

TECHNICAL DATASHEET **280W PoE OPEN FRAME** FSP280-2F47-A54H



FSP280-2F47-A54H

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 ±3 KV diff, ±6 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: Input frequency: Input current:

90-264 VAC 47-63 Hz 2.82 A (rms) for 115 VAC 1.42 A (rms) for 230 VAC 1.5 mA max. @ 264 VAC, 63 Hz 250 uA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current: Total output power: Protection: Over

Earth leakage current: Touch current:

> See rating chart. 280W

Set at 110~135% of nominal output voltage and auto recovery
Output protected to short circuit
condition and auto recovery
Detected by thermistor and auto recovery
All outputs ±0.04% /°C maximum
Maximum excursion of 5% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change

-20°C~+70°C

ENVIRONMENTAL SPECIFICATIONS

Operating temperature: Storage temperature: Relative humidity: Derating:

-40°C~+85°C 5% to 95% non-condensing Derate from 100% at +50°C linearly to 50% at +70°C, applicable to both convection and forced-air cooling conditions

GENERAL SPECIFICATIONS

Power factor:	0.98 min at 100% load and 115VAC	
	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	
Withstand voltage:	3000 VAC from input to output,	
	1500 VAC from input to ground,	
	500 VAC from output to ground	
MTBF:	100,000 hours minimum at full load at 25°C ambient,	
	calculated per MIL-HDBK-217F	
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, ±2 KV	
EN61000-4-5:	Surge, ±3 KV diff, ±6 KV com	
EN61000-4-6:	Conducted immunity, 3 Vrms	
EN61000-4-8:	Magnetic field immunity, 3 A/m	
EN61000-4-11:	Voltage dip immunity,	
	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
	54 V	0 A		280W	400 mV	±3%	90 / 92%
FSP280-2F47-A54H	12V	0 A	4.2 A	20000	250 mV	±5%	9079276

NOTES:

1. Output voltage tolerance is measured at connector terminal

Cotal output power is limited at 280W maxi.
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
2	NC	A3963WV2-A3P or EQU
3	Line	OFEQU

Output connector (CNS1):

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

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:

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1. Dimension (L*W*H): 190.5 * 101.6 * 35 mm / 7.5" * 4" * 1.38" 2. Weight: 410 grams / 0.90 lbs. approx.