

FSP060M-U24 Series

FEATURES

- Class-II insulation
- Compact dimension 2"x4"x1.37"
- Wide input rang 90 ~264 VAC
- Lithium-ion battery charger output
- AC Power failure detection & switch to battery backup mode automatically
- Over charge and over discharge protection
- High altitude 5000 meters operation



DESCRIPTION

This is an AC/DC switching power supply which may deliver 60W continuous output power. This power supply build-in real-time AC power failure detection and 14.4V Lithium-ion battery charger. These features may support user easy to build an uninterruptible power system with an external battery pack. Battery pack is charged automatically if AC line power is connected.

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	1.4A (rms) @100Vac, 60Hz 0.7A (rms) @ 240Vac, 50Hz
Touch leakage current:	100 μ A max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart
Maximum output power:	See rating chart
Ripple and noise:	1% peak to peak maximum on other voltage outputs

Protection:	
OVP	Latch off
Shorted & OCP	auto-recovery
Battery charge OCP, OVP	Maximum excursion of 4% or better,
Battery discharge OCP, UVP	recovering to 1% of final value within 500us after a 25% step load change
Battery Charger	CC-CV charger CC model 1.5A max. CV mode 16.8V max.

Battery Pack	Lithium-ion battery pack 14.4V
Battery Connector	See pin chart

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0°C to +50°C
Storage temperature:	-5°C to +85°C
Relative humidity:	10% to 95% non-condensing

GENERAL SPECIFICATIONS

Efficiency:	See rating chart
Hold-up time:	12 ms minimum at 110 VAC
Line regulation:	\pm 1% maximum at full load
Inrush current:	Within component spec and no damage to Adaptor, at 25°C cold start
Operation altitude	5000 meters
Withstand voltage:	4000 VAC from input to output (2 MOPP)
MTBF:	100,000 hours at full load at 25°C ambient, calculated per MIL-HDBK- 217
EMC Performance (IEC60601-1-2)	
EN55011:	Class B conducted, Class A radiated
FCC / VCCI:	Class B conducted, Class A radiated
EN61000-3-2:	Harmonic distortion, Class A
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 1 KV diff., \pm 2 KV com.
EN61000-4-6:	Conducted immunity, 3 Vrms
EN61000-4-8:	Magnetic field immunity, 30 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, 60% reduction for 100 ms and >95% reduction for 10 ms

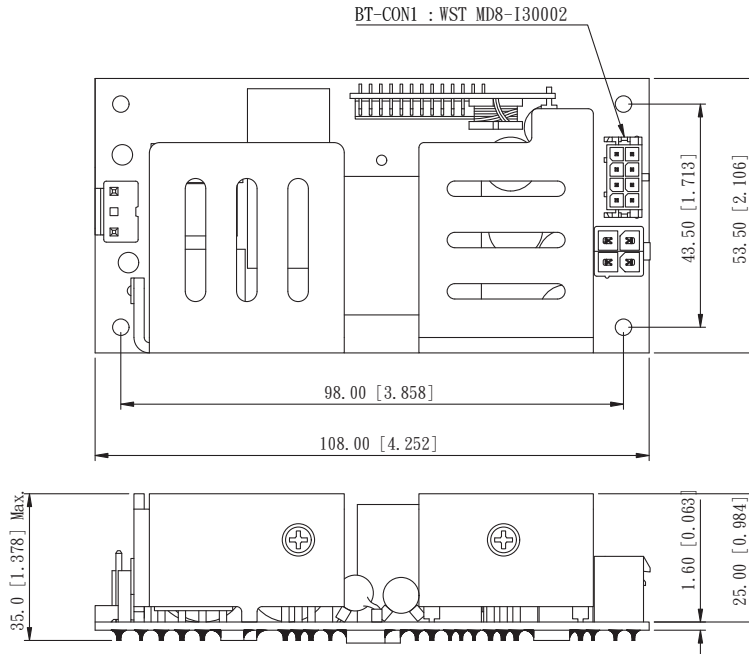
OUTPUT VOLTAGE/CURRENT RATING CHART

Model No.	Voltage	Min. load	Max. Current	Tolerance	Ripple & Noise	Max. Output Power	Efficiency (typical) @ 115 / 230 VAC	Battery Charger
FSP060M-U24-19A	19 V	0 A	3.16 A	±3%	190 mV	60 W	86 % / 87%	20W maxi.
FSP060M-U24-24A	24 V	0 A	2.5 A	±3%	240 mV	60 W	86 % / 87%	

NOTES:

1. Safety certificate is not available yet. Please contact with sales office before design in.

MECHANICAL SPECIFICATIONS



CONNECTOR PIN CHART

Connector	BT-CON1 (Battery Connector)							
PIN No.	P1	P2	P3	P4	P5	P6	P7	P8
Polarity	N.C	N.C	Battery Insert	B / I	BATT +	BATT +	GND-EARTH	GND-EARTH

Connector	PCON2 (AC Input)			PCON3 (DC Output)			
PIN No.	N	X	L	P1	P2	P3	P4
Polarity	Neutral	N/A	Live	Common Return	Common Return	+Vout	+Vout

NOTES:

- Dimensions shown in mm [inches]. Tolerance 0.02 [0.5] maximum
- Input connector PCON2: JWT A3963WV2-3P-D equivalent, mating with housing JWT A3963H02-3P & terminal A3963T0 or equivalent
- PCON3: Output connector CvLux CP-01304110 or equivalent, mating with housing CvLex CP-01104010 & terminal CP-01100104 or equivalent
- Battery connector BT-CON1: WST MD8-I30002 or equivalent, mating with housing WST PD8-I30002 & terminal I30002PS-2 or equivalent

Weight: 300g (0.66 lbs) approx.