


SERIES: ETSA 18W U | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- 18 W power
- compact size
- universal input (90~264 Vac)
- single regulated output from 5~15 V
- over voltage and short circuit protection
- UL/cUL, GS, PSE safety approvals
- level V efficiency
- custom designs available



| MODEL | output voltage | output current max | output power max | ripple and noise ¹ max | efficiency level |
|-------------|----------------|--------------------|------------------|-----------------------------------|------------------|
| | (Vdc) | (A) | (W) | (mVp-p) | |
| ETSA050360U | 5 | 3.6 | 18 | 100 | V |
| ETSA060300U | 6 | 3 | 18 | 100 | V |
| ETSA120150U | 12 | 1.5 | 18 | 100 | V |
| ETSA150120U | 15 | 1.2 | 18 | 100 | V |

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

ETSA050360U X - XX - SZ - CXX

Base Number
example of 5 Vdc, 3.6 A

Input Cable:
"Blank" = No Cable
C = North American input cable
2 = European input cable
3 = United Kingdom input cable
4 = Australian input cable
5 = China input cable
6 = South Korea input cable
7 = Brazil input cable
8 = South Africa input cable
9 = Japan input cable

DC Plug Type:
see output plug options
on page 7

Factory
Designation

Reserved for Custom
Configurations

INPUT

| parameter | conditions/description | min | typ | max | units |
|---------------------------|--|-----|-----|-------------|----------|
| voltage | | 90 | | 264 | Vac |
| frequency | | 47 | | 63 | Hz |
| current | | | | 0.5 | A |
| inrush current | at 115 Vac, cool start at 230 Vac, cool start | | | 40 80 | A A |
| leakage current | 5 V output all other outputs | | | 3.5 0.25 | mA mA |
| no load power consumption | | | | 0.3 | W |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|-----------------|---------------------------------|-----|----------|-----|--------|
| line regulation | 5 V output all other outputs | | ±5 ±1 | | % % |
| load regulation | | | ±5 | | % |

PROTECTIONS

| parameter | conditions/description |
|--------------------------|---|
| over voltage protection | output voltage clamped by internal protection zener |
| short circuit protection | output shut down, auto restart |

SAFETY & COMPLIANCE

| parameter | conditions/description | min | typ | max | units |
|----------------------|---|-----|-----|----------------|------------|
| isolation voltage | input to output at 10 mA for 1 minute | | | 1,500 2,121 | Vac Vdc |
| isolation resistance | input to output at 500 Vdc | 100 | | | MΩ |
| safety approvals | UL 60950-1, EN 60950-1, PSE | | | | |
| EMI/EMC | FCC Class B, CE, CISPR 22 Class B, EN 61204-3, EN 55022 Class B, EN 55024, EN 61000-3-(2, 3) Class A, EN 55024, IEC 61000-4-(2, 3, 4, 5, 6, 8, 11) | | | | |
| RoHS | 2011/65/EU | | | | |

