


**SERIES:** ETSA 90W UD | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

- 90 W power
- universal input (90~264 Vac)
- single regulated outputs
- over voltage and short circuit protections
- UL/cUL safety approvals
- level V efficiency
- power factor correction
- custom designs available



MODEL	output voltage	output current max	output power max	ripple and noise <sup>1</sup> max	efficiency level
	(Vdc)	(A)	(W)	(mVp-p)	
ETSA120750UD	12	7.5	90	300	V
ETSA190474UD	19	4.74	90	300	V
ETSA240375UD	24	3.75	90	300	V
ETSA4801875UD	48	1.875	90	300	V

Notes: 1. Ripple and noise measured with 20 MHz bandwidth oscilloscope, each output terminated with 10  $\mu$ F aluminum electrolytic and 0.1  $\mu$ F ceramic capacitors.

**PART NUMBER KEY**

**ETSA120750UDX - XX - SZ - CXX**

Base Number  
example of 12 Vdc, 7.50 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	RMS			1.5	A
inrush current	at 115 Vac, cold start at 230 Vac, cold start			80 120	A A
power factor correction		0.9			
leakage current				0.25	mA
no load power consumption				0.5	W

**OUTPUT**

parameter	conditions/description	min	typ	max	units
load regulation			±5		%

**PROTECTIONS**

parameter	conditions/description	min	typ	max	units
over voltage protection	output shutdown 12Vdc output models 19Vdc output models 24Vdc output models 48Vdc output models			18 30 35 60	Vdc Vdc Vdc Vdc
short circuit protection	output shutdown and auto restart				

**SAFETY & COMPLIANCE**

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 minute at 10mA max	3,000			Vac
isolation resistance	input to output at 500 Vdc	100			MΩ
safety approvals	UL 60950-1, EN 60950-1, IEC 60950-1; UL/cUL, GS, PSE				
EMI/EMC	FCC Part 15 Subpart B, Class B, EN55022 Class B, CE				
RoHS	2011/65/EU				

**ENVIRONMENTAL**

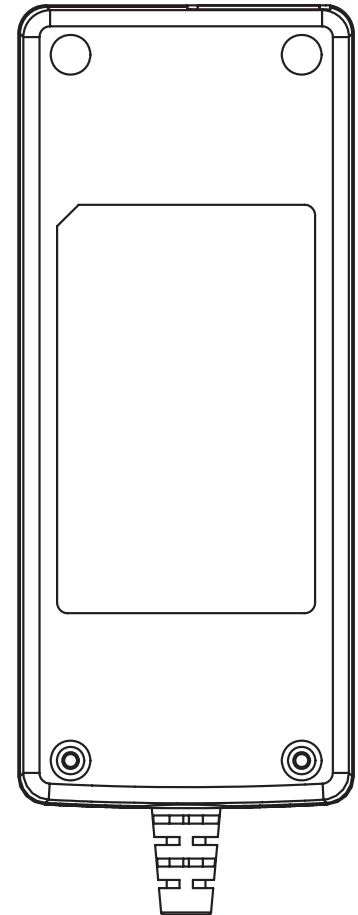
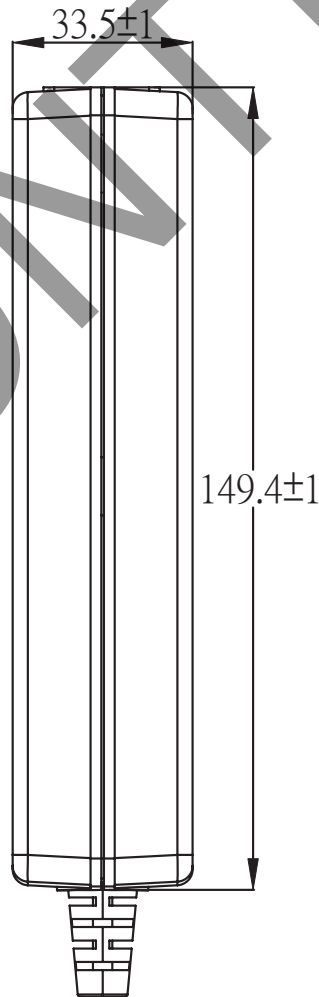
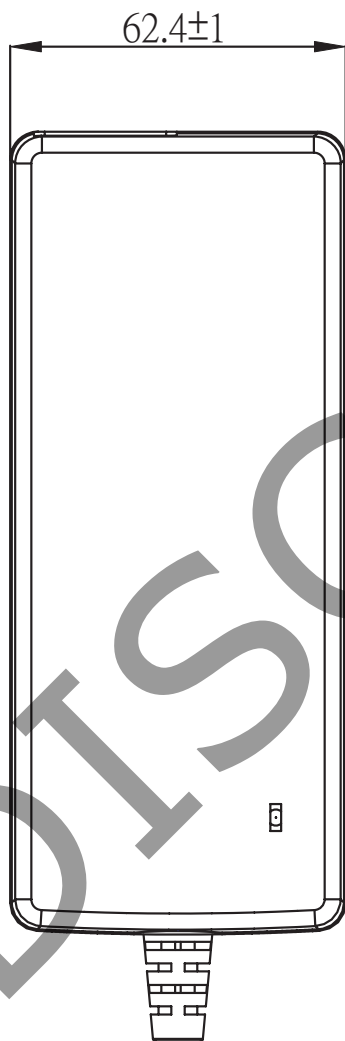
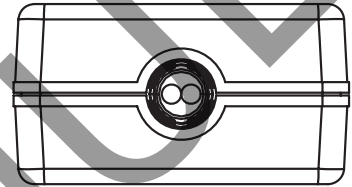
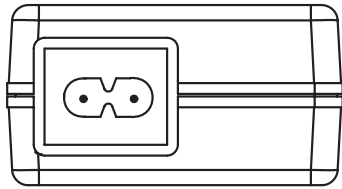
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		70	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

## MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	149.4 x 62.4 x 33.5				mm
input plug	IEC320 / C8				

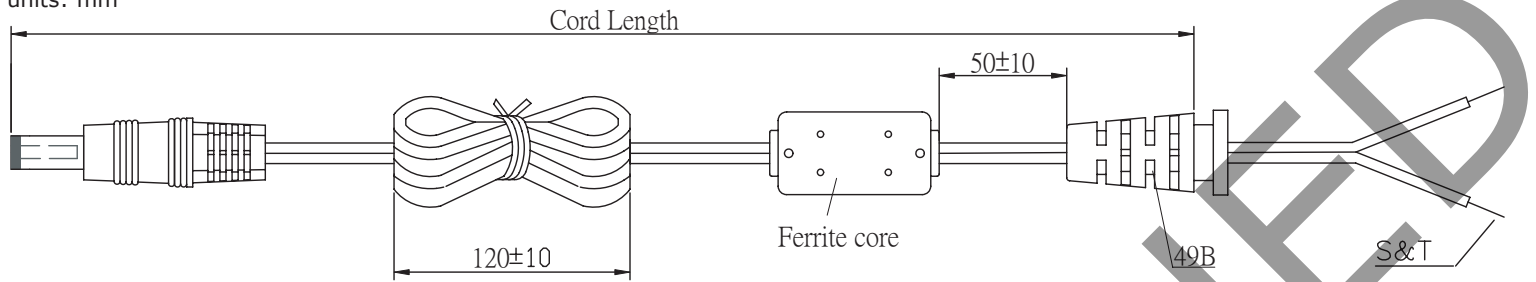
## MECHANICAL DRAWING

units: mm  
tolerance:  $\pm 1$  mm



## DC CORD

units: mm

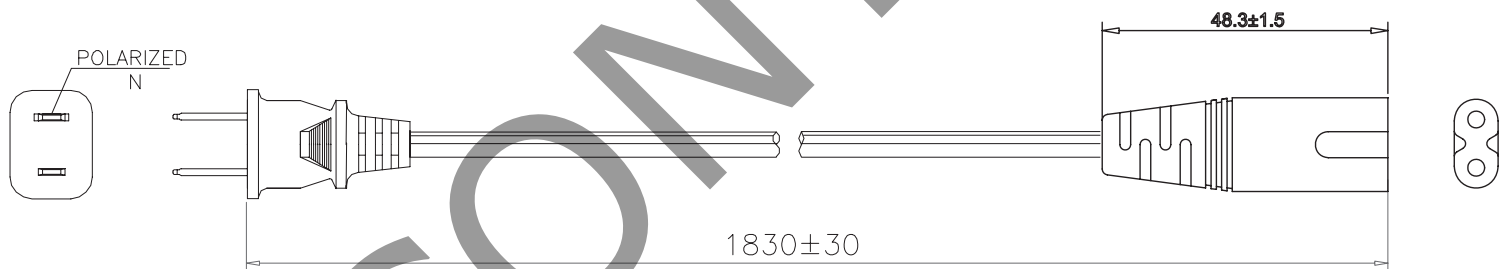


MODEL NO.	CABLE GAUGE	WIRE OD	CORD LENGTH
ETSA120750UD	16 AWG	Ø3.7 x 7.4	1,000 ±100
ETSA190474UD	16 AWG	Ø3.7 x 7.4	1,530 ±100
ETSA240375UD	16 AWG	Ø3.7 x 7.4	1,530 ±100
ETSA4801875UD	18 AWG	Ø2.7 x 5.4	1,530 ±100

