CUI INC
a bel group

SERIES: SWI24-SC | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

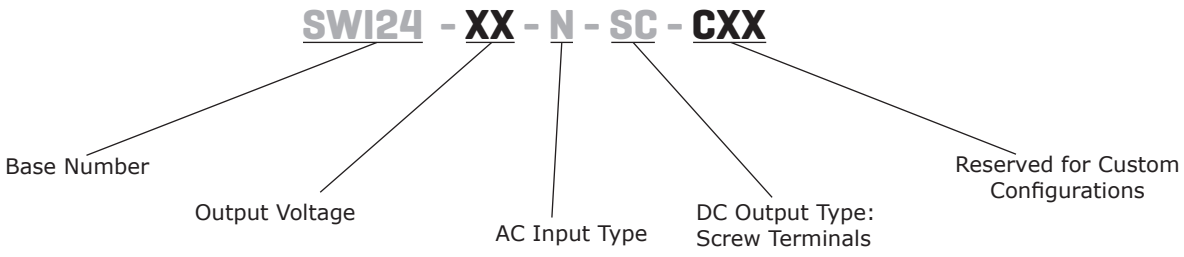
- 24 W power
- universal input (90~264 Vac)
- single regulated 12~24 Vdc output
- short circuit, over current, and over voltage protections
- UL 60950 & UL 1310 safety approvals
- level VI efficiency

c UL us FC LPS

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SWI24-12-N-SC	12	2	24	100	VI
SWI24-15-N-SC	15	1.6	24	100	VI
SWI24-24-N-SC	24	1	24	100	VI

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

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at full load			0.6	A
inrush current	at 115 Vac, full load, 25°C, cold start			30	A
leakage current				0.25	mA
no load power consumption	at 230 Vac			0.1	W

OUTPUT

parameter	conditions/description	min	typ	max	units
regulation			±5		%
start-up time	at 110 Vac/50 Hz, 80% load			3	s
hold-up time	at 110 Vac/50 Hz, 80% load	10			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output shutdown			200	%
over current protection	output shut down, auto recovery			200	%
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	UL/cUL (UL 60950, UL 1310), LPS				
EMI/EMC	FCC Part 15B Class B				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
RoHS	2011/65/EU				

ENVIRONMENTAL

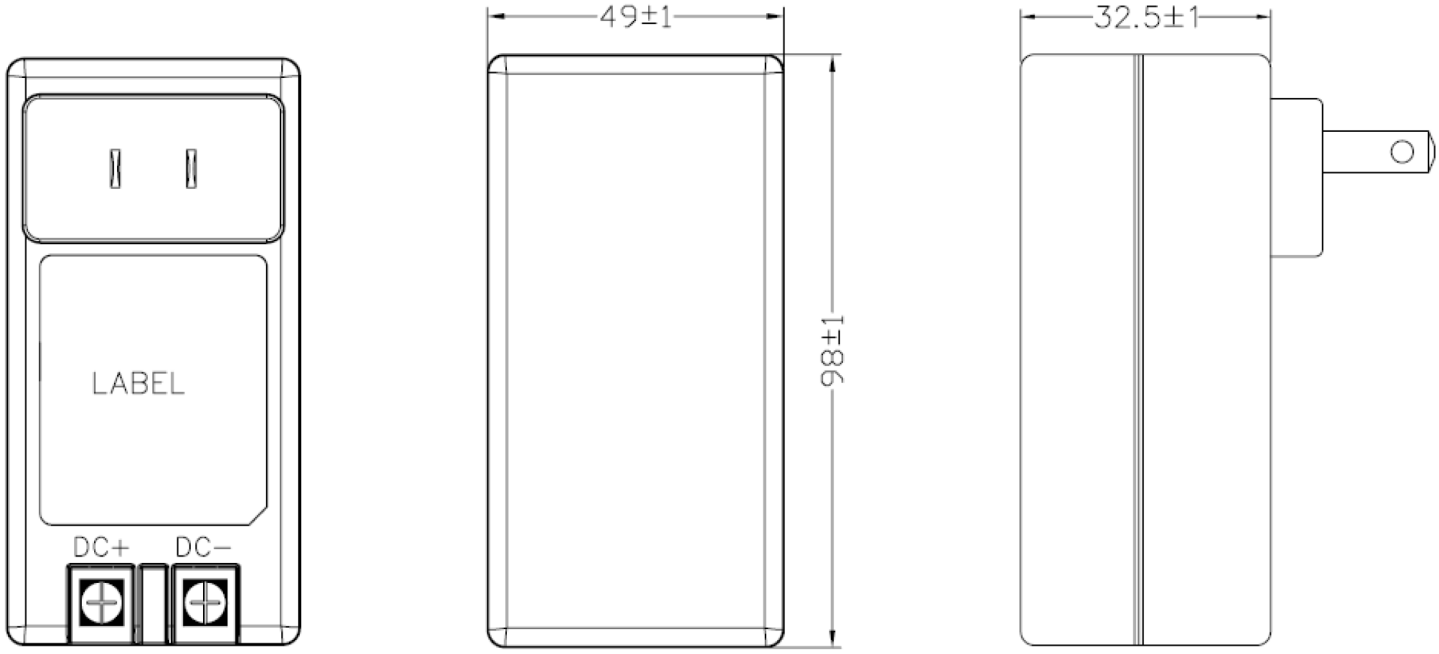
parameter	conditions/description	min	typ	max	units
operating temperature		0		55	°C
storage temperature		-25		85	°C
operating humidity	non-condensing	10		95	%
storage humidity	non-condensing	10		95	%

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	98 x 49 x 32.5				mm
input plug	US 2-pin				

MECHANICAL DRAWING

units: mm
tolerance: ±1 mm



MAXIMUM RECOMMENDED CABLE LENGTH TO MAINTAIN ±5% OUTPUT VOLTAGE TOLERANCE		
MODEL NO.	CABLE GAUGE	MAX CABLE LENGTH
SWI24-12-N-SC	18 AWG	6.5 m
SWI24-12-N-SC	20 AWG	4.5 m
SWI24-12-N-SC	22 AWG	3.0 m
SWI24-12-N-SC	24 AWG	2.0 m
SWI24-15-N-SC	18 AWG	8.0 m
SWI24-15-N-SC	20 AWG	5.5 m
SWI24-15-N-SC	22 AWG	4.0 m
SWI24-15-N-SC	24 AWG	2.5 m
SWI24-24-N-SC	18 AWG	13.0 m
SWI24-24-N-SC	20 AWG	9.0 m
SWI24-24-N-SC	22 AWG	6.5 m
SWI24-24-N-SC	24 AWG	3.5 m

REVISION HISTORY

rev.	description	date
1.0	initial release	12/04/2014
1.01	added max cable length information	02/10/2015
1.02	updated datasheet	10/12/2015
1.03	company logo updated	09/18/2020
1.04	safety marks updated	04/26/2021
1.05	ripple and noise & operating temp. max updated	08/07/2023

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.