

ELECTRICAL SPECIFICATION

Change List			
ECN NO	REV	Revision Description	Date
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ELECTRICAL SPECIFICATION

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ELECTRICAL SPECIFICATION

1. Description

This product is a DC to DC power transfer device, it can provide for a 90W single DC Output with constant voltage source. The 90W Car adapter with LED , provides reliable power equipment to personal notebook computer and digital products, by replacing output DC connector plug, the adapter controls output power by pressing switch to transfer the six different output voltage , obtains precise voltage and current, thus guarantee the external instrument power supply effectively. Besides, through pressing switch to indicate output voltage data by the LED module, it may effectively avoid damage to external equipment, and it is safer and more humanity.

2. Electrical

2.1 Input voltage

a.dc 12V-15V

2.2 Input Current

9.5A max .at DC12V input & dc output full-loading.

2.3 Input wattage

Less than 1.5W at DC12V input & no load condition&Output 15V

2.4 Efficiency

83% min. at dc output full-loading and 115/230Vac input.

2.5 Ripple and Noise

Low frequency ripple (<100KHz) \leq 200mVp-p,and Total composite Ripple and Noise. Less than 350mVp-p,tested by dc loading side parallel with a 10uF/EC,and 0.1uF/Ceramic.Capacitors and Measured Band Width 20MHz.

2.6 Over-Shoot and under-shoot

Less than 10% of nominal Voltage value.

2.7 LED Indication

LED light for Nominal operation.

Blank or Flash for SCP mode.

2.8 Rise time

Rise time shall be less than 50msec, it should be measured from 10% to 90% of the output voltage.

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2.9 Output Voltage and Current

NO	DC plug NO	Vout	Range	Iout (min.)	Iout (max.)	DC plug spec
1	A	19V	18.2-19.5V	0A	4.74A	φ 4.8*1.7*10.7 mm DC-F
2	B	15V	14.2-15.5V	0A	6A	φ 6.3*3.0*10.7 mm
3	C	19V	18.2-19.5V	0A	4.74A	φ 5.5*2.1*10.7 mm DC-F
4	D	19V	18.2-19.5V	0A	4.74A	φ 5.5*2.5*10.7 mm DC-F
5	E	16V	15.2-16.5V	0A	5A	φ 5.5*2.5*10.7 mm DC-F
6	F	19V	18.2-19.5V	0A	4.74A	φ 5.5*3.0*10.7 mm pin1.0
7	G	16V	15.2-16.5V	0A	5A	φ 6.0*4.3*10.7 mm pin1.0
8	H	20V	19.2-20.5V	0A	4.5A	φ 6.0*4.3*10.7 mm pin1.0

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3. Environment

3.1 Temperature

- a. Operation: 0 to 40 °C.
- b. Storage: -20 to 70 °C.

3.2 Humidity

- a. Operation: 20 to 80%.
- b. Storage: 10 to 90%.

3.3 Altitude

From sea level to 2000m (operation) and above (Non operation).

4. EMC

4.1 EMS

Test Item	Test Specification	IEC Standards
ESD	Contact +/-8KV	61000-4-2
ESD	Air +/-15KV	61000-4-2
RS	FR: 26MHz-1.0GHz Field Strength: 3V/M	61000-4-3
EFT	+/-2KV on AC power line	61000-4-4
SURGE	+/-1KV (DM) & +/-2KV(CM)	61000-4-5
CS	3V/M	61000-4-6
DIPS	0% 250CY,40% 5CY,70%5CY	61000-4-11

4.2 EMI

Standards	Specification
FCC	Part 15,class B
VCCI	Class B
CISPR	Part 22,class B

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5. Reliability

5.1 Life

12,000 hours

At DC output full-loading, DC12V input & ambient temperature 25°C.

5.2 M.T.B.F.

37,500 Power On Hours at 25°C.

5.3 Temperature Rise.

Less than 45°C at nominal DC input/DC output full-loading and Environment temperature 25+/-1 °C on Top/Bottom of plastic case.

5.4 Bum-in

100% bum-in with 80~100% full-loading & 35~45°C Environment Temperature.

5.5 Vibration Test

- a. Non operation vibration with shipping container shall be 2G'S Peak/7-50Hz, 4G'S/ 50-500Hz, after test o abnormally to be found.
- b. Operation vibration shall be 0.5G'S peak/10-60Hz, 3 AXES, after Test no abnormally to be noted.

5.6 Drop-Test

Test height is 100cm, after drop test no function abnormally to be noted.

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6. Product Frame picture

