

SERIES: SWI12B-N | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

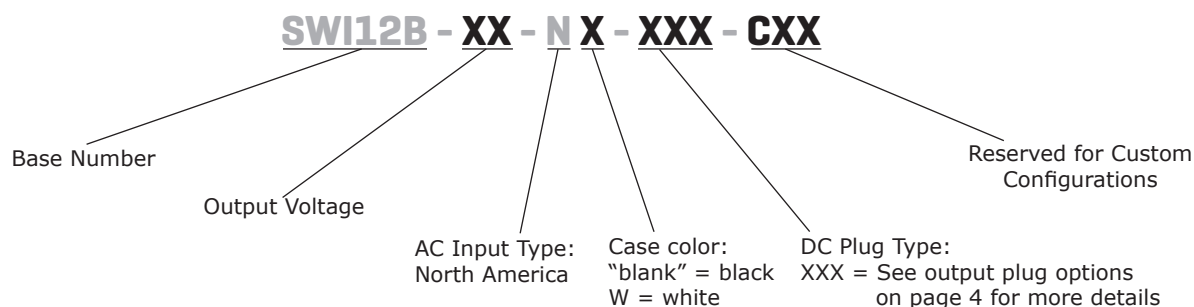
- DoE Level VI efficiency
- up to 12 W power
- universal input (90~264 Vac)
- single regulated output from 5~24 Vdc
- over voltage, over current, and short circuit protections
- UL/cUL safety approvals
- certified to UL 62368-1
- custom designs available



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise ¹ max (mVp-p)	efficiency level
SWI12B-5-N	5	2.0	10.0	300	VI
SWI12B-9-N	9	1.33	11.97	300	VI
SWI12B-12-N	12	1.0	12.0	300	VI
SWI12B-24-N	24	0.5	12.0	300	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 μ F multilayer ceramic and 10 μ F low ESR electrolytic capacitors.

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90	100~240	264	Vac
frequency		47	50~60	63	Hz
current				0.5	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
load regulation			±5		%
start-up time	at 115 ~ 230 Vac			3	s
rise time	at 115 ~ 230 Vac			100	ms
hold-up time	at 115 ~ 230 Vac	5			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	auto recovery, continuous				
	5 Vdc model			12	Vdc
	9 Vdc model			16	Vdc
	12 Vdc model			18	Vdc
	24 Vdc model			36	Vdc
over current protection	auto recovery				
	5 Vdc model			3	A
	9 Vdc model			2	A
	12 Vdc model			2	A
	24 Vdc model			1	A
short circuit protection	auto recovery, continuous				

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
safety approvals	certified to 62368-1: UL				
EMI/EMC	ICES-003 issue, Class B FCC PART 15 Class B				
ESD	IEC 61000-4-2 contact: ±4 kV, air: ±8 kV				
radiated emissions	IEC 61000-4-3 frequency: 80~1000 MHz, field strength: 3 V/M, 80% AM (1 KHz),				
radiated immunity	EN 55035, EN 61000-4-3				
EFT/burst	EN 61000-4-4 power line: 1 kV, signal line: 0.5 kV				
surge	1 kV				
MTBF	as per Telcordia SR-332 (Issue 2), at 0~40°C	75,000			hours
RoHS	yes				

