SPECIFICATION

ESD-00003621

FSP180-AJBU3

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全漢企業股份有限公司
FSP TECHNOLOGY INC.

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SPECIFICATION

AC Adapter

FSP180-AJBU3

P.E	R/D	APPROVED	REV.
MATISSE	Boo Lin	LJ Wei	01

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Electrical Specification

History

REV.	Description	Date	Drawn	Mechanical	Electrical	Approved
00	SPEC ISSUE	APR.21'21	Vivian	MATISSE	Boo Lin	LJ Wei
01	Revise： 2.4 Output Voltage Ripple and Noise	JUL.27'21	Vivian	MATISSE	Boo Lin	LJ Wei

MODEL NO. **FSP180-AJBU3**

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Electrical Requirements

1. Input Characteristics:

ITEM	CONDITION	SPECIFICATION
1.1 Rated Input Voltage:		100Vac~240Vac
1.2 Input Voltage Range:		90Vac to 264Vac
1.3 Input Frequency Range:		47Hz to 63Hz
1.4 Input Current:	100Vac, 240Vac / 9.23A load	≤ 2.4A
1.5 Input Current Harmonic:		IEC61000-3-2
1.6 Efficiency: * US DOE * EU ErP * CoC V5		Compliance with: Level VI Lot 7 Tier 2
1.7 Inrush Current:	100Vac, 240Vac / 9.23A load	Shall be less than the rating of adapter critical component (including rectifiers, fuse surge and current limiting device)

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2. Output Characteristics:

※Measured at the end of DC cable.

ITEM	CONDITION	SPECIFICATION
2.1 Output Rated Voltage:		19.5V
2.2 Output Current:	at constant voltage mode	0A to 9.23A
2.3 Output Voltage Setting:	at the output end of DC cable	19.5V ± 5%
2.4 Output Voltage Ripple and Noise: (0.1uF Ceramic Cap. and 35V 47uF Aluminum Cap. Paralleled between the end of output cable, DC 20MHz Band-Width)	100Vac, 240Vac / ≤ 2.3A (burst mode, for no load power saving) 100Vac, 240Vac / >2.3A	≤ 450mVp-p ≤ 350mVp-p
2.5 Turn-On Delay Time:	At 100Vac / 9.23A load, output voltage shall remain regulation	≤ 1Sec
2.6 Hold Up Time:	At 100Vac or 240Vac / 9.23A load, output voltage shall remain regulation	≥ 10ms
2.7 Rise Time:	At 100Vac / 9.23A load, DC output rise time from 5% to 95% of Vo	≤ 50ms
2.8 Dynamic Load Change:	（1） Output load step is： 【1】0 % ~50 % 【2】50 %~100 % （2） S/R=0.5A/us （3） Frequency is 100Hz and 1KHz	19.5V ± 10%
2.9 Overshoot:	100Vac, 240Vac / 0A and 9.23A load	19.5V ± 10%

3. Protection Characteristics:

ITEM	CONDITION	SPECIFICATION
3.1 Short Circuit Protection:	When an internal fault occurs, or an external fault is applied to the power supply, such that an overload or short circuit is applied to the output, the power supply shall shut down and enter auto-recovery mode.	Shutdown and no damage
3.2 Over Voltage Protection:	The adapter will enter into shut down that means no output while over voltage happened at output terminal that caused by internal fault, the output trip voltage shall not exceed 29 volts. That will be return to normal state by AC reset.	Shutdown and no damage
3.3 Over Power Protection:	When an internal fault occurs, or an external fault is applied to the power supply, such that an overload or short circuit is applied to the output, the power supply shall shut down and enter auto-recovery mode.	Shutdown and no damage
3.4 Over Temperature Protection:	The power supply will enter into shut down while the abnormal thermal rise occurs. That will be return to normal state by AC reset.	No fire, no smoke

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4. Environmental Characteristics:

ITEM	CONDITION	SPECIFICATION
4.1 Electric Fast Transients: Refer to IEC61000-4-4	Impulse: ±1kV applied to L,N	Normal operation shall be continued
4.2 Lightning Surge: Refer to IEC61000-4-5	±1kV applied differential mode ±2kV applied common mode	Normal operation shall be continued Normal operation shall be continued
4.3 Electron Static Discharge: (Refer to IEC61000-4-2 Energy Storage Capacitor 150pF; Discharge Resistor 330Ω)	Air Discharge: ± 15 KV Contact Discharge: ± 8 KV	Normal operation shall be continued
4.4 Cooling:	Natural air cooling	
4.5 EMI:Adapter comply with the following national standards: EMI Conducted Emission EMI Radiated Emission	1. Full Load 2. The power supply with internal filter can meet.	FCC PART 15B CLASS B CISPR32 EN55032 CLASS B VCCI LEVEL Ⅱ
4.6 Leakage Current:	264Vac / 50Hz	≤ 0.25mA
4.7 Dielectric Strength: (Hi-Pot)	Between AC input and secondary applied DC 4242V(or AC 3000V) / test time 1 minute / cut off current shall be less than 10mA	
4.8 Temperature:	Operating Storage	0 to 40°C -20 to +80°C
4.9 Humidity:	Operating Storage	20% ~ 80% 10% ~ 90%

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5. Mechanical Characteristics:

ITEM	CONDITION	SPECIFICATION
5.1 Dimension (Length x Width x Height):		113.5 X 64.5 X 23 mm
5.2 Adapter weight:		317g (typical)
5.3 Input AC socket Type:		IEC 320-C6 Type
5.4 Vibration Test:	（1）Non-operating, 0.01g^2/Hz at 5Hz slopping to 0.02g^2/Hz at 20Hz, And maintain 0.02g^2/Hz from 20Hz ~ 500Hz （2）PSD=3.13grms, 15 minutes/axis （3）Vibration duration:15minutes （4）Vibration waveform:Random （5）Force Direction X,Y,Z	Normal operation shall be continued.
5.5 Acoustic Noise:	（1）Position the microphone 30 centimeters above the x-y center of the AC adapter （2）Input voltage:110Vac/60Hz 220Vac/50Hz	The EUT < 30dB