

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:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	2.82 A (rms) for 115 VAC 1.42 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:	280W
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 $\pm 0.04\%$ / $^{\circ}\text{C}$ 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

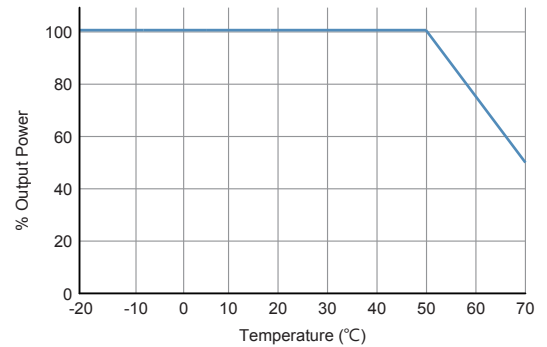
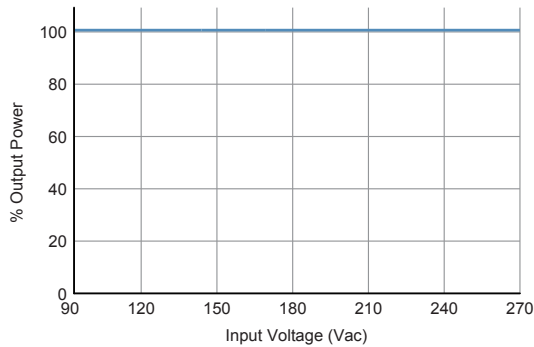
ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20 $^{\circ}\text{C}$ ~+70 $^{\circ}\text{C}$
Storage temperature:	-40 $^{\circ}\text{C}$ ~+85 $^{\circ}\text{C}$
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50 $^{\circ}\text{C}$ linearly to 50% at +70 $^{\circ}\text{C}$, 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 $^{\circ}\text{C}$ cold start
Withstand voltage:	3000 VAC from input to output, 1500 VAC from input to ground, 1500 VAC from output to ground
MTBF:	340,000 hours minimum at full load at 25 $^{\circ}\text{C}$ 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, ± 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

OUTPUT POWER DERATING CURVE



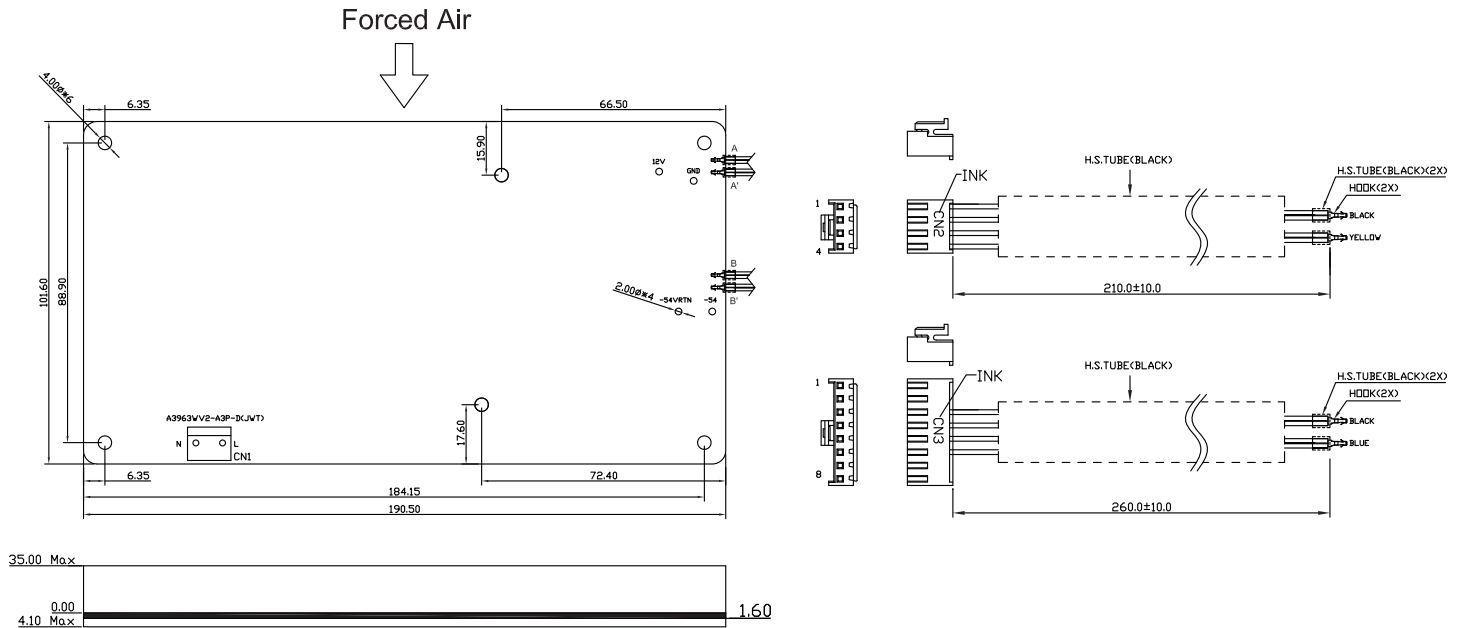
OUTPUT VOLTAGE/CURRENT RATING CHART

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:

- Output voltage tolerance is measured at connector terminal
- Total 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 μ F tantalum capacitor in parallel with a 0.1 μ 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"
- To ensure compliance with level B emissions, connect the three PCB mounting holes with metallic standoffs to the chassis.
- Weight: 410 grams / 0.90 lbs. approx.