



全漢企業股份有限公司

SPI Electronic Co., Ltd.

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SPECIFICATION



ESD06044315

FSP282-4F01

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SPECIFICATION

282W AC power supply

FSP282-4F01

Aug. 14'06

P.E	R/D	APPROVED	REV.
<i>Larry</i>	<i>Jaron Lin</i>	<i>LJ Wei</i>	002

表單編號：7000P-0105



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Electrical Specification

History

REV.	Description	Date	Drawn	Mechanical	Electrical	Approved
<u>001</u>	SPEC. ISSUE	Apr.11'06	Gigi Yu	Allens Lin	Jaron Lin	LJ. Wei
<u>002</u>	Add item 6	Aug.14'06	Gigi Yu	Allens Lin	Jaron Lin	LJ. Wei

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Electrical Specification

Electrical Requirements

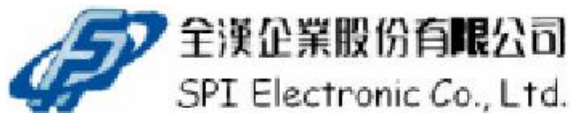
1. Input Characteristics:

※Measured the output voltage at the PCB

ITEM	CONDITION	SPECIFICATION
1.1 Rated Input Voltage		100V / 240V
1.2 Input Voltage Range	Continuously	90VAC to 264VAC
1.3 Input Frequency Range	Continuously	47Hz to 63Hz
1.4 Input Current	110Vac, 230Vac / full load	≤ 3.6A
1.5 Efficiency:	110Vac / full load (warm up) 230Vac / full load (warm up)	≥ 84% ≥ 86%
1.6 Power Consumption (Power saving)	It must be measured in PSON signal is low condition at rated AC input	≤1W

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Electrical Specification

2. Output Characteristics:

※Measured the output voltage at the PCB

ITEM		CONDITION					SPECIFICATION
2.1 Output Rated Voltage :							
a. PSON signal is L							
No.	Symbol	Output Current	Ripple & Noise	Min.(V)	Typ. (V)	Max.(V)	Remark
1	5Vsb	0A ~ 1.0A	100mV	5.14	5.25	5.36	u Power
b. PSON signal is H (measured at steady state)							
No.	Symbol	Output Current	Ripple & Noise	Min.(V)	Typ. (V)	Max.(V)	Remark
1	5Vsb	100mA ~ 0.5A	100mV	5.14	5.25	5.36	u Power
2	5V	0A ~ 3.0A	100mV	5.14	5.25	5.36	MCU
3	24Vau	0A ~ 3.0A	350mV	22.8	24	25.6	AUDIO
4	24Vinv	0A ~ 8.0A	350mV	22.8	24	25.6	INVERTER
Note: Output Voltage Ripple and Noise: (0.1uF Ceramic Cap. and 35V/47uF Aluminum Cap. Paralleled between the end of output cable, BW=20M Hz)				1. 100Vac / 240Vac 2. Minimum load and maximum load			
2.2 +5Vs Turn-On Delay Time:				Applied the AC input voltage is 100Vac and output load is Full load, output voltage shall remain regulation.			≤ 1Sec.
2.3 Power ON/OFF signal (PSON: CNS1 pin1)				Power ON/OFF signal is L (<0.7V)			Only 5Vsb output
				Power ON/OFF signal is H (3.3V~5.0V)			5Vsb, 5V, 24Vau and 24Vinv output
2.4 Dynamic Load Limitation (measured after PSON signal is H):				A sinusoidal dynamic load with a peak-to-peak value equal to 20% of the applied static load such that static load plus dynamic load does not exceed any of the maximums or minimums of item2.1(b). This dynamic load change shall be applied to a single output at any frequency up to 1KHz. S/R=0.1A/us, 50% duty. Output voltage within			5Vsb : 5.25V+/-5% 5V : 5.25V+/-5% 24Vau : 24V+/-5% 24Vinv : 24V +/-5%
2.5 LED Indication				No definition			

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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 or latch mode.	Shutdown and no damage
3.2 Over-Voltage Protection	The output voltage will enter into shut down that means no output on all output, while over voltage happened at output terminal that caused by internal fault. That will be return to normal state by AC reset.	No broken, no smoke.
3.3 Over Temperature Protection:	The AC power supply will enter into shut down while the abnormal thermal rise occurs. It will enter into normal condition if the fault condition is removed	No broken, no smoke.

