

SPECIFICATION

**Ultra Low Profile
80W Desktop Power Adaptor**

**Universal AC Input
19VDC 4.2A Output**

P/N: A190042ED8



*** Specification Approval ***

This specification (total 7 pages including cover page) in its entirety is approved by:

Company Name

Print Name

Signature

Date

Specification subject to change without prior notice.



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1.0 General Description

The purpose of the document is to specify a single phase AC input, DC output switching power supply providing 80W 19VDC 4.21A max. output.

2.0 AC Input Requirements

2.1 Input Voltage

Maximum Voltage: 264Vac

Normal Voltage : 100~240Vac

Minimum Voltage: 90Vac

2.2 Input Frequency

47~63 Hz

2.3 Input Current

$\leq 0.9A$ at 115Vac input with full load.

$\leq 0.5A$ at 230Vac input with full load.

2.4 Efficiency

Meets CEC level V

Efficiency $\geq 87\%$ at normal input & 25%, 50%, 75%, 100% of max. output load.

2.5 Configuration

2-wire AC input (Line, Neutral)

2.6 Input Fuse

The AC input fuse shall meet the minimum standards of IEC, which is rated at 2.5A Max. slow blow type.

2.7 Inrush Current

$\leq 45A$ at 110Vac/60Hz, cold start, maximum load.

$\leq 90A$ at 220Vac/50Hz, cold start, maximum load.

2.8 Hold Up Time

$\geq 10m$ sec. at normal line, with full load.

2.9 Rise Time

$\leq 50m$ sec. at normal AC input, with full load from 10% to 90% of output voltage.

2.10 Turn-On Time

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

2.11 No load Power Consumption :

Less than 0.3W

2.12 Harmonic Standard and Power Factor

The adapter shall comply with IEC61000-3-2 Class D harmonic standard when input power exceeds 75W, PF shall be more than 0.95 with 110Vac input and more than 0.9 with 230Vac input.

3.0 DC Output Specifications

3.1 Output Current

Output Voltage	Current Min.	Current Max.
19VDC	0A	4.21A

3.2 Load Regulation

Output Voltage	Load Regulation
19VDC	+/-5%

3.3 Dynamic Load Regulation

+/- 5% excursion for 50% - 100% or 100% - 50% load change of DC output at any frequency up to 1KHz(duty 50%)

3.4 Ripple & Noise

The power supply shall not exceed the following limits on the indicated voltage for 60Hz or 50Hz ripple.

Output Voltage	Ripple & Noise (PK)
19VDC	300mV

Ripple & Noise are measured at the end of output cable which are added a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor.

3.5 Over Voltage Protection

When output voltage exceed 27V, the adapter will shut down with latch off mode.

3.6 Over Current Protection

When output current reach the 110%-140% of max. rated current, the adapter will shut down with auto recovery mode.

3.7 Short Circuit Protection

Adapter will not be damaged by short circuits applied to the output either before input power is applied or after the adapter has been operating. Short on the output will cause the adapter to shut down with auto recovery mode.

3.8 Closed Loop Stability

The power supply shall be unconditionally stable under all line/load/transient conditions including capacitive loads. A minimum of 45° phase margin and a minimum of 10dB gain margin are recommended at both the maximum and minimum loads.

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.

4.0 Environment

4.1 Temperature

Operating: 0 to 40°C

Storage: -20 to 85°C

4.2 Humidity

Operating: 10%RH to 90%RH

Storage: 5%RH to 90%RH

4.3 Altitude

From sea level to 2,000M (operation) and to 5,000M (non operation)

4.4 Case Temperature Rise

The max. permitted case temperature of 95°C across the operating temperature range specified is expected for over temperature protection (OTP) testing.

5.0 Safety

5.1 Hi-Pot Test

4242Vdc, 5mA, 3 sec. between primary and secondary circuit

5.2 Insulation Test

500Vdc, 3 sec. between primary and secondary circuit

IR should \geq 50 M Ω .

5.3 Leakage Current

\leq 250uA @ 240Vac 50Hz

6.0 Mechanical Characteristics

6.1 Case Dimenions

118mm (L) * 64 mm (W) * 16.8mm (H)

6.2 Enclosure material

94V-0 minimum

6.3 DC Output Cable

UL1185 16AWG

6.4 Vibration Test

The vibration frequencies are set at 20Hz, with total amplitude of 1.5mm
Along the 3 directions namely X-Y-Z. The each direction should be vibrated
for 60 minutes, after testing no abnormal electrical or mechanical should occur.

