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

FEATURES

- up to 18W power
- interchangeable AC blades
- universal input (85-264 Vac)
- single regulated output from 5 to 24V
- short circuit protections
- UL/cUL, GS, RCM, and CCC safety approvals
- level V efficiency
- custom designs available

V-Infinity

MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple[1] max (mVp-p)	efficiency level
EMSA050300	5	3.0	15	150	V
EMSA060300	6	3.0	18	150	V
EMSA090200	9	2.0	18	150	V
EMSA120150	12	1.5	18	150	V
EMSA150120	15	1.2	18	150	V
EMSA180100	18	1.0	18	180	V
EMSA200090	20	0.9	18	200	V
EMSA240075	24	0.75	18	240	V

1. at full load, 100 ~ 240, 20 MHz bandwidth oscilloscope, each with output terminated with a 10 µF aluminum elecrolytic and 0.1 µF ceramic capacitors.

PART NUMBER KEY

EMSA120150 X - XX - SZ - CXX

- Base Number (example of 12 Vdc, 1.5 A)
- Blades:
  "blank" = North American, European, United Kingdom, Australian, and China blade included
  N = North American blade included
  E = European blade included
  B = United Kingdom blade included
  A = Australian blade included
  C = China blade included
  K = No blades included
- DC Plug Type
- Factory Designation
- Reserved for Custom Configurations

INPUT

parameter	conditions/description	min	nom	max	units
voltage		90		264	Vac
frequency		47		63	Hz
input current				0.6	A RMS
inrush current	5, 6 V output at 115 V ac, cold start 5, 6 V output at 230 V ac, cold start all other outputs: 115 V ac, cold start all other outputs: 230 V ac, cold start			30 60 40 80	A A A A
no load power consumption				0.3	W

OUTPUT

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

PROTECTIONS

parameter	conditions/description	min	nom	max	units
over voltage protection	output voltage clamped by internal protection zener (5 V and 6 V models only)				
short circuit protection	Output shut down and auto restart				

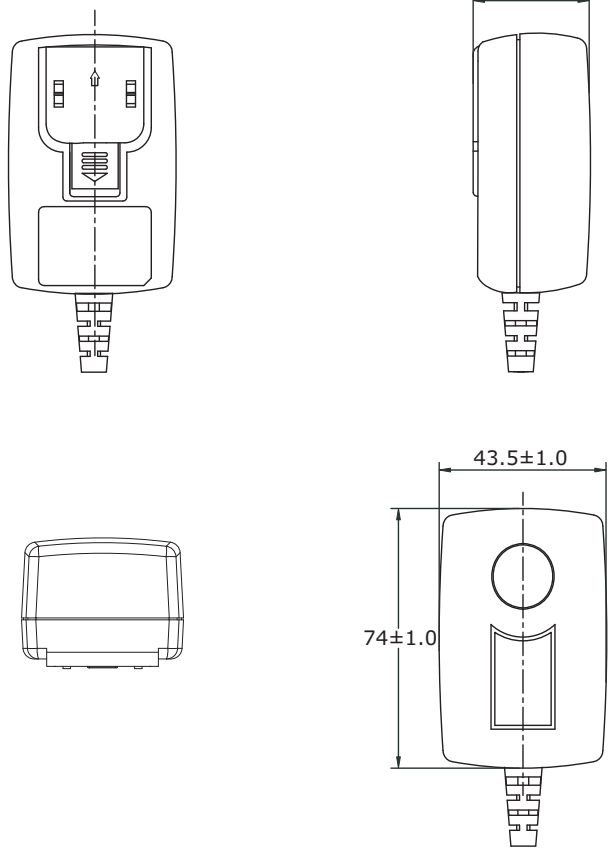
SAFETY & COMPLIANCE

parameter	conditions/description	min	nom	max	units
isolation voltage	input to output at 10 mA for 1 minute			3,000 4,242	Vac Vdc
isolation resistance	input to output at 500 V dc	100			MΩ
safety approvals	UL/cUL, GS, RCM, CCC, PSE				
EMI/EMC	FCC class B, EN55022, CE				
leakage current				0.25	mA
RoHS compliant	yes				

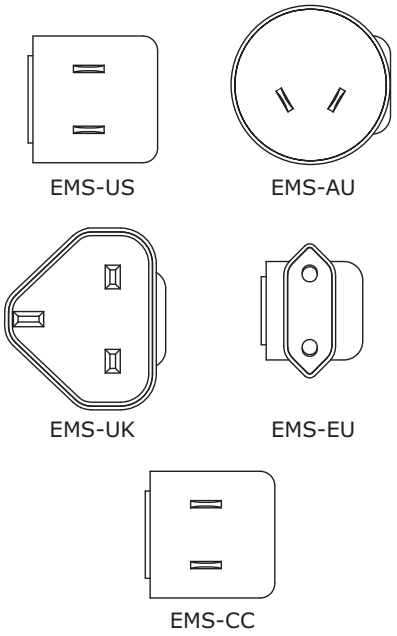
ENVIRONMENTAL

parameter	conditions/description	min	nom	max	units
operating temperature		0		40	°C
storage temperature		-10		75	°C
operating humidity		20		80	%
storage humidity		10		90	%