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4. Environmental Characteristics:

ITEM	CONDITION	SPECIFICATION
4.1 Electric Fast Transients: Refer to EN61000-4-4	Impulse: $\pm 1\text{KV}$ applied to AC line, pulse duration 50nS period 5 min.	Normal operation shall be continued.
4.2 Lightning Surge: Refer to EN61000-4-5	$\pm 2\text{KV}$ applied between L, N and PE, pulse rise time 1.2us and duty time 50uS	Normal operation shall be continued.
4.3 Electron Static Discharge: (Refer to IEC1000-4-2 Energy Storage Capacitor 150pF; Discharge Resistor 330 Ω)	Air Discharge: $\pm 8\text{KV}$. Contact Discharge: $\pm 6\text{KV}$. (Note: combine with customer's system.)	Normal operation shall be continued.
4.4 Cooling	Natural air cooling	
4.5 EMI: AC power supply comply with the following national standards: EMI Conducted Emission EMI Radiated Emission	The AC power supply internal filter to meet, combine with customer's system.	FCC CLASS B CISPR 22 CLASS B
4.6 Safety conforming:	Regulated by customer	
4.7 Leakage Current	240Vac / 50Hz 100Vac / 60Hz	$\leq 0.35\text{mA}$ $\leq 0.175\text{mA}$
4.8 Harmonics	230Vac / 50Hz (Note: Combine with customer's system)	IEC1000-3-2
4.9 Dielectric Strength: (Hi-Pot)	Between AC input and secondary applied AC 3KV / test time 1 minute / cut off current shall be less than 10mA AC 3KV / test time 1 sec. for mass production	
4.10 Temperature:	Operating Storage	0 to 40°C -20 to +85°C
4.11 Humidity:	Operating Storage	20% ~ 90% 5% ~ 95%

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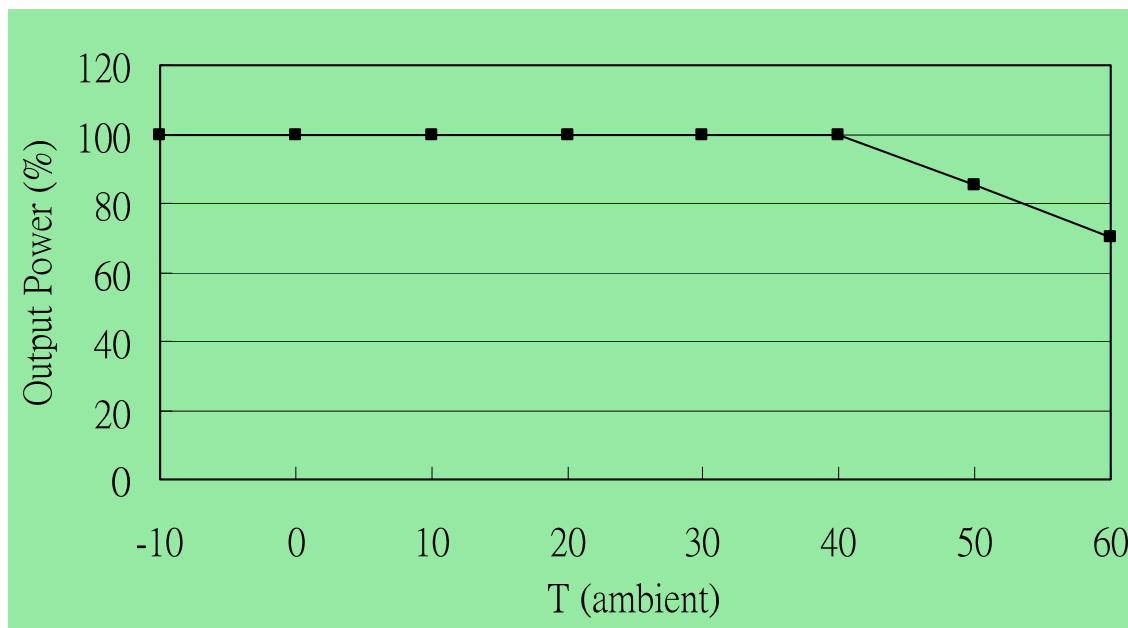
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5. Mechanical Characteristics:

ITEM	CONDITION	SPECIFICATION									
5.1 Dimension (Length x Width x Height)		250x138x32 mm									
5.2 Input AC socket Type		JWT A3963WV2-3P or equivalent									
5.3 Output DC connector											
CNS1											
Pin assignment											
Pin No.	1	2	3	4	5	6	7	8	9	10	
Signal Name	PSON	GND		5V		5Vsb	GND		24Vau		
CNS2			Pin assignment								
Pin No.	1	2	3	4	5	6	7	8			
Signal Name	24Vau		GND				24Vinv				
CNS3			Pin assignment								
Pin No.	1	2	3	4	5	6					
Signal Name	GND			24Vinv							
CNS4			Pin assignment								
Pin No.	1	2	3	4	5	6					
Signal Name	GND			24Vinv							

6. Output Power V.S ambient temperature de-rating curve:



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