

03/13/2017

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#### SERIES: SWI12-E **DESCRIPTION:** AC-DC POWER SUPPLY

#### **FEATURES**

- DoE Level VI, CoC Tier 2 efficiency
- up to 12 W power
- universal input (90~264 Vac)
- single regulated output from 5~24 Vdc
- over voltage, over current, and short circuit protections
- CE safety approval
- custom designs available



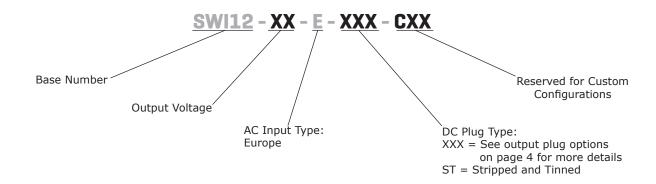
# ROHS CELPS

MODEL	output voltage	output current	output power	ripple and noise¹	efficiency level <sup>2</sup>
	(Vdc)	max (A)	max (W)	<b>max</b> (mVp-p)	
SWI12-5-E	5	2.5	12.5	100	VI
SWI12-12-E	12	1.0	12	120	VI
SWI12-24-E	24	0.5	12	240	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 µF multilayer ceramic and 47 µF low ESR electrolytic capacitors.

2. CoC Tier 2 compliant

#### **PART NUMBER KEY**



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#### **INPUT**

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				0.31	Α
inrush current	at 100 Vac, full load, 25°C, cold start at 240 Vac, full load, 25°C, cold start			30 60	A A
leakage current				0.25	mA
no load power consumption	at 115/230 Vac			0.075	W

## **OUTPUT**

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

#### **PROTECTIONS**

parameter	conditions/description	min	typ	max	units
over voltage protection	output shut down			180	%
over current protection	output shut down, auto recovery 5 Vdc model 12 Vdc model 24 Vdc model			5.0 2.5 1.5	A A A
short circuit protection	output shut down, auto recovery				

#### **SAFETY & COMPLIANCE**

parameter	conditions/description	min	typ	max	units
isolation voltage input to output at 10 mA for 1 minute			3,000		Vac
isolation resistance	input to output at 500 Vdc	10			MΩ
safety approvals	LPS				
EMI/EMC	CE				
MTBF	as per Telcordia SR-332, at 25°C	300,000			hours
RoHS	2011/65/EU				

## **ENVIRONMENTAL**

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

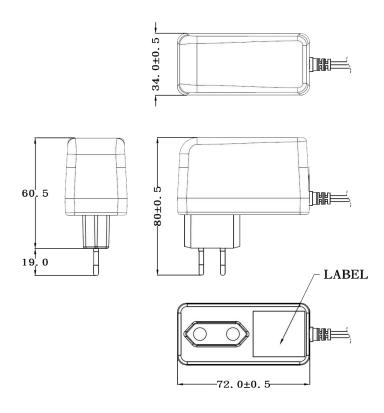
CUI Inc | SERIES: SWI12-E | DESCRIPTION: AC-DC POWER SUPPLY

#### **MECHANICAL**

parameter	conditions/description	min	typ	max	units
dimensions	72 x 34 x 80				mm
inlet plug	Europe				
weight	5 Vdc model all other models	136 126			g g

#### **MECHANICAL DRAWING**

units: mm



#### **DC CORD**

units: mm

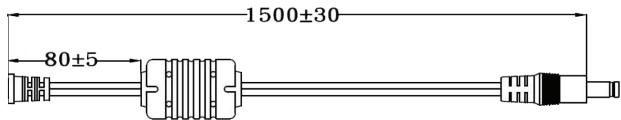
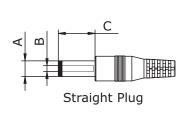


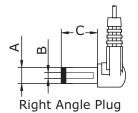
Table 1

MODEL NO.	CABLE	CORD LENGTH
SWI12-5-E	UL2468, 16 AWG	1,500 mm ±30
SWI12-12-E	UL2468, 22 AWG	1,500 mm ±30
SWI12-24-E	UL2468, 22 AWG	1,500 mm ±30

#### **OUTPUT PLUG OPTIONS**

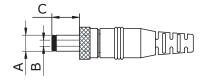
## **Standard DC Plug**





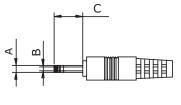
Size	А	В	С	Unit
5	5.5	2.1	9.5	mm
6	5.5	2.5	9.5	mm
7	3.5	1.35	9.5	mm
8	3.8	1.35	9.5	mm
9	3.8	1.05	9.5	mm

#### **Locking DC Plug**

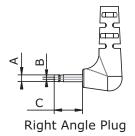


Size	Α	В	С	Unit
10	5.5	2.1	9.5	mm
11	5.5	2.5	9.5	mm

#### **EIAJ DC Plug**

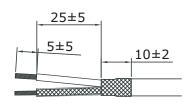




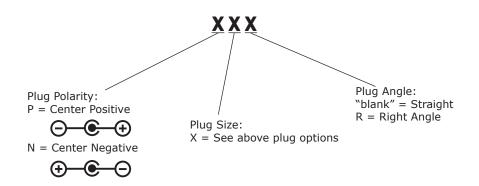


Size	EIAJ	Α	В	С	Unit
12	EIAJ-1	2.35	0.7	9.5	mm
13	EIAJ-2	4.0	1.7	9.5	mm
14	EIAJ-3	4.75	1.7	9.5	mm

## **Stripped and Tinned**



## **DC Plug Type**



<sup>\*</sup>Contact CUI for additional plug options

#### **REVISION HISTORY**

rev.	description	date
1.0	initial release	05/04/2015
1.01	changed wire gauge on 5 Vdc models, updated datasheet	09/15/2016
1.02	added 24 Vdc output model	03/13/2017

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.