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 | % |

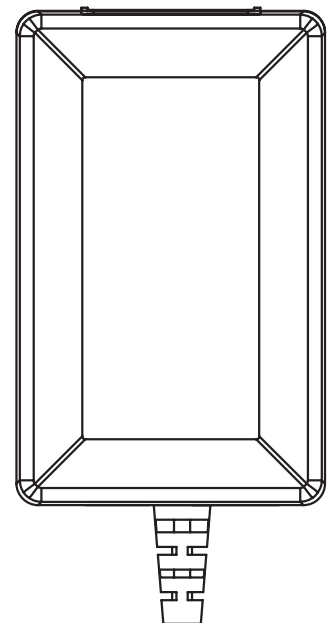
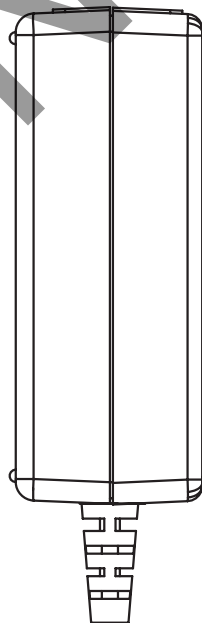
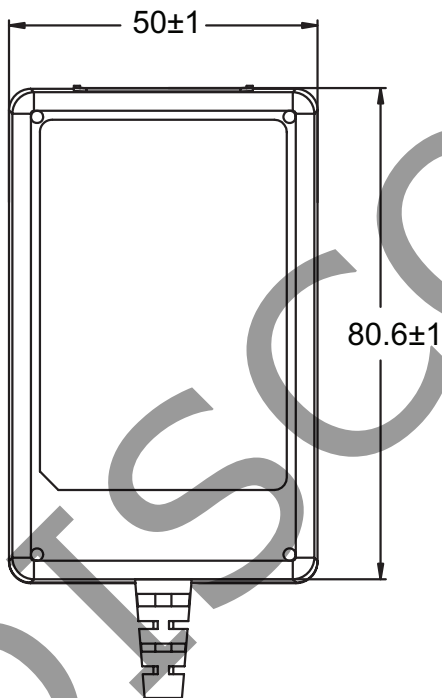
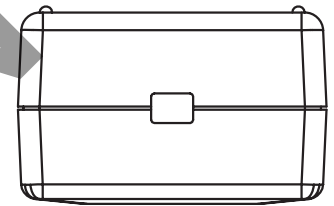
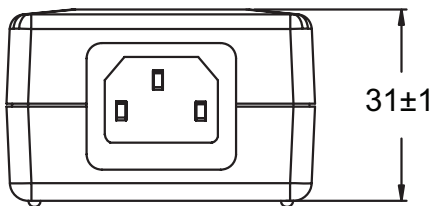
MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|---------------------|---|-----|-----|-----|-------|
| dimensions | 80.6 x 50 x 31 (3.173 x 1.969 x 1.220 inches) | | | | mm |
| input plug | IEC320 / C14 | | | | |
| weight ¹ | | | 115 | | g |

