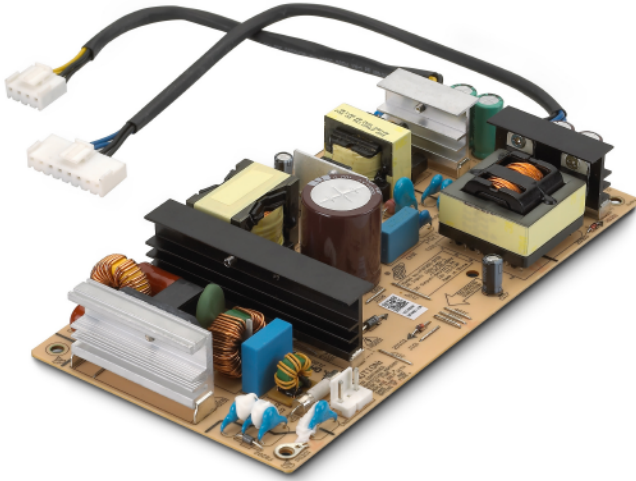


# FSP250-2F47-A54H



### 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  $\pm 3$  KV diff,  $\pm 6$  KV com
- High altitude 5000 meters operation
- OTP, Brown-out protection

### 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 & Telecomm application. This PSU is capable of delivering 250 watts continuous power with 7 CFM forced air cooling.

### INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	2.6 A (rms) for 115 VAC 1.3 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.
Fan driver:	See rating chart.
Total output power:	See rating chart.
Protection:	
Over voltage:	Set at 110~135% of nominal output voltage and auto recovery
Short circuit & Over current:	Output protected to short circuit condition and auto recovery
Over temperature:	Detected by thermistor and auto recovery
Temperature coefficient:	All outputs $\pm 0.04\%$ / $^{\circ}$ 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

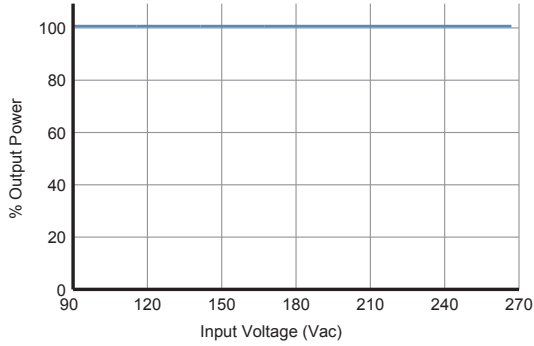
### ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20 $^{\circ}$ C~+70 $^{\circ}$ C
Storage temperature:	-40 $^{\circ}$ C~+85 $^{\circ}$ C
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50 $^{\circ}$ C linearly to 50% at +70 $^{\circ}$ C, applicable to both convection and forced-air cooling conditions

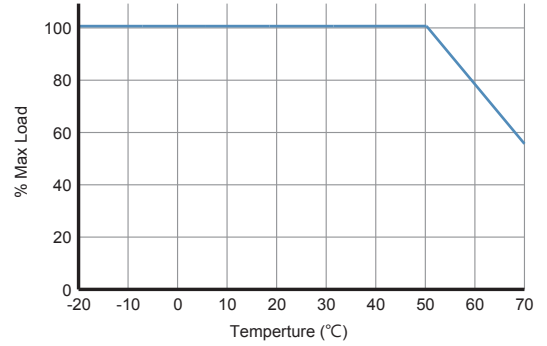
### GENERAL SPECIFICATIONS

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:	$\pm 0.5\%$ maximum at full load
Inrush current:	70A @ 230 VAC, at 25 $^{\circ}$ 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 $^{\circ}$ 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, $\pm 15$ KV air and $\pm 8$ KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, $\pm 2$ KV
EN61000-4-5:	Surge, $\pm 3$ KV diff, $\pm 6$ 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, criteria A] >95% reduction for 10 ms, criteria A >95% reduction for 5000 mS, criteria B

