

# **550W PoE OPEN FRAME**

FSP550-2F37-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 ±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 190 x 90 x 35 mm (above PCB) is an isolated dual outputs 54V & 12V PSU that suitable for PoE Switch & Network application. This PSU is capable of delivering 550 watts continuous power with 19 CFM forced air cooling conditions.

# **INPUT SPECIFICATIONS**

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

Input current: 7.2 A (rms) for 115 VAC 3.5 A (rms) for 230 VAC Earth leakage current:

1.5 mA max. @ 264 VAC, 63 Hz Touch current: 250 uA max. @ 264 VAC, 63 Hz

# **OUTPUT SPECIFICATIONS**

Output voltage/current: See rating chart. Total output power: 550W

Protection:

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

voltage and latch

Short circuit & Output protected to short circuit Over current: condition and auto recovery Over temperature: Detected by thermistor and latch Temperature coefficient: All outputs ±0.04% /°C maximum 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**

-20°C~+70°C Operating temperature: Storage temperature: -40°C~+85°C

5% to 95% non-condensing Relative humidity:

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:

0.95 min. at 100% load and 230VAC

Efficiency: 89% minimum

Hold-up time: 16 ms minimum at 115 VAC Power on time: 2 Sec maximum Line regulation: ±1% maximum at full load

Inrush current: 60A @ 230 VAC, at 25°C cold start

Withstand voltage: 3000 VAC from input to output, 1500 VAC from input to ground, 1500 VAC from output to ground

120,000 hours minimum at full load at 25°C ambient,

calculated per TELCORDIA SR-332

**EMC Performance** 

MTBF:

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 FN61000-4-61 Conducted immunity, 3 Vrms EN61000-4-8: Magnetic field immunity, 3 A/m

Voltage dip immunity, EN61000-4-11:

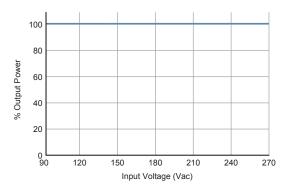
30% reduction for 500 ms >95% reduction for 10 ms >95% reduction for 5000 mS

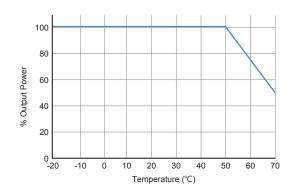


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# **OUTPUT POWER DERATING CURVE**





### **OUTPUT VOLTAGE/CURRENT RATING CHART**

Model	Output Voltage	Min. Load	Max. Load (7 CFM)	Output Power	Ripple & Noise	Load Regulation	Efficiency 115 / 230 Vac
FSP550-2F37-A54H	54.5 V	0.02 A	7.4 A	550W	500 mV	±3%	89 / 91%
	12V	0.5 A	12.5 A		240 mV	±3%	

# NOTES:

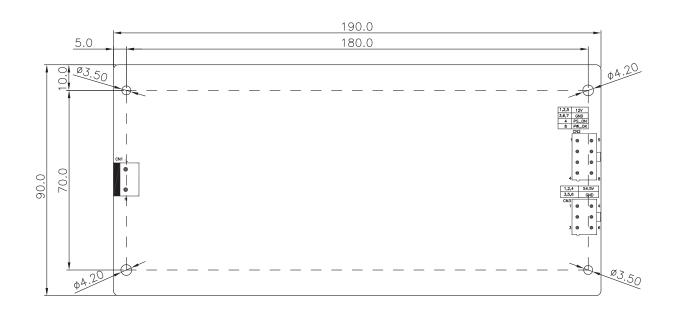
<sup>1.</sup> Output voltage tolerance is measured at connector terminal
2. Total output power is limited at 550W maxi.
3. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a
10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

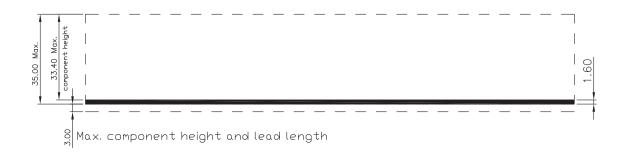


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# **MECHANICAL SPECIFICATIONS**





# Pin assignment: Input connector (CN1):

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

# Pin assignment of CN2:

Pin No.	Function	Wafer	
1, 2, 5	+12V		
3, 6, 7	RETURN	JWT C420WV0-2*4P	
4	PS_ON	or EQU	
8	PW_OK		

# Output connector (CN3):

Pin No.	Function	Wafer	
1, 2, 4	+54.5V	JWT C4201WV0-2*3P	
3, 5, 6	RETURN	or EQU	

- 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.