CUI INC®

SERIES: SMI18 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- up to 18 W continuous power
- DOE Level VI, CEC, ErP Stage 2
- no load power consumption < 0.1 W
- universal input voltage range
- interchangeable Ac blades for global use
- over voltage, over current, and short circuit protections
- UL/cUL, CE, GS and PSE safety approvals

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SMI18-5	5	3	15	100	VI
SMI18-9	9	2.2	19.8	100	VI
SMI18-12	12	1.6	19.2	120	VI
SMI18-15	15	1.3	19.5	150	VI
SMI18-18	18	1.1	19.8	180	VI
SMI18-24	24	0.8	19.2	240	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 µF multilayer ceramic and 10 µF low ESR electrolytic capacitors.

PART NUMBER KEY

SMI18 - XX - X - XXX - CXX

- **SMI18** — Base Number
- **XX** — Output Voltage
- **X** — Blades:
  - V = North America, Europe, United Kingdom, Australia, and China 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
- **XXX** — DC Plug Type:
  - XXX = See output plug options on page 4 for more details
  - ST = Stripped and Tinned
- **CXX** — Reserved for Custom Configurations

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				0.48	A
inrush current	at 230 Vac, full load, 25°C, cold start			60	A
leakage current				0.25	mA
no load power consumption				0.1	W

OUTPUT

parameter	conditions/description	min	typ	max	units
regulation			±5		%
hold-up time	at full load	10			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output shut down 5 Vdc output model 9 Vdc output model 12 Vdc output model 15 Vdc output model 18 Vdc output model 24 Vdc output model			 12 16 22 32 32 45	 Vdc Vdc Vdc Vdc Vdc Vdc
over current protection	output shut down, auto recovery 5 Vdc output model 9 Vdc output model 12 Vdc output model 15 Vdc output model 18 Vdc output model 24 Vdc output model			 7 5 5 4 4 2.5	 A A A A A A
short circuit protection	output shut down, auto recovery				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute		3,000		Vac
isolation resistance	input to output at 500 Vdc	10			MΩ
safety approvals	UL/cUL, GS, PSE				
EMI/EMC	FCC Part 15B Class B, CE				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
RoHS	2011/65/EU				

ENVIRONMENTAL

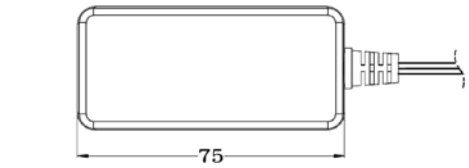
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

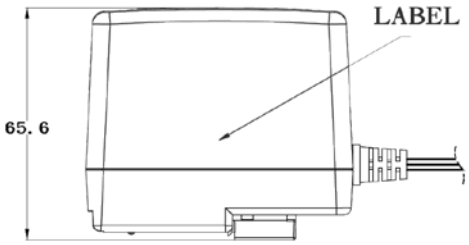
MECHANICAL

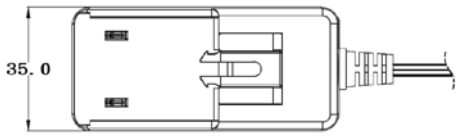
parameter	conditions/description	min	typ	max	units
dimensions	75 x 35 x 65.6				mm
inlet plug	interchangeable blades (US, Europe, UK, Australia, China)				
weight			158		g