**INPUT VOLTAGE DERATING CURVE**



**OUTPUT POWER DERATING CURVE**



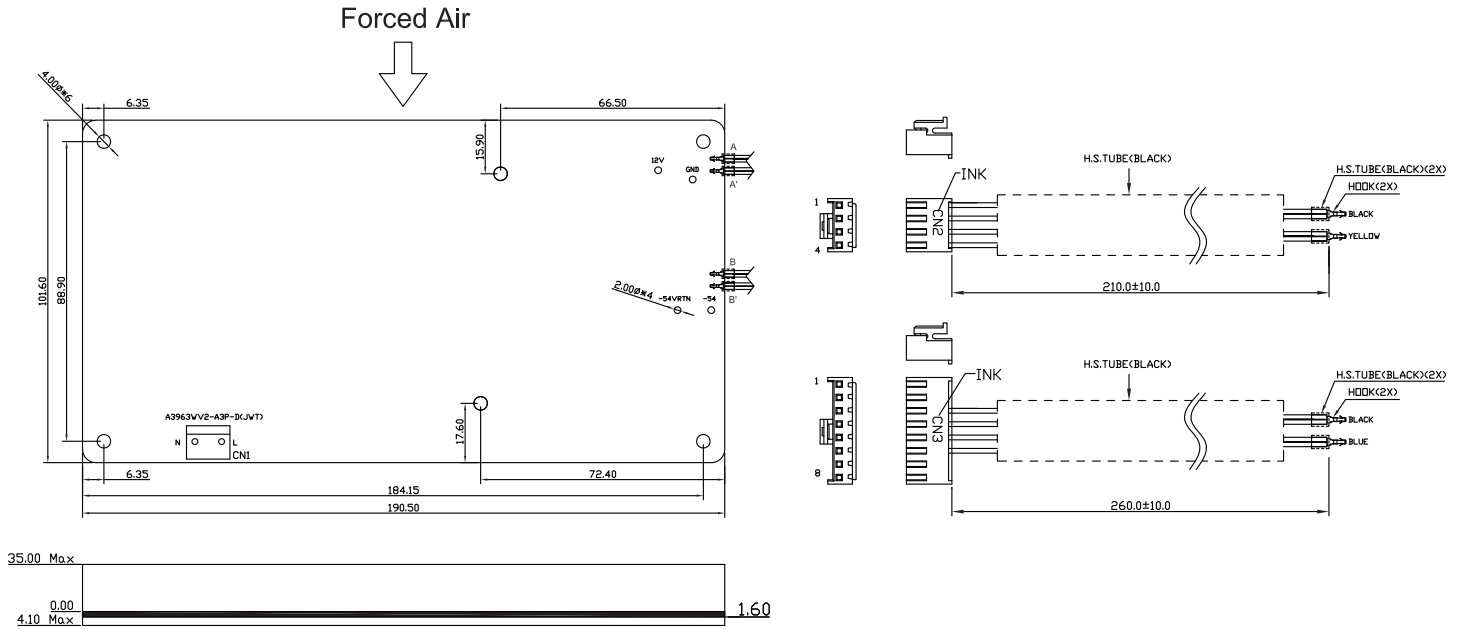
**OUTPUT VOLTAGE/CURRENT RATING CHART**

Model	Output Voltage	Min. Load	Max. Load (7 CFM)	Output Power	Ripple & Noise	Load Regulation	Efficiency 115 / 230 Vac
FSP250-2F47-A54H	54 V	0 A	3.7 A	250W	400 mV	±3%	89 / 92%
	12V	0 A	4.2 A		250 mV	±5%	

**NOTES:**

1. Maximum output watts is 190W without moving air or 250W with 7 CFM forced air provided by user.
2. Output voltage tolerance is measured at connector terminal
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  $\mu$ F tantalum capacitor in parallel with a 0.1  $\mu$ F ceramic capacitor across the output.

**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	JWT A3963H02-8P or equivalent
3, 4	+54V	
5, 6	+54V RTN	
7, 8	NC	

NOTES:

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