電氣規格書



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SPECIFICATION

AC Adapter FSP090-AAAN3

P.E	R/D	APPROVED	REV.
Angela	Stephen Li	LJ Wei	00



History

EV.	<u>Description</u>	Date	Drawn	Mechanical	Electrical	Approve
00	SPEC ISSUE	Jan. 08'18	Vivian	Angela	Stephen Li	LJ Wei
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Electrical Requirements

EM	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 (± 1Hz)
1.4 Input Current:	100Vac, 240Vac / 3.75A load	≤ 1.2A
1.5 Input Current Harmonic:		IEC61000-3-2
1.6 Efficiency: (Warm up 10 minutes later)	100Vac / 3.75A load 240Vac / 3.75A load	≥ 87% ≥ 89%
1.7 Power Saving:	115Vac, 230Vac / 10.4mA load(0.25W)	≤ 0.5W
1.8 Inrush Current:	100Vac, 240Vac / 3.75A load	Shall be less than the rating of adapter critical component (including rectifiers, fuse surgand current limiting device)
1.9 DOE(Level VI):	(1)115Vac / 0A load (2)115Vac / 25%,50%,75%,100% load (Average Active Mode Efficiency ,Warm up 30 minutes later)	\leq 0.21W \geq 88% (DC Cable \leq 1500 mm,19AW
1.10 Erp(Tier 2):	(1)230Vac / 0A load (2)230Vac / 25%,50%,75%,100% load (Average Active Mode Efficiency ,Warm up 30 minutes later)	\leq 0.15W \geq 89% (DC Cable \leq 1500 mm,19AW
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2. Output Characteristics: **Measured at the end of DC cable			
EM	CONDITION	SPECIFICATION	
2.1 Output Rated Voltage:		24V	
2.2 Output Current:	at constant voltage mode	0A to 3.75A	
2.3 Output Voltage Setting:	at the output end of DC cable	24V ± 5%	
2.4 Output Voltage Ripple and Noise: (0.1uF Ceramic Cap. and 35V 47uF Aluminum Cap. Paralleled between the end of output cable)	100Vac, 240Vac / 0A~3.75A load	≤ 350mVp-p	
2.5 Turn-On Delay Time:	At 100Vac / 3.75A load, output voltage shall remain regulation	≤ 3Sec	
2.6 Hold Up Time:	At 100Vac or 240Vac / 3.75A load, output voltage shall remain regulation	≥ 10ms	
2.7 Rise Time:	At 100Vac / 3.75A 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	24V ± 10%	
2.9 Overshoot:	100Vac, 240Vac / 0A and 3.75A load	24V ± 10%	
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3.	Protection	Characteristics:	
ı J.	TIOUCCHOIL	Characteristics.	

EM	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 35 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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Environmental Characteristics:

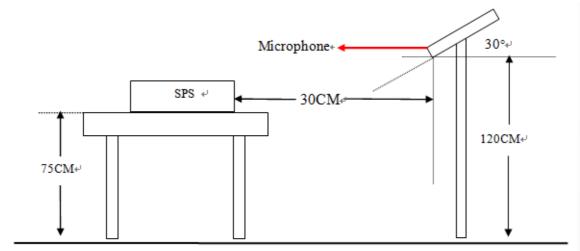
Refer to IEC61000-4-4 continued 4.2 Lightning Surge: Refer to IEC61000-4-5 ±1kV applied differential mode Normal operation shall continued 4.3 Electron Static Discharge: (Refer to IEC61000-4-2 Energy Storage Capacitor 150pF; Discharge Resistor 330Ω) Air Discharge: ±15 KV Normal operation shall continued 4.4 Cooling: Contact Discharge: ± 8 KV Normal operation shall continued 4.5 EMI: Adapter comply with the following national standards: EMI Conducted Emission 1. Full Load FCC PART 15B CLAS 2. The power supply with internal filter can meet. CISPR32 EN55032 CI VCCI LEVEL II VCCI LEVEL II 4.6 Safety conforming: Regulated by customer 4.6.1 Energy-related Products [ErP] Comply with ErP stance	ГЕМ	CONDITION	SPECIFICATION
Refer to IEC61000-4-5 ±2kV applied common mode Normal operation shall continued 4.3 Electron Static Discharge: (Refer to IEC61000-4-2 Energy Storage Capacitor 150pF; Discharge Resistor 330Ω) Air Discharge: ± 15 KV Normal operation shall continued 4.4 Cooling: Natural air cooling 4.5 EMI: Adapter comply with the following national standards: EMI Conducted Emission 1. Full Load FCC PART 15B CLAS CISPR32 EN55032 EN5032 EN55032 EN55032 EN5		Impulse: ±1kV applied to L,N	Normal operation shall be continued
Air Discharge: ± 15 KV (Refer to IEC61000-4-2 Energy Storage Capacitor 150pF; Discharge Resistor 330Ω) 4.4 Cooling: Natural air cooling 4.5 EMI: Adapter comply with the following national standards: EMI Conducted Emission EMI Radiated Emission 4.6 Safety conforming: 4.6.1 Energy-related Products 【ErP】 Department of Energy 【DOE】 Air Discharge: ± 15 KV Contact Discharge: ± 8 KV Contact Discharge: ± 8 KV Solution FCC PART 15B CLAS CISPR32 EN55032 Cl VCCI LEVEL II Comply with internal filter can meet. Comply with ErP stanc Comply with DOE star Comply with DOE star Air Discharge: ± 15 KV Contact Discharge: ± 16 KV Contact Discharge: ± 16 KV CISPR32 EN55032 Cl VCCI LEVEL II Comply with ErP stanc Comply with DOE star 4.6 Language Current: 264Vac / 50Hz Solution Air Discharge: ± 15 KV Contact Discharge: ± 10 KV CISPR32 EN55032 Cl VCCI LEVEL II Comply with ErP stanc Comply with DOE star 4.7 Leakage Current: 264Vac / 50Hz Solution Air Discharge: ± 10 KV CISPR32 EN55032 Cl VCCI LEVEL II Comply with ErP stanc Comply with DOE star 4.7 Leakage Current: 264Vac / 50Hz Comply with ErP stanc Comply with DOE star Comply with ErP stanc Comply with DOE star Compl		±1kV applied differential mode	Normal operation shall be continued
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national standards: EMI Conducted Emission EMI Radiated Emission 4.6 Safety conforming: 4.6.1 Energy-related Products 【ErP】 Department of Energy【DOE】 Comply with EP stand Comply with DOE standard Comply with	4.4 Cooling:	Natural air cooling	
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Storage $-20 \text{ to } +80^{\circ}\text{C}$ 4.10 Humidity: Operating $20\% \sim 80\%$	4.8 Dielectric Strength: (Hi-Pot)	DC 4242V / test time 1 minute / cut off	
4.10 Humidity: Operating 20% ~ 80%	4.9 Temperature:		
		Storage	-20 to +80°C
	4.10 Humidity:		
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. Mechanical Characteristics:				
EM	CONDITION	SPECIFICATION		
5.1 Dimension (Length x Width x Height):		140.1 X 65.1 X 25.4 mm		
5.2 Adapter weight:		360g (typical)		
5.3 Input AC socket Type:		IEC 320-C14 Type		
5.4 Vibration Test:	(1) Non-operating, 0.01g2/Hz at 5Hz slopping to 0.02g2/Hz at 20Hz, And maintain 0.02g2/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		
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Note: Acoustic Noise



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