## AC CORD

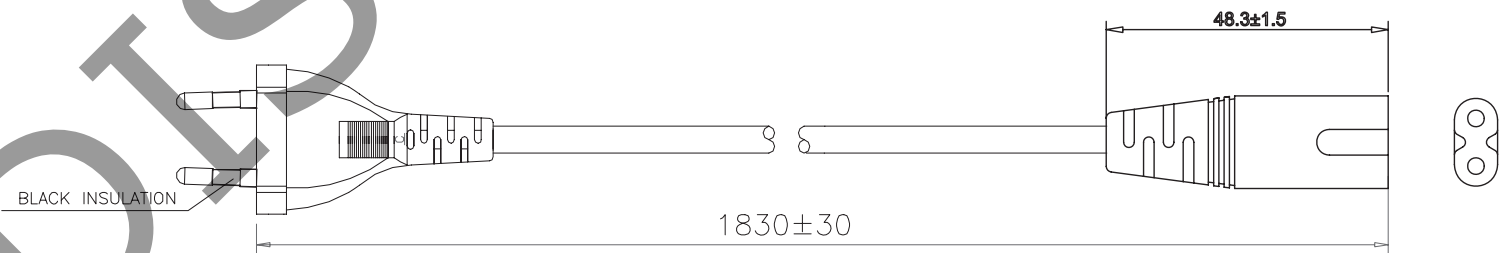
### NORTH AMERICAN INPUT CABLE

units: mm



### EUROPEAN INPUT CABLE

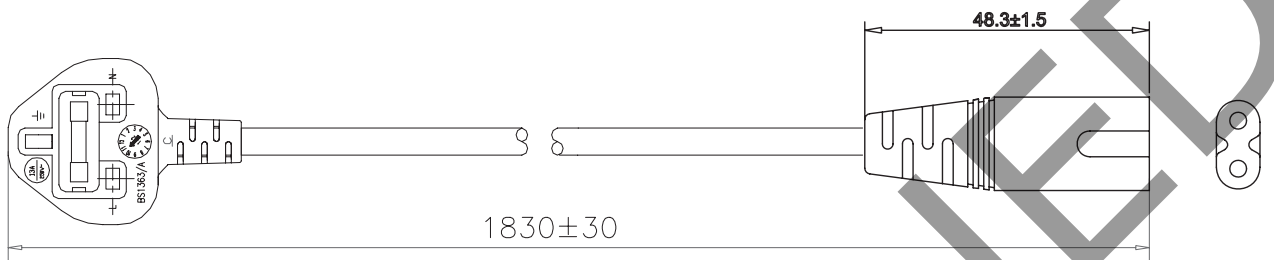
units: mm



## AC CORD (CONTINUED)

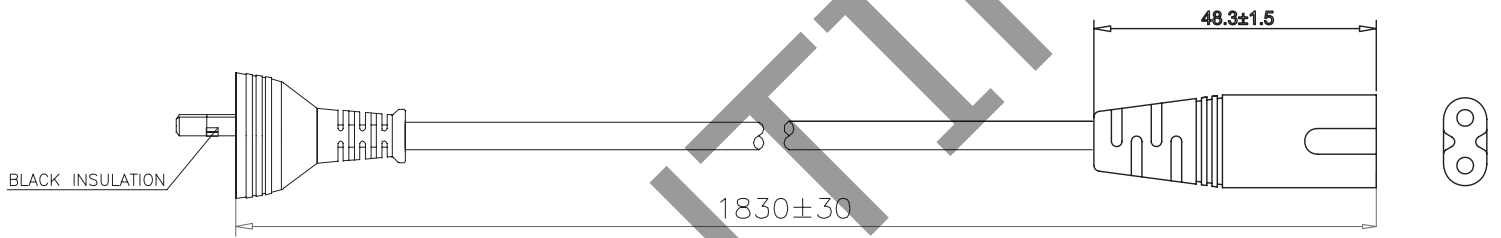
### UNITED KINGDOM INPUT CABLE

units: mm



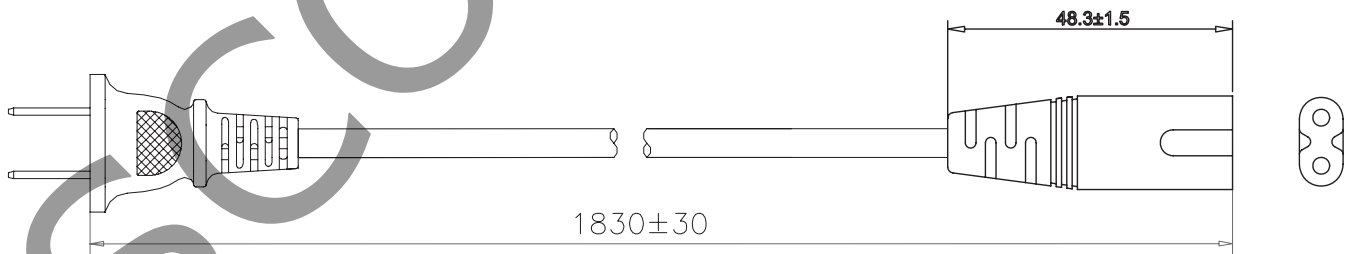
### AUSTRALIAN INPUT CABLE

units: mm



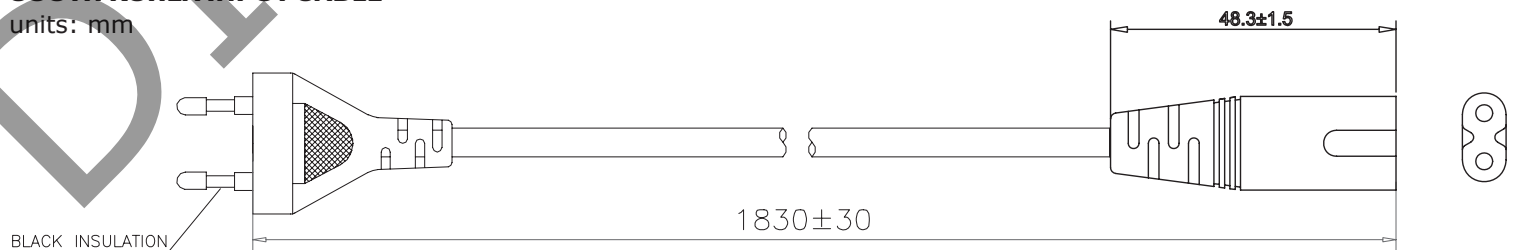
