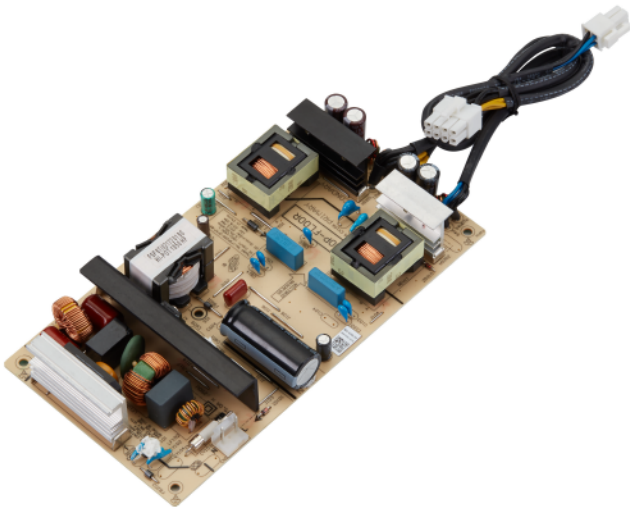
TECHNICAL DATASHEET

250W PoE OPEN FRAME

FSP250-2F47-B54H



FSP250-2F47-B54H

FEATURES

- Class-I design
- Meet EN 55032 and FCC Class B
- Isolated between 12V and 54V outputs
- Isolated between PE & RETURN
- Surge protection ±3 KV diff, ±6 KV com
- High altitude 5000 meters operation
- OVP, OPP, OTP, Brown-out protection

SAFETY STANDARD DESIGN TO MEET

CB

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 condition

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:	250W @ 7 CFM forced air
Total output power:	See rating chart.
Protection:	
Over voltage:	Latch
Short circuit & Over current:	Auto recovery
Over temperature:	Latch
Temperature coefficient:	All outputs ±0.04% /℃ 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:	
Storage temperature:	-20℃~+70℃
Relative humidity:	-40℃~+85℃
Derating:	5% to 95% non-condensing Derate from 100% at +50℃ linearly to 50% at +70℃, 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:	86% minimum @ 115Vac
Hold-up time:	10 ms minimum at 115 VAC
Power on time:	1 Sec maxi.
Line regulation:	±0.5% maximum at full load
Inrush current:	70A max and no damage to PSU
Withstand voltage:	3000 VAC from input to output, 1500 VAC from input to ground, 500 VAC from output to ground
MTBF:	200,000 hours minimum at full load at 25℃ ambient, calculated per BELL CORE 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, ±8 KV air and ±4 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, criteria A >95% reduction for 10 ms, criteria A >95% reduction for 5000 mS, criteria B

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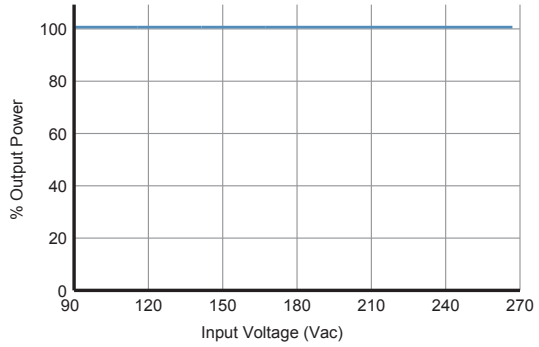
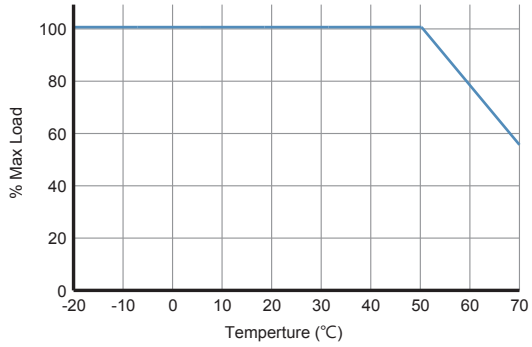
INPUT VOLTAGE DERATING CURVE



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-B54H	54 V	0 A	2.78 A	250W	400 mV	±3%	86 / 89%
	12V	0 A	8.33 A		250 mV	±5%	

