

MU SERIES

FEATURES

- IEC 60601-1 & IEC 62368-1 certified
- Meet EN55011 Class B
- BF class isolation



SAFETY STANDARD APPROVAL



DESCRIPTION

This series medical AC-DC power supply offering 300W and 350W power with ATX outputs, 1U standard size 190 x 100 x 40.5 mm could be widely fitted in different chassis. High efficiency design with 80PLUS certificate.

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	
FSP300-70MU:	5 A (rms) @ 115Vac 3 A (rms) @ 230Vac
FSP350-70MU:	6 A (rms) @ 115Vac 3 A (rms) @ 230Vac
Earth leakage current:	300 μ Amax. @ 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:	+3.3V, +5V & +12V, Latch off
OCP, Shorted:	+3.3V, +5V & +12V Latch off +5Vsb, -12V, -5V Auto-recovery

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

GENERAL SPECIFICATIONS

Power factor:	0.9 minimum
Efficiency:	80PLUS
Hold-up time:	12 mS minimum at 115VAC 17 mS minimum at 230 VAC
Line regulation:	\pm 1% maximum at full load
Inrush current:	50 A @ 115 VAC at 25°C cold start 100 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)
MTBF:	100,000 hours at full load & 25°C ambient, calculated per MIL-HDBK- 217
EMC Performance (IEC60601-1-2)	
EN55011:	Class B conducted, Class B radiated
EN61000-3-2:	Harmonic distortion, Class D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, \pm 15 KV air and \pm 8 KV contact
EN61000-4-3:	Radiated immunity, 9-28 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, 3-6 Vrms
EN61000-4-8:	Magnetic field immunity, 30 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, >100% reduction for 10 ms

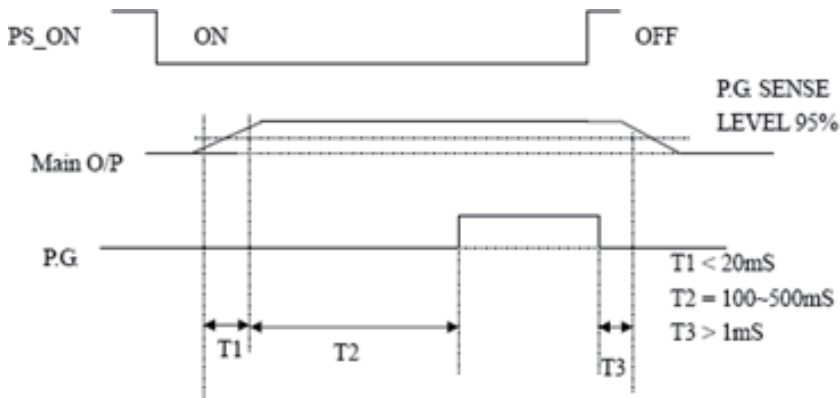
OUTPUT VOLTAGE/CURRENT RATING CHART

Rating Outputs	FSP300-70MU		FSP350-70MU		Load Regulation	Ripple & Noise
	Mini. Load	Mini. Load	Mini. Load	Mini. Load		
+3.3 V	0.5 A	16 A	0.5 A	16 A	±5%	50 mV P-P
+5 V	0.5 A	18 A	0.5 A	18 A	±5%	50 mV P-P
+12 V1	1.0 A	16 A	1.0 A	16 A	±5%	120 mV P-P
+12 V2	1.0 A	16 A	1.0 A	16 A	±5%	120 mV P-P
-5 V *1	0 A	0.5 A	0 A	0.5 A	±10%	120 mV P-P
-12 V *1	0 A	0.2 A	0 A	0.2 A	±10%	150 mV P-P
+5 Vsb	0.1 A	2.5 A	0.1 A	2.5 A	±5%	50 mV P-P
+3.3 V & +5 V Combine Output Power	120W Maxi.		130W Maxi.			
+12V Total Output Power	20A Maxi.		24A Maxi.			
Total Output Power	300W		350W			

NOTES:

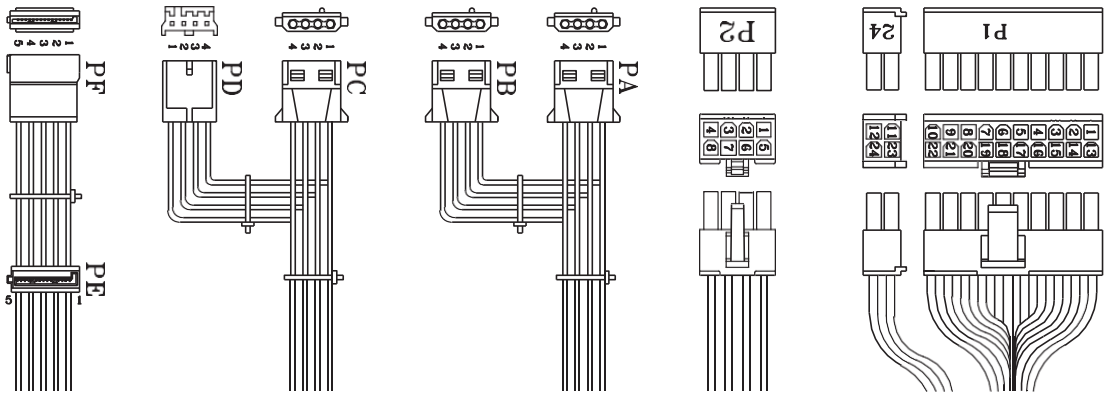
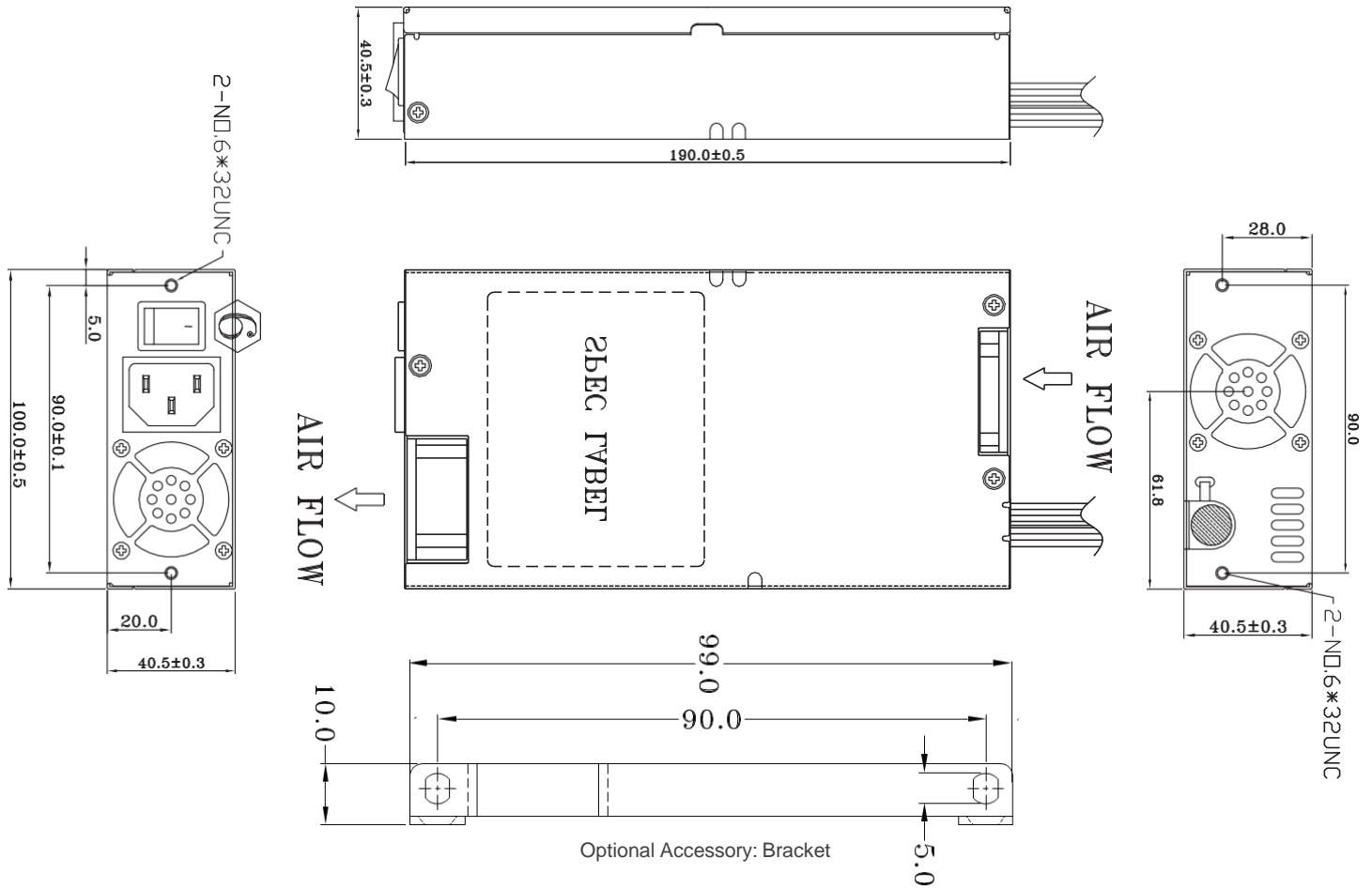
1. Voltage regulation will over 10% at +3.3V, +5V, +12V if load less than minimum load mentioned on table.

INTERFACE SIGNALS



1. T1 : RISE TIME < 20 Ms
2. T2 : POWER GOOD DELAY TIME 100 ~ 500 mS
3. T3 : POWER FAIL DELAY TIME > 1 mS

MECHANICAL SPECIFICATIONS



No.	Output connectors	Cable Length	Connector No.	Output connectors (equivalent)
P1	Mother board 20+4 pin	350 mm	1	MOLEX 39-01-2240
P2	CPU 8 pin	200 mm	1	MOLEX 39-01-2080
PE,PF	SATA	200+200 mm	1 + 1	MOLEX SD-67926-0011 + SD-67582-001
PA, PB	PATA	200+ 200 mm	1 + 1	AMP 1-480424-0 + AMP 171822-4
PC, PD	PATA + Floppy con.	200+ 200 mm	1 + 1	AMP 1-480424-0 + AMP 171822-4

NOTES:

- Unit: mm
- Weight: 1.25 Kg