



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 ≤ T2 ≤ 20 ms).

Protection:

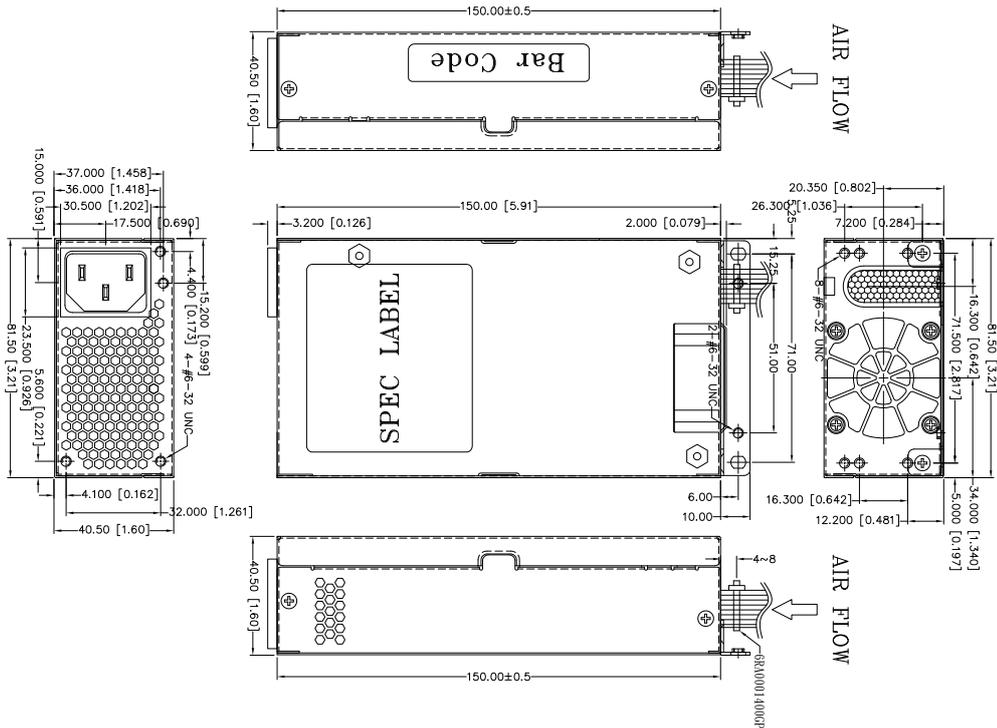
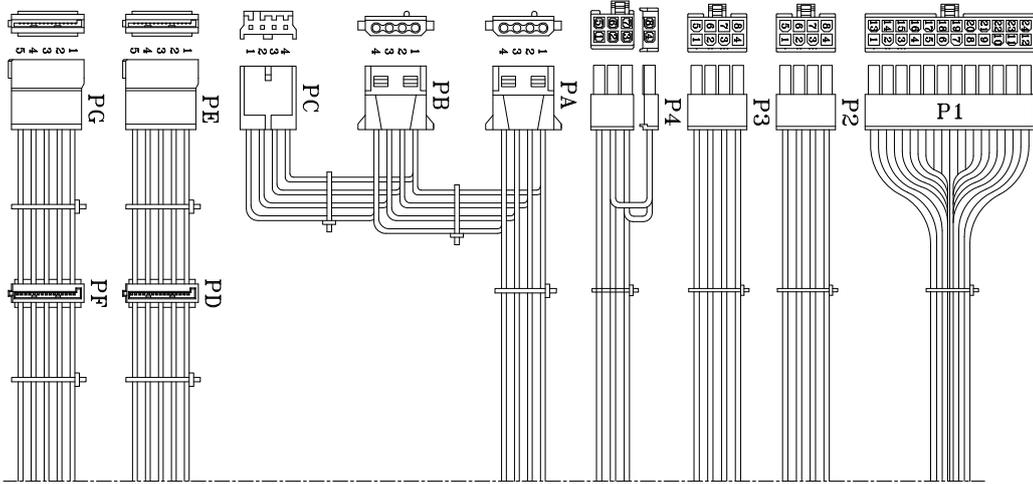
Over voltage:	+3.3Vdc: 3.76V~4.80V +5Vdc: 5.75V~7.00V +12Vdc: 13.50V~15.50V
Over current:	+3.3Vdc: 25A~45A +5Vdc: 25A~45A +12dc: 65A~75A
Short circuit:	Shutdown & latch off without damage PSU

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



REF. ID.	PN	SIGNAL	WIRE COLOR	Gauge	CONNECTOR TYPE	CABLE LENGTH
P1	1	+3.3V	ORANGE	20	MOLEX 39-01-2240 or EQUIV.	350±15mm
	2	+3.3V	ORANGE	20		
	3	COM	BLACK	20		
	4	+5V	RED	20		
	5	+5V	RED	20		
P2	1	PS-ON	GREEN	22	MOLEX 39-01-2080 or EQUIV.	350±15mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	COM	BLACK	18		
	5	+12V	YELLOW	18		
	6	+12V	YELLOW	18		
	7	+12V	YELLOW	18		
	8	+12V	YELLOW	18		
	9	+12V	YELLOW	18		
	10	+12V	YELLOW	18		
P3	1	+12V	YELLOW	18	WST P8-410202	350±15mm
	2	+12V	YELLOW	18		
	3	+12V	YELLOW	18		
	4	+12V	YELLOW	18		
P4	1	+12V	YELLOW	18	WST P8-410202 or EQUIV.	350±15mm
	2	+12V	YELLOW	18		
	3	+12V	YELLOW	18		
	4	+12V	YELLOW	18		
PA	1	COM	BLACK	18	WST P4-A10202 or EQUIV.	70±10mm
	2	COM	BLACK	18		
	3	COM	BLACK	18		
	4	COM	BLACK	18		
	5	COM	BLACK	18		
	6	COM	BLACK	18		
	7	COM	BLACK	18		
PB	1	+12V	YELLOW	20	WST P4-A10202 or EQUIV.	155±10mm
	2	COM	BLACK	20		
	3	COM	BLACK	20		
	4	+5V	RED	22		
PC	1	+12V	YELLOW	20	AMP 171822-4 or EQUIV.	155±10mm
	2	COM	BLACK	22		
	3	COM	BLACK	22		
	4	+12V	YELLOW	22		
PE	1	+3.3V	ORANGE	20	MOLEX SD-67582 or EQUIV.	155±10mm
	2	COM	BLACK	20		
	3	+5V	RED	20		
	4	COM	BLACK	20		
PD	1	+3.3V	ORANGE	20	MOLEX SD-67582 or EQUIV.	155±15mm
	2	COM	BLACK	20		
	3	+5V	RED	20		
	4	COM	BLACK	20		
PF	1	+3.3V	ORANGE	20	MOLEX SD-67582 or EQUIV.	155±10mm
	2	COM	BLACK	20		
	3	+5V	RED	20		
	4	COM	BLACK	20		
PG	1	+3.3V	ORANGE	20	MOLEX SD-67582 or EQUIV.	155±10mm
	2	COM	BLACK	20		
	3	+5V	RED	20		
	4	COM	BLACK	20		