CUI INC
a bel group

SERIES: SMI12 | **DESCRIPTION:** EXTERNAL AC-DC POWER SUPPLY

FEATURES

- up to 12 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- universal input voltage range
- interchangeable Ac blades for global use
- over voltage, over current, and short circuit protections
- UL/cUL, CE, PSE, RCM & FCC safety approvals
- IEC 62368 certified
- white and black case options



MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise max (mVp-p)	efficiency level[2]
SMI12-5	5	2	10	200	VI
SMI12-9	9	1.33	11.97	300	VI
SMI12-12	12	1	12	300	VI

PART NUMBER KEY

SMI12 - XX - X X - XXX - CXX

- **SMI12** — Base Number
- **XX** — Output Voltage
- **X** — Blades:
  V = North America, Europe, United Kingdom, Australia, and China blade included
  4 = North America, Europe, United Kingdom and Australia blade included
  N = North America blade included
  E = Europe blade included
  B = United Kingdom blade included
  A = Australia blade included
  C = China blade included
  K = No blades included
- **X** — Case Color:
  B = black
  W = white
- **XXX** — See output plug options on page 5
- **CXX** — Reserved for Custom Configurations

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				0.5	A
leakage current	at nominal ac input voltage and frequency			0.25	mA
no load power consumption				0.075	W

OUTPUT

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

PROTECTIONS

parameter	conditions/description	min	typ	max	units
short-circuit protection	auto recovery				
over-voltage protection				12	V
over-current protection	auto recovery			3	A

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	10mA for 1 minute	3,000			Vac
safety approvals	UL/cUL, CE, RCM & PSE, UKCA				
EMI/EMC	EN 55032:2015, EN 55034:2010+A1:2015, FCC				
MTBF	as per Telcordia SR-332, Issue 2 at 115/230 Vac, full load, 0~40°C	50,000			hours
RoHS	yes				

ENVIRONMENTAL

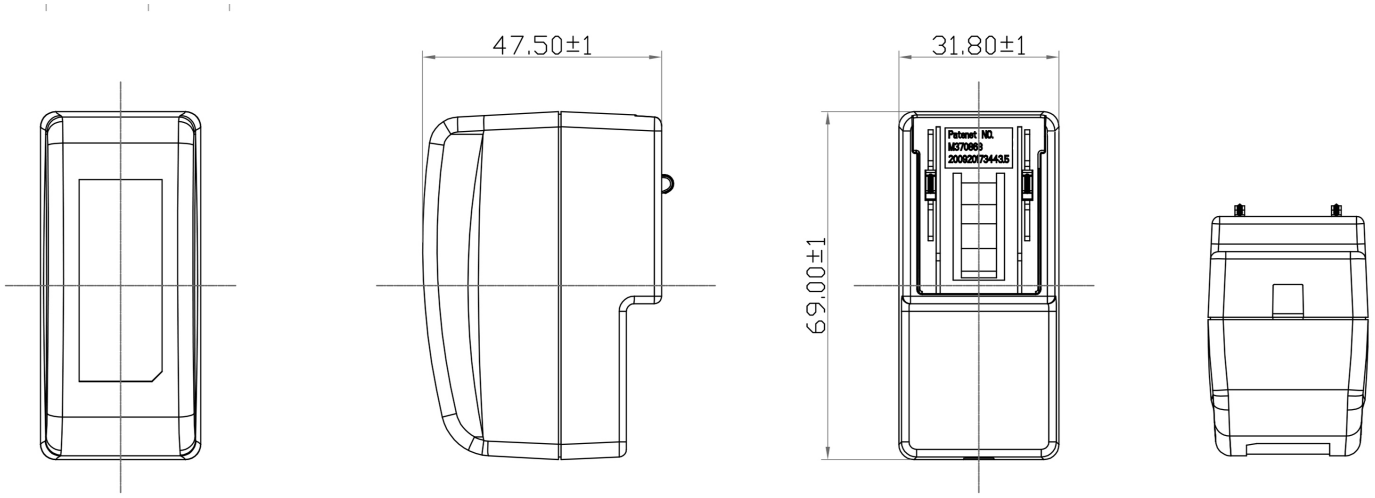
parameter	conditions/description	min	typ	max	units
operating temperature		-10		40	°C
storage temperature		-30		60	°C
operating humidity		20		85	%
storage humidity		5		95	%

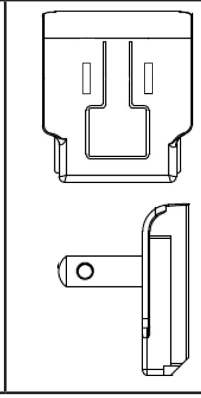
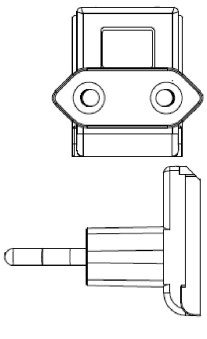
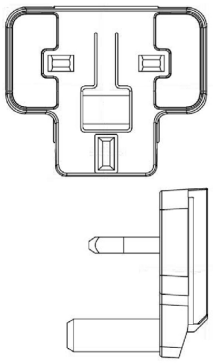
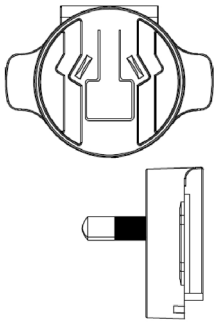
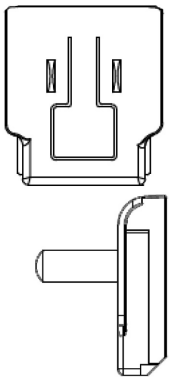
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	70 x 32.8 x 48.5				mm
inlet plug	multi-blade wall mount				
weight			89		g

