

EA1050B-20V

- ▲Efficiency Over 75%
- ▲Over-Voltage Protective Installation
- ▲Shot-circuit Protective Installation
- ▲Protection Type : Auto-Recovery
- ▲Operation Temperature 0°C ~ 40°C
- ▲IEC 320 Receptacle 3P
- ▲Compact size : L120×W60×H34mm



1-0 INPUT REQUIREMENTS

1-1 INPUT VOLTAGE

100 TO 240± 10%Vac , FULL RANGE

1-2 INPUT FREQUENCY

47 TO 63 Hz

1-3 INPUT CURRENT

- 1.) 1.2 A MAX., AT 115Vac , FULL LOAD
- 2.) 0.6 A MAX., AT 230Vac , FULL LOAD

1-4 EFFICIENCY

82% TYP. AT FULL LOAD, (CV MODE), NOMINAL LINE

1-5 INRUSH CURRENT

- 1.) 50A MAX. AT 115Vac , COLD START
- 2.) 100A MAX. AT 230Vac , COLD START

1-6 HOLD UP TIME

10mS MIN.AT FULL LOAD, NOMINAL LINE

1-7 CONFIGURATION

3-WIRE INPUT AC LINE(LINE ,NEUTRAL,FG)

1-8 INPUT FUSE

THE HOT LINE SIDE OF THE INPUT SHALL HAVE A FUSE

1-9 LINE REGULATION

THE MAXIMUM VOLTAGE CHANGE ON DC OUTPUT SHALL BE WITHIN TOLERANCE WHEN AC INPUT VOLTAGE VARIES WITHIN THE RANGE SPECIFIED IN 1-1

1-10 INPUT PROTECTION DEVICE

AN ADEQUATE INTERNAL FUSE ON THE AC INPUT LINE SHALL BE PROVIDED

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1-11 POWER LINE NOISE

THE POWER SUPPLY WILL HAVE AN ON BOARD AC FILTER THAT WILL MEET CONDUCTED NOISE SPECIFICATIONS OF FCC AND CISPR

1-12 HI-POT TESTS

PRIMARY-SECONDARY 1.5KV_{ac} FOR 1 MINUTE (LEAKAGE CURRENT 10mA)

1-13 INSULATION RESISTANCE

INSULATION RESISTANCE SHALL BE MORE THAN 100Mohm AT 500V_{dc} BETWEEN PRIMARY LINE, NEUTRAL LINE AND SECONDARY

2-0 OUTPUT REQUIREMENTS

2-1 DC OUTPUT

	TOLERANCE	OUTPUT CURRENT	
OUTPUT VOLTAGE	(ACCURACY)	MIN.	MAX.
+20 Vdc	+/-4 %	0	3.0 A

2-2 LOAD REGULATION

VOLTAGE	TOLERANCE	REGULATION
+20 Vdc	+/-4 %	19-21Vdc

2-3 DYNAMIC LOAD REGULATION

+/-5% EXCURSION FOR 50% - 100% OR 100%-50% LOAD CHANGE OF DC OUTPUT AT ANY FREQUENCY UP TO 1KHz (DUTY 50%)

2-4 RIPPLE & NOISE

THE POWER SUPPLY SHALL NOT EXCEED THE FOLLOWING LIMITS ON THE INDICATED VOLTAGES FOR 60Hz OR 50Hz RIPPLE , SWITCHING FREQUENCY RIPPLE AND NOISE AND DYNAMIC LOAD VARIATIONS MEASURED WITH A 20MHz BANDWIDTH

OUTPUT	RIPPLE/NOISE
+20 Vdc	250mV

OUTPUT: OUT VOLTAGE

RIPPLE/NOISE: 60Hz RIPPLE + SWITCHING RIPPLE AND NOISE

© RIPPLE & NOISE ARE MEASURED AT THE END OF OUTPUT CABLES WHICH ARE ADDED A 0.1uF CERAMIC CAPACITOR AND A 47uF ELECTROLYTIC CAPACITOR

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2-5 OVER CURRENT PROTECTION (OVER POWER PROTECTION)

THE POWER SUPPLY SHALL NOT BE DAMAGED BY A OVER CURRENT FROM THE OUTPUT TO RETURN LINE

OUTPUT VOLTAGE	MIN.	MAX.
+20 Vdc	---	3.8 A

2-6 OVER — VOLTAGE PROTECTION

27V MAX. (OUTPUT CLAMPED WITH ZENER DIODE, DO NOT TEST WITH EXTERNAL DC SOURCE)

2-7 SHORT-CIRCUIT PROTECTION

A SHORT CIRCUIT PLACE AT ANY OUTPUT WILL CAUSE NO DAMAGE TO THIS ADAPTER

2-8 OPEN CIRCUIT PROTECTION

WHEN PRIMARY POWER IS SUPPLIED WITH NO LOAD ON ANY OUTPUT LEVEL,NO DAMAGES OR HAZARDOUS CONDITIONS SHOULD OCCUR

2-9 STABILITY

2% MAX. AT CONSTANT LOAD WITH CONSTANT INPUT (AFTER 30 MINUTES OF OPERATION)

