CUI INC®

SERIES: SDI150-U | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

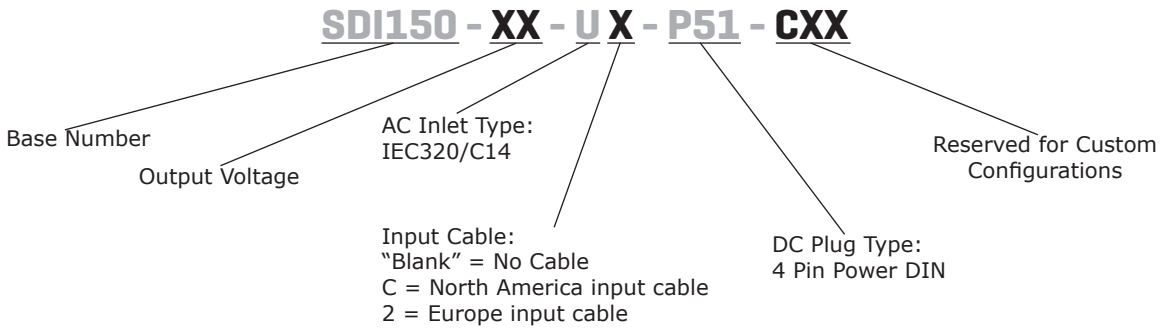
- meets Level VI and CoC Tier 2 efficiency
- 150 W power
- universal input (90~264 Vac)
- single regulated outputs
- over voltage and short circuit protections
- UL/cUL, GS, PSE safety approvals
- power factor correction
- custom designs available

MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level[2]
SDI150-12-U	12	12.5	150	240	VI
SDI150-15-U	15	10	150	300	VI
SDI150-18-U	18	8.34	150	360	VI
SDI150-19-U	19	7.9	150	380	VI
SDI150-24-U	24	6.25	150	480	VI
SDI150-28-U	28	5.36	150	560	VI
SDI150-36-U	36	4.17	150	720	VI
SDI150-48-U	48	3.13	150	960	VI

Notes:
1. At full load, 115/230 Vac input, oscilloscope at 20 MHz bandwidth, output terminated with a 0.1 µF ceramic and 10 µF electrolytic capacitor.
2. CoC Tier 2 compliant.
3. All specifications are measured at Ta=25°C, nominal input voltage, and 75% rated output load unless otherwise specified.

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage[1]		90		264	Vac
frequency		47		63	Hz
current	at 100 Vac			2.5	A
inrush current	at 240 Vac, cold start, 25°C			120	A
leakage current				3.5	mA
power factor correction	meets EN 61000-3-2				
no load power consumption	at 240 Vac			0.15	W

Note: 1. Derates linearly from 100% load at 110 Vac to 80% load at 90 Vac.

OUTPUT

parameter	conditions/description	min	typ	max	units
voltage set point accuracy	at 60% load		±2.5		%
line regulation	from 100~240 Vac, full load		±1		%
load regulation	from 60% to full load, 60% to 20% load (60±40% load)		±5		%
start-up time	at 115 Vac, full load, 25°C			1.2	s
rise time	at 115 Vac, full load, 25°C		20		ms
hold-up time	at 115 Vac, full load, 25°C	16			ms

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	12 Vdc output models	14.3		15.8	Vdc
	15 Vdc output models	17.1		18.9	Vdc
	18, 19 Vdc output models	20.9		23.1	Vdc
	24 Vdc output models	28.5		31.5	Vdc
	28 Vdc output models	31.4		34.7	Vdc
	36 Vdc output models	40.9		45.2	Vdc
	48 Vdc output models	53.2		58.8	Vdc
short circuit protection	continuous				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 minute	4,242			Vdc
isolation resistance		100			MΩ
safety approvals	UL/cUL (UL 60950-1), GS (EN 60950-1), PSE				
safety class	Class I				
EMI/EMC	FCC Part 15 Subpart B Class B, CE				
MTBF	as per MIL-HDBK-217F, at 115 Vac, full load, 25°C	160,000			hours
RoHS	2011/65/EU				

