



FSP250-50FRB

FEATURES

- Meet Intel ATX V3.0
- Meet 80 Plus Bronze
- Certified IEC 62368-1 3rd
- High Reliability
- Over Current Protection
- Over Temperature Protection
- Over Voltage Protection

SAFETY STANDARD APPROVAL



DESCRIPTION

FSP250-50FRB is an industrial level of switching power supply. This power is designed to meet newest Intel ATX 3.0 standard, and high efficiency, in such small size. Therefore, it is suitable for applications in “Industrial Box PC” equipment.

GENERAL SPECIFICATIONS

Input power at power off: < 0.5W (5Vsb)
 Operating altitude: 5,000 meters
 MTBF: ≥ 100,000Hrs, full load at 25°C
 Efficiency (15Vac input): 82%; 85%; 82% at 100%; 50%; 20% load

INPUT SPECIFICATIONS

Input voltage: 90-264 VAC
 Input frequency: 47-63 Hz
 Input current: 115Vac / 6.0A, 230Vac / 3.0A

ENVIRONMENTAL SPECIFICATIONS

Operating temperature: 0~50°C
 Storage temperature: -20~+80°C
 Operating humidity: 10~85% RH non-condensing
 Storage humidity: 10~95% RH non-condensing

OUTPUT SPECIFICATIONS

Max. output power: 250W
 Hold-up time: 115V / 60Hz: 13m Sec. minimum
 230V / 50Hz: 13m Sec. minimum
 Rise time: 115V-rms or 230V-rms
 +5Vdc: 20ms maximum
 +3.3Vdc: 20ms maximum
 +12Vdc: 20ms maximum
 -12Vdc: 20ms maximum

Protection:

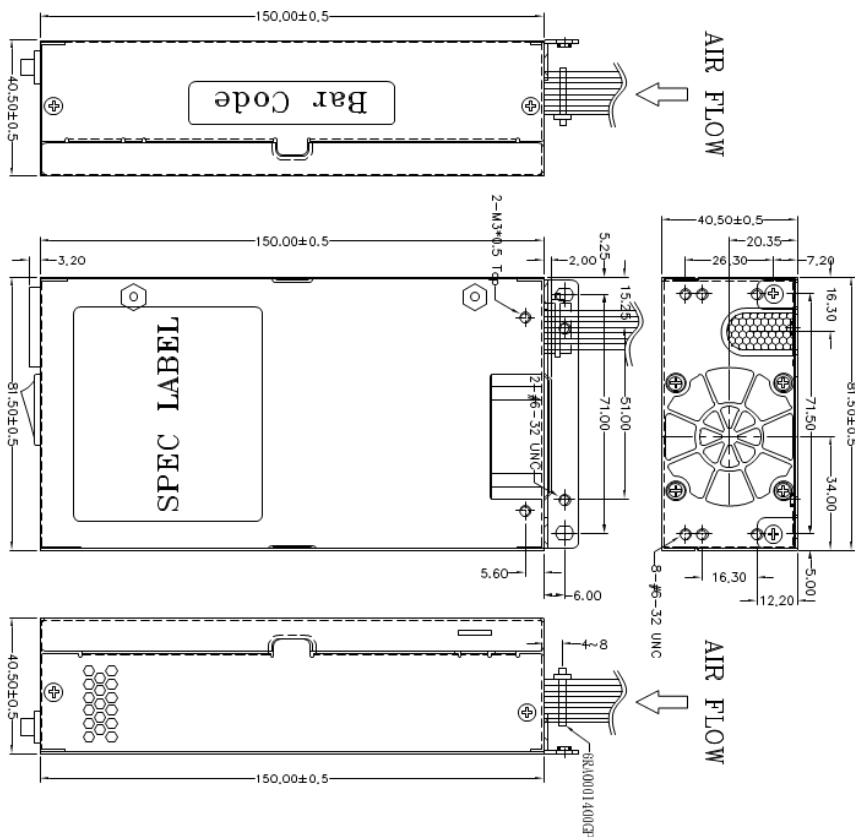
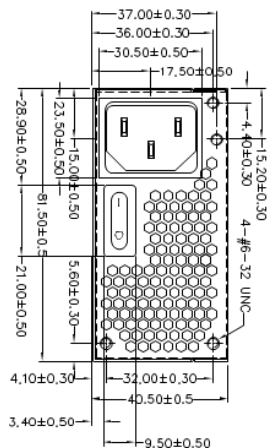
Over voltage: +3.3Vdc: 3.7V~4.8V
 +5Vdc: 5.7V~7.0V
 +12Vdc: 13.3V~16V
 Over current: +5Vdc: 20A~30A
 +3.3dc: 20A~30A
 Short circuit: Shutdown & latch off without damage PSU