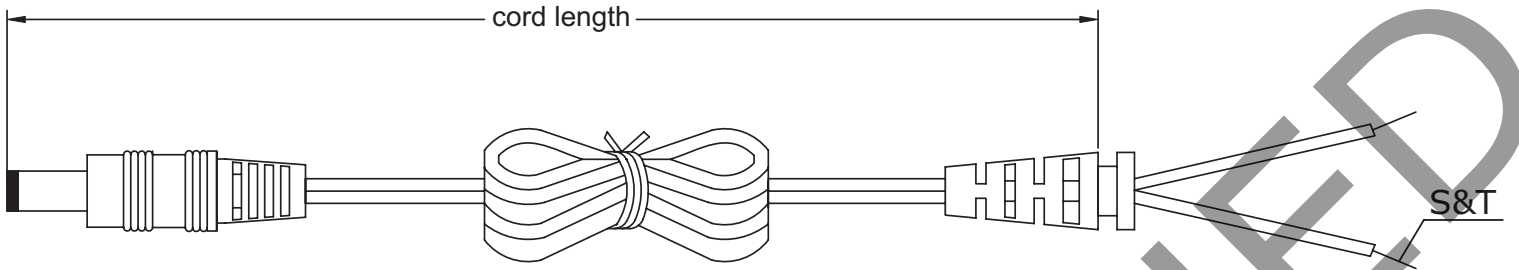
1. weight does not include AC Cord

MECHANICAL DRAWING

units: mm

tolerance: ± 1 mm

DC CORD

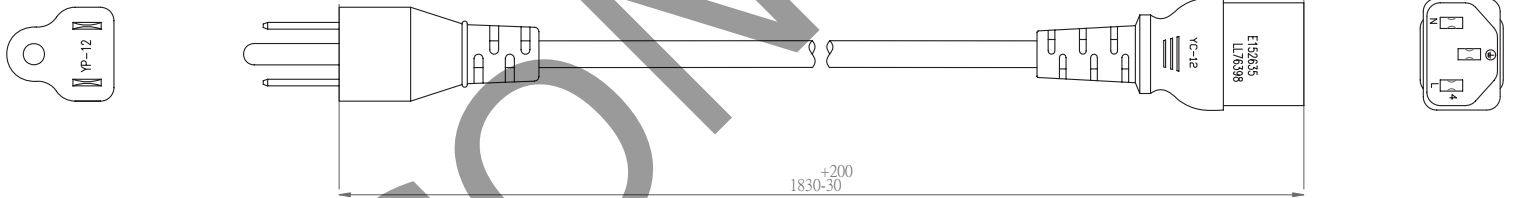


| MODEL NO. | CABLE GAUGE | WIRE OD | CORD LENGTH |
|-------------|-------------|------------|---------------|
| ETSA050360U | 18 AWG | Ø2.7 x 5.4 | 1,000 mm ±100 |
| ETSA060300U | 18 AWG | Ø2.7 x 5.4 | 1,000 mm ±100 |
| ETSA120150U | 20 AWG | Ø1.9 x 3.8 | 1,530 mm ±100 |
| ETSA150120U | 20 AWG | Ø1.9 x 3.8 | 1,530 mm ±100 |

AC CORD

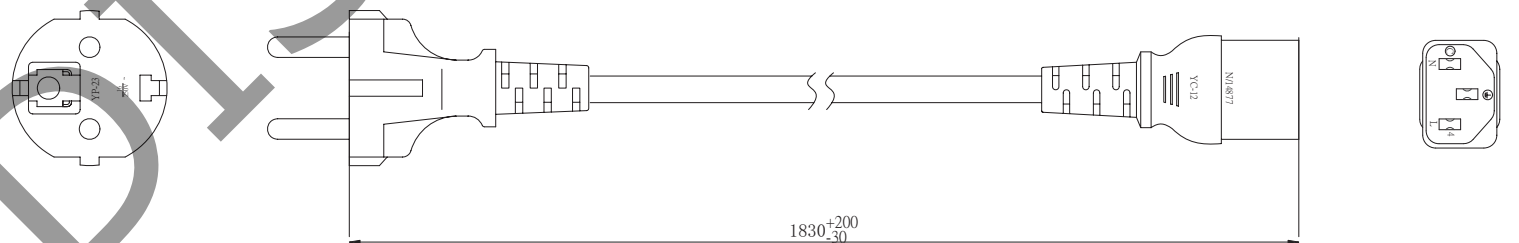
NORTH AMERICAN INPUT CABLE

units: mm



EUROPEAN INPUT CABLE

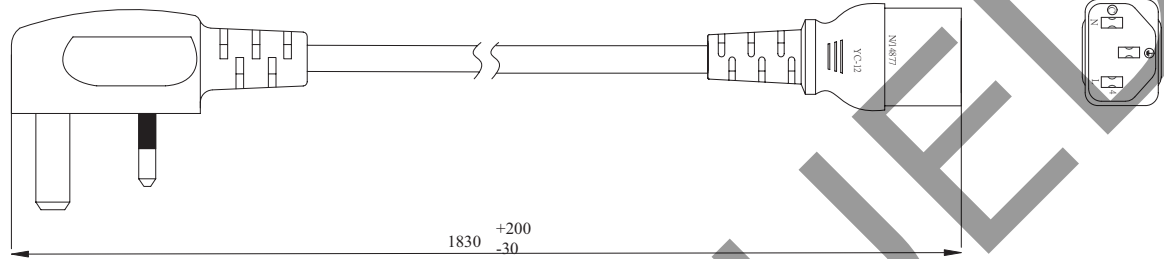
units: mm



AC CORD (CONTINUED)

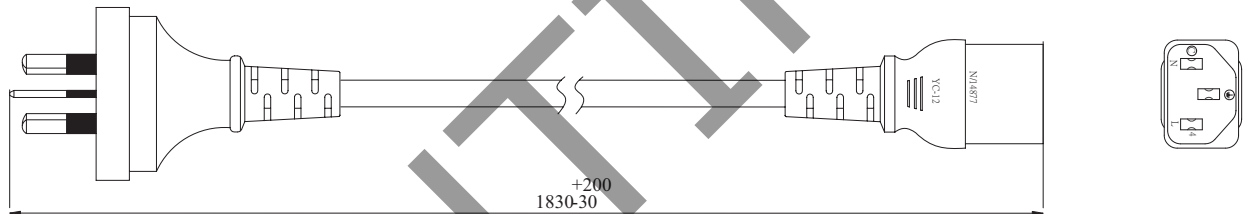
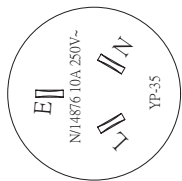
UNITED KINGDOM INPUT CABLE