NOTES:
1. Maximum output watts is 250W with 7 CFM forced air provided by user.
2. 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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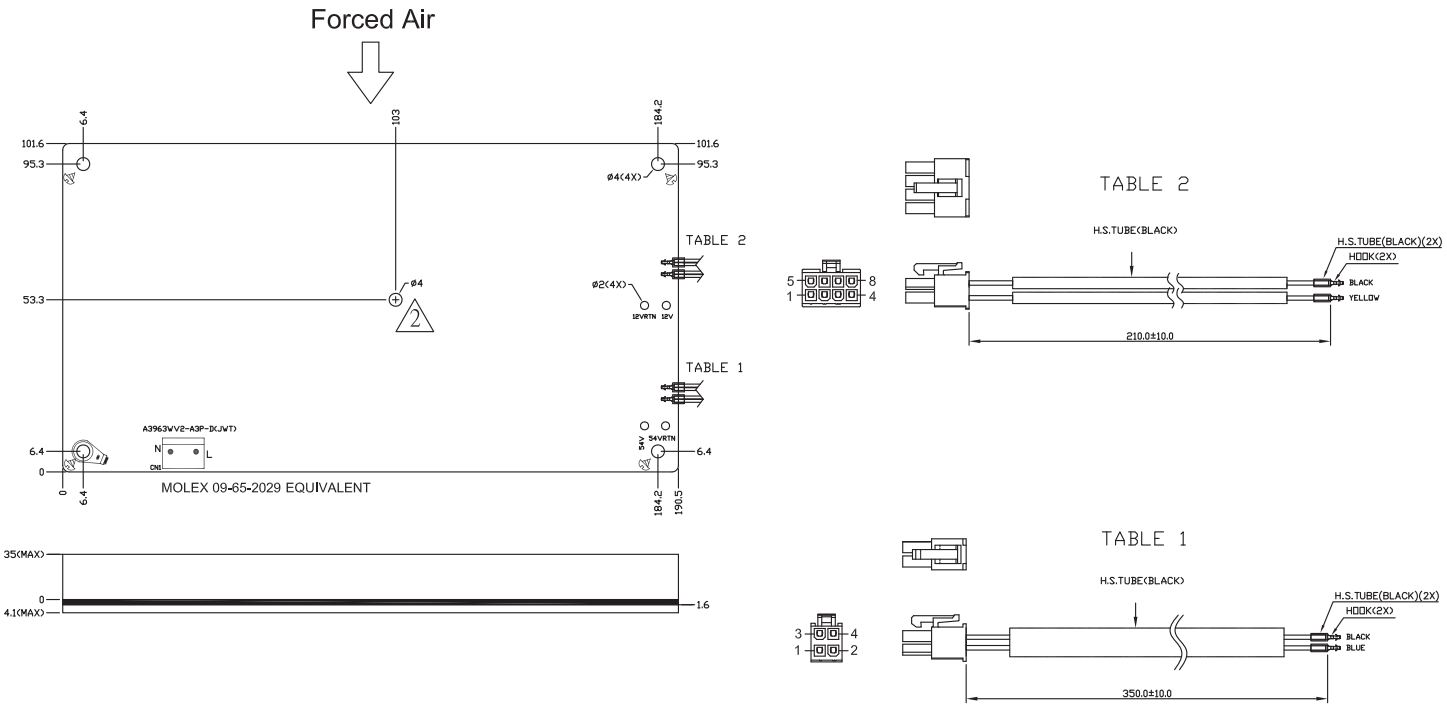
MECHANICAL SPECIFICATIONS



NOTES:
1. Dimension (L*W*H): 190.5 * 101.6 * 36.6 mm / 7.5" * 4" * 1.44"
2. Weight: 430 grams (0.947 lbs.) approx.

Input connector:
JWT A3963WV2-A3P-D or EQU

Pin No.	Function
1	Neutral
2	NC
3	Line

TABLE 1:
Housing: Molex 39-01-2045 or EQU.
Terminal: Molex 39-00-0038 or EQU.

Pin No.	Function
1, 2	+54 RTN
3, 4	+54V

TABLE 2:
Housing: Molex 39-01-2085 or EQU.
Terminal: Molex 39-00-0038 or EQU.

Pin No.	Function
1, 2	+12
3, 4	+12V
5, 6	+12V RTN
7, 8	+12V RTN

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