MECHANICAL DRAWING

units: mm
tolerance: ±1



INTERCHANGEABLE BLADES					
BLADE DESIGNATOR	N	E	B	A	C
REGION	North America	Europe	UK	Australia	China
BLADE ACCESSORY BLACK CASE	SMI-US-3L	SMI-EU-3L	SMI-UK-3L	SMI-AU-3L	SMI-CN-3L
BLADE ACCESSORY WHITE CASE	SMI-US-3L-W	SMI-EU-3L-W	SMI-UK-3L-W	SMI-AU-3L-W	SMI-CN-3L-W
BLADE					

DC CORD

units: mm

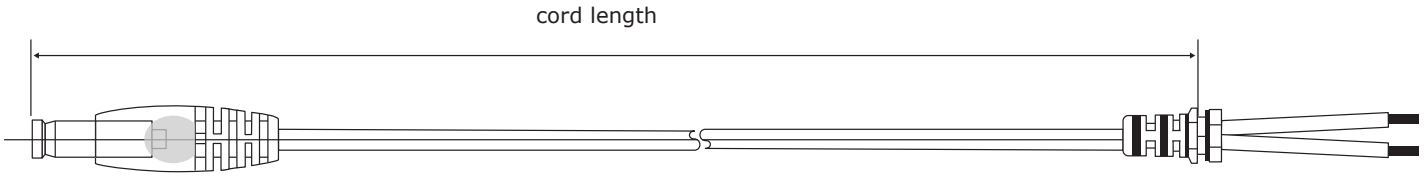


Table 1

MODEL NO.	CABLE	CORD LENGTH
SMI12-5	20 AWG/2C 2468	1,500 mm ±50
SMI12-9	22 AWG/2C 2468	1,500 mm ±50
SMI12-12	24 AWG/2C 2468	1,500 mm ±50

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

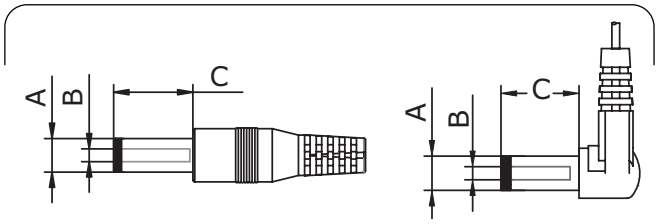
Plug Angle:
"blank" = Straight
R = Right Angle

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	•	•
•	•	10	Locking	5.5	2.1	9.5	•	N/A
•	•	11	Locking	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	CUB	USB	USB Type C			•	N/A
N/A	N/A	MUB	USB	Micro USB Type B			•	N/A

Note: 1. Contact CUI for additional plug options

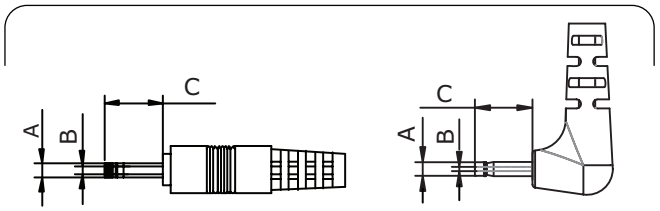
DC PLUG TYPE

Standard



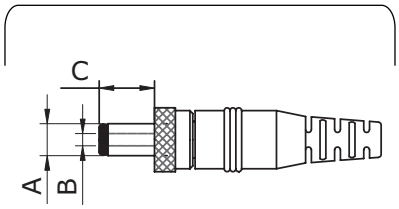
Straight Right Angle (R)

EIAJ

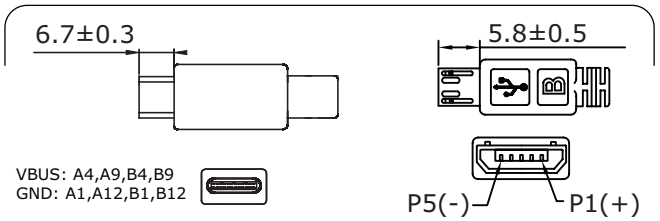


Straight Right Angle (R)

Locking



USB



USB Type C Micro USB Type B

REVISION HISTORY

rev.	description	date
1.0	initial release	07/09/2020
1.01	tolerance updated	01/12/2021
1.02	ac blades updated	08/10/2021
1.03	UKCA added to specification	08/12/2021

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

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CUI offers a two (2) 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.