

SERIES: EMSA 40W | **DESCRIPTION:** AC-DC POWER SUPPLY

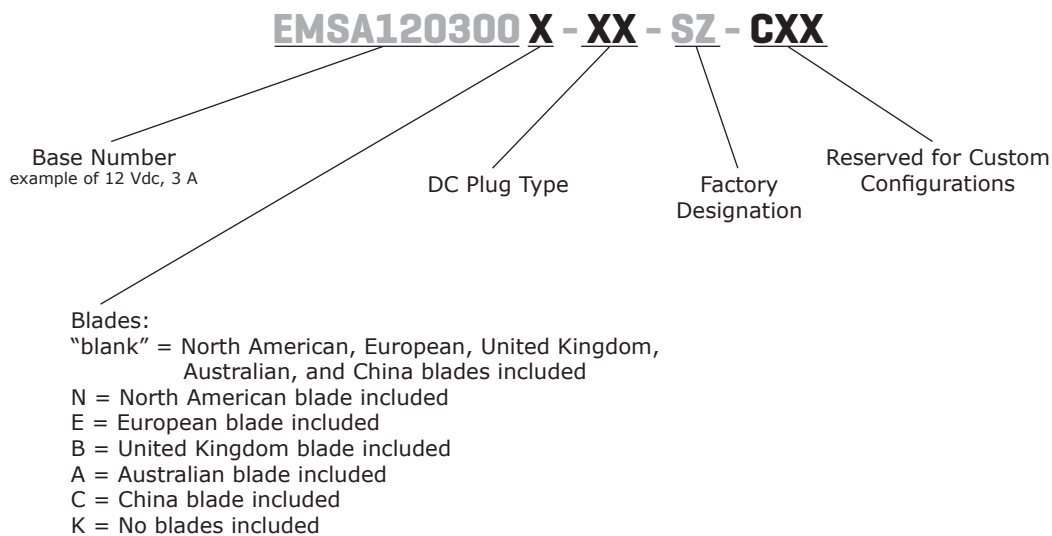
FEATURES

- up to 40 W power
- interchangeable AC blades
- universal input (90-264 Vac)
- single regulated output from 12 to 24V
- over voltage and short circuit protections
- UL/cUL, GS, RCM, CCC, PSE safety approvals
- level V efficiency
- custom designs available


V-Infinity

MODEL	output voltage	output current max	output power max	ripple ¹ max	efficiency level
	(Vdc)	(A)	(W)	(mVp-p)	
EMSA120300	12	3.0	36	300	V
EMSA200200	20	2.0	40	300	V
EMSA240167	24	1.67	40	300	V

1. at full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, each output terminated with a 10 μ F aluminum electrolytic and 0.1 μ F ceramic capacitors.

PART NUMBER KEY


INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
input current				1.0	A RMS
inrush current	at 115 V ac, cold start at 230 V ac, cold start			100 100	A A
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
over voltage protection	Protect through primary circuit IC
short circuit protection	Output shut down and auto restart

