


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

**FEATURES**

- up to 6 W power
- universal input (90~264 Vac)
- single regulated output from 3.3~24 V
- over voltage, over current, and 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)	
EPSA033180U	3.3	1.8	6	150	V
EPSA050120U	5	1.2	6	150	V
EPSA060100U	6	1	6	150	V
EPSA090067U	9	0.67	6	150	V
EPSA120050U	12	0.5	6	150	V
EPSA150040U	15	0.4	6	200	V
EPSA180033U	18	0.33	6	200	V
EPSA240025U	24	0.25	6	200	V

Note: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, output terminated with 0.1  $\mu$ F and 47  $\mu$ F capacitors.

**PART NUMBER KEY**

**EPSA033180UX - XX - SZ - CXX**

Base Number  
example of 3.3 Vdc, 1.8 A

Case/Cord Color  
"blank" = black  
W = white

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				0.3	A RMS
leakage current				0.1	mA
no load power consumption				0.3	W

**OUTPUT**

parameter	conditions/description	min	typ	max	units
line regulation			±3		%
load regulation	3.3 V output all other models		±10 ±5		% %

**PROTECTIONS**

parameter	conditions/description	min	typ	max	units
over voltage protection	protected through primary circuit IC				
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/cUL, PSE, LPS				
EMI/EMC	FCC				
RoHS compliant	yes				

**ENVIRONMENTAL**

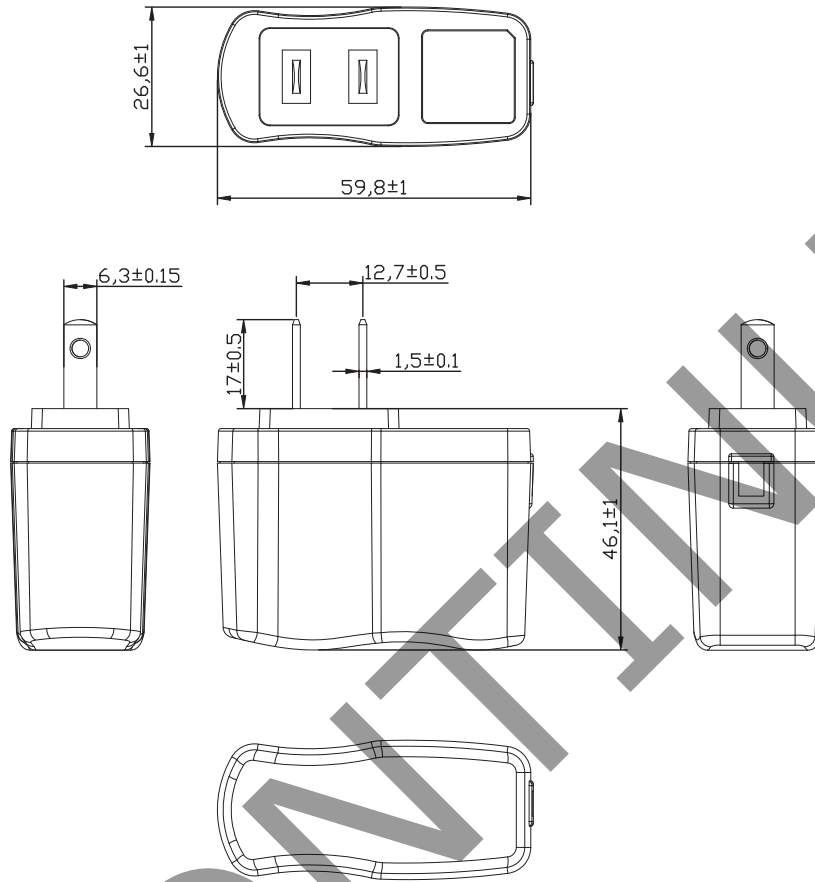
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-10		70	°C
operating humidity		20		80	%
storage humidity		10		90	%

