

# SPECIFICATION

## Switching Desktop Adapter Universal AC Input 84W 24VDC Output

**P/N: A240035FY1**

**\*\* Specification Approval\*\***

This specification (total 4 pages including cover page) is approved in it's entirety by:

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## 1. SCOPE

THIS DOCUMENT DEFINES THE ELECTRONIC CHARACTERISTICS AND PERFORMANCE, MECHANICAL REQUIREMENTS AND RELATED INFORMATION FOR A SINGLE OUTPUT SWITCHING POWER SUPPLY. THIS POWER SUPPLY WILL PROVIDE MAX 80W CONTINUOUS POWER WITH 24VDC OUTPUT. IT IS DESIGNED FOR USE WITH INFORMATION TECHNOLOGY EQUIPMENT AND AS WITH ALL TOP MICROSYSTEMS PRODUCTS, IS COMPLIANT WITH THE MOST STRINGENT AND UP TO DATE INTERNATIONAL ENVIRONMENTAL STANDARDS AND USER SAFETY GUIDELINES.

## 2.0 MECHANICAL CHARACTERISTICS

### 2.1 STRAIN RELIEF TEST:

EACH TERMINAL OF THE PRODUCT SHALL BE CAPABLE OF WITHSTANDING AN AXIAL PULL OF 2KG APPLIED GRADUALLY AND MAINTAINED FOR 60 SECONDS WITHOUT LOOSENING, BREAKING OR OTHER DAMAGE .

### 2.2 DROP TEST:

PRODUCTS SHALL BY DROPPED FROM A HEIGHT OF 90CM ONTO A DRY WOOD SURFACE, ITS THICKNESS IS 1CM, AFTER TEST THERE SHALL BE NO ABNORMAL CONDITION.

### 2.3 CORD BENDING TEST:

THE CORD SHALL WITHSTAND A WEIGHT OF 200GM SWINGING FROM LEFT TO RIGHT AT AN ANGLE OF 120 DEGREES (TOTAL) 300 TIMES, AFTER TEST THERE SHALL BE NO ABNORMAL CONDITION.

## 3.0 INPUT VOLTAGE

MINIMUM	NORMAL	MAXIMUM
100VAC 50/60Hz	230VAC 50/60Hz	264VAC 50/60Hz

### 3.1 OUTPUT VOLTAGE

LOADING	NO LOAD	RIPPLE
24VDC 3500mA $\pm$ 5%	24.2VDC $\pm$ 5%	250mV <sub>p,p</sub> MAX

### 3.2. INPUT CURRENT

NO LOAD	AC 230V 50/60Hz
	50mA Max
LOADING	1500mA Max

3.3 INPUT POWER : NO LOAD 0.5W MAX, AT INPUT 100-240VAC50/60Hz. LOADING 110W MAX, AT RATED OUTPUT.

3.4 EFFICIENCY: MEETS CEC 5 REQUIREMENTS FOR ACTIVE MODE AND STANDBY POWER CONSUMPTION.

3.5 INSULATION RESISTANCE: 500VDC 100M $\Omega$  MIN .

3.6 DIELECTRIC WITHSTAND TEST: 5mA 3000VAC FOR 2 SECONDS BETWEEN INPUT AND OUTPUT INPUT AND CASE, AT AN ALTERNATIVE POTENTIALS 5% HIGHER MAY BE APPLIED FOR 1 SECOND.

3.7 INRUSH CURRENT: PEAK INRUSH CURRENT SHALL BE LIMITED TO 30A COLD START

3.8 POWER FACTOR: 0.9 MIN.

#### 4.0 ENVIRONMENTAL

- 4.1 OPERATING TEMPERATURE RANGE: THE OPERATING TEMPERATURE OF THE PRODUCT SHALL BY FROM 0 TO +45
- 4.2 STORAGE TEMPERATURE RANGE : THE STORAGE TEMPERATURE OF THE PRODUCT SHALL BY FROM -40 TO +75
- 4.3 RESISTANCE TO HEAT : WHEN TESTED WITHIN 10 MINUTES AFTER PRODUCT HAS BEEN PLACED IN A TEST CHAMBER MAINTAINED AT 105 ±3 FOR 16 HOURS, THE PRODUCT SHALL COMPLY WITH THE REQUIREMENTS OF 4.7, DIELECTRIC WITHSTAND TEST, SHALL HAVE INSULATION RESISTANCE NOT LESS THAN STATED BELOW AS MEASURED AT 500VDC 10 MEGOHMS MINIMUM BETWEEN THE INPUT AND THE OUTPUT, INPUT AND CASE TOGETHER, 10 MEGOHMS MINIMUM.
- 4.4 RESISTANCE TO MOISTURE : THE PRODUCT SHALL BY PLACED IN A TEST CHAMBER MAINTAINED AT 40 ±2 AT 90% ~ 95% RELATIVE HUMIDITY FOR 6 HOURS. THEN, WHEN TESTING 10 MINUTES SAFTER THE PRODUCT IS TAKEN OUT FROM THE TEST CHAMBER AND WIPED DRY , THE PRODUCT SHALL COMPLY WITH THE REQUIREMENTS OF 4.7 DIELECTRIC WITHSTAND TEST , AND SHALL HAVE INSULATION RESISTANCE NOT LESS THAN STATED BELOW AS MEASURED AT 500VDC 10 MEGOHMS MINIMUM BETWEEN THE PRIMARY AND THE SECONDARY TOGETHER ; 10 MEGOHMS MINIMUM BETWEEN A SECONDRY THER SECONDRY AND TOGETHER.

#### 5.0 PROTECTION

- 5.1 THE PRODUCT INCLUDES CURRENT FUSE TYPE 250V 3A LOCATED WITHIN INPUT CIRCUIT.
- 5.2 SHORT CIRCUIT: CAPABLE OF WITHSTANDING CONTINUOUS SHORT CIRCUIT AND RECOVER AUTOMATICALLY

#### 6.0 INSPECTION

- 6.1 100% INSPECTION ITEMS: THE ITEMS OF 100% INSPECTION SHALL BE NO-LOAD VOLTAGE; LOAD VOLTAGE ; RIPPLE VOLTAGE; PRIMARY CURRENT ; DIELECTRIC WITHSTAND TEST; AND GENERAL APPEARANCE .
- 6.2 THE SAMPLING INSPECTION ITEMS: THE ITEMS OF SAMPLING INSPECTION SHALL IN ADDITION TO THE 100% INSPECTION ITEMS, INCLUDE : INSULATION RESISTANCE; AND AUDIBLE SOUND CHECK .
- 6.3 THE SAMPLING INSPECTION DATA ACCORDING TO 8.2 AND 100% DIELECTRIC WITHSTAND TEST DATA SHALL BE SUBMITTED FOR EACH LOT .
- 6.4 THE SAMPLING INSPECTION ITEMS LEVEL : MIL-STD-105D II AQL : CRI 0 ; MAJ 0.25 ; MIN 2.5

7.0 MECHANICAL DRAWING