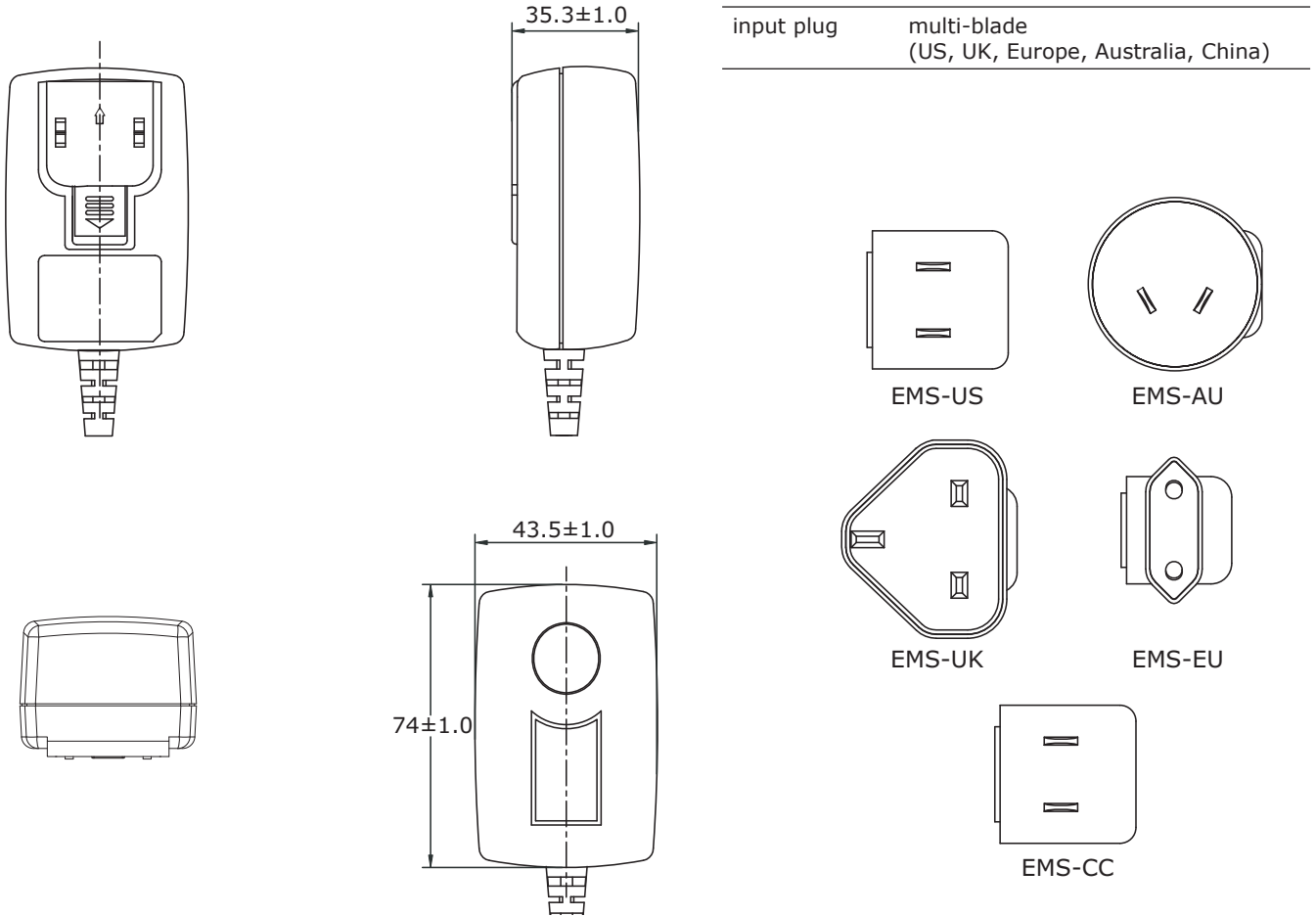
SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	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 part 15B, EN55022B, CE				
leakage current				0.25	mA
RoHS compliant	yes				

