



**SERIES:** EPSA 24W | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

- up to 24 W power
- universal input (90~264 Vac)
- single regulated output from 12~24 V
- short circuit protections
- UL/cUL safety approvals
- level V efficiency
- 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)	
EPSA120200U	12	2	24	150	V
EPSA150160U	15	1.6	24	150	V
EPSA240100U	24	1	24	240	V

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

**PART NUMBER KEY**

**EPSA120200U - XX - SZ - CXX**

Base Number  
example of 12 Vdc, 2 A

DC Plug Type

Factory Designation

Reserved for Custom Configurations

## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				0.8	A RMS
inrush current <sup>1</sup>	at 115 Vac, full load, cold start at 230 Vac, full load, cold start			50 100	A A
leakage current				0.25	mA
no load power consumption				0.3	W

Notes: 1. 24 V model, no damage at 230 Vac, cool start

## OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation			±1		%
load regulation			±5		%

## PROTECTIONS

parameter	conditions/description
short circuit protection	output shut down and auto restart

## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute			3,000 4,242	Vac Vdc
isolation resistance	input to output at 500 Vdc	100			MΩ
safety approvals	UL 60950-1				
EMI/EMC	FCC Class B				
RoHS compliant	yes				

## ENVIRONMENTAL

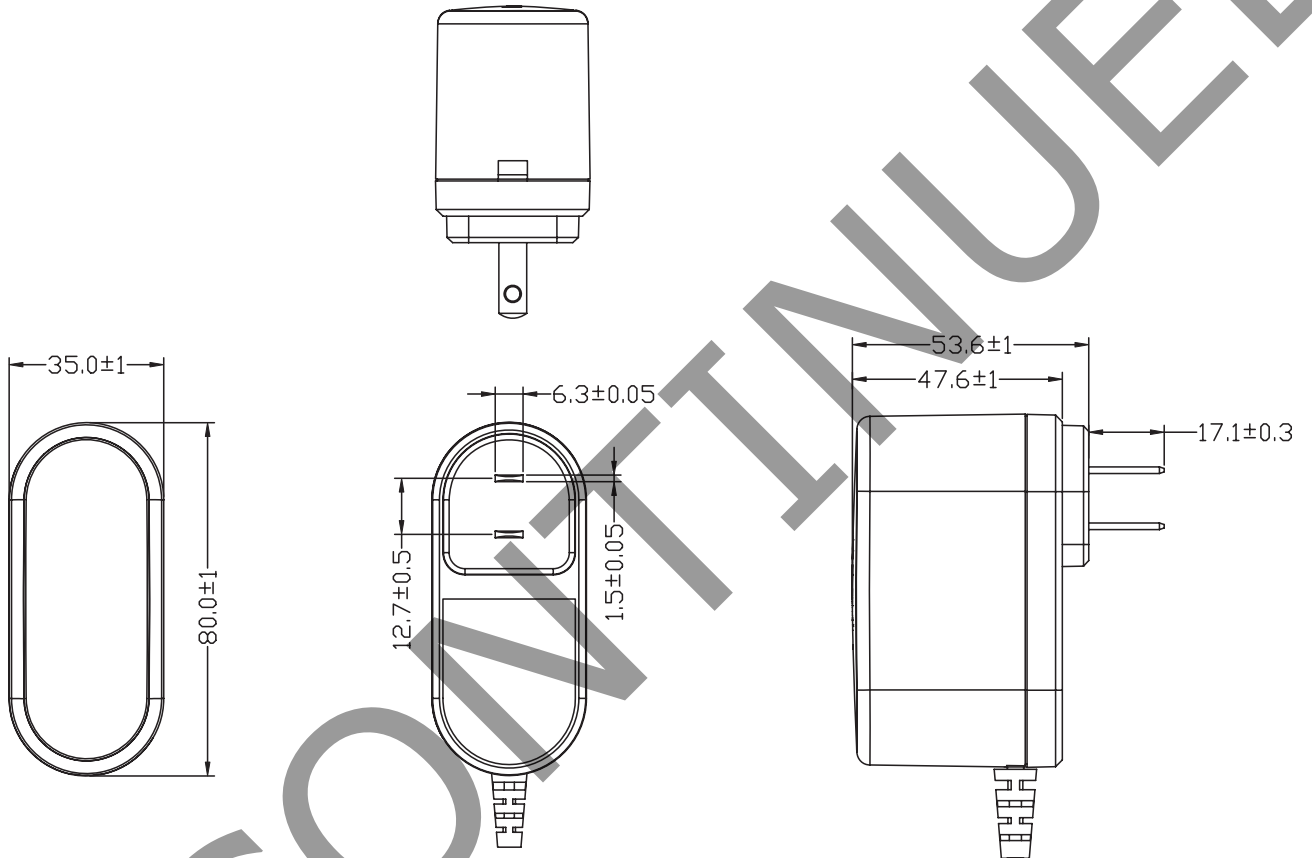
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-10		70	°C
operating humidity		20		80	%
storage humidity		10		90	%

