CUI INC
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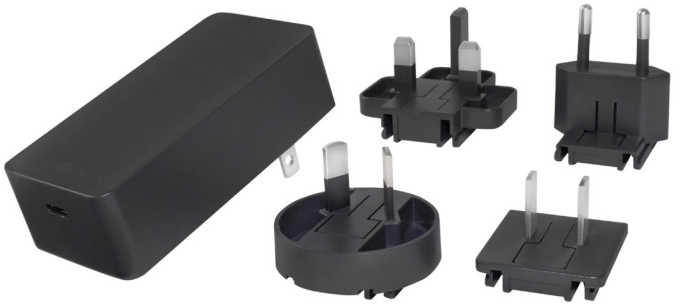
SERIES: SMI45C | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

- up to 45 W continuous power
- 5 ~ 20 Vdc output
- PD 3.0 compliant
- UL 62368 certified
- 0 ~ 40 °C ambient operating temperature range
- over voltage, over current and short circuit protections
- universal input voltage range
- custom designs available



MODEL

MODEL	output voltage nom (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level[2] average (%)
SMI45C	5	3.0	15	250	81.39
	9	3.0	27	250	86.62
	12	3.0	36	250	87.4
	15	3.0	45	250	87.73
	20	2.25	45	300	87.73

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 µF multilayer and 10 µF low ESR electrolytic capacitors.
2. Average efficiency is measured at 25%, 50%, 75%, and 100% load.

PART NUMBER KEY

SMI45C - P - X X - CXX

Base Number

Blades:
N = North America blade included
E = Europe blade included
B = United Kingdom blade included
A = Australia blade included
C = China blade included
3 = NA, EU, UK blades included
4 = NA, EU, UK, AU blades included
V = NA, EU, UK, AU, CN blades included
K = No blades

Case Color:
"Blank" = black
W = white

Reserved for Custom Configurations

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90	100~240	264	Vac
frequency		47	50~60	63	Hz
current				1.5	A
leakage current				0.25	mA
no load power consumption				0.067	W

OUTPUT

parameter	conditions/description	min	typ	max	units
load regulation			±5		%
start-up time				3	s
rise time	at 90~264 Vac			100	ms
hold-up time	at full load	5			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	20 Vdc output model 5 Vdc output model			25 8	V V
over current protection	hiccup mode 20 Vdc output model all other output models			3.2 4	A A
under voltage protection	primary under voltage lockout, remove secondary under voltage protection				
short circuit protection	auto recovery, hiccup mode				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 minute, 10 mA max		3,000 4,242		Vac Vdc
isolation resistance	input to output for 1 minute at 500 Vdc & 10 mA	20			MΩ
safety approvals	UL/CUL (UL 62368-1), UKCA (BS EN 62368-1), TUV-GS (EN 62368-1), PSE (J62368-1)				
EMI/EMC	FCC (Part 15 Subpart B Class B, ICES-003 Issue 7), CE (BS EN 55032), PSE (J55032)				
MTBF	as per Telcordia Technologies SR-332 (Issue 2), at 25°C	50,000			hours
RoHS	yes				

ENVIRONMENTAL

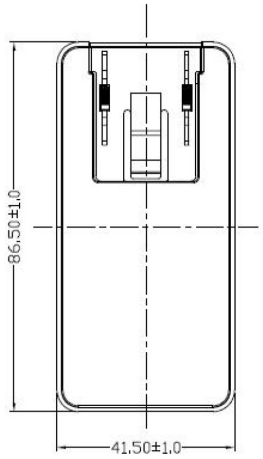
parameter	conditions/description	min	typ	max	units
operating temperature		0		45	°C
storage temperature		-20		60	°C
operating humidity	non-condensing	20		85	%
storage humidity	non-condensing	5		90	%

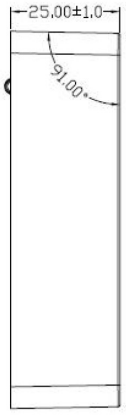
MECHANICAL

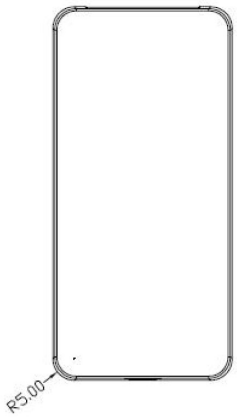
parameter	conditions/description	min	typ	max	units
dimensions	87.5 (L) x 42.5 (W) x 28.2 (H)				mm
inlet plug	interchangeable blades (NA, EU, UK, AU, CN)				
ac blade clip type	hidden clip				
weight	without blades		109		g

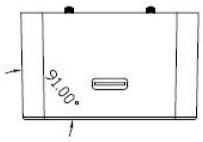
MECHANICAL DRAWING

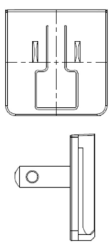
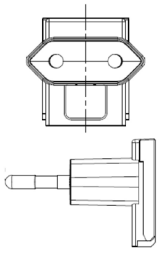
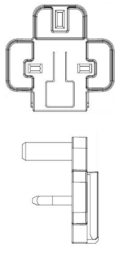
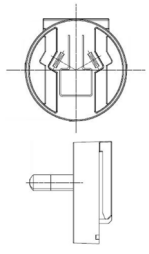
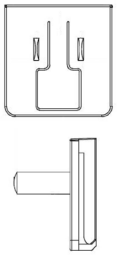
units: mm
tolerance: ±1.0 mm









INTERCHANGEABLE BLADES					
BLADE DESIGNATOR	N	E	B	A	C
REGION	North America	Europe	UK	Australia	China
BLADE ACCESSORY	SMI-US-7	SMI-EU-7	SMI-UK-7	SMI-AU-7	SMI-CN-7
BLADE					

REVISION HISTORY

rev.	description	date
1.0	initial release	10/10/2023

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.