OUTPUT RATING CHART:

Outputs	+3.3V	+5V	+12V	+12V	+5Vsb
Max. current	12.0A	14.0A	18.0A	0.3A	2.5A
Min. current	0.0A	0.0A	0.0A	0.0A	0.0A
Regulation	± 5%	± 5%	± 5%	± 10%	± 5%
Ripple/Noise	50mV	50mV	120mV	120mV	50mV

MECHANICAL & AC CONNECTOR SPECIFICATIONS

Unit: mm



REV. D.	PIN NO.	SIGNAL	WIRE COLOR	GAUGE	CONNECTOR TYPE	LENGTH
P1	1	+3.3V	ORANGE	20	MOLEX 39-01-2240 or EQUIV.	200±15 mm
	2	+3.3V	ORANGE	20		
	3	COM	BLACK	20		
	4	+5V	RED	20		
	5	COM	BLACK	20		
	6	+5V	RED	20		
	7	COM	BLACK	20		
	8	PW-OK	GRAY	24		
	9	+5Vab	PURPLE	20		
	10	+12V	YELLOW	20		
	11	+12V	YELLOW	20		
	12	+3.3V	ORANGE	20		
	13	+3.3V	ORANGE	20		
	14	+3.3VS	BROWN	24		
	15	-12V	BLUE	24		
	16	COM	BLACK	20		
	17	PS-ON	GREEN	24		
	18	COM	BLACK	20		
	19	COM	BLACK	20		
	20					
P2	1	+5V	RED	20	MOLEX 39-01-2040 or EQUIV.	360±15 mm
	2	+5V	RED	20		
	3	+12V	YELLOW	20		
	4	+12V	YELLOW	20		
PA	1	+12V	YELLOW	20	WST P4-A10202 or EQUIV.	350±15 mm
	2	COM	BLACK	20		
	3	COM	BLACK	20		
	4	+5V	RED	20		
PB	1	+12V	YELLOW	20	WST P4-A10202 or EQUIV.	155±15 mm
	2	COM	BLACK	20		
	3	COM	BLACK	20		
	4	+5V	RED	20		
PC	1	+5V	RED	20	AMP 171622-4 or EQUIV.	155±15 mm
	2	COM	BLACK	20		
	3	COM	BLACK	20		
	4	+12V	YELLOW	20		
PD	1	+3.3V	ORANGE	20	MOLEX SD-67562-001 or EQUIV.	350±15 mm
	2	COM	BLACK	20		
	3	+5V	RED	20		
PF	4	COM	BLACK	20	MOLEX SD-67562-001 or EQUIV.	155±15 mm
	5	+12V	YELLOW	20		
	6	+3.3V	ORANGE	20		
PE	1	+3.3V	ORANGE	20	MOLEX SD-67562-001 or EQUIV.	155±15 mm
	2	COM	BLACK	20		
	3	+5V	RED	20		
PG	4	COM	BLACK	20	MOLEX SD-67562-001 or EQUIV.	155±15 mm
	5	+12V	YELLOW	20		

