



SERIES: EMSA 18W UN | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- 18 W power
- universal input (90~264 Vac)
- worldwide safety approvals
- ac input - 9 country blades
- single regulated output
- over voltage and short circuit protections
- level V efficiency
- custom designs available



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise ¹ max (mVp-p)	efficiency level
EMSA120150-UN	12	1.5	18	150	V

Notes: 1. Ripple and noise measured with 20 MHz bandwidth oscilloscope, each output terminated with 10 µF aluminum electrolytic and 0.1 µF ceramic capacitors.

PART NUMBER KEY

EMSA120150 - UN - XX - SZ - CXX

Base Number
example of 12 Vdc, 1.50 A

Blades:
UN = North American,
European, United
Kingdom, Australian,
China, Korea,
Argentina, Brazil,
South Africa

DC Plug Type:
see output plug
options on page 4

Factory
Designation

Reserved for Custom
Configurations

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	RMS			0.6	A
inrush current	at 115 Vac, cold start at 230 Vac, cold start			40 80	A A
leakage current				0.25	mA
no load power consumption				0.3	W

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation			±1		%
load regulation			±5		%

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output voltage clamped by internal protection zener				
short circuit protection	output shutdown and auto restart				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 minute at 10mA max		3,000 4,242		Vac Vdc
isolation resistance	input to output at 500 Vdc	100			MΩ
safety standards	UL 60950-1, EN 60950-1, IEC 60950-1				
safety approvals	UL/cUL, GS, Australia, China, Japan, Korea, Argentina, Brazil, Israel, Malaysia, Mexico, Ukraine, Russia, Singapore, South Africa, Saudi Arabia, Taiwan				
EMI/EMC	FCC Part 15 Subpart B, Class B, CE				
RoHS	2011/65/EU				

ENVIRONMENTAL

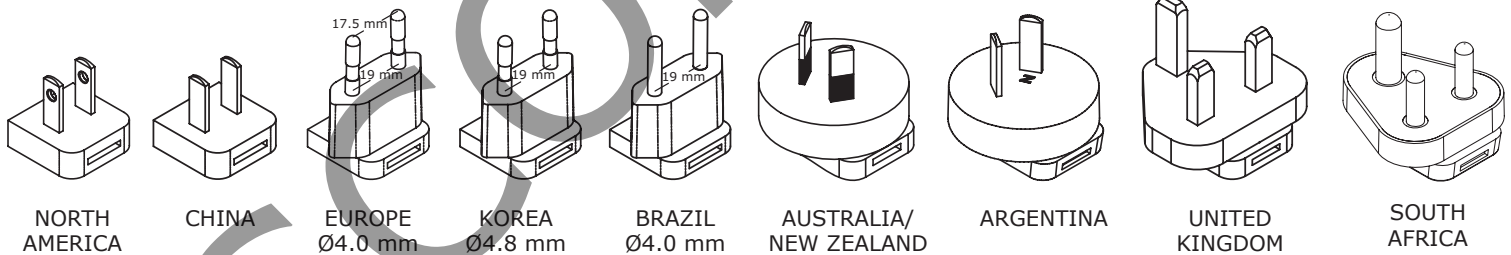
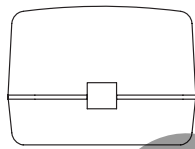
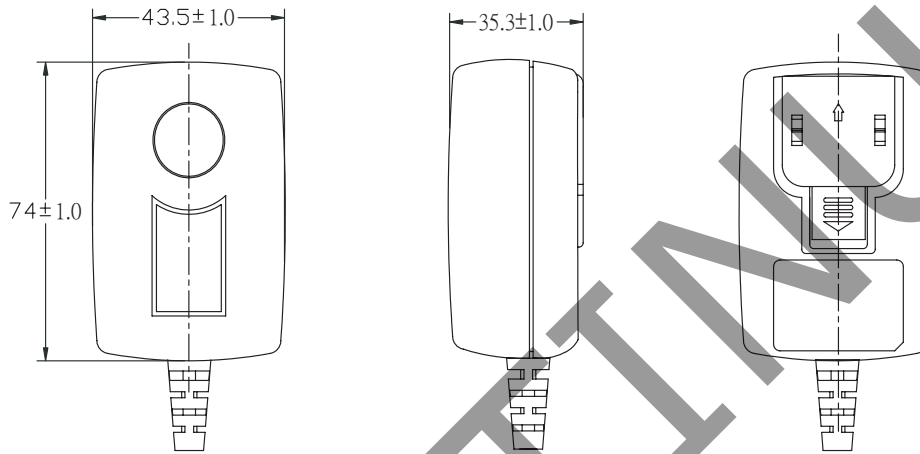
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-10		70	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	74.0 x 43.5 x 35.3				mm
input blade	Interchangeable: US, UK, Europe, Australia, China, Korea, Argentina, Brazil, South Africa				
weight	including input blades		238		g

