SERIES: SWM12-N | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

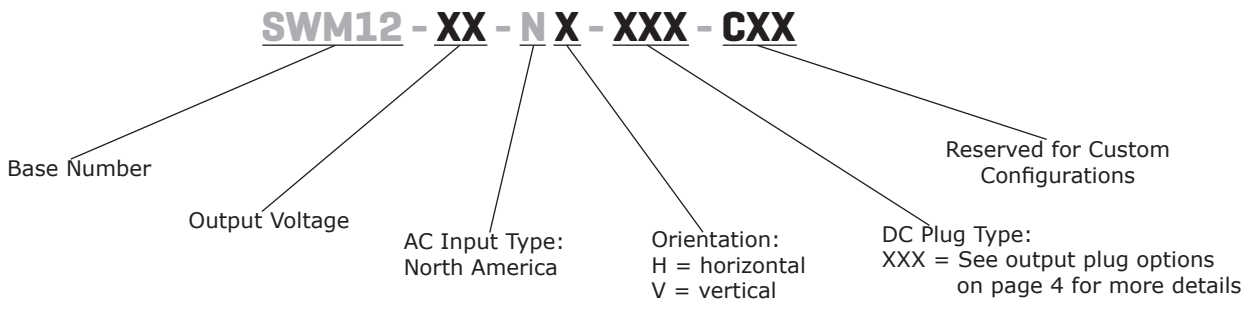
- up to 12 W power
- certified to UL 60601 4th edition
- compact vertical or horizontal mount
- universal input (90~264 Vac)
- single regulated output from 5~24 Vdc
- over voltage and short circuit protections
- DOE Level VI efficiency*
- 2 MOPP compliant

MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SWM12-5-N	5	2.4	12	100	VI
SWM12-6-N	6	2.0	12	120	-
SWM12-9-N	9	1.33	12	180	VI
SWM12-12-N	12	1.0	12	250	VI
SWM12-15-N	15	0.8	12	250	VI
SWM12-18-N	18	0.66	12	350	VI
SWM12-24-N	24	0.50	12	350	VI

Notes: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, output terminated with a low ESR 47 µF electrolytic and 0.1 µF multilayer capacitor.
* 6V unit does not meet DoE Level VI

PART NUMBER KEY



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, full load, cold start at 230 Vac, full load, cold start			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			±1		%
load regulation			±5		%
start-up time	at 100 Vac, to 90% of rated output voltage			3	s
rise time	at nominal input voltage, full load, from 10% to 90% of output voltage			50	ms
hold-up time	at nominal input voltage, full load	8.3			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output shutdown, auto recovery				
over current protection	output shutdown, auto recovery			200	%
short circuit protection	output shut down, auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output		4,000		Vac
isolation resistance	input to output at 500 Vdc for 3 seconds	50			MΩ
safety approvals	certified to 60601: UL/cUL (medical) ITE: PSE				
EMI/EMC	FCC Part 15B Class B				
MTBF	as per MIL-HDBK-217F	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

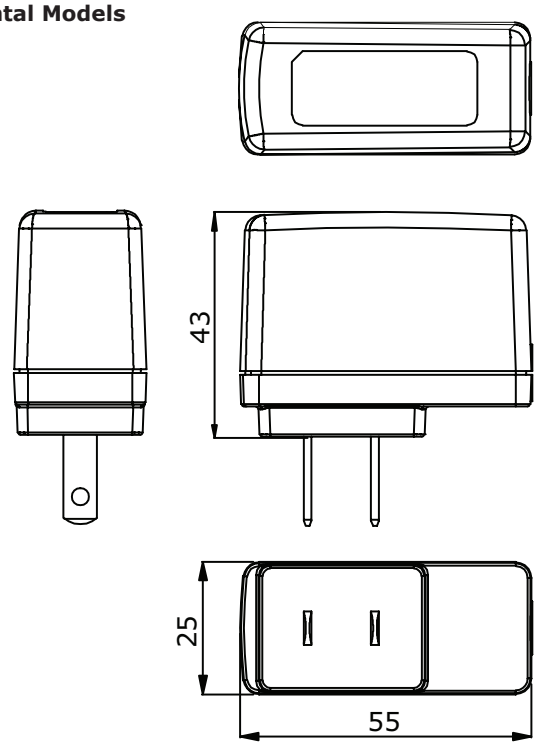
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	horizontal models: 55 x 25 x 43 vertical models: 53 x 41 x 30				mm mm
inlet plug	North America, 2-pin				
weight	horizontal models vertical models		55 60		g g
color	black				