ENVIRONMENTAL

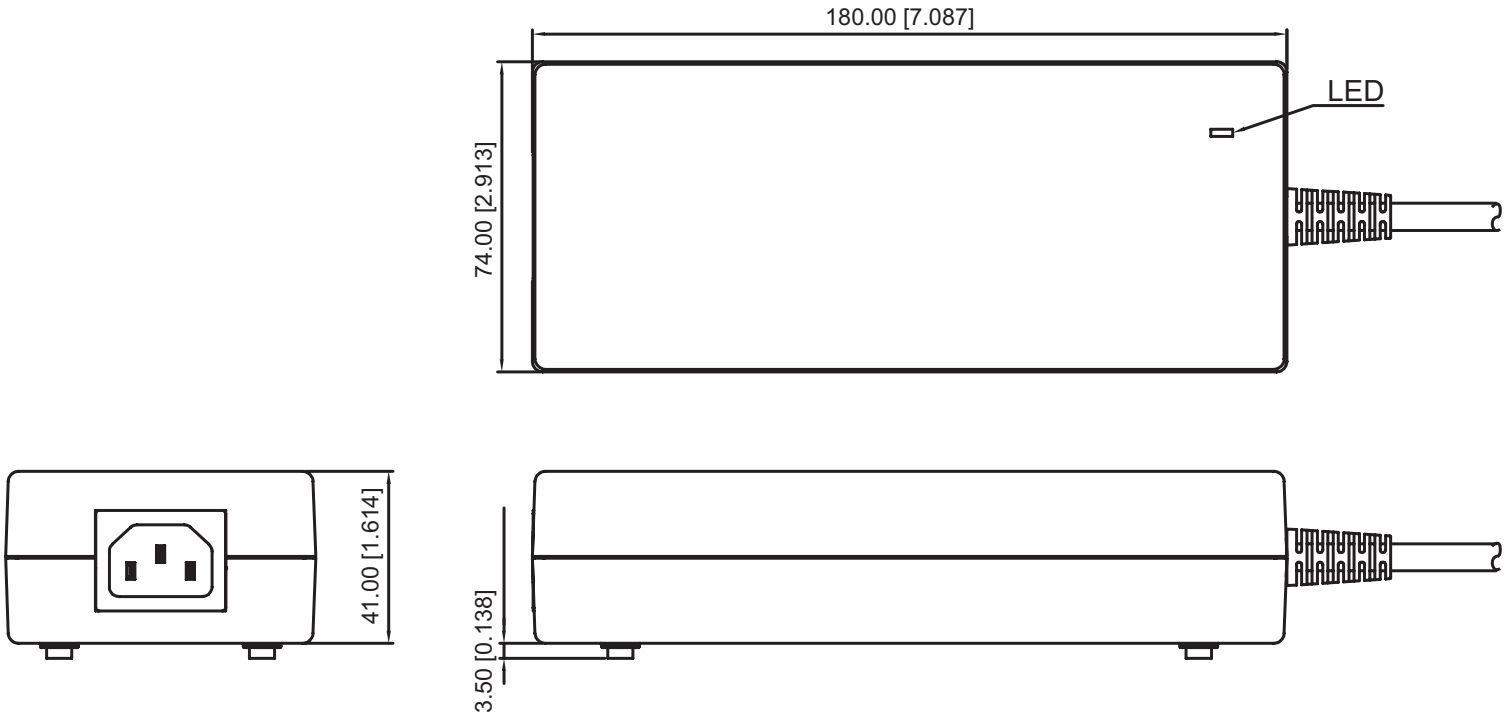
parameter	conditions/description	min	typ	max	units
operating temperature	derates linearly from 100% load at 40°C to 50% load at 65°C	-30		65	°C
storage temperature		-40		85	°C
operating humidity	non-condensing			93	%
storage humidity	non-condensing			93	%
altitude			5,000		m

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	180.00 x 74.00 x 41.00 (7.087 x 2.913 x 1.614 inch)				mm
inlet plug	IEC320/C14				
weight	without ac cord		950		g

MECHANICAL DRAWING

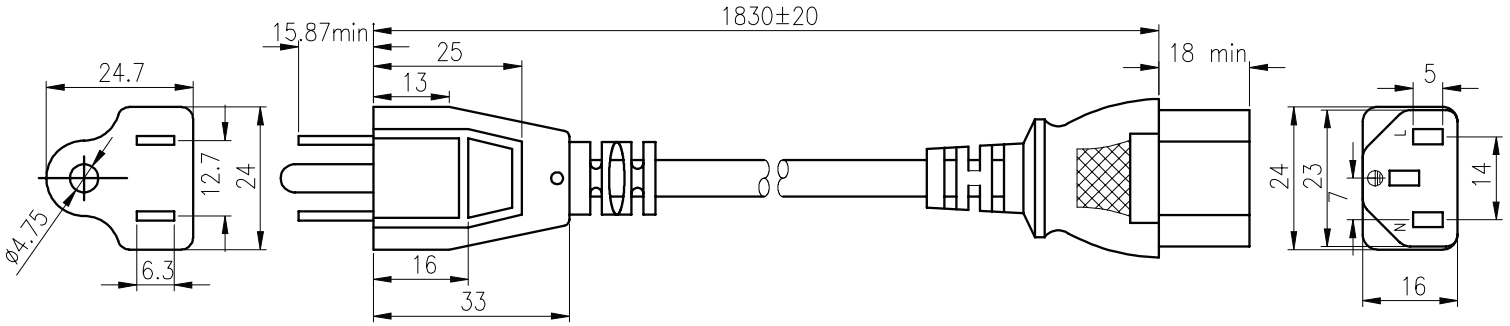
units: mm [inch]
tolerance: ±0.50 [±0.020]