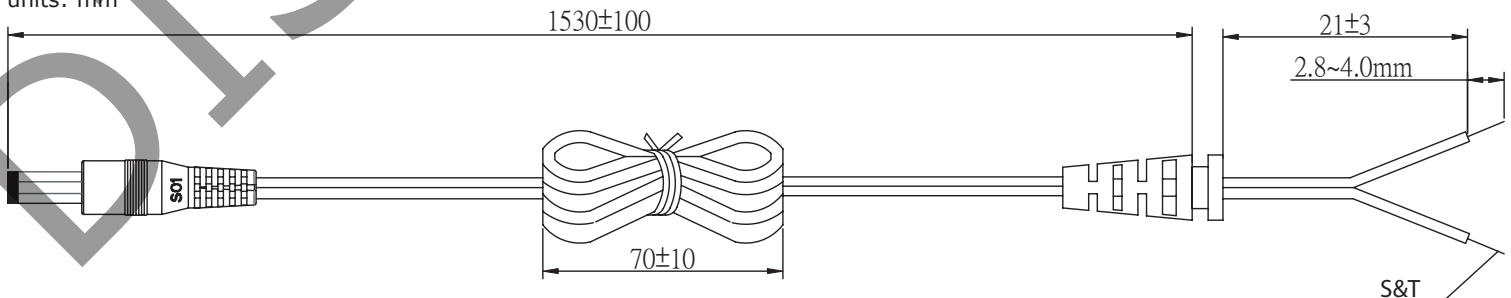
MECHANICAL DRAWING

units: mm
tolerance: ±1 mm



DC CORD

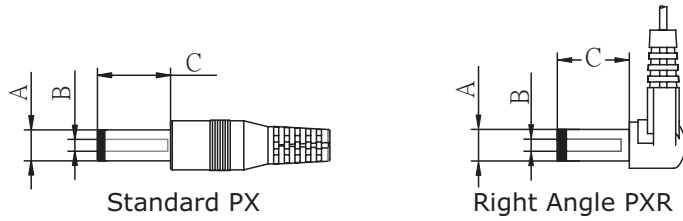
units: mm



MODEL NO.	CABLE GAUGE	WIRE OD	CORD LENGTH
EMSA120150	20 AWG	Ø1.9 x 3.8	1,530 ±100

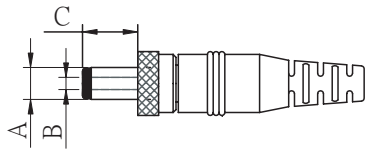
OUTPUT PLUG OPTIONS

Standard DC Plug



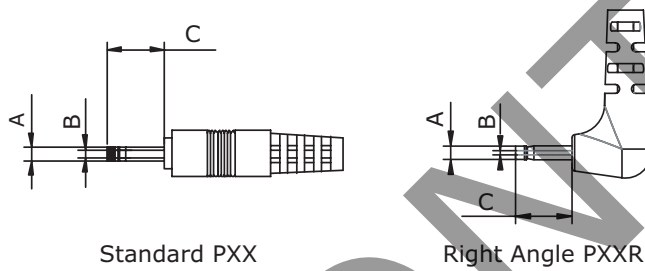
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm
P7/P7R	3.5	1.35	9.5	mm
P8/P8R	3.8	1.35	9.5	mm
P9/P9R	3.8	1.05	9.5	mm

Locking DC Plug

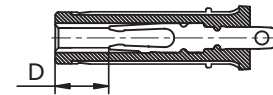


	A	B	C	Unit
P10	5.5	2.1	9.5	mm
P11	5.5	2.5	9.5	mm

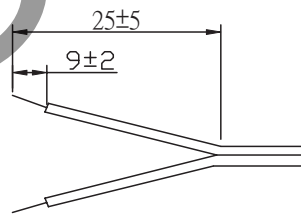
EIAJ DC Plug



	EIAJ	A	B	C	D	Unit
P12/P12R	EIAJ-1	2.35	0.7	9.5	NA	mm
P13/P13R	EIAJ-2	4.0	1.7	9.5	5.0	mm
P14/P14R	EIAJ-3	4.75	1.7	9.5	5.0	mm



Stripped and Tinned





DC PLUG TYPE

PXX XX

Plug Type:
PXX = See above plug options
ST = Stripped and Tinned

Plug Angle:
"blank" = Straight
R = Right Angle

Plug Polarity:
P = Center Positive 
N = Center Negative 

*Contact CUI for additional plug options

REVISION HISTORY

rev.	description	date
1.0	initial release	08/04/2014

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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