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1. General Description

The purpose of this document is to specify a single phase AC input switching power supply with full range. The product is AC to DC switch mode power supply that provide single output EA1036D1_24V@1.5A max with 36W max DC output with constant voltage source. This Specification defines the input, output, performance characteristics, environment , noise and safety requirement.

2. Input Electrical Specification

2-1. AC Input Voltage

Maximum Voltage: 264Vac
Normal Voltage : 100~240Vac
Minimum Voltage: 90Vac

2-2. AC Input Frequency

Maximum Frequency: 63Hz
Normal Frequency: 50~60Hz
Minimum Frequency: 47Hz

2-3. Input Current

- a. 1.0A (Max.) @ AC 100Vac input with full load.
- b. 0.5A (Max.) @ AC 240Vac input with full load.

2-4. Efficiency

Meet CEC Level V

	Nameplate Output Power	Energy Star Spec
	0 to 1 Watt	$0.48 \times P_{no} + 0.14$
■	> 1 50 Watts	$\{ 0.0626 * \ln (P_{no}) \} + 0.622$
	> 50 to 250 Watts	0.87

CEC Level V: Efficiency 84.6%(avg.)@ normal input & 25% , 50% , 75% , 100% of max output load.

2-5. Configuration

3-wire AC input (Line ,Neutral, FG)

2-6. Input Fuse

The Line of the AC input shall have a fuse , rated is T2A/250V

2-7. Inrush Current

30A at 110 Vac At cold start, nominal load.

60A at 240 Vac At cold start, nominal load.

2-8. No Load Power Consumption :

Less than 0.3W @ 230V / 50Hz condition .

2-9. Hold Up Time

10 mSec., @ normal line, with full load.

2-10. Rise Time

20 mSec. @ min input voltage , with full load from 10% to 90% of output voltage.

2-11. Turn-ON Time

The output voltage should rise to 90% of rated output voltage in less than 3 seconds from AC apply.

3. Output Electrical Specification

3-1. Output Voltage and Current

Output Voltage	Min Current(A)	Max Current(A)	Peak Current(A)
+24V	0A	1.5A	

3-2. Line / Load Regulation

	Output Voltage (V)	Tolerance (%)	Regulation(V)
V _o	+24V	+5% ~ -5%	22.80V~ 25.2V

3-3. Dynamic Load Regulation

±5% excursion from 50% to 100% load and back to 50% load change of DC output at any frequency up to 1KHz(duty 50%)

3-4. Ripple & Noise

The power supply shall not exceed the following limits on the indicated voltage for 60Hz or 50Hz ripple, Switching frequency ripple and noise and dynamic load variations measured with a 20MHz bandwidth and output parallel with a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor to ground. Temperature at 25°C and nominal AC input voltage

Output	Ripple/Noise(PK)
24V	500mV max.

Ripple / Noise: 60Hz ripple + switching ripple and noise

3-5. Short Circuit Protection :

The output should shut-down when subjected to short circuit. The power supply shall return to normal operating after removing the short situation .

3-6. Over Voltage Protection :

110% ~ 150% of rated voltage

When over-voltage occurred, adapter will shut down and enter latch mode , but will not damage unit .

3-7. Over Current Protection :

110% ~ 150% of rated Current

When over-current occurred, the output should shut down and the over –current situation is removed, the output shall auto-recover without any harm .

3-8. Stability

2% Max. at constant load with constant input (after **30 minutes** of operation).

3-9. Drop-out (Power Line Disturbance)

Output voltage shall remain within the specified regulation range, through the absence of a line input during 1/2 cycle, at full load and normal AC line input.

4. Reliability Specification

4-1. MTBF (MIL-STD-781C)

The power supply shall be designed and produced to have a mean time between failures (MTBF) of 50000 operating hours minimum conditions: 80% maximum load at 25 °C, nominal input voltage.

5. Environment Specification

5-1 Temperature

- a. Operating: 0 to 40°C
- b. Storage: -20 to 60°C

5-2 Humidity

- a. Operating: 20 to 85 % RH, NON-CONDENSING
- b. Storage: 5 to 95 % RH, NON-CONDENSING

5-3 Altitude

From sea level to 2000M(operation) and 5000M(non operation) .

6-0. Safety Specification

6-1. Hi-Pot Test

3000VAC, 10mA, 3 seconds between primary and secondary circuit

6-2. Insulation Resistance Test

500Vdc, 3 Sec. between primary and secondary circuit

IR should 100 M .