AC CORDS

units: mm

NORTH AMERICA



EUROPE

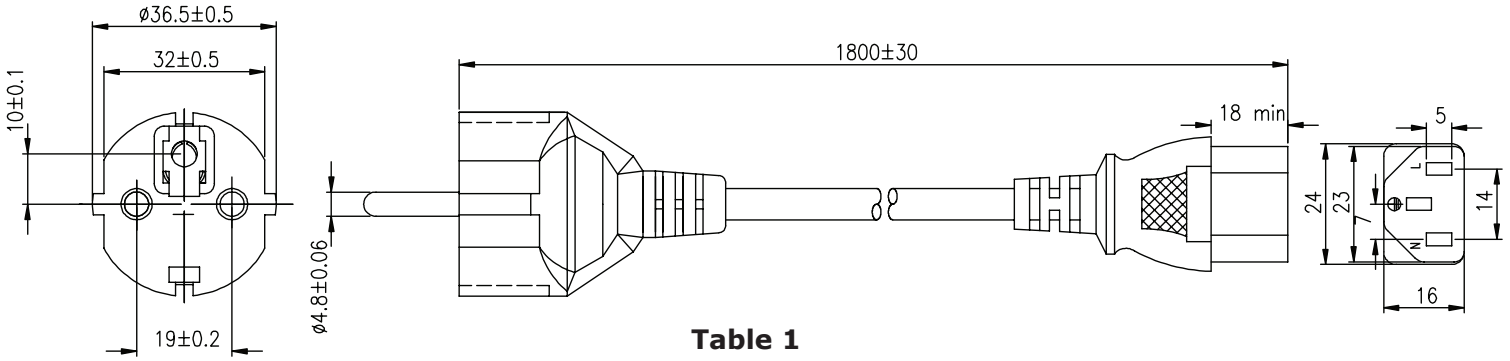


Table 1

AC INPUT	CORD LENGTH
North America	1,830 mm ±20
Europe	1,800 mm ±30

DC CORDS

units: mm

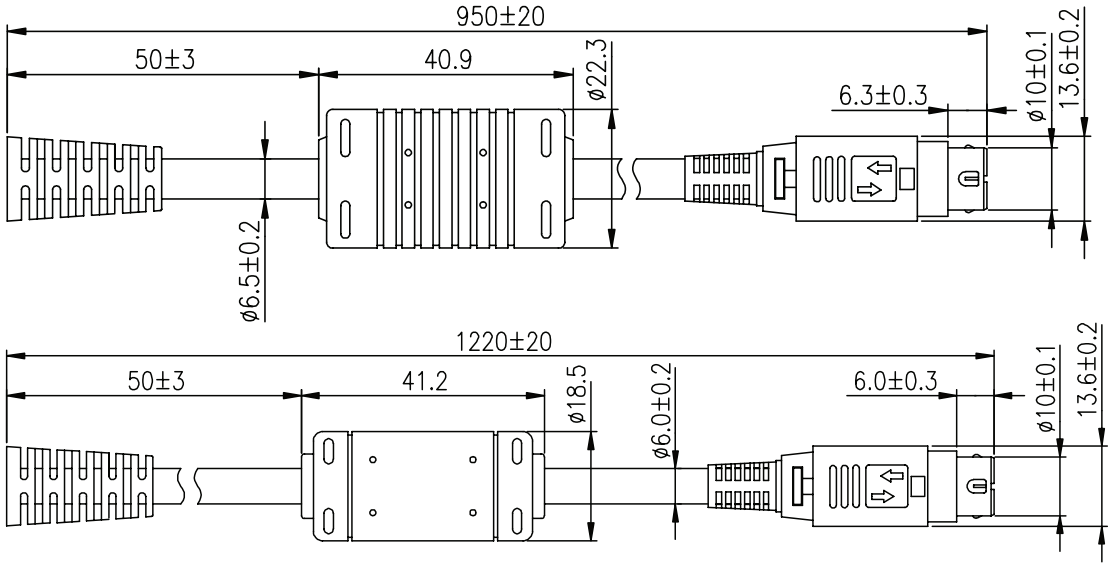
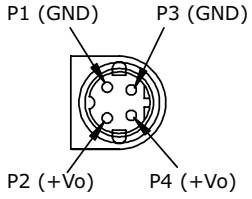


Table 2

MODEL NO.	CABLE	CORD LENGTH
SDI150-12-U, SDI150-15-U	UL2464, 16 AWG, 4C	950 mm ±20
all other models	UL2464, 16 AWG, 2C	1,220 mm ±20



REVISION HISTORY

rev.	description	date
1.0	initial release	06/14/2018

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

CUI INC®

Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com