



FSP650-50FUB

FEATURES

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

SAFETY STANDARD APPROVAL



DESCRIPTION

FSP650-50FUB is an industrial level of switching power supply. This power is designed to meet newest Intel ATX 3.1 standard, and high efficiency, in such small size. Therefore, it is suitable for applications in “Industrial Edge Server” equipment.

GENERAL SPECIFICATIONS

Operating altitude:	5,000 meters
MTBF:	≥ 100,000Hrs, full load at 25°C
Efficiency (115Vac input):	89%; 92%; 90% at 100%; 50%; 20% load

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	115Vac / 10.0A, 230Vac / 5.0A

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0~50°C
Storage temperature:	-40~+70°C
Operating humidity:	10~85% RH non-condensing
Storage humidity:	10~95% RH non-condensing

OUTPUT SPECIFICATIONS

Max. output power:	650W
Hold-up time:	115V / 60Hz: 12m Sec. minimum 230V / 50Hz: 12m Sec. minimum
Rise time:	The output voltages shall rise from ≤ 10% of nominal to within the regulation ranges specified in official specification “Section 3.1” within 0.1 ~ 20 ms (0.1 ms ≤ T ₂ ≤ 20 ms).

Protection:

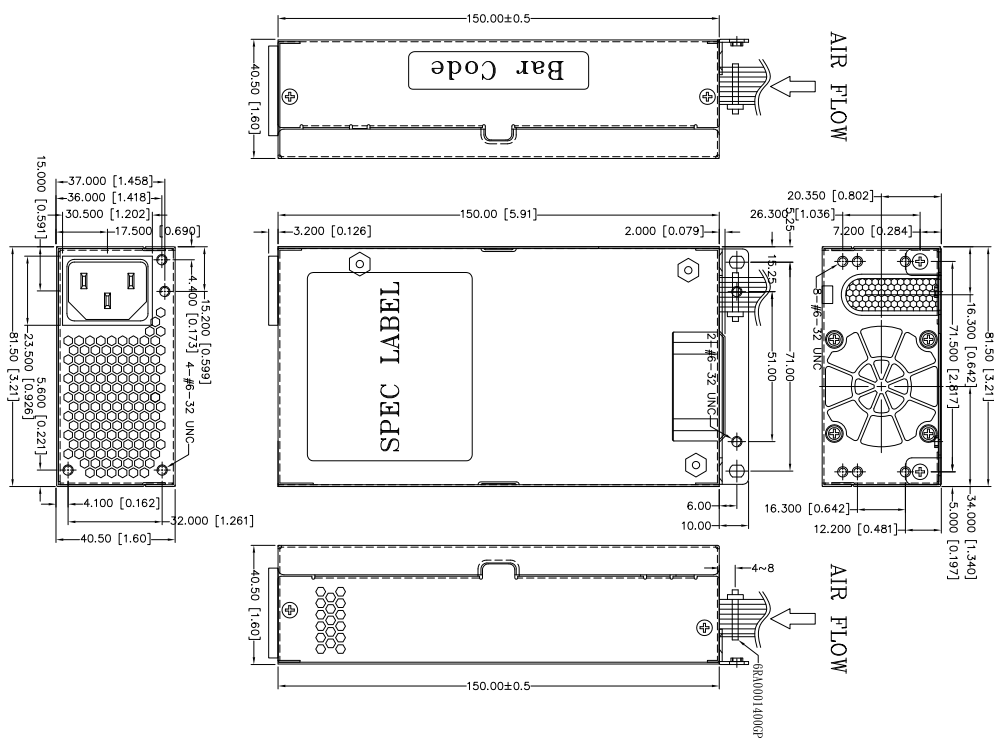
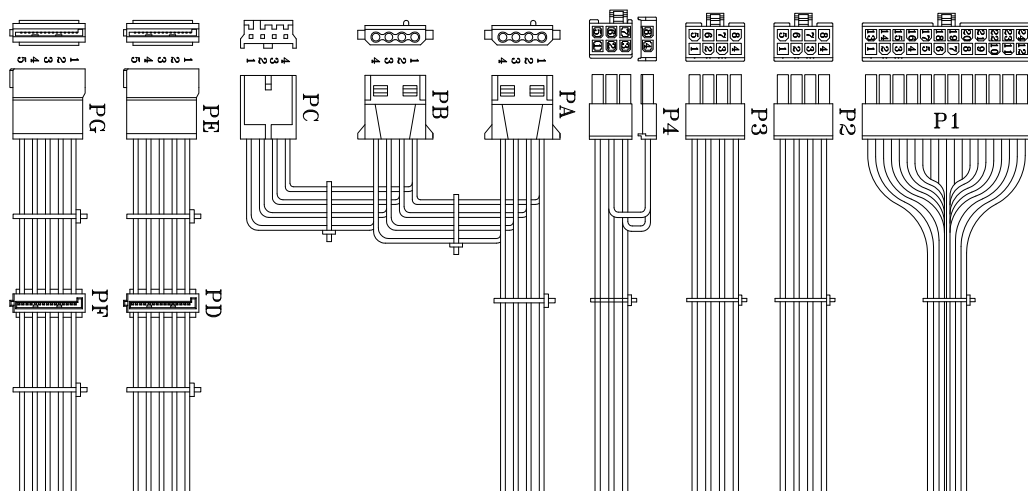
Over voltage:	+3.3Vdc: 3.76V~4.80V +5Vdc: 5.75V~7.00V +12Vdc: 13.50V~15.50V
Over current:	+3.3Vdc: 25A~45A +5Vdc: 25A~45A +12dc: 65A~75A
Short circuit:	Shutdown & latch off without damage PSU

