CUI INC
a bel group

SERIES: SWC45-N | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

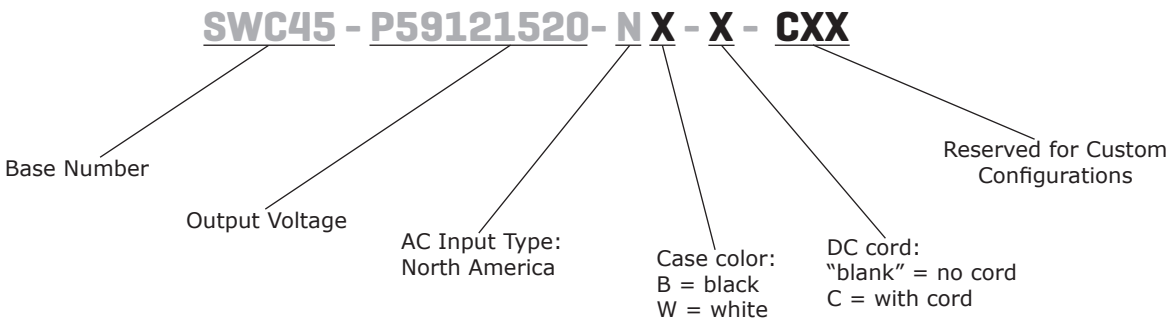
- up to 45 W continuous power
- DoE Level VI compliant
- flip Ac pins
- universal input voltage range
- integrated USB Type C connector
- USB Power Delivery (PD) 3.0
- UL/cUL safety approvals
- Class II construction

MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level[2]
SWC45-P59121520-N	5	3	15	100	VI
	9	3	27	120	VI
	12	3	36	150	VI
	15	3	45	200	VI
	20	2.25	45	300	VI

Notes: 1. At full load, nominal AC input voltage, 25°C, 20 MHz bandwidth oscilloscope, output terminated with 0.1 µF ceramic and 10 µF aluminum electrolytic capacitors.

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at nominal input			1.5	A
leakage current	at nominal AC input and frequency			0.25	mA
no load power consumption	at 115/230 Vac, 60/50 Hz (5 Vdc mode)			0.1	W

OUTPUT

parameter	conditions/description	min	typ	max	units
output regulation			±5		%
start-up time				3	s
rise time	at nominal input			100	ms
hold-up time	at nominal input, full load	5			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output shutdown, auto recovery 5 Vdc output 9 Vdc output 12 Vdc output 15 Vdc output 20 Vdc output			 8 11.5 15 19 25	 Vdc Vdc Vdc Vdc Vdc
over current protection	hiccup, auto recovery 20 Vdc output all other outputs			 3.2 4	 A A
short circuit protection	hiccup, auto recovery				

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
insulation resistance	input to output at 500 Vdc, 10 mA for 1 minute	20			MΩ
safety approvals	UL/cUL (UL 60950-1)				
EMI/EMC	FCC Part 15 Class B				
MTBF	as per Telcordia SR-332, Issue 2 at 115/230 Vac full load, 25°C	50,000			hours
RoHS	yes				

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		60	°C
operating humidity	non-condensing	20		85	%
storage humidity	non-condensing	5		90	%

MECHANICAL

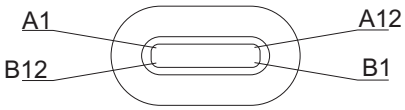
parameter	conditions/description	min	typ	max	units
dimensions	60 x 28 x 57.3				mm
inlet plug	North America, 2-pin (flip AC pins)				
DC output	USB 3.1 Type C				
weight			106		g