ENVIRONMENTAL

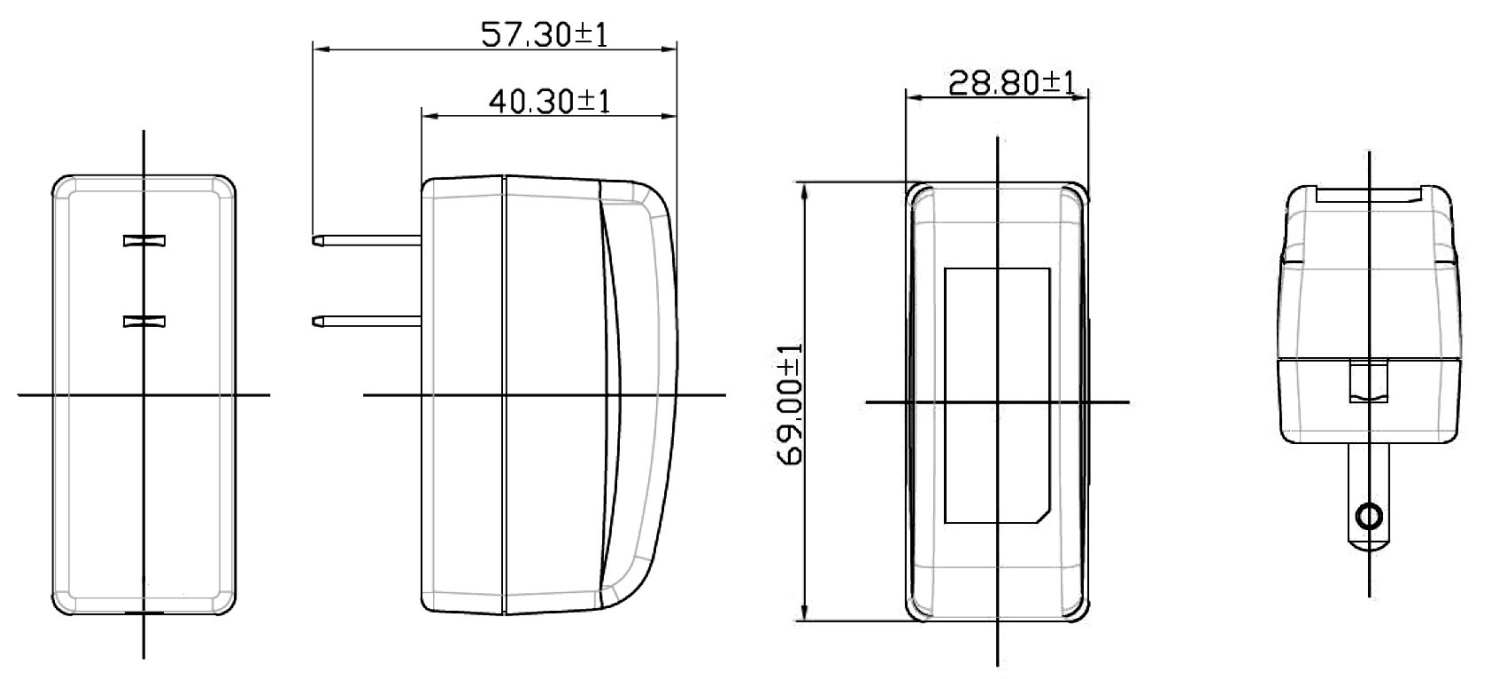
parameter	conditions/description	min	typ	max	units
operating temperature		0		50	°C
storage temperature		-20		60	°C
operating humidity	non-condensing	20		85	%
storage humidity	non-condensing	5		95	%

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	70.0 (L) x 29.8 (W) x 58.3 (H)				mm
inlet plug	North America, 2-pin				
weight	tolerance: ±15%		80		g

MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



DC CORD

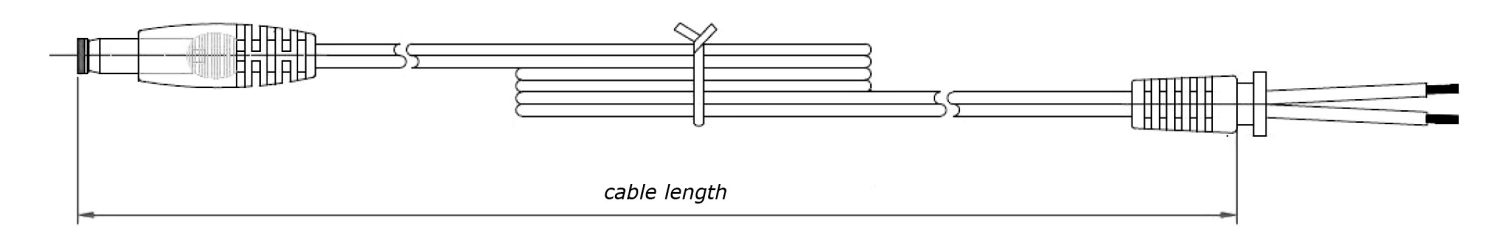




Table 1

MODEL NO.	CABLE	CORD LENGTH
SWI12B-5-N	UL2468, 20 AWG	1,500 mm ±30
SWI12B-9-N	UL2468, 22 AWG	1,500 mm ±30
SWI12B-12-N	UL2468, 24 AWG	1,500 mm ±30
SWI12B-24-N	UL2468, 24 AWG	1,500 mm ±30

DC PLUG TYPE PART NUMBER KEY

Plug Polarity:
P = Center Positive

N = Center Negative


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

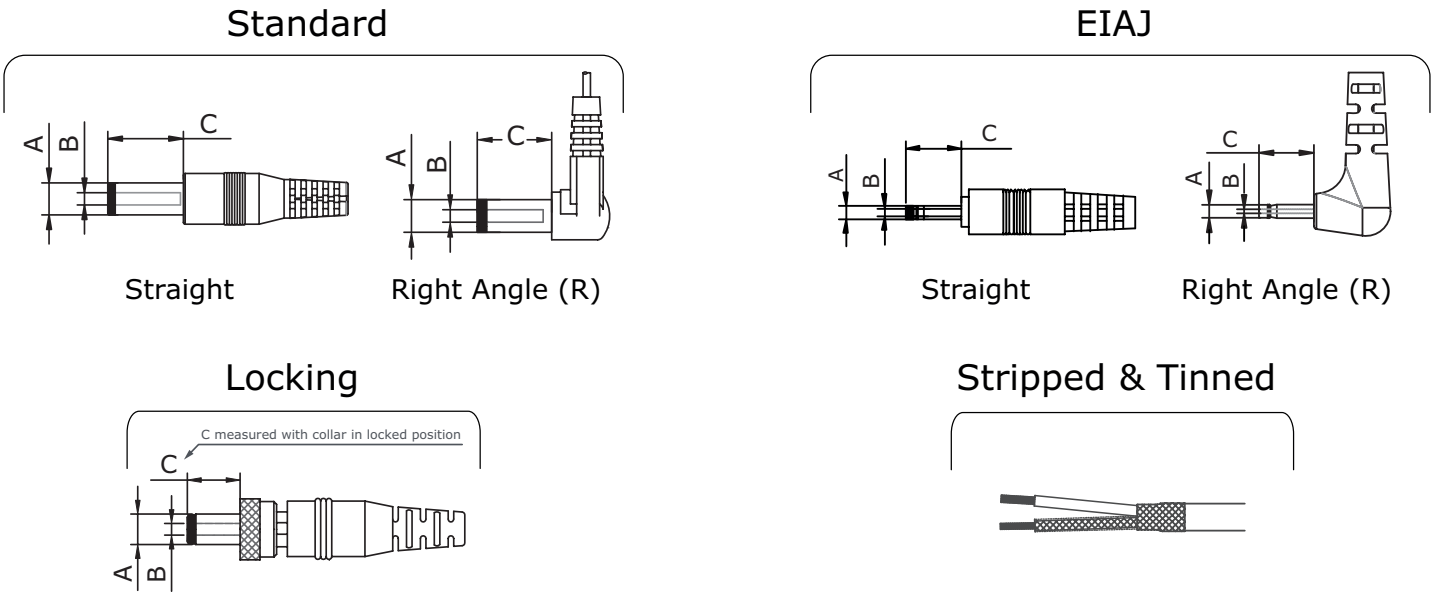
Plug Angle:
"blank" = Straight
R = Right Angle

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



REVISION HISTORY

rev.	description	date
1.0	initial release	07/29/2025

The revision history provided is for informational purposes only and is believed to be accurate.



15575 SW Sequoia Pkwy #100
Portland, OR 97224
800.275.4899

Fax 503.612.2383
Belfuse.com
powersupport@belf.com

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.