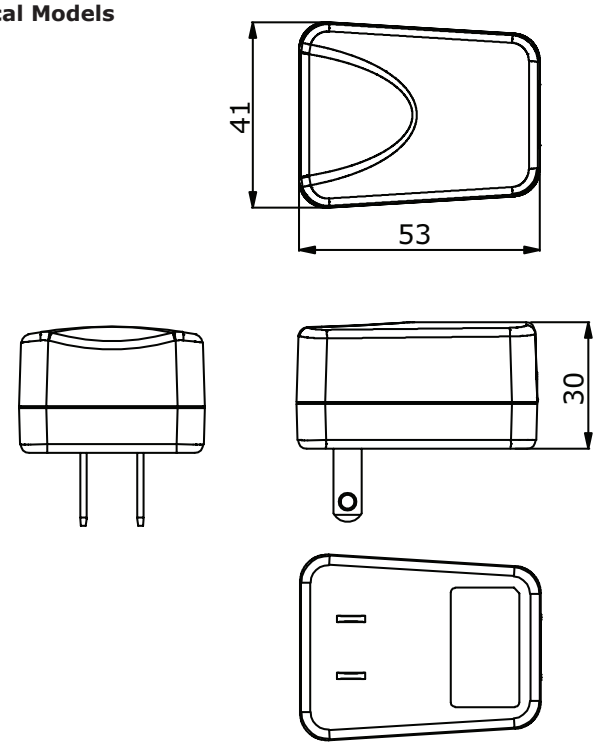
MECHANICAL DRAWINGS

units: mm
tolerance: ±1 mm

Horizontal Models



Vertical Models



DC CORD

units: mm

Table 1

MODEL NO.	CABLE	CORD LENGTH
SWM12-5-N	UL2468, 20 AWG	1,500 mm ±50
SWM12-6-N	UL2468, 20 AWG	1,500 mm ±50
SWM12-9-N	UL2468, 20 AWG	1,500 mm ±50
SWM12-12-N	UL2468, 22 AWG	1,500 mm ±50
SWM12-15-N	UL2468, 22 AWG	1,500 mm ±50
SWM12-18-N	UL2468, 24 AWG	1,500 mm ±50
SWM12-24-N	UL2468, 24 AWG	1,500 mm ±50

DC PLUG TYPE PART NUMBER KEY

X X X

Plug Polarity:
P = Center Positive

N = Center Negative

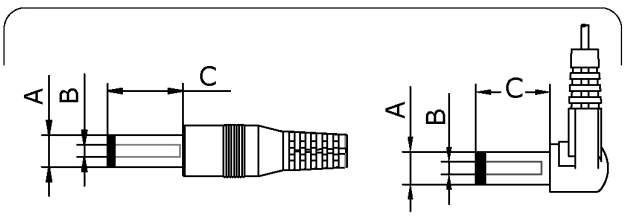
Plug Code:
X = Choose a code from the options below

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	•	•
•	•	8	Standard	3.8	1.35	9.5	•	•
•	•	9	Standard	3.8	1.05	9.5	•	•
•	•	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	ST	Stripped & Tinned				N/A	N/A
N/A	N/A	MUB	USB	Micro USB Type B			•	N/A
N/A	N/A	CUB	USB	USB Type C			•	N/A

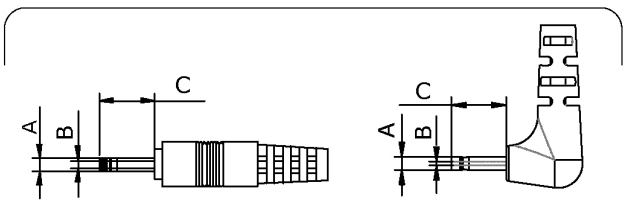
Note: 1. Contact CUI for additional plug options

Standard



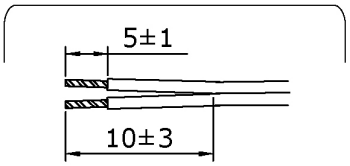
Straight Right Angle (R)

EIAJ

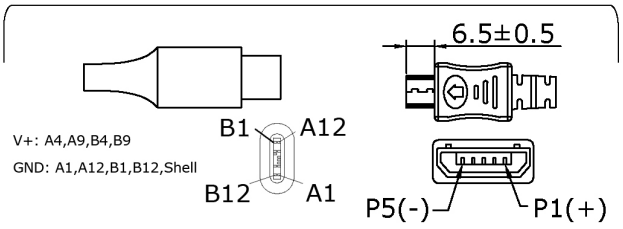


Straight Right Angle (R)

Stripped & Tinned



USB



USB Type C Micro USB Type B

REVISION HISTORY

rev.	description	date
1.0	initial release	06/27/2017
1.01	added PSE certification	01/24/2018
1.02	USB-C added to dc plug type number key	08/18/2020
1.03	features updated	02/18/2021
1.04	safety marks updated	04/26/2021
1.05	datasheet updated	12/09/2024

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

CUI INC
a bel group

Headquarters
15575 SW Sequoia Pkwy #100
Portland, OR 97224
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com