### CHINA INPUT CABLE

units: mm



### SOUTH KOREA INPUT CABLE

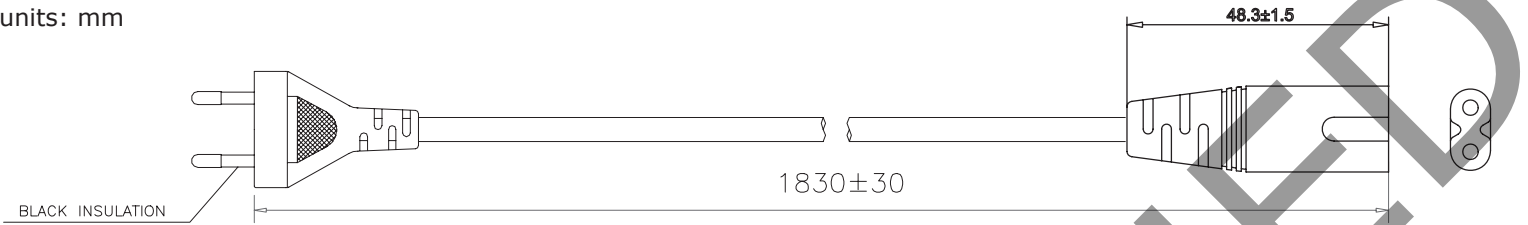
units: mm



## AC CORD (CONTINUED)

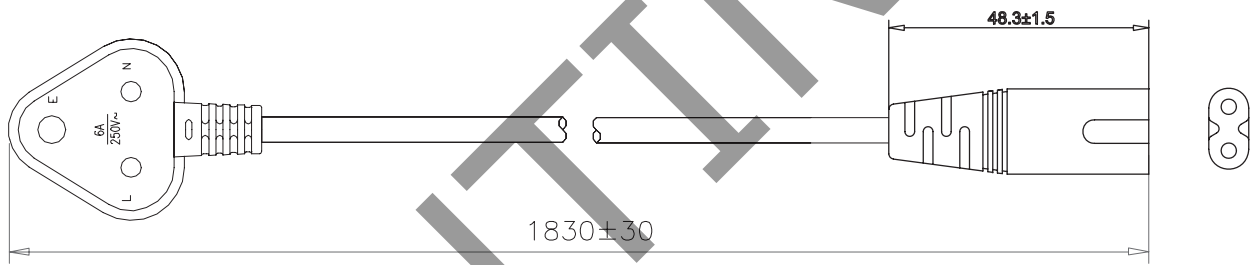
### BRAZIL INPUT CABLE

units: mm



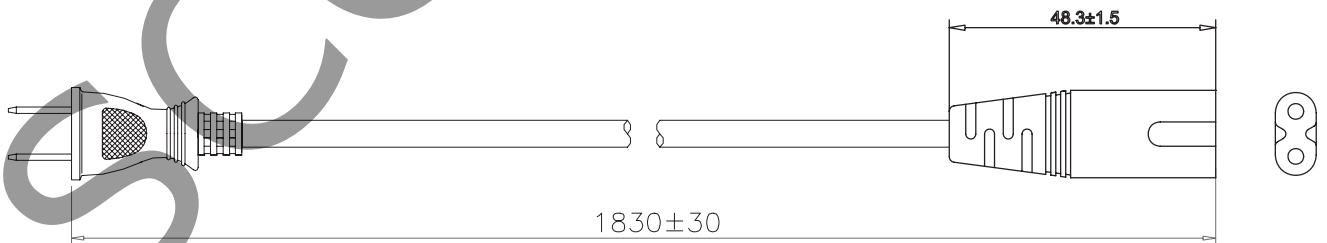
### SOUTH AFRICA INPUT CABLE

units: mm



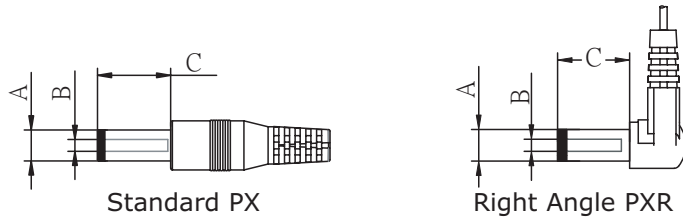
### JAPAN INPUT CABLE

units: mm



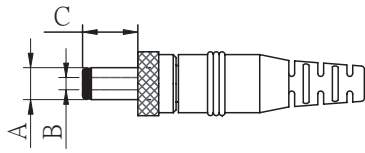
## OUTPUT PLUG OPTIONS

### Standard DC Plug



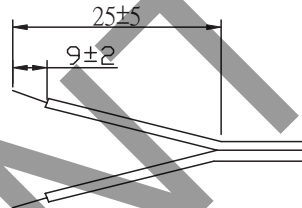
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm

### Locking DC Plug



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

### 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	05/29/2014
1.01	added ac cord options	11/18/2014

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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