

# EA1060B-24V

- ▲EFFICIENCY OVER 80%
- ▲OVER-VOLTAGE PROTECTIVE INSTALLATION
- ▲SHOT-CIRCUIT PROTECTIVE INSTALLATION
- ▲PROTECTION TYPE : AUTO-RECOVERY
- ▲OPERATION TEMPERATURE 0°C ~40°C
- ▲IEC 320 RECEPTACLE 2P
- ▲COMPACT SIZE : L107×W61×H30MM



## 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.) 1.6 A MAX., AT 115Vac , FULL LOAD
- 2.) 0.8 A MAX., AT 230Vac , FULL LOAD

### 1-4 EFFICIENCY

82% MIN. 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

### 1-6-1 TRUN-ON TIME

3 SEC. MAX.(AT AC 115V, COLD START)

### 1-7 CONFIGURATION

2-WIRE INPUT AC LINE(LINE ,NEUTRAL)

### 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 3.0KV<sub>ac</sub> FOR 1 MINUTE (LEAKAGE CURRENT 10mA)

## 1-13 INSULATION RESISTANCE

INSULATION RESISTANCE SHALL BE MORE THAN 100Mohm AT 500V<sub>dc</sub> BETWEEN PRIMARY LINE, NEUTRAL LINE AND SECONDARY

## 2-0 OUTPUT REQUIREMENTS

### 2-1 DC OUTPUT

	TOLERANCE	OUTPUT CURRENT		
OUTPUT VOLTAGE	(ACCURACY)	MIN.	MAX.	PEAK
+24 V <sub>dc</sub>	+/-4 %	0	2.5 A	3.2A

OUTPUT PIN OF THE MOUNTING CONNECTOR(FRONT VIEW)

### 2-2 LOAD REGULATION

VOLTAGE	TOLERANCE	REGULATION
+24 V <sub>dc</sub>	+/-4 %	23-25 V <sub>dc</sub>

### 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

A	B
+24 V <sub>dc</sub>	250mV

COLUMN A: OUT VOLTAGE

COLUMN B: 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.
+24 Vdc	---	3.6 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

## 2-13 LEAKAGE CURRENT

0.25mA MAX.

## 2-14 LED DISPLAY

DESCRIPTION	GREEN
POWER ON	ON
POWER OFF	OFF

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## 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, CB, CE

## 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

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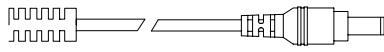
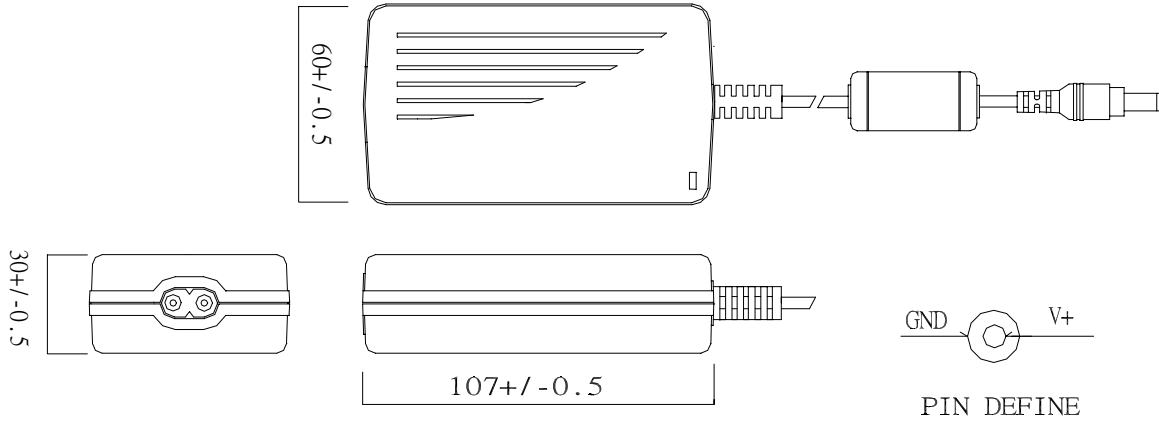
## 7-0 MECHANICAL FEATURES

7-1 MOUNTING CONNECTOR  
CABLE 1200+/-30mm

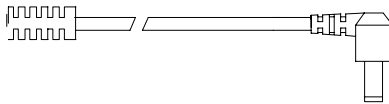
7-2 WEIGHT  
POWER ASS'Y : 280 GRAMS

7-3 DIMENSION  
107L X 60W X 30H mm

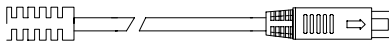
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5.5X2.5 or 5.5X2.1



5.5X2.5 or 5.5X2.1



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