

Power Adapter to Mirco USB **pro-POWER**

**RoHS
Compliant**



Features:

- SMPS Adaptor(Wall mount)
- Full range of international universal input
- Constant voltage mode
- Optional output mode (wire or USB)
- Convertible AC design
- Comply with CoC V5 or DoE VI energy efficiency
- Protection function: SCP, OVP, OCP
- Connector type is USB Micro B

Functional Parameter

Rated Input Voltage	: 100 ~ 240V AC, 0.5A
Rated Input Frequency	: 50/60Hz
Inrush Current	: Cold start 80A/230V AC
Short Circuit Protection	: Self-Recovery

Input Characteristics

Input Voltage & Frequency

The range of input voltage is from 100V AC to 240V AC single phase.

	Minimum	Normal	Maximum
Input Voltage	90V AC	100V AC ~ 240V AC	264V AC
Input Frequency	47Hz	60Hz/50Hz	63Hz

Input AC Current

0.5Amax. @ 100V AC input voltage and full load

Inrush Current (Cold Start)

100Amax. @ 230V AC input at 25°C

Efficiency (Normal)

78% min. @ 115V AC input & Full load

78% min. @ 230V AC input & Full load

Average Efficiency

While input 115V AC and 230V AC, the average efficiency is more than 79.36%. The test point is at 25%, 50%, 75% and 100% load after 30 min warm up at max load. must comply with CEC requirements . level VI

No-Load input power dissipation

While input 115V AC 60Hz/230V AC 50Hz and the output is no load, the input power loss must be less than 0.075W

Output Characteristics

Static Output Characteristics

Rating Output Voltage	Load Output Voltage Range	No load Voltage Range
5V	4.75 - 5.25V	4.94 - 5.46V

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Output Minimum Load	Output Rating Load	OCP
0A	2.1A	>2.5A ≤5A

Ripple and Noise

Under nominal input voltage and nominal load, Parallel with a E-CAP 10uF and C-CAP 0.1uF at the terminal of output rail, measure by Oscilloscope with 20MHz Band width.

Voltage	Ripple and Noise(Max.)
5V DC	150mV p-p

Turn - on Delay Time

3.0S max. @ 100V AC input & Full load

Rise Time

100mS max. @ 90V AC input & Full load

Protection Requirements

Short Circuit Protection

The input power shall decrease when the output rail short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed

Over Voltage Protection

When the output voltage is over, the product is protected such as hiccup or when is at the highest point of output voltage the product would not be hurted when the fault is excluded or is start working again the power supply is working normally

Over Current Protection

The output shall hiccup when the over current applied to the output rail, and shall be self-recovery when the fault condition is removed.

Environment Requirements

Operating Temperature and Relative Humidity

-0°C to +40°C

10%RH to 90%RH

Storage Temperature and Relative Humidity

-25°C to +85°C

10%RH to 100%RH non-condensing @ Sea level shall be low 2000 feet

Vibration

10 to 300Hz sweep at a constant acceleration of 1.0G(Breadth:3.5mm) for 1 Hour for Each of the perpendicular axes X,Y,Z.

Reliability Requirements

Burn-in

The power supply shall be burn-in for 4 Hours under normal input and full load at 40°C ±5°C.

MTBF Qualification

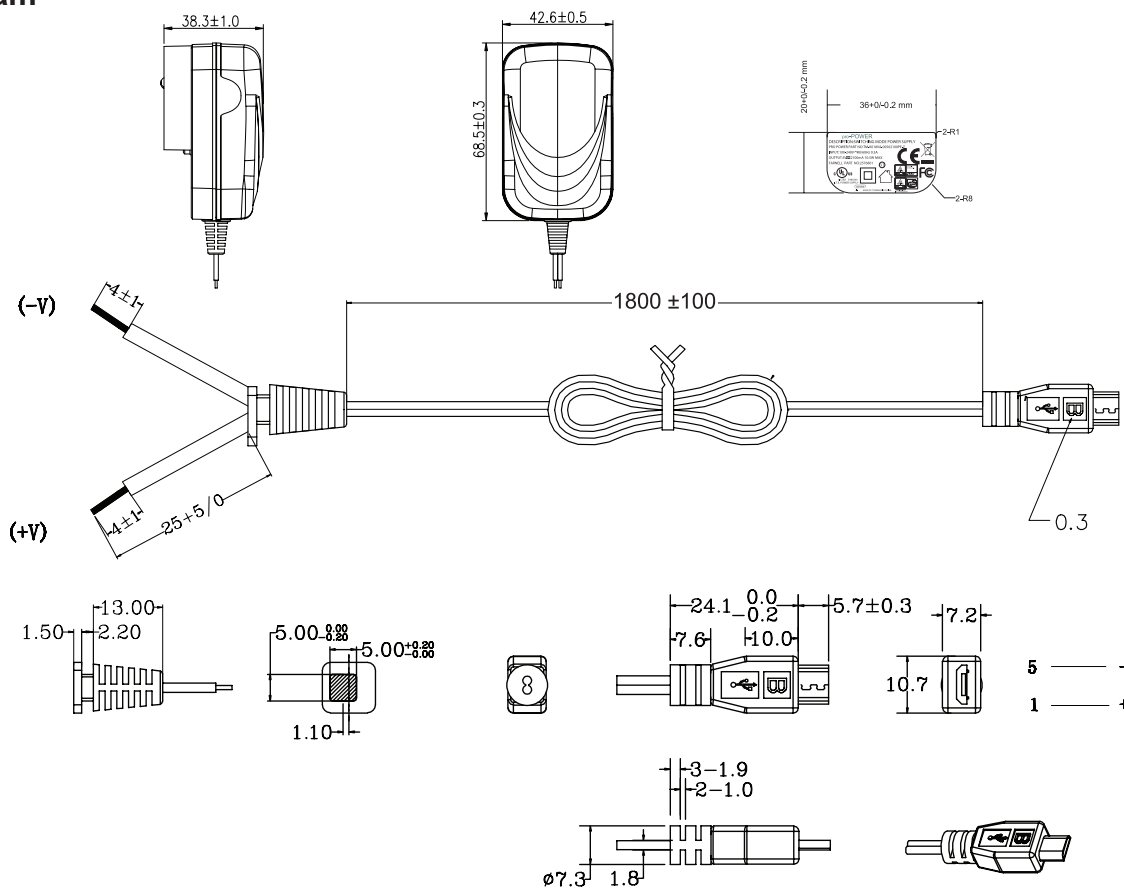
The MTBF shall be at least 30,000 hours at 25°C, Full load and normal input condition.

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Safety Standards

- Dielectric Strength(Hi-pot)
 - Primary to Secondary: 4242DC 5mA Max. / 60 seconds(3 seconds for production)
- Leakage Current
 - 3.5mA max @ 240V AC/50Hz
- Insulation Resistance
 - 10MΩ min. at primary to secondary add 500V DC

Diagram



Dimensions : Millimetres

Part Number Table

Description	Part Number
Cord, Mains Adaptor to Mirco USB, 1.8m	TM-K018VA-00502100PE-Z

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