6-3. Leakage Current

750 uA @ 240VAC/50Hz

6-4. Safety

UL, CUL, TUV/GS, CE, FCC, CCC, DOIR+C-TICK, BSMI, PSE, SEMKO

7. Mechanical Specification

7-1. Physical Size : 98 mm (L) * 45 mm (W) * 31 mm (H)


7-2. Enclosure material : 94V-1 minimum

7-3. Net Weight (Reference) : 220 g

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5
3

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电源适配器 電源供應器 AC ADAPTER
 型号 型號 MODEL: EA1036D1
 输入 輸入 AC INPUT: 100-240V~1.0A,
 50-60Hz
 输出 輸出 DC OUTPUT: 24V---1.5A


注意 注意 CAUTION:
 室内产品使用 室內產品使用 FOR INDOOR USE ONLY
 I.T.E. USE ONLY

出厂日期 出廠日期


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 LPS




TUV RT




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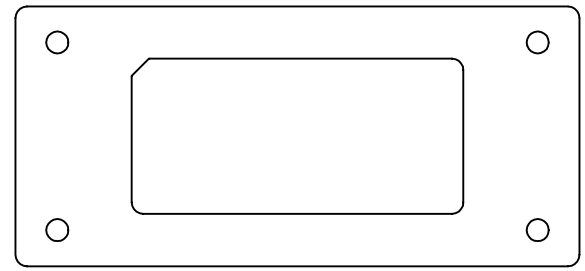
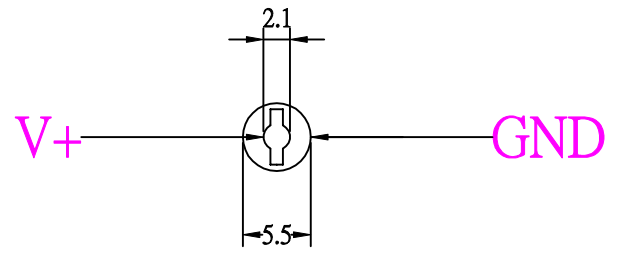
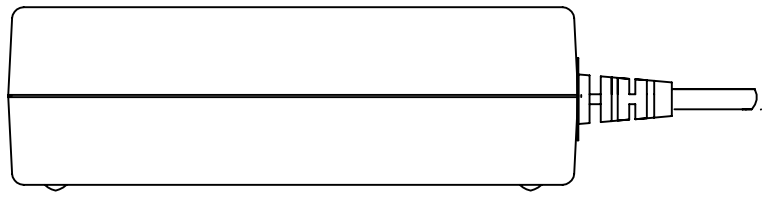
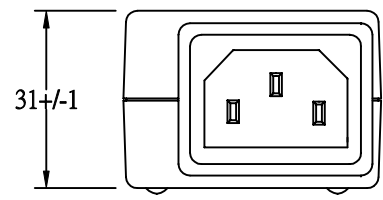
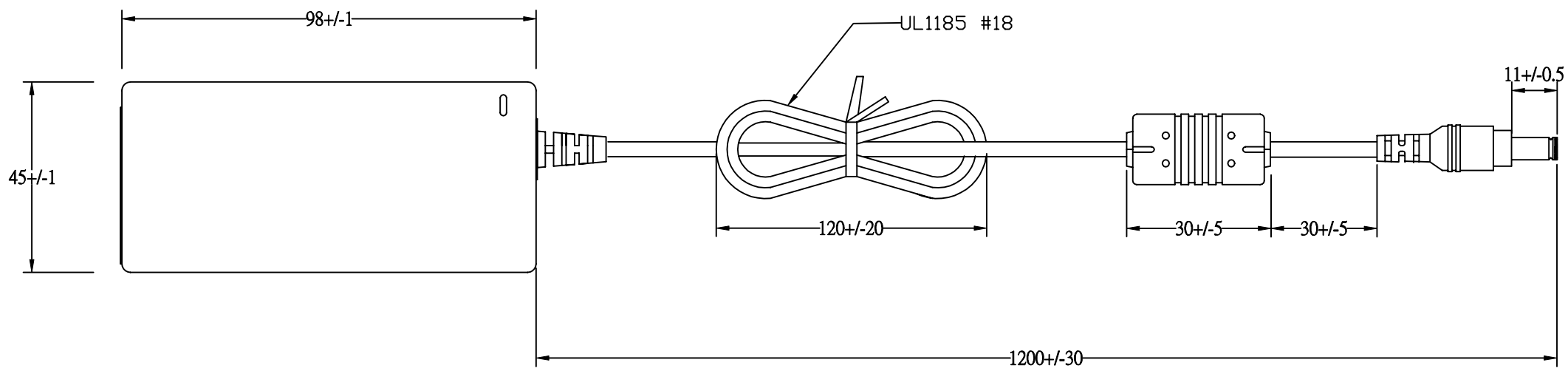
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Background: Black color
Character: Silver color
Unit: mm



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