6.5 Drop Test

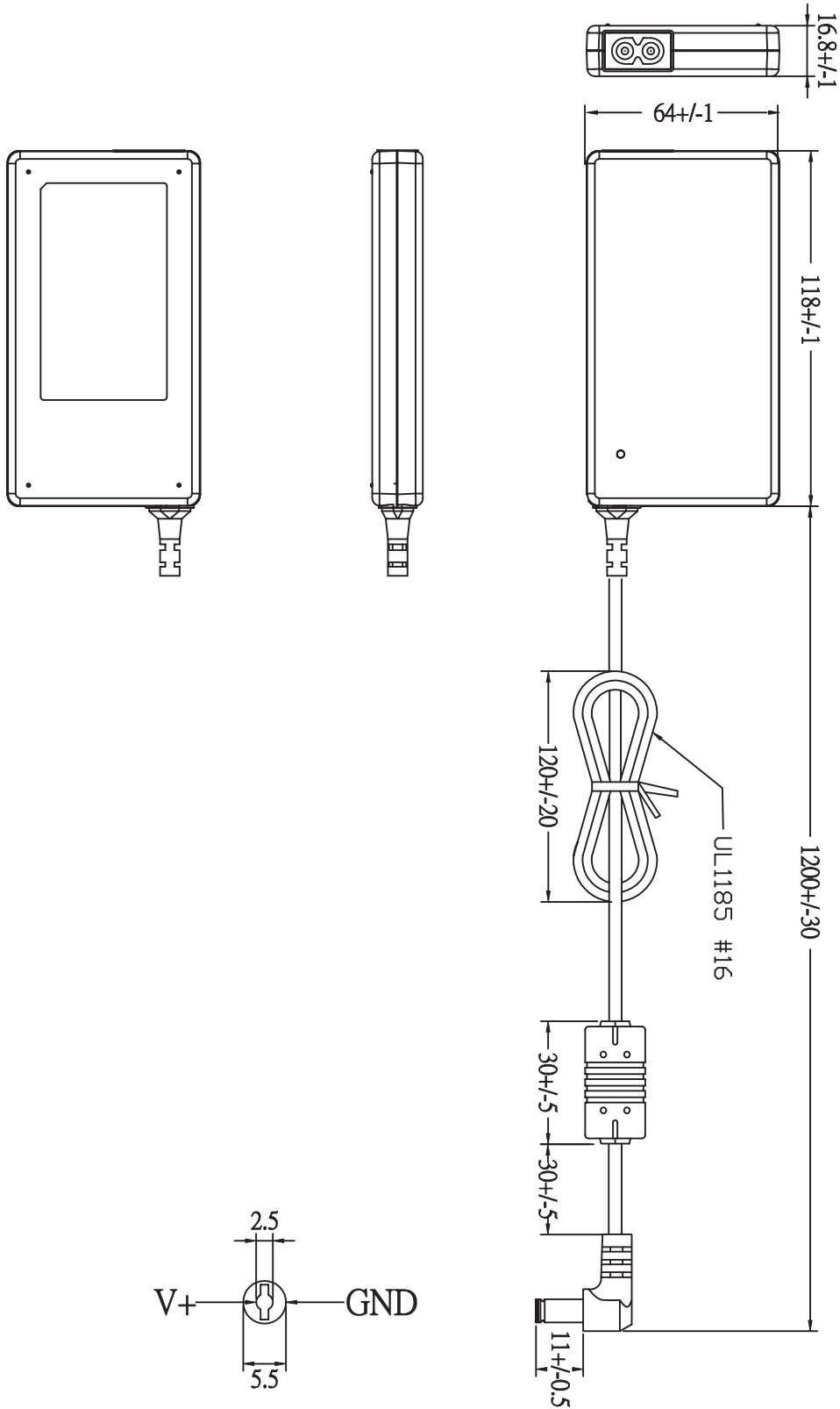
(Referencing to CSA C22.2 No.950/UL1950/UL1310/EN60950)

Products shall be dropped from a height of 900 mm onto a horizontal surface
consists of hardwood at 13mm thick, mounted on two layers of plywood each
19mm to 20mm thick, all supported on a concrete or equivalent non-resilient
floor. Upon conclusion of test, the equipment need not be operational.

6.6 Net Weight

450g

7.0 Safety



8.0 Label