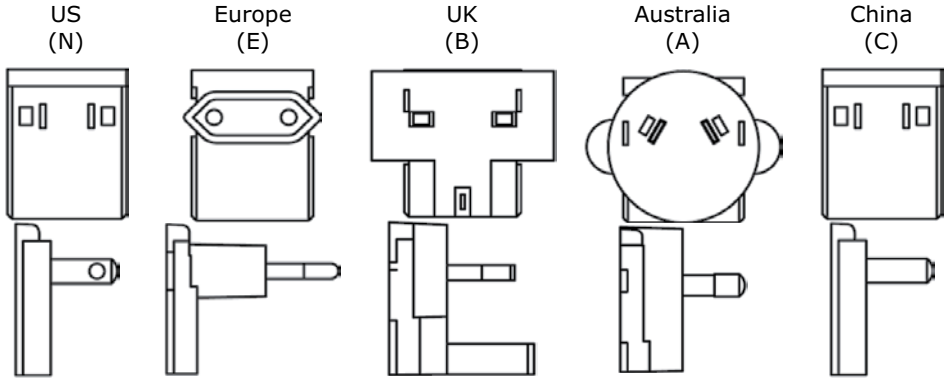
MECHANICAL DRAWING

units: mm
tolerance: ±0.5 mm









DC CORD

units: mm

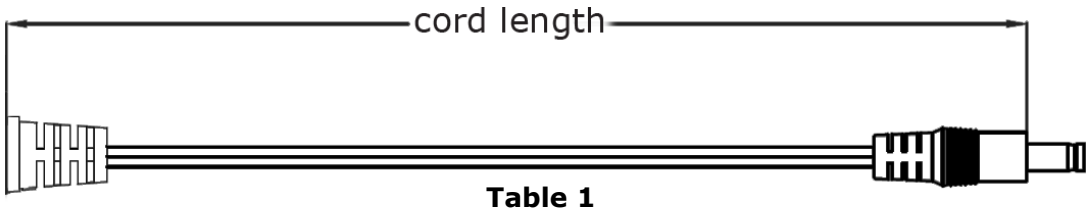
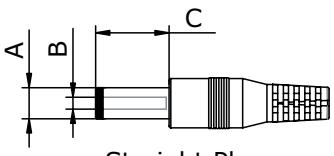


Table 1

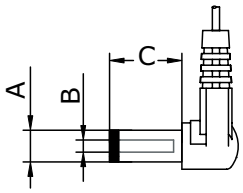
MODEL NO.	CABLE	CORD LENGTH
SMI18-5	UL2468, 18 AWG	1,500 mm ±30
SMI18-9	UL2468, 18 AWG	1,500 mm ±30
SMI18-12	UL2468, 20 AWG	1,500 mm ±30
SMI18-15	UL2468, 22 AWG	1,500 mm ±30
SMI18-18	UL2468, 22 AWG	1,500 mm ±30
SMI18-24	UL2468, 22 AWG	1,500 mm ±30

OUTPUT PLUG OPTIONS

Standard DC Plug



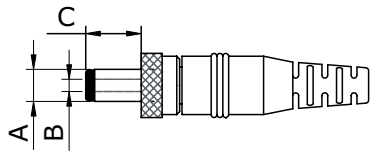
Straight Plug



Right Angle Plug

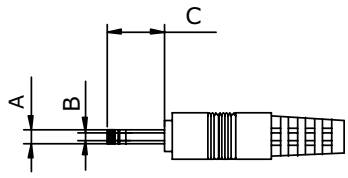
Size	A	B	C	Unit
5	5.5	2.1	9.5	mm
6	5.5	2.5	9.5	mm
7	3.5	1.35	9.5	mm
8	3.8	1.35	9.5	mm
9	3.8	1.05	9.5	mm

Locking DC Plug

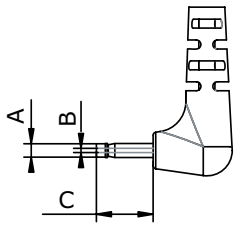


Size	A	B	C	Unit
10	5.5	2.1	9.5	mm
11	5.5	2.5	9.5	mm

EIAJ DC Plug



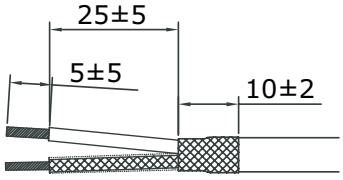
Straight Plug



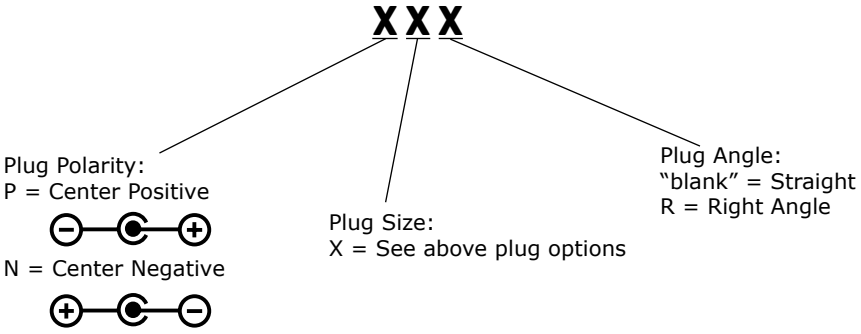
Right Angle Plug

Size	EIAJ	A	B	C	Unit
12	EIAJ-1	2.35	0.7	9.5	mm
13	EIAJ-2	4.0	1.7	9.5	mm
14	EIAJ-3	4.75	1.7	9.5	mm

Stripped and Tinned



DC Plug Type



*Contact CUI for additional plug options

REVISION HISTORY

rev.	description	date
1.0	initial release	08/07/2015

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

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