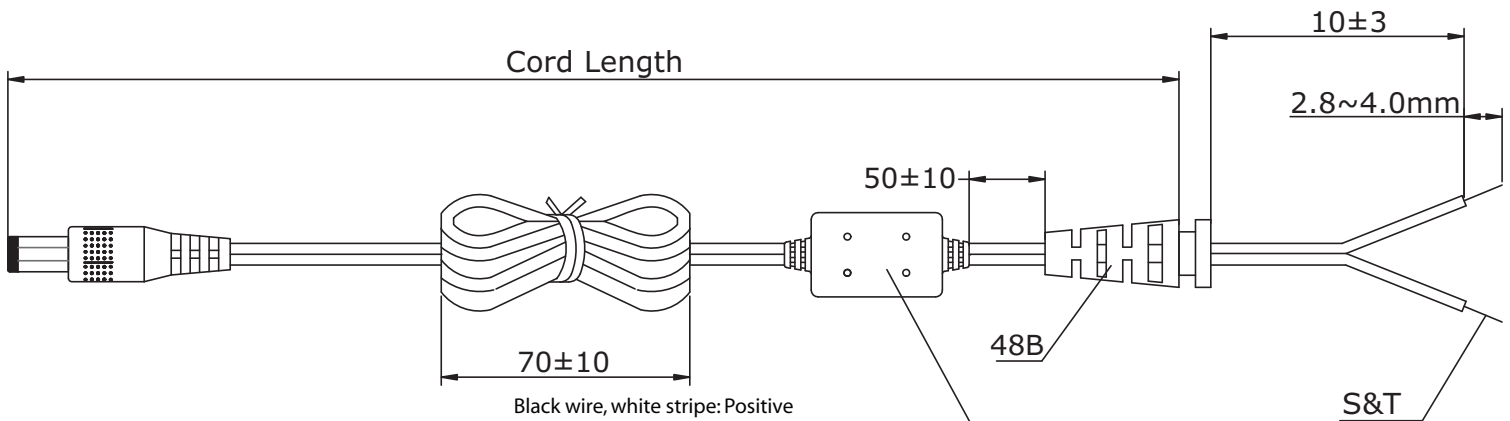
ENVIRONMENTAL

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

MECHANICAL DRAWING



DC CORD

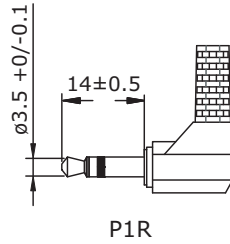
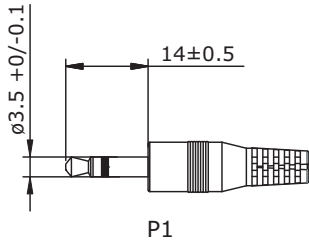


Model No.	Cable Gauge	Cord Length
EMSA120300	18 AWG	1530 ± 100
EMSA200200	20 AWG	1530 ± 100
EMSA240167	20 AWG	1530 ± 100

Ferrite core with one turns wire
12x20x7.3(018)

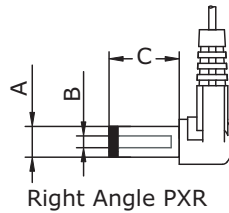
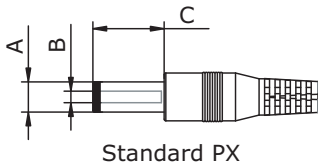
OUTPUT PLUG OPTIONS

3.5 mm Phono Plug



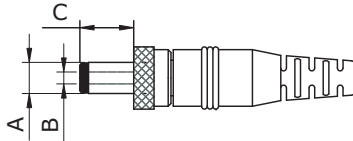
*Tip positive

Standard DC Plug



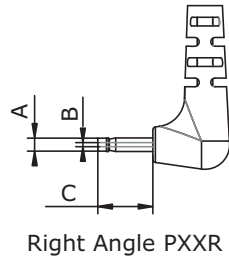
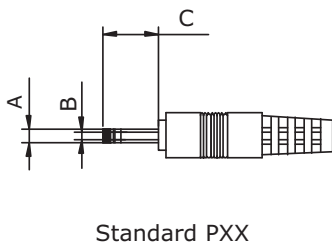
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm
P7/P7R	3.5	1.3	9.5	mm
P8/P8R	3.8	1.35	9.5	mm
P9/P9R	3.8	1.05	9.5	mm

Locking DC Plug

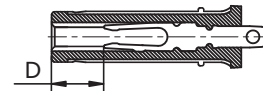


	A	B	C	Unit
P10	5.5	2.1	9.5	mm
P11	5.5	2.5	9.5	mm

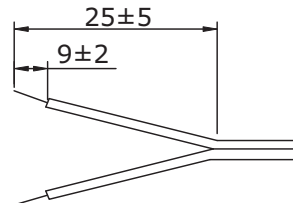
EIAJ Plugs



	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	06/21/2010
1.01	new template applied	08/08/2011
1.02	PSE safety approval added	09/07/2011

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.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.