CUI INC
a bel group

SERIES: SMM30 | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

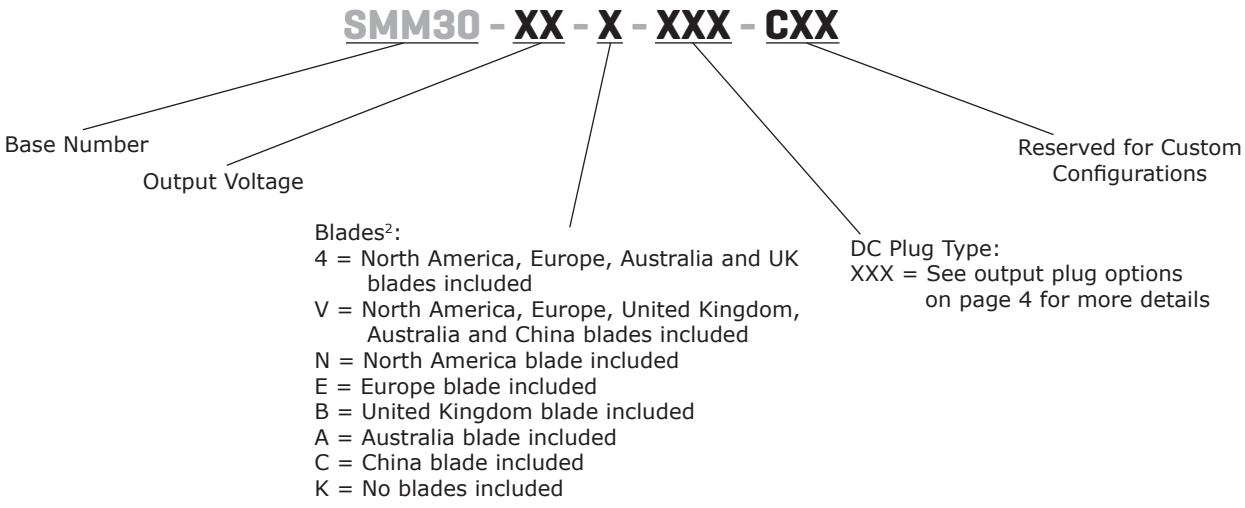
- up to 36 W continuous power
- meets DoE Level VI efficiency
- universal input (90~264 Vac)
- interchangeable blades
- UL/cUL 60601-1, TUV, FCC/CE, PSE, UKCA safety approvals
- custom designs available



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SMM30-5	5	4	20	100	VI
SMM30-6	6	4	24	120	VI
SMM30-9	9	3	27	180	VI
SMM30-12	12	3	36	240	VI
SMM30-15	15	2	30	225	VI
SMM30-18	18	1.66	30	270	VI
SMM30-24	24	1.5	36	240	VI
SMM30-36	36	0.83	30	360	VI
SMM30-48	48	0.62	30	480	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).

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at 115 Vac, full load at 230 Vac, full load			1 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	240 Vac/50Hz			100	uA
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 220 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	5V model: output clamped with zener diode 6V model: output clamped with zener diode 9V model: output clamped with zener diode 12V model: output clamped with zener diode 15V model: output clamped with zener diode 18V model: output clamped with zener diode 24V model: output clamped with zener diode 36V model: output clamped with zener diode 48V model: output clamped with zener diode			200 150 200 150 150 150 150 150 150	% % % % % % % % %
short circuit protection	continuous, auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output		4,000		Vac
insulation resistance	input to output at 500 Vdc for 2 seconds	100			MΩ
safety approvals	UL/cUL 60601-1, TUV, CB, CE, FCC, PSE, UKCA				
EMI/EMC	FCC Part 15 Class B, CE				
MTBF	as per MIL-HDBK-217F at 25°C	100,000			hours
RoHS	yes				

ENVIRONMENTAL

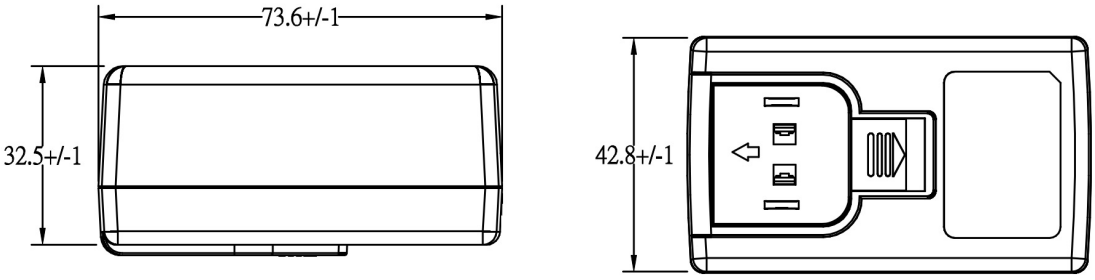
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	10		90	%
storage humidity	non-condensing	5		90	%
altitude				5,000	m