OUTPUT RATING CHART:

Outputs	+3.3V	+5V	+12V	-12V	+5Vsb
Max. current	14.0A	16.0A	54.17A	0.3A	3.0A
Min. current	0.0A	0.0A	0.0A	0.0A	0.0A
Regulation	± 5%	± 5%	+5/-7%	± 10%	± 5%
Ripple/Noise	50mV	50mV	120mV	120mV	50mV

MECHANICAL & AC CONNECTOR SPECIFICATIONS

Unit: mm



Item ID	Part Name	Material	Color	Finish	Dimensions	Notes
P1	3-1/2" ORANGE	WOOD	ORANGE	NO.1	350±15mm	
1	+3-1/2" ORANGE	WOOD	ORANGE	NO.1	39-01-2240	
2	+3-1/2" ORANGE	WOOD	ORANGE	NO.1	2240	
3	COM BLACK	WOOD	RED	NO.1		or EQUIV.
4	+5V RED	WOOD	RED	NO.1		
5	COM BLACK	WOOD	RED	NO.1		
6	+5V RED	WOOD	RED	NO.1		
7	COM BLACK	WOOD	RED	NO.1		
8	PM-OK GRAY	WOOD	GRAY	NO.1		
9	+5V RED	WOOD	RED	NO.1		
10	+1/2" YELLOW	WOOD	YELLOW	NO.1		
11	+3-1/2" ORANGE	WOOD	ORANGE	NO.1		
12	+3-1/2" ORANGE	WOOD	ORANGE	NO.1		
P1	-3-1/2" ORANGE	WOOD	BROWN	NO.1		
13	-3-1/2" ORANGE	WOOD	BROWN	NO.1		
P1	-1/2" BLUE	WOOD	BLUE	NO.1		
14	-1/2" BLUE	WOOD	BLUE	NO.1		
15	COM BLACK	WOOD	BLACK	NO.1		
16	PS-ON GREEN	WOOD	GREEN	NO.1		
17	COM GREEN	WOOD	GREEN	NO.1		
18	COM BLACK	WOOD	BLACK	NO.1		
19	COM BLACK	WOOD	BLACK	NO.1		
20	COM BLACK	WOOD	BLACK	NO.1		
P2	+5V RED	WOOD	RED	NO.1		
21	+5V RED	WOOD	RED	NO.1		
22	+5V RED	WOOD	RED	NO.1		
23	+5V RED	WOOD	RED	NO.1		
24	COM BLACK	WOOD	BLACK	NO.1		
25	COM BLACK	WOOD	BLACK	NO.1		
P2	COM BLACK	WOOD	BLACK	NO.1		
2	COM BLACK	WOOD	BLACK	NO.1		
3	COM BLACK	WOOD	BLACK	NO.1		
4	COM BLACK	WOOD	BLACK	NO.1		
P3	+1/2" YELLOW	WOOD	YELLOW	NO.1		
5	+1/2" YELLOW	WOOD	YELLOW	NO.1		
6	+1/2" YELLOW	WOOD	YELLOW	NO.1		
7	+1/2" YELLOW	WOOD	YELLOW	NO.1		
8	+1/2" YELLOW	WOOD	YELLOW	NO.1		
P3	+1/2" YELLOW	WOOD	YELLOW	NO.1		
1	+1/2" YELLOW	WOOD	YELLOW	NO.1		
2	+1/2" YELLOW	WOOD	YELLOW	NO.1		
3	+1/2" YELLOW	WOOD	YELLOW	NO.1		
4	COM BLACK	WOOD	BLACK	NO.1		
5	COM BLACK	WOOD	BLACK	NO.1		
6	COM BLACK	WOOD	BLACK	NO.1		
7	COM BLACK	WOOD	BLACK	NO.1		
8	COM BLACK	WOOD	BLACK	NO.1		
P4	+1/2" YELLOW	WOOD	YELLOW	NO.1		
1	+1/2" YELLOW	WOOD	YELLOW	NO.1		
2	COM BLACK	WOOD	BLACK	NO.1		
3	COM BLACK	WOOD	BLACK	NO.1		
4	+5V RED	WOOD	RED	NO.1		
P4	+5V RED	WOOD	RED	NO.1		
1	+5V RED	WOOD	RED	NO.1		
2	COM BLACK	WOOD	BLACK	NO.1		
3	COM BLACK	WOOD	BLACK	NO.1		
4	+5V RED	WOOD	RED	NO.1		
P4	+5V RED	WOOD	RED	NO.1		
1	+5V RED	WOOD	RED	NO.1		
2	COM BLACK	WOOD	BLACK	NO.1		
3	COM BLACK	WOOD	BLACK	NO.1		
4	+5V RED	WOOD	RED	NO.1		
P4	+5V RED	WOOD	RED	NO.1		
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2	COM BLACK	WOOD	BLACK	NO.1		
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P4	+5V RED	WOOD	RED	NO.1		
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2	COM BLACK	WOOD	BLACK	NO.1		
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P4	+5V RED	WOOD	RED	NO.1		
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