

550W MEDICAL ATX with BATTERY CHARGER

DESCRIPTION

This is a universal input ATX power supply which built in real time AC power fail detection & Lead-Acid battery charger features. The unique features allowed user easy to build a non-interrupt high capacity battery backup power system and the USB 2.0 compatible interface allowed host computer to manage this PSU status. Smart battery charger will charge battery automatically once PSU is connected with AC line. This PSU can be operation as a stand along unit or either with an external 24V Lead-Acid battery.

FEATURES

- BF Class insulation
- Power failed detection& battery backup feature
- Lead-acid battery charger output
- USB 2.0 compatible interface with host computer
- Power-on at battery mode
- Low minimum load comply with Intel HASWELL platform requirement.
- OVP, OCP, OTP, UVP protection
- High altitude 5000M operation

INPUT SPECIFICATIONS

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

Input current: 8 A (rms) @100Vac, 60Hz 4 A (rms) @ 230Vac, 50Hz Earth leakage current: 300 μA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current: See rating chart.

Maximum output power: See rating chart.

Ripple and noise: 50 mV peak to peak on 3.3 V and 1%

peak to peak maximum on other voltage

outputs

Protection:

OVP Latch off

OCP & Shorted +3.3V, +5V & +12V, Latch off

+5Vsb auto-recovery

OTP Latch off

UVP Battery under voltage protection

Battery Pack Spec: Lead-Acid battery 24V

Battery Charger Constant current mode $\leq 2.5 \text{ A}$

Constant voltage mode 29.4V max.

Battery Connector JWT C4201WR0-10NPNL

Communication Port CviLux CI 5012SL000 Host Computer Interface USB 2.0 compatible

ENVIRONMENTAL SPECIFICATIONS

Operating temperature: 0° to $+50^{\circ}$ Storage temperature: -20° to $+80^{\circ}$

Relative humidity: 10% to 95% non-condensing
Derating: Derate from 100% at +50°C linearly to

50% at +70 $^{\circ}$ C, applicable to forced-air

cooling conditions

MUA SERIES RoHS





UL 60601-1, CSA C22.2 No. 601.1 File No. E178020



TÜV EN 60601-1



GENERAL SPECIFICATIONS

Power factor: 0.9 minimum

Efficiency: 80% minimum

Hold-up time: 17 ms minimum

Line regulation: ±1% maximum at full load

Inrush current: 30 A @115 VAC at 25°C cold start

Withstand voltage: 4000 VAC from input to output (2 MOPP)

1500 VAC from input to ground (1 MOPP) 1500 VAC from output to ground

MTBF: $100,000 \text{ hrs at full load at } 25^{\circ}\text{C}$

ambient, calculated per TELCORDIA

SR-332

EMC Performance (IEC60601-1-2)

EN55011/EN55022: Class B conducted, Class A radiated FCC / VCCI: Class B conducted, Class A radiated

EN61000-3-2: Harmonic distortion, Class D

EN61000-3-3: Line flicker

EN61000-4-2: ESD, ±8 KV air and ±6 KV contact

EN61000-4-3: Radiated immunity, 3 V/m
EN61000-4-4: Fast transient/burst, ±2 KV
EN61000-4-5: Surge, ±1 KV diff., ±2 KV com.
EN61000-4-6: Conducted immunity, 3 V/ms
EN61000-4-8: Magnetic field immunity, 3 A/m

EN61000-4-11: Voltage dip immunity, 30% reduction

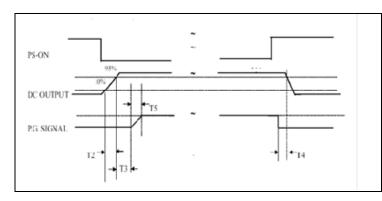
for 500 ms, 60% reduction for 100 ms and >95% reduction for 10 ms

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ATX MUA SERIES MEDICAL PSU

INTERFACE SIGNALS



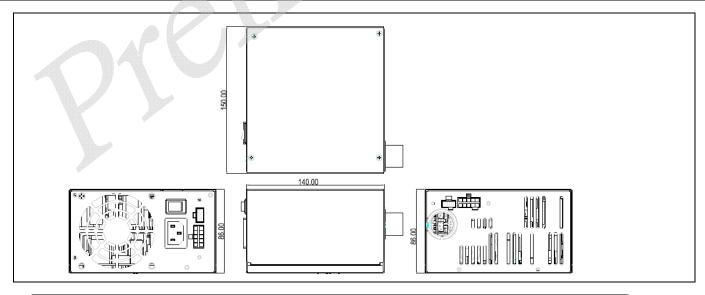
Power Good (P.G) SIGNAL @ 115 / 230Vac & 100% load

- T2: RISETIME < 20 mS.
 T3: POWER GOOD DELAY TIME 100 mS ~ 500 mS.
 T4: POWER FAIL DELAY TIME > 1 mS.
- 4. T5 : POWER GOOD RISETIME \leq 10 mS

OUTPUT VOLTAGE/CURRENT RATING CHART

Outputs Rating	FSP450-60MUA		FSP550-70MUA		Load	Ripple &
	Mini. Load	Maxi. Load	Mini. Load	Maxi. Load	Regulation	Noise
+3.3 V	0 A	20 A	0 A	20 A	±5%	50 mV P-P
+ 5 V	0 A	20 A	0 A	20 A	±5%	50 mV P-P
+12 V1	0 A	16 A	0 A	16 A	±5%	120 mV P-P
+12 V ₂	0 A	16 A	0 A	16 A	±5%	120 mV P-P
+12 V ₃			0 A	16 A	±5%	120 mV P-P
-12 V	0 A	0.5 A	0 A	0.5 A	±5%	120 mV P-P
+5 Vsb	0 A	2 A	0 A	3 A	±5%	50 mV P-P
+3.3 V & +5 V Combine Output Power	120W Maxi.		120W Maxi.			
+12V Total Output Power	350W Maxi.		432W Maxi.			
Battery (+24V) Charger	50W Maxi.		50W Maxi.			
Total Output Power	450W		550W			

MECHANICAL SPECIFICATIONS



Output connectors	Cable Length	Connector No.	Output connectors	Connector
Mother board 24 pin	400 mm	1	Communication	CviLux CI 5012SL000
CPU 4+4 pin	400 mm	1 + 1	Battery Connector	C4201WR0-10NPNL
PCI-e 6+2 pin	500+150 mm	1+1		
SATA	400+150 mm	1+1		
PATA	400+150+150 mm	1+1+1		
USB Interface	600 mm	1		

Weight: 1.8 Kg (3.965 lbs) appromax.