

## FSP550-70MUA

### FEATURES

- BF Class insulation
- Power failed detection & battery backup feature
- Lead-acid battery charger output
- USB 2.0 compatible interface with host computer
- Support Power-on at battery mode
- High altitude 5000M operation



### SAFETY STANDARD APPROVAL

**CB CE**

### 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.

### 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 $\mu$ A max. @ 264 VAC, 63 Hz

### OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	See rating chart.
Protection:	
OVP	Latch off
OCP & Shorted	+3.3V, +5V & +12V, Latch off +5Vsb auto-recovery
OTP	Latch off
UVP	Battery low voltage protection
Battery Pack Spec:	Lead-Acid battery 24V
Battery Charger	Constant current mode $\leq$ 2.5 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°C to +50°C
Storage temperature:	-20°C to +80°C
Relative humidity:	10% to 95% non-condensing
Derating:	Derate from 100% at +50°C linearly to 50% at +70°C, applicable to forced-air cooling conditions

### GENERAL SPECIFICATIONS

Power factor:	0.9 minimum
Efficiency:	80% minimum
Hold-up time:	17 ms minimum
Line regulation:	$\pm$ 1% maximum at full load
Inrush current:	30 A @115 VAC at 25°C cold start 60 A @ 230 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 hrs at full load at 25°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, $\pm$ 8 KV air and $\pm$ 6 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, 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

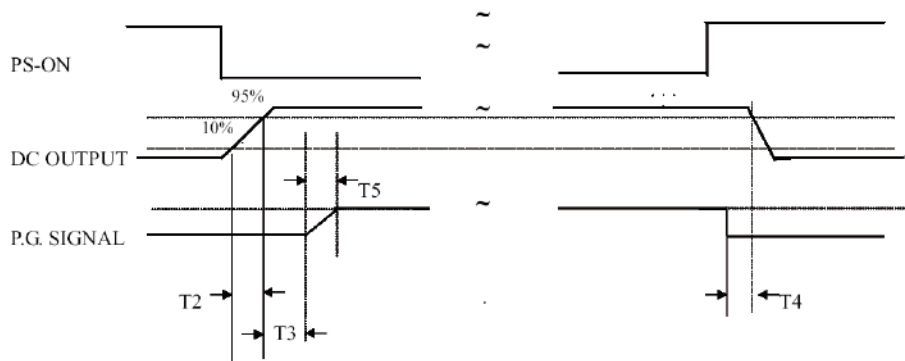
## OUTPUT VOLTAGE/CURRENT RATING CHART

Rating Outputs	FSP450-60MUA		FSP550-70MUA		Load Regulation	Ripple & Noise
	Mini. Load	Mini. Load	Mini. Load	Mini. Load		
+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 V2	0 A	16 A	0 A	16 A	±5%	120 mV P-P
+12 V3	---	---	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.			
Total Output Power	450W		550W			
Total Output Power (at backup mode)	300W		400W			
Battery (+24V) Charger	50W Maxi.		50W Maxi.			

### NOTES:

1. Maximum output power at battery backup mode, maybe limited at battery capacity. Please use 24V lead-acid battery and current at 3A minimum.

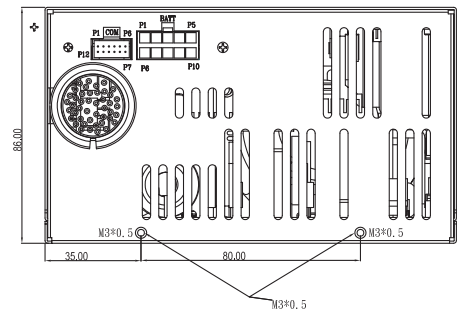
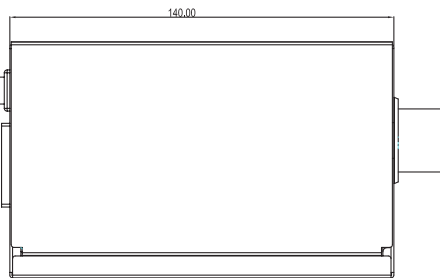
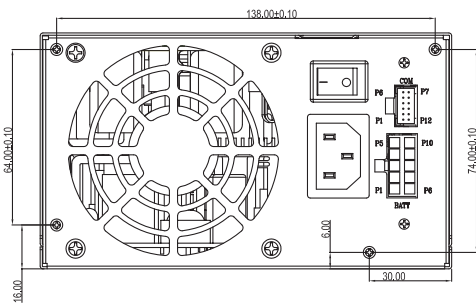
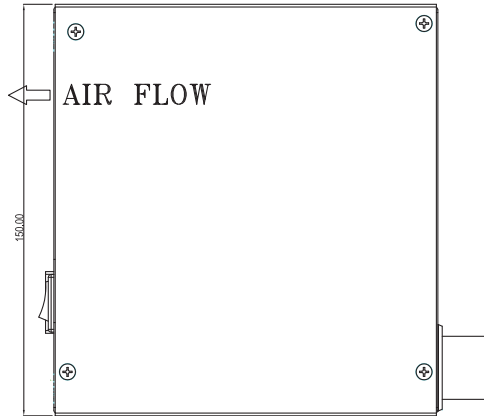
## INTERFACE SIGNALS



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

1. T2 : RISETIME < 20 mS.
2. T3 : POWER GOOD DELAY TIME 100 mS ~ 500 mS.
3. T4 : POWER FAIL DELAY TIME > 1 mS.
4. T5 : POWER GOOD RISETIME ≤ 10 mS

## MECHANICAL SPECIFICATIONS



Output connectors	Cable Length	Connector No.
Mother board 24 pin	400 mm	1
CPU 4+4 pin	400 mm	1 + 1
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

Output connectors	Connector
Communication	CviLux CI 5012SL000
Battery Connector	C4201WR0-10NPNL

NOTES:

1. Weight: 1.8 Kg (3.965 lbs) approx.