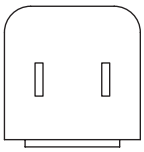
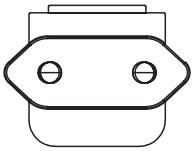
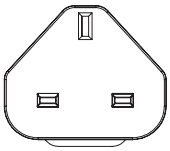
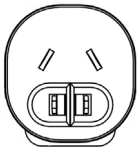
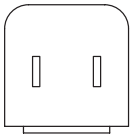
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	73.6 x 42.8 x 32.5				mm
inlet plug	interchangeable blades (North America, Europe, UK, Australia, China)				
ac blade clip type	sliding clip				
weight			200		g

MECHANICAL DRAWING

units: mm
tolerance: ±1 mm



INTERCHANGEABLE BLADES					
BLADE DESIGNATOR	N	E	B	A	C
REGION	North America	Europe	UK	AU	China
BLADE ACCESSORY	SMI-US-5	SMI-EU-5	SMI-UK-5	SMI-AU-5B	SMI-CN-5
BLADE					

DC CORD

units: mm

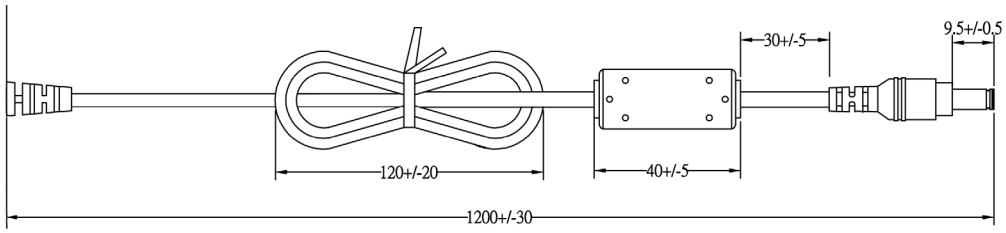


Table 1

MODEL NO.	CABLE	CORD LENGTH
SMM30-5	UL 1185, 16 AWG	1,200 mm ±30
SMM30-6	UL 1185, 16 AWG	1,200 mm ±30
SMM30-9	UL 1185, 16 AWG	1,200 mm ±30
SMM30-12	UL 1185, 18 AWG	1,200 mm ±30
SMM30-15	UL 1185, 18 AWG	1,200 mm ±30
SMM30-18	UL 1185, 18 AWG	1,200 mm ±30
SMM30-24	UL 1185, 18 AWG	1,200 mm ±30
SMM30-36	UL 2468, 22 AWG	1,800 mm ±50
SMM30-48	UL 2468, 22 AWG	1,800 mm ±50

DC PLUG TYPE PART NUMBER KEY

X X X

Plug Polarity:
P = Center Positive



N = Center Negative



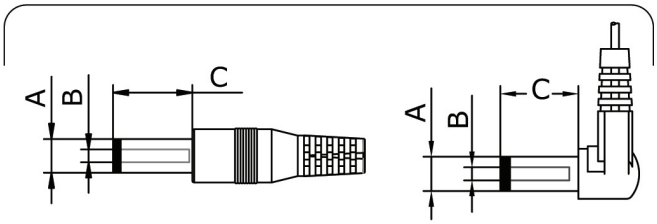
Plug Code:
X = Choose a code from the options below

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[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	•	•

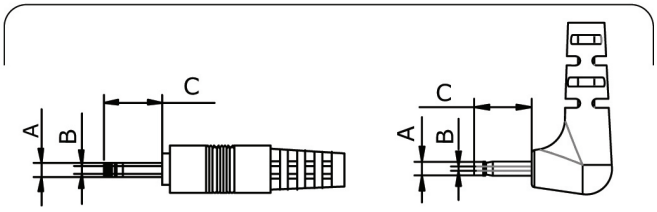
Note: 1. Contact CUI for additional plug options
2. Maximum insertion depth is 10mm

Standard



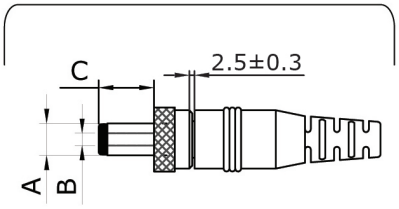
Straight Right Angle (R)

EIAJ



Straight Right Angle (R)

Locking



REVISION HISTORY

rev.	description	date
1.0	initial release	02/18/2020
1.01	dc plug updated	07/30/2020
1.02	OVP and DC cord table updated	03/10/2022
1.03	dc plugs updated	04/29/2022
1.04	ac blade clip type added	06/23/2022
1.05	added UKCA	01/06/2023
1.06	Australia blade removed	03/14/2024
1.07	Australia blade added, mechanical drawing updated	03/27/2024

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.

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.