units: mm



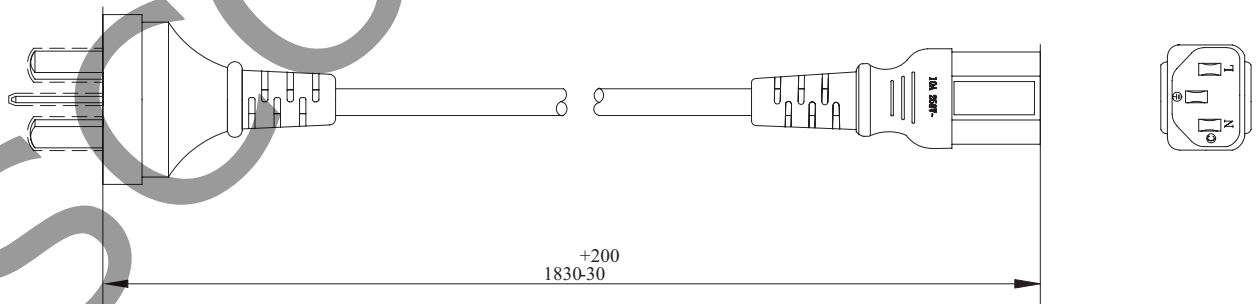
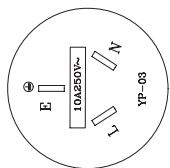
AUSTRALIAN INPUT CABLE

units: mm



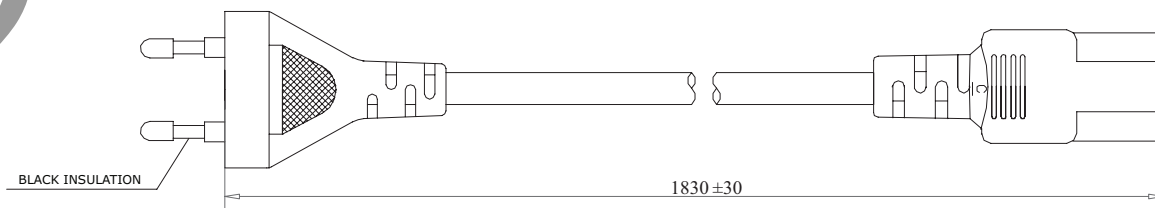
CHINA INPUT CABLE

units: mm



SOUTH KOREA INPUT CABLE

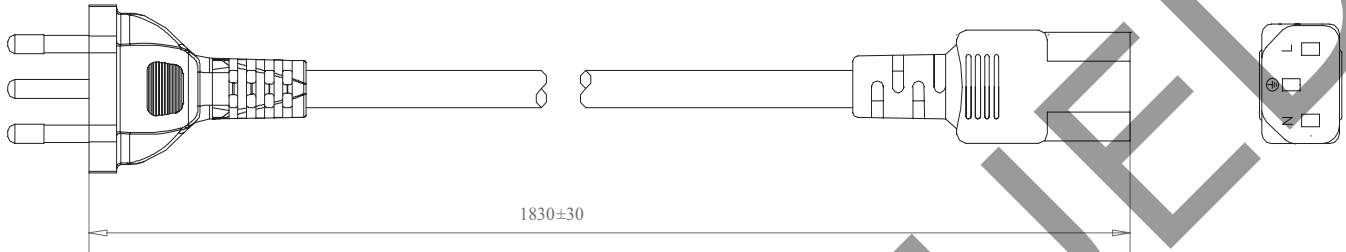
units: mm



AC CORD (CONTINUED)