**MECHANICAL**

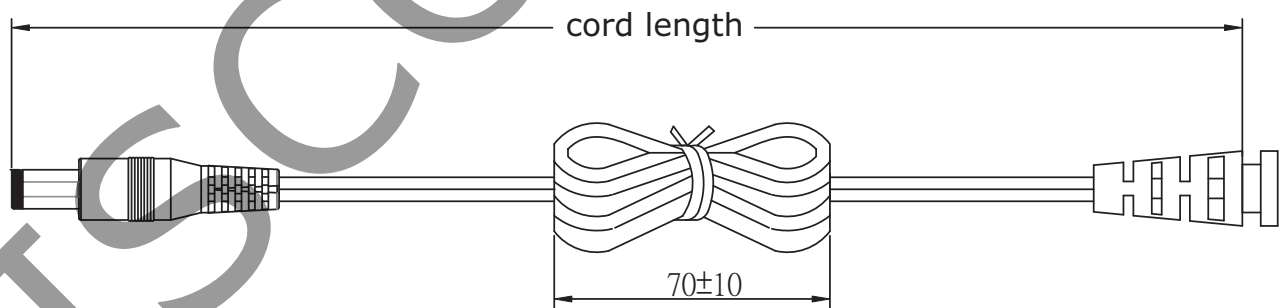
parameter	conditions/description	min	typ	max	units
dimensions	59.8 x 46.1 x 26.6 (2.354 x 1.815 x 1.047 inch)				mm
weight				63	g
input plug	fixed US				
case/cord color	black or white				

## MECHANICAL DRAWING

units: mm



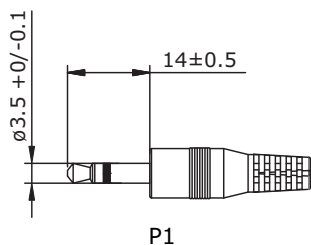
## DC CORD



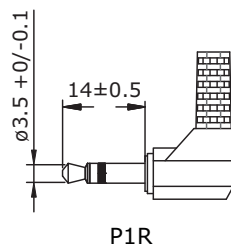
MODEL NO.	CABLE GAUGE	CORD LENGTH
EPSA033180U	20 AWG	1,000 mm $\pm 100$
EPSA050120U	22 AWG	1,530 mm $\pm 100$
EPSA060100U	22 AWG	1,530 mm $\pm 100$
EPSA090067U	22 AWG	1,530 mm $\pm 100$
EPSA120050U	24 AWG	1,530 mm $\pm 100$
EPSA150040U	24 AWG	1,530 mm $\pm 100$
EPSA180033U	24 AWG	1,530 mm $\pm 100$
EPSA240025U	24 AWG	1,530 mm $\pm 100$

## OUTPUT PLUG OPTIONS

### 3.5 mm Phono Plug



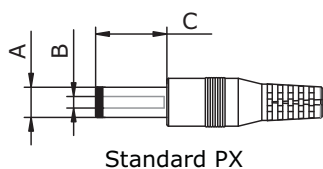
P1



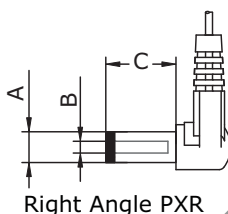
P1R

\*Tip positive

### Standard DC Plug



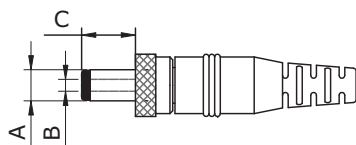
Standard PX



Right Angle PXR

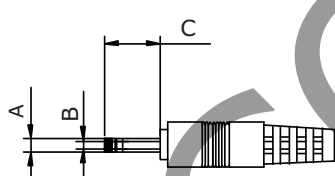
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm
P7/P7R	3.5	1.35	9.5	mm
P8/P8R	3.8	1.35	9.5	mm
P9/P9R	3.8	1.05	9.5	mm

### Locking DC Plug

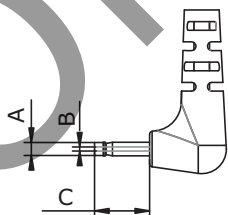


	A	B	C	Unit
P10	5.5	2.1	9.5	mm
P11	5.5	2.5	9.5	mm

### EIAJ Plugs

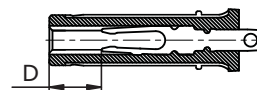


Standard PXX

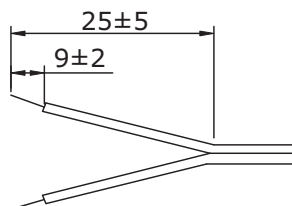


Right Angle PXXR

	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        
N = Center Negative      

\*Contact CUI for additional output plug options.

## REVISION HISTORY

rev.	description	date
1.0	initial release	10/24/2012
1.01	added black color option	05/28/2013

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.



**CUI INC**<sup>®</sup>

**Headquarters**  
20050 SW 112th Ave.  
Tualatin, OR 97062  
**800.275.4899**

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com