SERIES: SMM12 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- up to 12W continuous power
- universal input (90~264 Vac)
- interchangeable blades
- certified to IEC 60601
- MOPP
- black and white case options

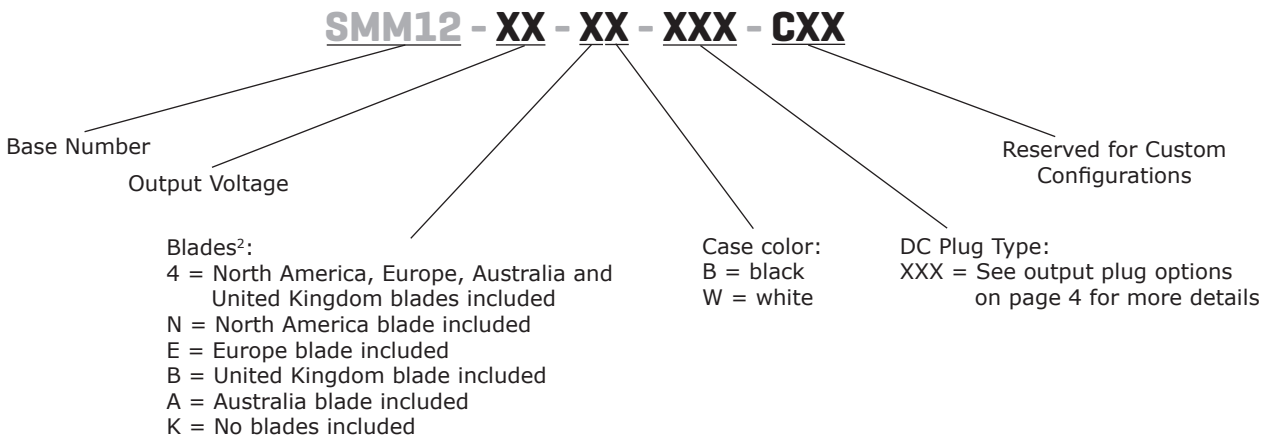


MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SMM12-5	5	2.4	12	100	VI
SMM12-9	9	1.33	12	135	VI
SMM12-12	12	1.0	12	180	VI
SMM12-15	15	0.8	12	225	VI
SMM12-18	18	0.66	12	270	VI
SMM12-24	24	0.5	12	240	VI

Notes: 1. At full load, 100~240 Vac input, 20 MHz bandwidth oscilloscope, output terminated with a 0.1 µF ceramic and a 47 µF electrolytic capacitor.

PART NUMBER KEY



Notes: 2. Australia blade (SMI-AU-5) has been discontinued (EOL-01162024).

Please read our datasheet & drawing disclaimer here.

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90	100~240	264	Vac
frequency		47	50~60	63	Hz
current	at 115 Vac, full load at 230 Vac, full load			1.0 0.5	A A
inrush current	at 115 Vac, cold start, full load at 230 Vac, cold start, full load			30 60	A A
leakage current	at 240 Vac, 50 Hz			0.1	mA
no load power consumption	at 115/230 Vac, 60/50 Hz			0.1	W

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	at full load		±1		%
load regulation			±5		%
start-up time	at 100 Vac, output voltage rise to 90% of rated output voltage			3	s
rise time	at rated input, full load, from 10% to 90% of rated output voltage			50	ms
hold-up time	at nominal input, full load	8.3			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output clamped with zener diode			150	%
over current protection	auto recovery			200	%
short circuit protection	continuous, auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 5 mA for 2 seconds		4,000		Vac
insulation resistance	input to output at 500 Vdc for 3 seconds	50			MΩ
safety approvals	60601: UL/cUL, TUV 60950: J				
EMI/EMC	FCC Part 15, Subpart B ICES-003 EN 55011 J5502				
MTBF	as per MIL-HDBK-217F at 25°C	100,000			hours
RoHS	yes				

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	10		90	%
storage humidity	non-condensing	5		90	%
altitude				5,000	m

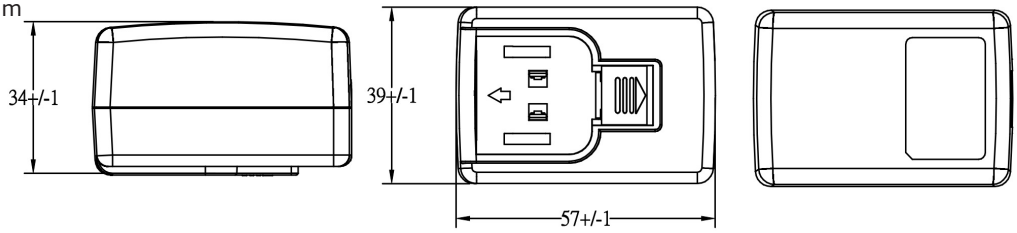
Please read our datasheet & drawing disclaimer here.

