: 89% minimum

Hold-up time: 12 ms minimum at 115 VAC

Power on time: 1.5 Sec maximum

Line regulation: ±0.5% maximum at full load Inrush current: 70A @ 230 VAC, at 25°C cold start 3000 VAC from input to output, Withstand voltage:

1500 VAC from input to ground, 1500 VAC from output to ground

MTBF: 340,000 hours minimum at full load at 25°C ambient,

calculated per TELCORDIA SR-332

EMC Performance

EN55032 Class B conducted, class B radiated FCC: Class B conducted, class B radiated VCCI: Class B conducted, class B radiated

EN61000-3-2: Harmonic distortion, class D

EN61000-3-3: Line flicker

EN61000-4-2: ESD. ±15 KV air and ±8 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 FN61000-4-61 Conducted immunity, 3 Vrms EN61000-4-8: Magnetic field immunity, 3 A/m

Voltage dip immunity, EN61000-4-11:

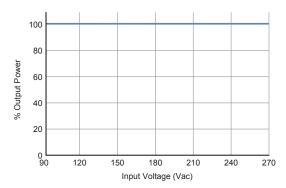
30% reduction for 500 ms >95% reduction for 10 ms >95% reduction for 5000 mS

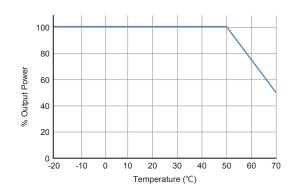


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OUTPUT POWER DERATING CURVE





OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output Voltage	Min. Load	Max. Load (7 CFM)	Output Power	Ripple & Noise	Load Regulation	Efficiency 115 / 230 Vac
FSP280-2F47-A54H	54 V	0 A	4.63 A	280W	400 mV	±3%	90 / 92%
	12V	0 A	4.2 A		250 mV	±5%	

NOTES:

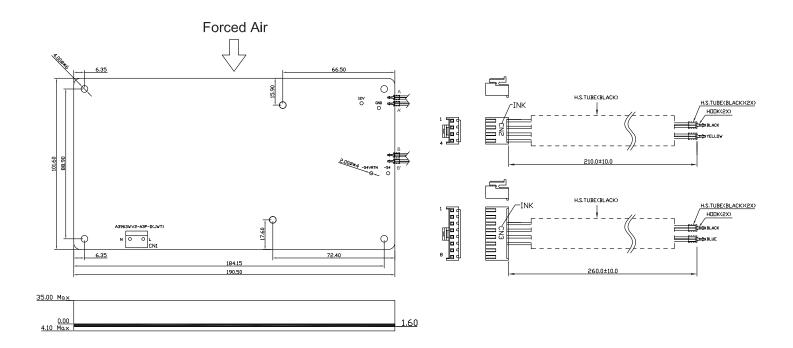
^{1.} Output voltage tolerance is measured at connector terminal
2. Total output power is limited at 280W maxi.
3. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a
10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.



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MECHANICAL SPECIFICATIONS



Pin assignment: Input connector (IN1):

Pin No.	Function	Wafer	
1	Neutral	JWT A3963WV2-A3P or EQU	
2	NC		
3	Line		

Output connector (CNS1):

Pin No.	Function	Wafer	
1, 2	+12 RTN	JWT A3963H02-4P or equivalent	
3, 4	+12V		

Pin assignment of CNS2:

Pin No.	Function	Wafer	
1, 2	NC		
3, 4	+54V	JWT A3963H02-8P	
5, 6	+54V RTN	or equivalent	
7, 8	NC		

NOTES

- 1. Dimension (L*W*H): 190.5 * 101.6 * 35 mm / 7.5" * 4" * 1.38"
- 2. To ensure compliance with level B emissions, connect the three PCB mounting holes with metallic standoffs to the chassis.
- 3. Weight: 410 grams / 0.90 lbs. approx.