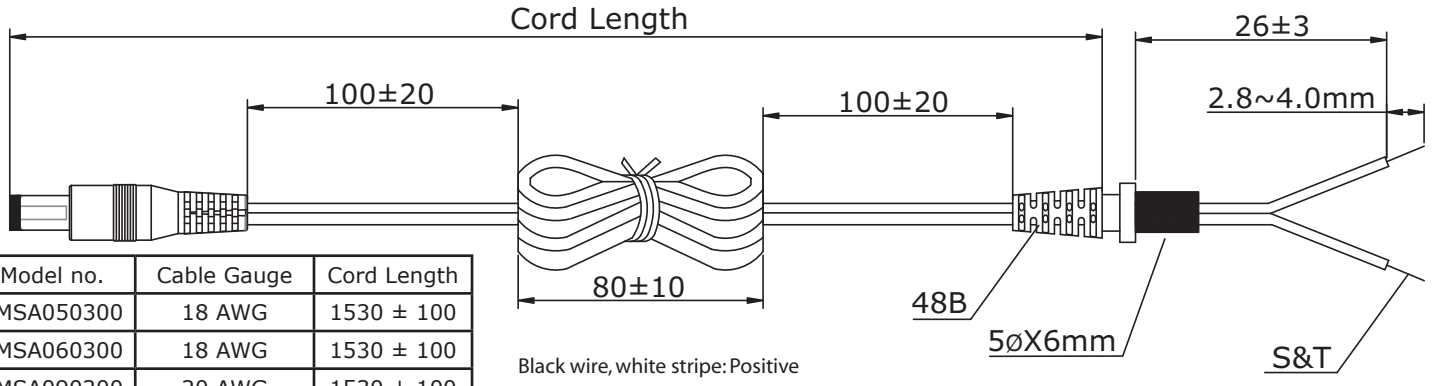
MECHANICAL DRAWING



input plug	multi-blade (US, UK, Europe, Australia, China)



DC CORD

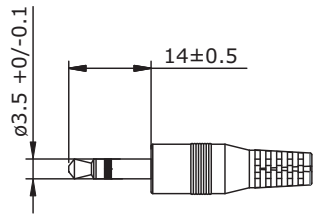


Model no.	Cable Gauge	Cord Length
EMSA050300	18 AWG	1530 ± 100
EMSA060300	18 AWG	1530 ± 100
EMSA090200	20 AWG	1530 ± 100
EMSA120150	20 AWG	1530 ± 100
EMSA150120	20 AWG	1530 ± 100
EMSA180100	22 AWG	1830 ± 100
EMSA200090	22 AWG	1530 ± 100
EMSA240075	22 AWG	1830 ± 100

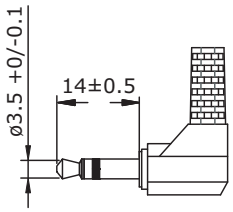
Black wire, white stripe: Positive

OUTPUT PLUG OPTIONS

3.5 mm Phono Plug



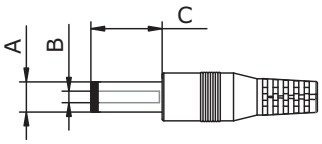
P1



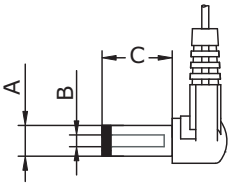
P1R

*Tip positive

Standard DC Plug



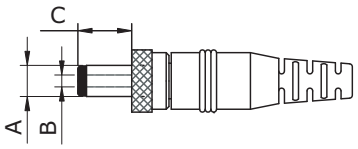
Standard PX



Right Angle PXR

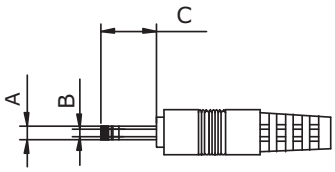
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm
P7/P7R	3.5	1.3	9.5	mm
P8/P8R	3.8	1.35	9.5	mm
P9/P9R	3.8	1.05	9.5	mm

Locking DC Plug

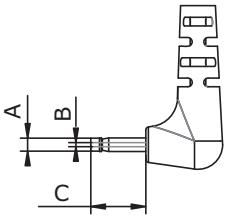


	A	B	C	Unit
P10	5.5	2.1	9.5	mm
P11	5.5	2.5	9.5	mm

EIAJ Plugs

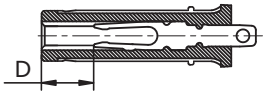


Standard PXX

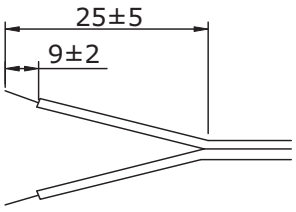


Right Angle PXXR

	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

ST

stripped and tinned

PXX X X

Plug type

Plug angle:
"blank" = standard
R = right angle

Plug polarity:
"blank" = N/A
P = center positive

N = center negative

*Contact CUI for additional output plug options.

REVISION HISTORY

rev.	description	date
1.0	initial release	09/07/2011

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

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