

MPB SERIES

FEATURES

- Design meet IEC 60601-1 & IEC60950-1
- Standard ATX size with 86x 150x 165 mm
- 80PLUS BRONZE efficiency



SAFETY STANDARD APPROVAL



DESCRIPTION

This series of AC/DC switching power supplies in a standard ATX form factor 165 x 150 x 86 mm are capable of delivering 600 or 700 watts continuous power. High efficiency design to meet 80PLUS BRONZE requirement.

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	
FSP600-90MPB:	8 A (rms) @115Vac, 60Hz 4 A (rms) @ 230Vac, 50Hz
FSP700-90MPB:	10 A (rms) @1115Vac, 60Hz 5 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:	See rating chart.
Protection	
Over voltage:	+3.3V, +5V & +12V, Latch off
Over current:	+3.3V, +5V & +12V, Latch off +5Vsb, -12V, -5V, Auto-recovery
Over temperature:	Latch off

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:	Meet 80PLUS BRONZE (82%, 85%, 82%)
Hold-up time:	13 mS minimum at 115VAC 17 mS minimum at 230 VAC
Line regulation:	±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/ EN55022:	Class B conducted, Class B radiated
FCC / 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 ±6 KV contact
EN61000-4-3:	Radiated immunity, 10 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, 10 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 >95% reduction for 10 ms

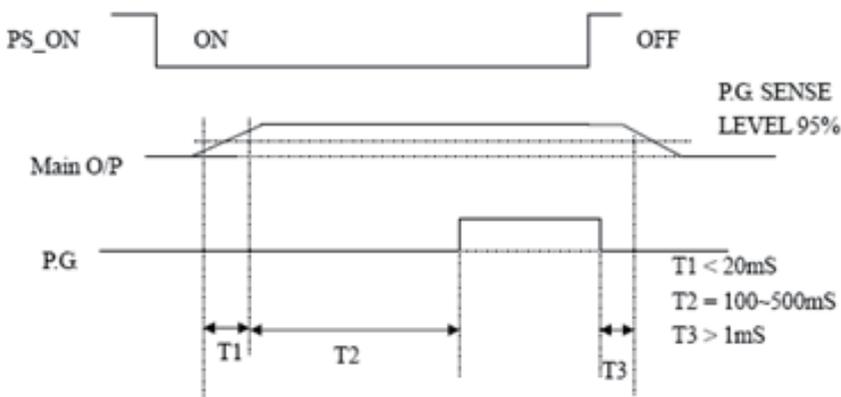
OUTPUT VOLTAGE/CURRENT RATING CHART

Rating Outputs	FSP600-90MPB		FSP700-90MPB		Load Regulation	Ripple & Noise ²
	Mini. Load	Maxi. Load	Mini. Load	Maxi. Load		
+3.3 V	0.5 A	24 A	0.5 A	24 A	±5%	50 mV P-P
+ 5 V	0.5 A	24 A	0.5 A	30 A	±5%	50 mV P-P
+12 V1	0.5 A	16 A	0.5 A	16 A	±5%	120 mV P-P
+12 V2	0.5 A	16 A	0.5 A	16 A	±5%	120 mV P-P
+12 V3	0.5 A	16 A	0.5 A	16 A	±5%	120 mV P-P
+12 V4	0.5 A	16 A	0.5 A	16 A	±5%	120 mV P-P
- 5 V ¹	0 A	0.2 A	0 A	0.2 A	±5%	100 mV P-P
-12 V	0 A	0.5 A	0.05 A	0.5 A	±5%	120 mV P-P
+5 Vsb	0.1 A	3.5 A	0.1 A	3.5 A	±5%	50 mV P-P
+3.3 V & +5 V Combine Output Power	160W Maxi.		180W Maxi.			
+12V Total Output Power	45A Maxi.		50A Maxi.			
Total Output Power	600W		700W			

NOTES:

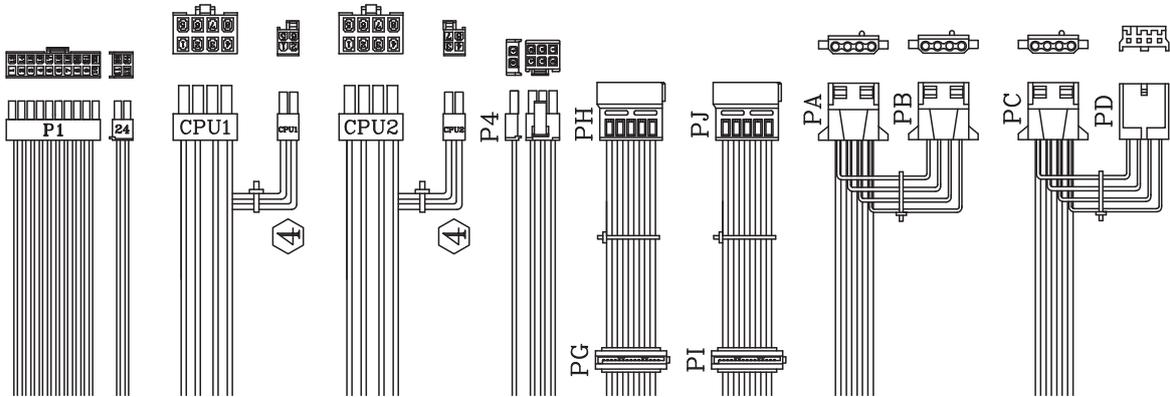
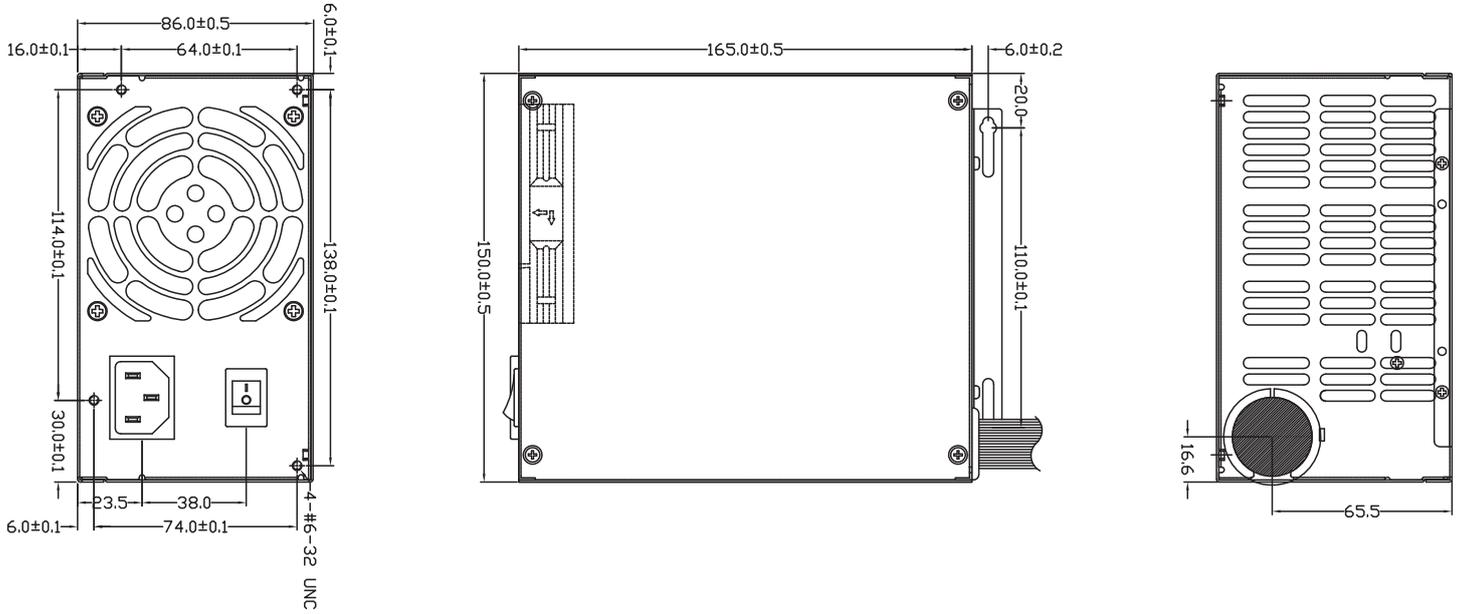
- 5V is not for standard model but upon request.
- Ripple and noise measurements shall be made under all specified load conditions through a single pole low pass filter with 20MHz cutoff frequency. Outputs shall be bypassed at the connector with a 0.1uF ceramic disk capacitor and a 10uF electrolytic capacitor to simulate system loading.

INTERFACE SIGNALS



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

MECHANICAL SPECIFICATIONS



Output connectors	Cable Length	Connector No.	Output connectors (equivalent)
Mother board 20+4 pin	500 mm	1	JWT C4202H02-A20P + C4202H02-A4P
CPU 8+4 pin	500+100 mm	2 + 2	MOLEX 39-01-2080
PCI-e 6+2 pin	500 mm	1	WST P8-I42002K21B-B
SATA	500+150 mm	2 + 2	CL1271HS0-15P
PATA	500+150 mm	1 + 1	AMP 1-480424-0
PATA + Floppy con.	500+ 150 mm	1 + 1	AMP 1-480424-0 + AMP 171822-4

Weight: 2.254 Kg