

SERIES: 2.5-5 W US USB | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- up to 5 W power
- universal input (90~264 Vac)
- compact size
- single regulated output (5 V)
- over voltage and short circuit protections
- UL/cUL safety approval
- level IV efficiency
- custom designs available



| MODEL | output voltage | output current max | output power max | ripple ¹ and noise max | efficiency level |
|-------------------|----------------|--------------------|------------------|-----------------------------------|------------------|
| | (Vdc) | (A) | (W) | (mVp-p) | |
| EPS050050U-I38-SZ | 5 | 0.5 | 2.5 | 150 | IV |
| EPS050100U-I38-SZ | 5 | 1 | 5 | 150 | IV |

Notes: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, each output terminated with 10 μ F aluminum electrolytic and 0.1 μ F ceramic capacitors.

PART NUMBER KEY

EPS050050U - I38 - SZ - CXX

Base Number
example of 5 Vdc, 0.5 A

DC Plug Type

Factory Designation

Reserved for Custom Configurations

INPUT

| parameter | conditions/description | min | nom | max | units |
|---------------------------|------------------------|-----|-----|-----|-------|
| voltage | | 90 | | 264 | Vac |
| frequency | | 47 | | 63 | Hz |
| current | 0.5 A model | | | 100 | mA |
| | 1.0 A model | | | 200 | mA |
| inrush current | at 115 Vac, cool start | | | 15 | A |
| | at 230 Vac, cool start | | | 30 | A |
| no load power consumption | 0.5 A model | | | 0.5 | W |
| | 1.0 A model | | | 0.3 | W |

OUTPUT

| parameter | conditions/description | min | nom | max | units |
|-----------------|------------------------|-----|-------|-----|-------|
| line regulation | | | ±1 | | % |
| load regulation | 0.5 A model | | ±0.3 | | Vdc |
| | 1.0 A model | | ±0.25 | | Vdc |

PROTECTION

| parameter | conditions/description | min | nom | max | units |
|--------------------------|---|-----|-----|-----|-------|
| over voltage protection | 0.5 A model: 1.0 A model: clamped by internal protection zener | | | 9 | Vdc |
| short circuit protection | output shut down and auto restart | | | | |

SAFETY & COMPLIANCE

| parameter | conditions/description | min | nom | max | units |
|----------------------|--|-----|-----|-------|-------|
| isolation voltage | input to output at 10 mA for 1 minute | | | 3,000 | Vac |
| | | | | 4,242 | Vdc |
| isolation resistance | input to output at 500 Vdc | 100 | | | MΩ |
| safety approvals | UL/cUL 60950-1 | | | | |
| EMI/EMC | 0.5 A model: FCC class B, CE, VCCI-I 1.0 A model: FCC class B, EN 55022 | | | | |
| leakage current | | | | 0.25 | mA |
| RoHS compliant | yes | | | | |

ENVIRONMENTAL

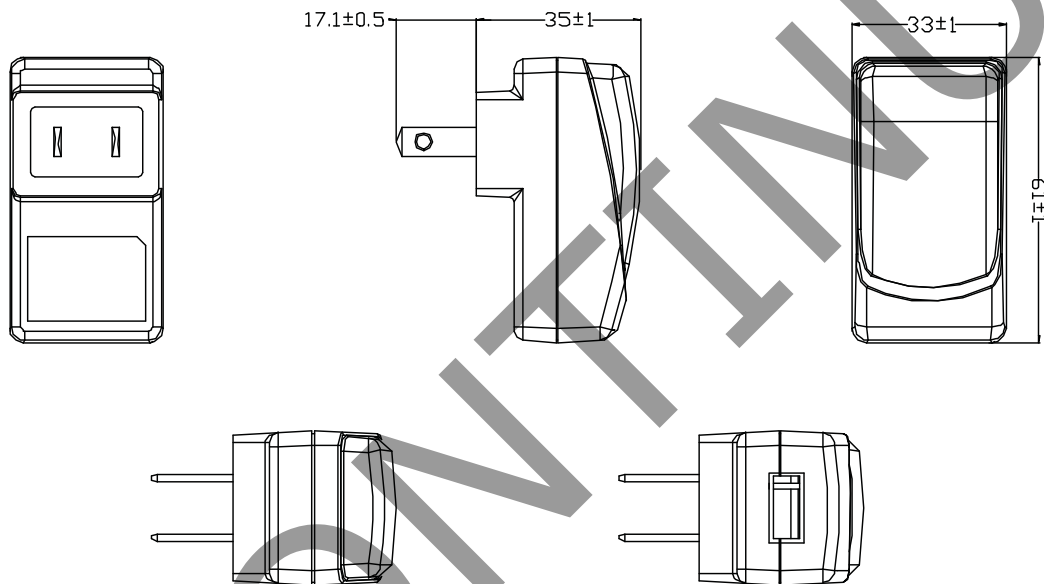
| parameter | conditions/description | min | nom | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -20 | | 70 | °C |
| operating humidity | | 20 | | 80 | % |
| storage humidity | | 10 | | 90 | % |

MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|------------|--|-----|----------|-----|--------------|
| dimensions | 0.5 A model: 2.402 x 1.299 x 1.378 (61 x 33 x 35 mm) 1.0 A model: 2.874 x 1.142 x 1.752 (73 x 29 x 44.5 mm) | | | | inch inch |
| weight | 0.5 A model 1.0 A model | | 48 63 | | g g |
| input plug | direct plug-in US type | | | | |

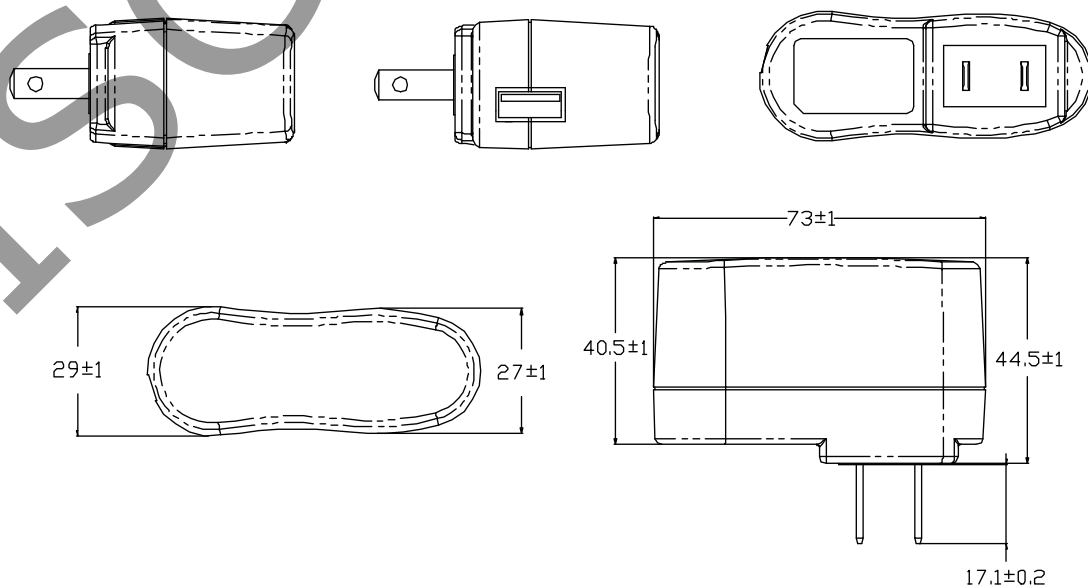
MECHANICAL DRAWING (0.5 A MODEL)

units: mm



MECHANICAL DRAWING (1.0 A MODEL)

units: mm



REVISION HISTORY

| rev. | description | date |
|------|---|------------|
| 1.0 | initial release | 08/06/2009 |
| 1.01 | features section updated, V-Infinity branding removed | 08/21/2012 |

The revision history provided is for informational purposes only and is believed to be accurate.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CUI offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.



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