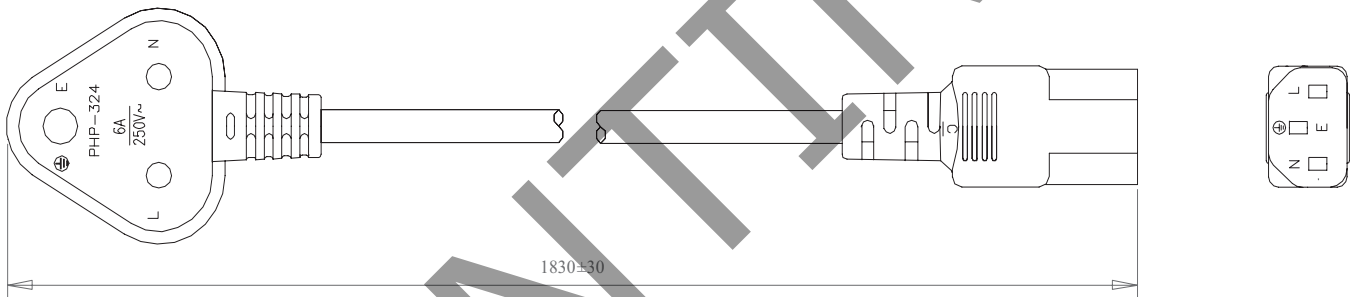
BRAZIL INPUT CABLE

units: mm



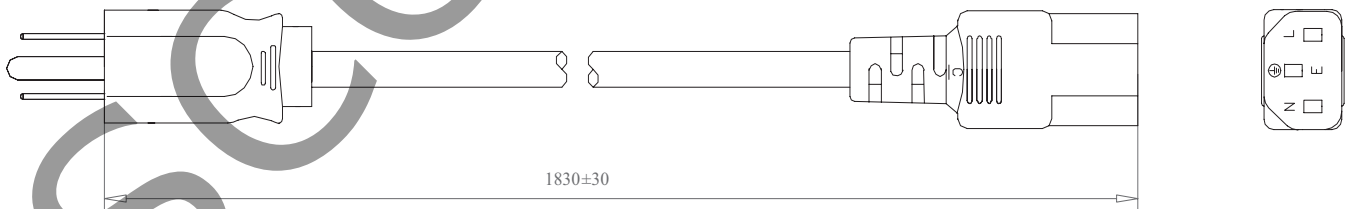
SOUTH AFRICA INPUT CABLE

units: mm



JAPAN INPUT CABLE

units: mm



OUTPUT PLUG OPTIONS

3.5 mm Phono Plug



P1



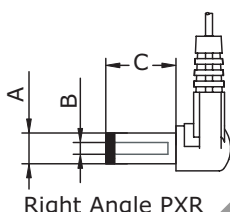
P1R

*Tip positive

Standard DC Plug



Standard PX



Right Angle PXR

| | A | B | C | Unit |
|--------|-----|------|-----|------|
| P5/P5R | 5.5 | 2.1 | 9.5 | mm |
| P6/P6R | 5.5 | 2.5 | 9.5 | 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 |

Locking DC Plug

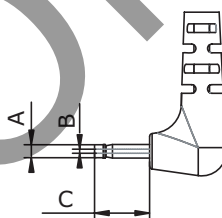


| | A | B | C | Unit |
|-----|-----|-----|-----|------|
| P10 | 5.5 | 2.1 | 9.5 | mm |
| P11 | 5.5 | 2.5 | 9.5 | mm |

EIAJ Plugs



Standard PXX



Right Angle PXXR

| | 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

PXX XX

Plug Type:
PXX = See above plug options
ST = Stripped and Tinned

Plug Angle:
"blank" = Straight
R = Right Angle

Plug Polarity:
P = Center Positive



N = Center Negative



*Contact CUI for additional plug options

REVISION HISTORY

| rev. | description | date |
|------|--|------------|
| 1.0 | initial release | 12/05/2011 |
| 1.01 | updated P7/P7R B dimension | 03/23/2012 |
| 1.02 | V-Infinity branding removed, safety and EMI/EMC data updated | 08/21/2012 |
| 1.03 | updated series number | 11/20/2012 |
| 1.04 | added ac cord options | 11/14/2014 |

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.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

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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