## MECHANICAL

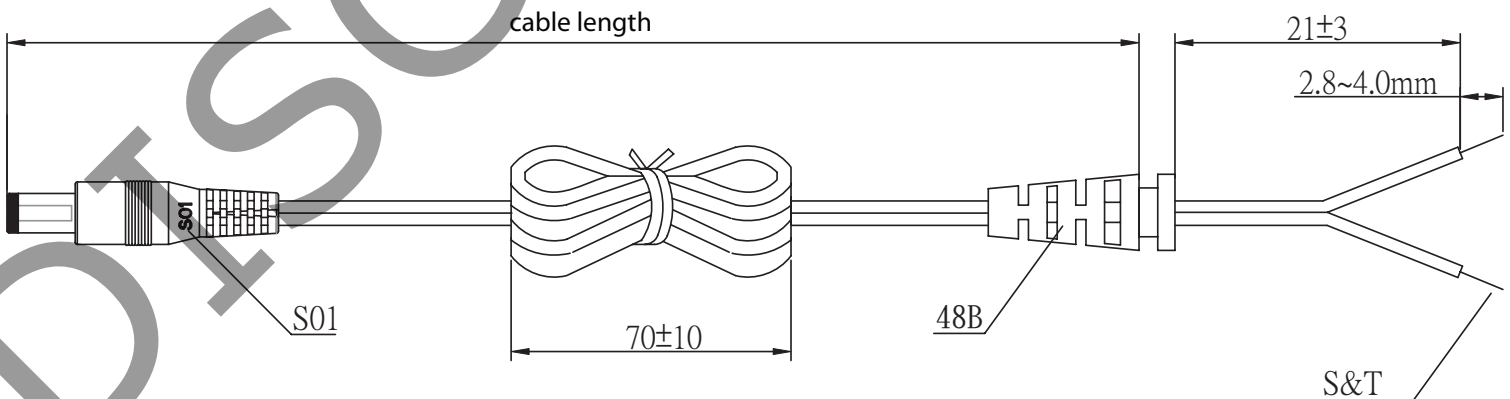
parameter	conditions/description	min	typ	max	units
dimensions	3.150 x 2.110 x 1.378 (80 x 53.6 x 35 mm)				inch
input plug	fixed US				

## MECHANICAL DRAWING

units: mm



## DC CORD

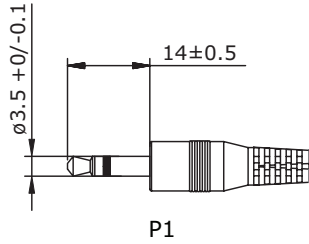


MODEL NO.	CABLE GAUGE	CORD LENGTH
EPSA120200U	20 AWG	1,530 mm $\pm 100$
EPSA150160U <sup>1</sup>	20 AWG	1,530 mm $\pm 100$
EPSA240100U <sup>1</sup>	22 AWG	1,530 mm $\pm 100$

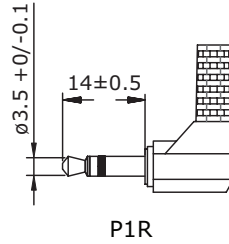
Note: 1. "P5P" models have 1,830 mm  $\pm 100$  cord length

## OUTPUT PLUG OPTIONS

### 3.5 mm Phono Plug



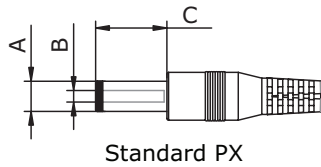
P1



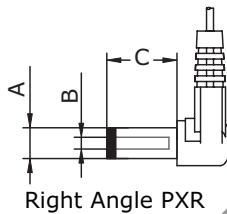
P1R

\*Tip positive

### Standard DC Plug



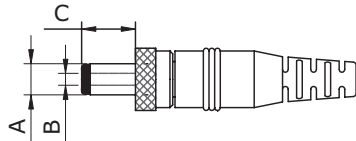
Standard PX



Right Angle PXR

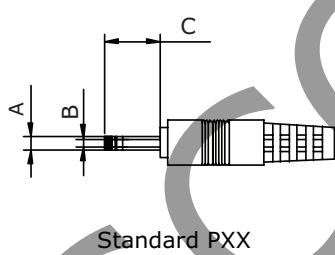
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm
P7/P7R	3.5	1.35	9.5	mm
P8/P8R	3.8	1.35	9.5	mm
P9/P9R	3.8	1.05	9.5	mm

### Locking DC Plug

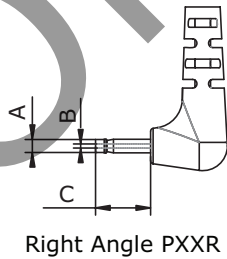


	A	B	C	Unit
P10	5.5	2.1	9.5	mm
P11	5.5	2.5	9.5	mm

### EIAJ Plugs

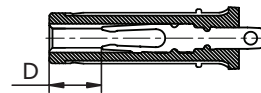


Standard PXX

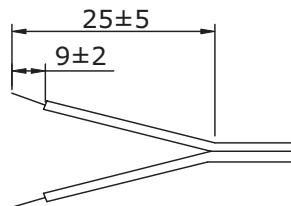


Right Angle PXXR

	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

**ST**  
Stripped and Tinned

**PXXXX**

Plug Type      Plug Angle:  
"Blank" = Standard  
R = Right Angle      Plug Polarity:  
"Blank" = N/A  
P = Center Positive       $\ominus$   $\oplus$   
N = Center Negative       $\oplus$   $\ominus$

\*Contact CUI for additional output plug options.

## REVISION HISTORY

rev.	description	date
1.0	initial release	02/01/2010
1.01	updated output plug options	06/21/2010
1.02	updated inrush current, protection data, and output plug options	07/06/2011
1.03	new template applied	01/27/2012
1.04	updated P7/P7R B dimension	03/15/2012
1.05	V-Infinity branding removed, EMI/EMC data updated	08/21/2012
1.06	CE data removed	05/15/2013
1.07	updated datasheet	12/10/2014

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.

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.