SERIES: SWI12-N | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- DoE Level VI 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
- UL/cUL, PSE safety approvals
- custom designs available
- certified to 60950-1 and 62368-1 standards

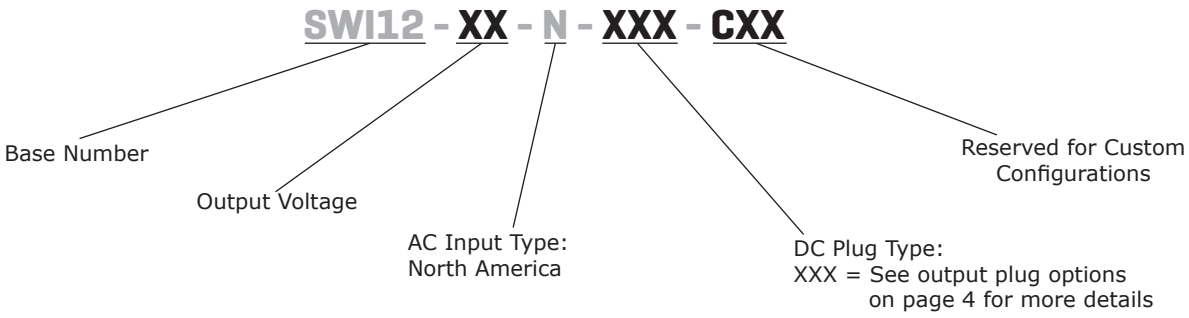


MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SWI12-5-N	5.0	2.5	12.5	100	VI
SWI12-5.9-N	5.9	2.0	11.8	100	VI
SWI12-9-N	9.0	1.2	10.8	100	VI
SWI12-12-N	12.0	1.0	12.0	120	VI
SWI12-24-N	24.0	0.5	12.0	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.

PART NUMBER KEY



Please read our datasheet & drawing disclaimer here.

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90	100~240	264	Vac
frequency		47	50~60	63	Hz
current				0.31	A
inrush current	at 240 Vac, full load, 25°C, cold start			60	A
leakage current				0.25	mA
no load power consumption	at 115/230 Vac			0.1	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 5.9 Vdc model 9 Vdc model 12 Vdc model 24 Vdc model			 5.0 4.5 3.0 3.0 1.5	 A A 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	certified to 60950-1: UL certified to 62368-1: UL LPS, PSE				
EMI/EMC	FCC Part 15B Class B				
MTBF	as per Telcordia SR-332, at 25°C	300,000			hours
RoHS	yes				

ENVIRONMENTAL

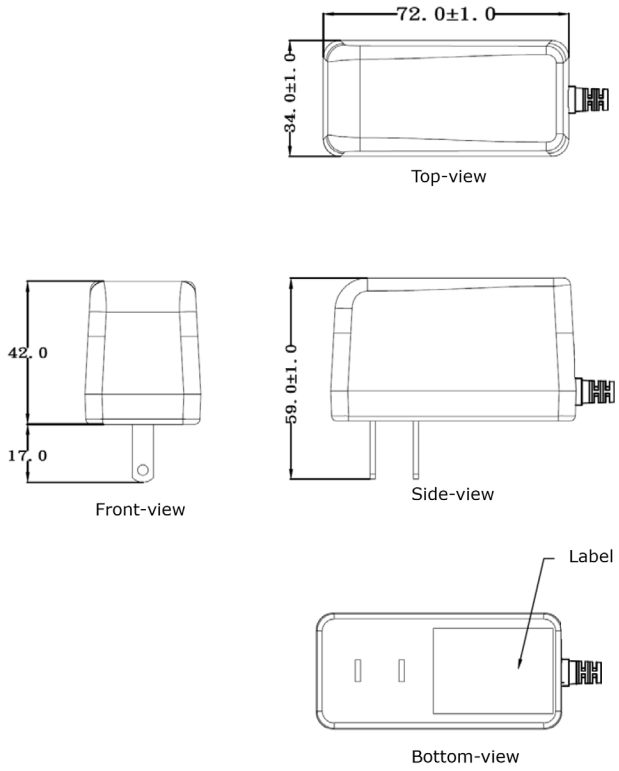
parameter	conditions/description	min	typ	max	units
operating temperature		-20		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	72 x 34 x 59				mm
inlet plug	North America, 2-pin				
weight	5 Vdc model		132		g
	5.9, 9 Vdc models		120		g
	12 Vdc model		112		g
	24 Vdc model		104		g

MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



DC CORD

units: mm

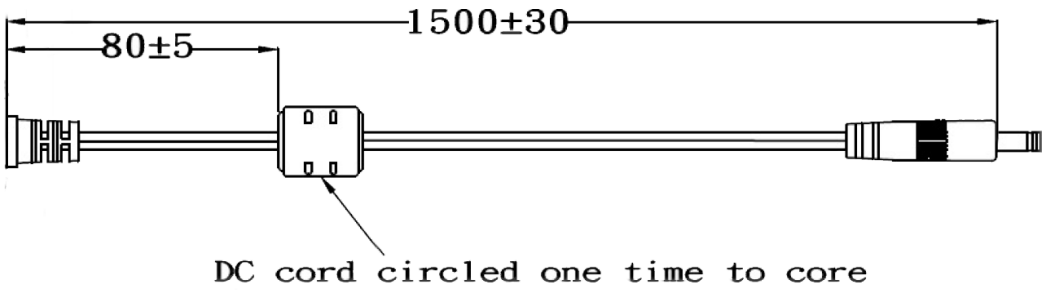


Table 1

MODEL NO.	CABLE	CORD LENGTH
SWI12-5-N	UL2468, 18 AWG	1,500 mm ±30
SWI12-5.9-N	UL2468, 20 AWG	1,500 mm ±30
SWI12-9-N	UL2468, 20 AWG	1,500 mm ±30
SWI12-12-N	UL2468, 22 AWG	1,500 mm ±30
SWI12-24-N	UL2468, 22 AWG	1,500 mm ±30

DC PLUG TYPE PART NUMBER KEY

X X X

Plug Polarity:
P = Center Positive



N = Center Negative



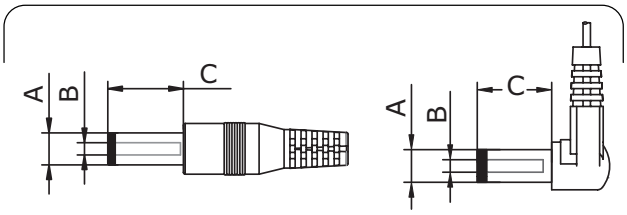
Plug Code:
X = Choose a code from the options below

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

Plug Polarity		Code		Dimensions (mm)			Plug Angle	
Center Pos.	Center Neg.	Option	Type	A	B	C	Straight	Right
•	•	5	Standard	5.5	2.1	9.5	•	•
•	•	6	Standard	5.5	2.5	9.5	•	•
•	•	7	Standard	3.5	1.35	9.5	•	•
•	•	8	Standard	3.8	1.35	9.5	•	•
•	•	9	Standard	3.8	1.05	9.5	•	•
•	•	10	Locking[2]	5.5	2.1	9.5	•	N/A
•	•	11	Locking[2]	5.5	2.5	9.5	•	N/A
•	•	12	EIAJ-1	2.35	0.7	9.5	•	•
•	•	13	EIAJ-2	4.0	1.7	9.5	•	•
•	•	14	EIAJ-3	4.75	1.7	9.5	•	•
N/A	N/A	ST	Stripped & Tinned				N/A	N/A

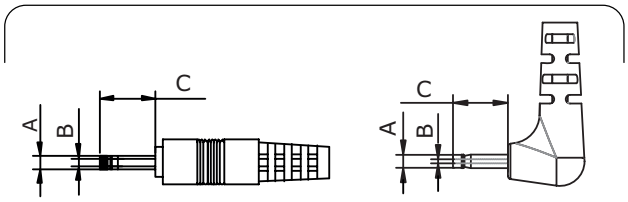
Note: 1. Contact CUI for additional plug options
2. Maximum insertion depth is 10mm

Standard



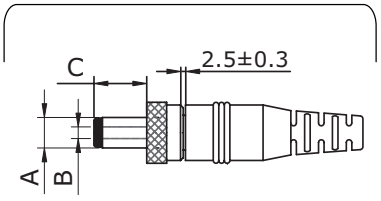
Straight Right Angle (R)

EIAJ

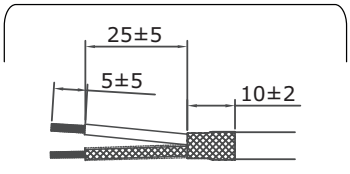


Straight Right Angle (R)

Locking



Stripped & Tinned



REVISION HISTORY

rev.	description	date
1.0	initial release	04/30/2015
1.01	updated datasheet	06/12/2015
1.02	updated weight detail	06/08/2017
1.03	added 62368-1 standard	08/31/2018
1.04	company logo updated	09/18/2020
1.05	safety marks updated	04/26/2021
1.06	mechanical drawing updated	08/09/2021
1.07	plug polarity symbols updated	09/16/2021
1.08	dc plugs updated	04/28/2022
1.09	operating temperature updated	01/08/2024
1.10	datasheet updated	12/09/2024

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.