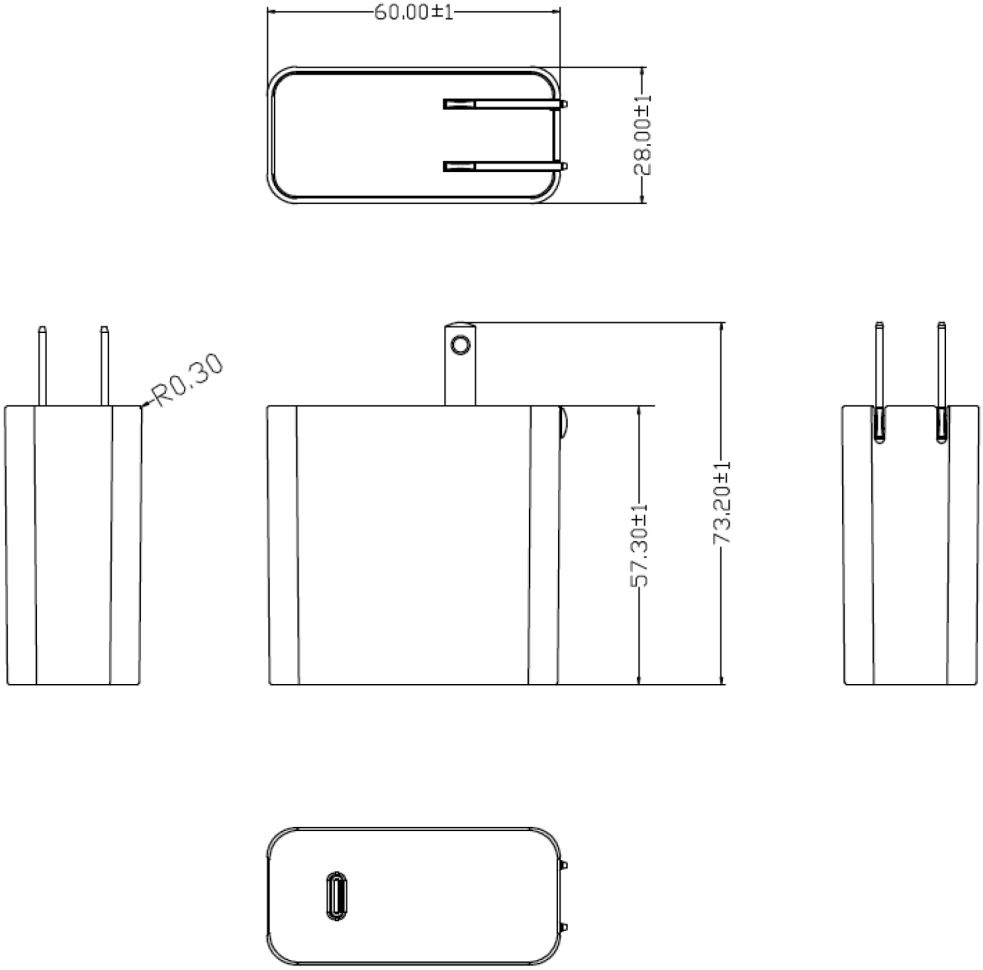
MECHANICAL DRAWING

units: mm

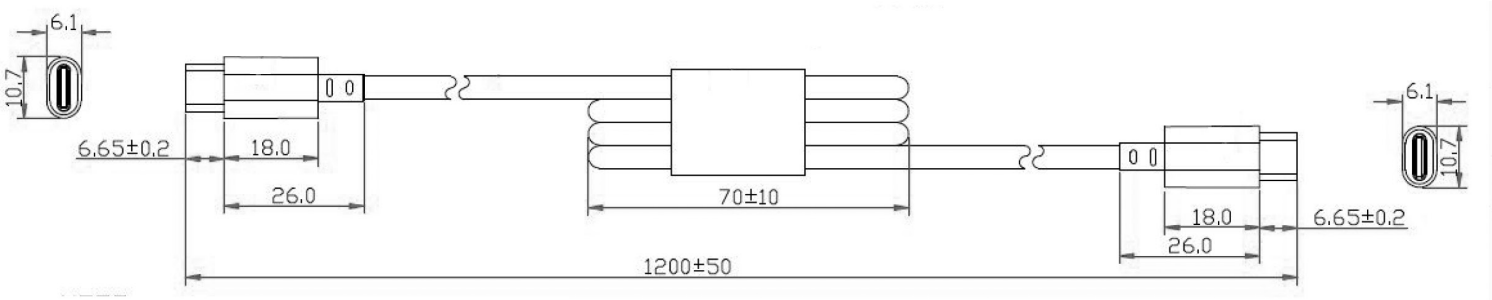
PIN CONNECTIONS			
PIN	SIGNAL NAME	PIN	SIGNAL NAME
A1	GND	B12	GND
A2	NC	B11	NC
A3	NC	B10	NC
A4	V_{BUS}	B9	V_{BUS}
A5	CC	B8	NC
A6	D+	B7	NC
A7	D-	B6	NC
A8	NC	B5*	Vconn
A9	V_{BUS}	B4	V_{BUS}
A10	NC	B3	NC
A11	NC	B2	NC
A12	GND	B1	GND

Note: *Not present on DC cord





DC CORD



REVISION HISTORY

rev.	description	date
1.0	initial release	01/17/2019
1.01	company logo updated	09/30/2020
1.02	safety marks updated	04/26/2021

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.