2-10 DROP-OUT(POWER LINE DISTURBANCE)

OUTPUT VOLTAGES SHALL REMAIN WITHIN THE SPECIFIED REGULATION RANGE , THROUGH THE ABSENCE OF A LINE INPUT DURING 1/2 CYCLE, AT FULL LOAD AND MIN.AC LINE INPUT

2-11 VOLTAGE ISOLATION

THE DC GROUND WILL BE ISOLATED FROM THE AC NEUTRAL AND AC LINE

2-12 COOLING

COOLING SHALL BE NEUTRAL CONVECTION COOLING ,THE POWER SUPPLY MUST BE CAPABLE OF OPERATION WHEN MOUNTED EITHER VERTICALLY OR HORIZONTALLY ACCORDING TO THE MECHANICAL DRAWING

2-12-1 CONTINUITY (GROUNGING)

100m OHM MAX. AT 25A

2-13 LEAKAGE CURRENT

0.75mA MAX.

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2-14 LED DISPLAY

DESCRIPTION	GREEN
POWER ON	ON
POWER OFF	OFF

3-0 ENVIRONMENTAL REQUIREMENTS

3-1 TEMPERATURE :

- 1.)OPERATION : 0 TO 40°C
- 2.)STORAGE : -20 TO 85°C

3-2 HUMIDITY

- 1.)OPERATION : 8%~90%RH
- 2.)STORAGE : 5%~90%RH

3-3 VIBRATION AND SHOCK

NO EVIDENCE OF ANY MECHANICAL OR FUNCTIONAL DAMAGE AFTER THE VIBRATION AND SHOCK TESTING

1.)SHIPPING VIBRATION

THIS AC ADAPTER MAY BE VIBRATED IN THE THREE MUTUALLY PERPENDICULAR AXES OF 0.5mm DISPLACEMENT PEAK TO PEAK AT 2 TO 55 TO 2Hz , 7 MINUTES PER CYCLE FOR A DURATION OF 30 MINUTES

2.)SHIPPING SHOCK

THIS AC ADAPTER IN THE SHIPPING PACKAGE MAY BE DROPPED 8 TIMES FROM A HEIGHT OF 900mm

3-4 ALTITUDE

- 1.)OPERATION : 10 , 000 FEET
- 2.)STORAGE : 40 , 000 FEET

4-0 EMI/EMC REQUIREMENTS

THE RADIATED AND CONDUCTED EMISSIONS OF THIS AC ADAPTER COMPLIES WITH THE REQUIREMENTS OF THE FCC PART 15 , CLASS B & EN 55022 CLASS B

5-0 APPROVAL

THIS AC ADAPTER IS DESIGNED TO MEET BY FOLLOWING STANDARDS

5-1 UL , CUL , TUV, CE

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6-0 RELIABILITY

THE POWER SUPPLY SHALL BE DESIGNED AND PRODUCED TO HAVE A MEAN TIME BETWEEN FAILURES(MTBF) OF 30000 OPERATING HOURS AT 90% CONFIDENCE-LEVEL WHILE OPERATING UNDER THE FOLLOWING CONDITIONS

TEST CONDITION : INPUT VOL. 220Vac AND 40 PCS OF UNITS FOR 30 DAYS BURN-IN AT FULL LOAD AND 40°C AMBIENT WITHOUT FAILURE

7-0 MECHANICAL FEATURES

7-1 MOUNTING CONNECTOR

CABLE 1200+/-30mm

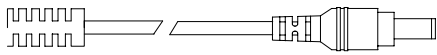
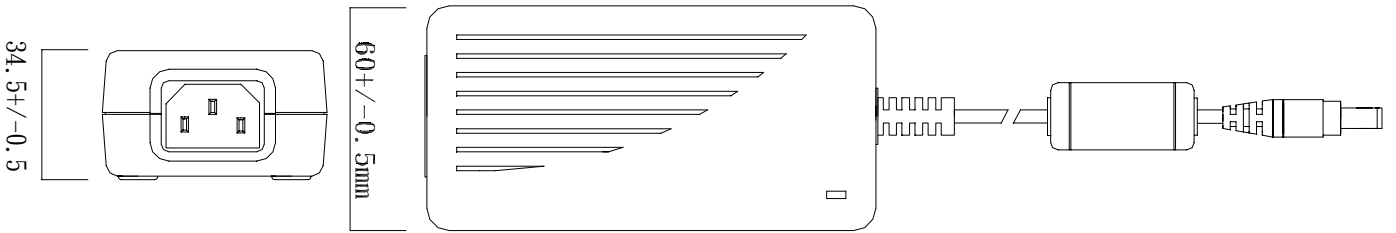
7-2 WEIGHT

POWER ASS'Y : 253 GRAMS

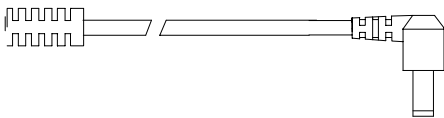
7-3 DIMENSION

121L X 60W X 35H mm

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5.5X2.5 or 5.5X2.1



5.5X2.5 or 5.5X2.1



MINI DIN