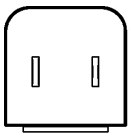
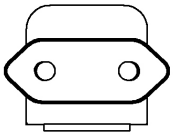
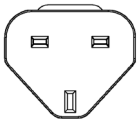
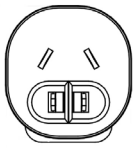
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	57 (L) x 39 (W) x 34 (H)				mm
inlet plug	interchangeable blades (North America, Europe, UK, Australia)				
ac blade clip type	sliding clip				
weight			70		g

MECHANICAL DRAWING

units: mm
tolerance: ±1 mm



INTERCHANGEABLE BLADES				
BLADE DESIGNATOR	N	E	B	A
REGION	North America	Europe	UK	AU
BLADE ACCESSORY BLACK CASE	SMI-US-5	SMI-EU-5	SMI-UK-5	SMI-AU-5B
BLADE ACCESSORY WHITE CASE	SMI-US-5W	SMI-EU-5W	SMI-UK-5W	-
BLADE				

DC CORD

units: mm

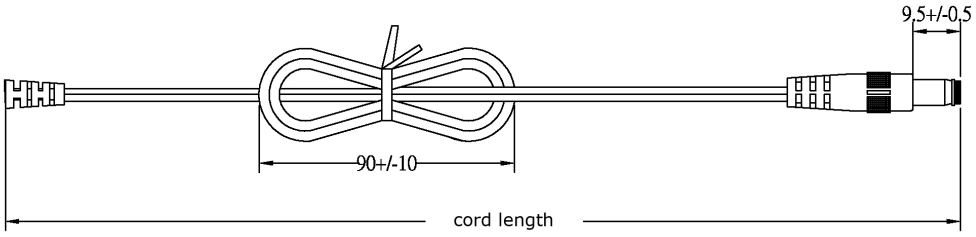
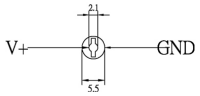


Table 1



MODEL NO.	CABLE	CORD LENGTH
SMM12-5	UL2468, 20 AWG	1,500 mm ±50
SMM12-9	UL2468, 20 AWG	1,500 mm ±50
SMM12-12	UL2468, 22 AWG	1,500 mm ±50
SMM12-15	UL2468, 22 AWG	1,500 mm ±50
SMM12-18	UL2468, 24 AWG	1,500 mm ±50
SMM12-24	UL2468, 24 AWG	1,500 mm ±50

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DC PLUG TYPE PART NUMBER KEY

X X X

Plug Polarity:
P = Center Positive



N = Center Negative



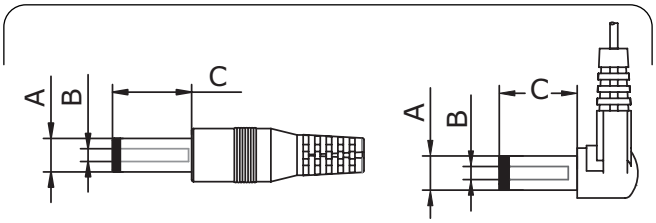
Plug Code:
X = Choose a code from the options below

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[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	CUB	USB	USB Type C			•	N/A
N/A	N/A	MUB	USB	Micro USB Type B			•	N/A

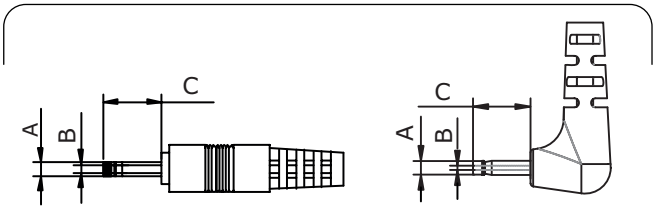
Note: 1. Contact CUI for additional plug options
2. Maximum insertion depth is 10mm

Standard



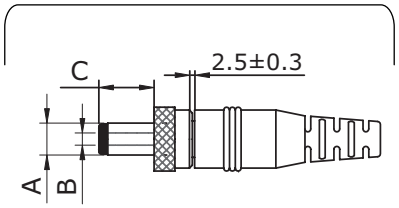
Straight Right Angle (R)

EIAJ

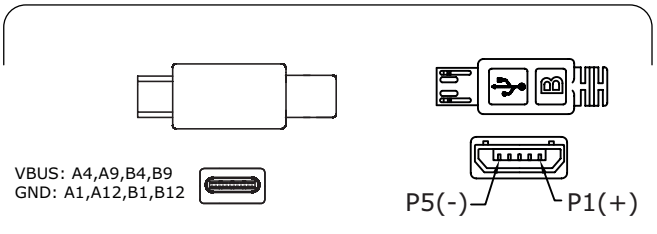


Straight Right Angle (R)

Locking



USB



USB Type C Micro USB Type B

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REVISION HISTORY

rev.	description	date
1.0	initial release	01/21/2021
1.01	dc plugs updated	04/28/2022
1.02	ac blade clip type added	06/23/2022
1.03	medical icon added	05/03/2023
1.04	Australia blade removed	03/14/2024
1.05	Australia blade added, mechanical drawing updated	03/27/2024
1.06	datasheet updated	12/02/2024

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.

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