



SERIES: EPS 6W | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- up to 6 W power
- compact size
- single output from 3~24 V
- over voltage and short circuit protections
- custom designs available



| MODEL | output voltage (Vdc) | output current max (A) | output power max (W) | ripple and noise ¹ max (mVp-p) | efficiency level |
|-----------|-------------------------|---------------------------|-------------------------|--|------------------|
| EPS030100 | 3 | 1 | 3 | 100 | IV |
| EPS033100 | 3.3 | 1 | 3.3 | 100 | IV |
| EPS045100 | 4.5 | 1 | 4.5 | 100 | V |
| EPS050100 | 5 | 1 | 5 | 100 | V |
| EPS060100 | 6 | 1 | 6 | 100 | V |
| EPS075080 | 7.5 | 0.8 | 6 | 100 | IV |
| EPS090066 | 9 | 0.66 | 6 | 100 | V |
| EPS120050 | 12 | 0.5 | 6 | 120 | V |
| EPS150040 | 15 | 0.4 | 6 | 150 | V |
| EPS180033 | 18 | 0.33 | 6 | 180 | V |
| EPS240025 | 24 | 0.25 | 6 | 240 | IV |

Notes: 1. At full load, 100 ~ 132 Vac input, 20 MHz bandwidth oscilloscope, each output terminated with 10 µF aluminum electrolytic and 0.1 µF ceramic capacitors.

PART NUMBER KEY

EPS030100 - PXXXX - CXX

Base Number
example of 3 Vdc, 1 A

DC Plug Type

Reserved for Custom Configurations

INPUT

| parameter | conditions/description | min | typ | max | units |
|-----------------------------|------------------------|------------|-----|------|-------|
| voltage | | 100 | | 132 | Vac |
| frequency | | 47 | | 63 | Hz |
| current | | | | 0.15 | A |
| inrush current ¹ | 15V, 18V and 24V model | at 100 Vac | | 15 | A |
| | | at 132 Vac | | 30 | A |
| | all other models | at 132 Vac | | 40 | A |
| no load power consumption | level IV models | | | 0.5 | W |
| | level V models | | | 0.3 | W |

Notes: 1. inrush lasts no longer than 0.5 ms before settling to steady state current

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|-------------------------|---|-----|-------|-----|-------|
| line regulation | all other models | | ±1 | | % |
| | 7.5V model | | ±2 | | % |
| load regulation | | | ±5 | | % |
| temperature coefficient | 0 ~ 40°C, full load, after initial 1 hour warm-up | | ±0.02 | | %/°C |
| start-up | time needed to reach regulation | | | 3 | s |
| hold-up | at 115 Vac, full load | 10 | | | ms |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|--------------------------|---|-----|-----|-----|-------|
| over voltage protection | clamped by internal protection zener | | | | |
| short circuit protection | continuous, auto-recovery upon removal of short | | | | |

SAFETY & COMPLIANCE

| parameter | conditions/description | min | typ | max | units |
|----------------------|---------------------------------------|-----|-----|-------|-------|
| isolation voltage | input to output at 10 mA for 1 minute | | | 3,000 | Vdc |
| | | | | 4,242 | Vdc |
| isolation resistance | input to output at 500 Vdc | 100 | | | MΩ |
| safety approvals | UL 1310 | | | | |
| safety | class II | | | | |
| EMI/EMC | FCC Part 15 Class B | | | | |
| leakage current | | | | 0.25 | mA |
| RoHS compliant | yes | | | | |

ENVIRONMENTAL

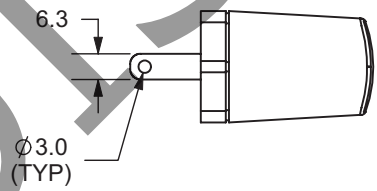
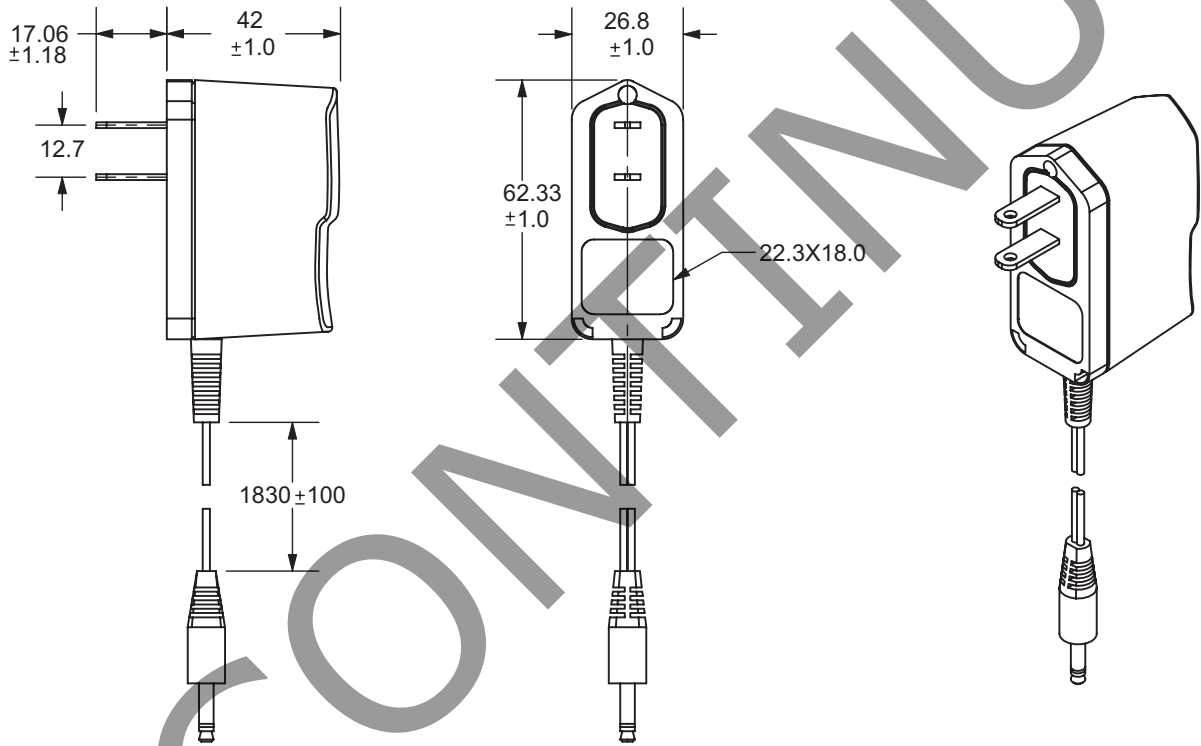
| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -10 | | 70 | °C |
| operating humidity | | 20 | | 80 | % |
| storage humidity | | 10 | |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

MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|------------|--|-----|-----|-----|-------|
| dimensions | 62.33 x 26.8 x 42 (2.454 x 1.055 x 1.654 inch) | | | | mm |
| input plug | fixed US | | | | |

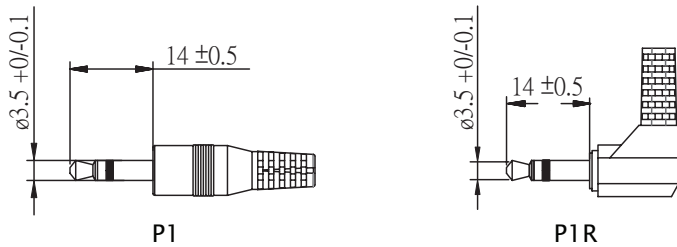
MECHANICAL DRAWING

units: mm
 tolerance: X.X ±0.5
 X.XX ±0.03

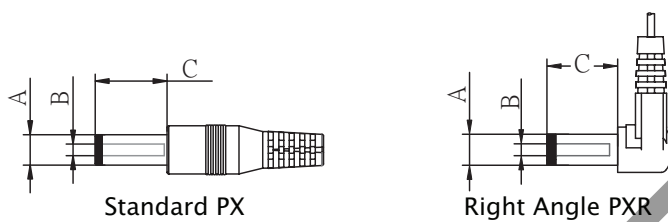


OUTPUT PLUG OPTIONS

3.5 mm Phono Plug



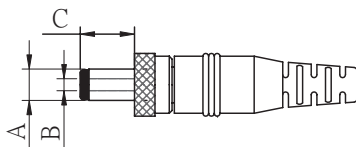
Standard DC Plug



| | A | B | C | Unit |
|--------|-----|------|-----------------|------|
| P5/P5R | 5.5 | 2.1 | 12 ¹ | mm |
| P6/P6R | 5.5 | 2.5 | 12 | mm |
| P7/P7R | 3.5 | 1.35 | 9.5 | mm |
| P8/P8R | 3.8 | 1.35 | 9.5 | mm |
| P9/P9R | 3.8 | 1.05 | 9.5 | mm |

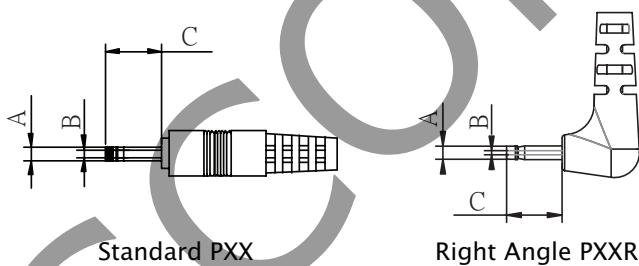
Notes: 1. EPS050100-P5P has a 9.5mm dc plug length

Locking DC Plug

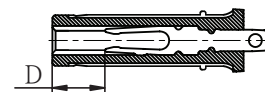


| | A | B | C | Unit |
|-----|-----|-----|-----|------|
| P10 | 5.5 | 2.1 | 9.5 | mm |
| P11 | 5.5 | 2.5 | 9.5 | mm |

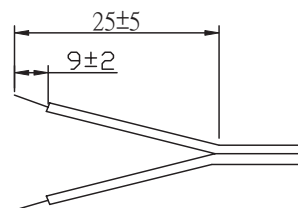
EIAJ Plugs



| | EIAJ | A | B | C | D | Unit |
|----------|--------|------|-----|-----|-----|------|
| P12/P12R | EIAJ-1 | 2.35 | 0.7 | 9.5 | NA | mm |
| P13/P13R | EIAJ-2 | 4.0 | 1.7 | 9.5 | 5.0 | mm |
| P14/P14R | EIAJ-3 | 4.75 | 1.7 | 9.5 | 5.0 | mm |



Stripped and Tinned





DC PLUG TYPE

ST
|
stripped and tinned

PXX X X

Plug type

Plug angle:
"blank" = standard
R = right angle

Plug polarity:
"blank" = N/A
P = center positive 
N = center negative 

REVISION HISTORY

| rev. | description | date |
|------|--|------------|
| 1.0 | initial release | 06/29/2006 |
| 1.01 | applied new spec template | 12/28/2010 |
| 1.02 | removed multiple models, applied new spec template | 05/26/2011 |
| 1.03 | updated P7/P7R B dimension | 04/13/2012 |
| 1.04 | V-Infinity branding removed, safety and EMI/EMC data updated | 08/16/2012 |
| 1.05 | added 7.5V model | 09/24/2012 |
| 1.06 | updated P5 & P6 plug lengths | 04/18/2013 |

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



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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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