



**SERIES:** EMSA 5W USB | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

- up to 5 W power
- universal input (90~264 Vac)
- interchangeable AC blades
- integrated USB connector
- single regulated output from 5~15 V
- over voltage and short circuit protections
- UL/cUL, TUV, RCM safety approvals
- level V efficiency
- custom designs available



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise <sup>1</sup> max (mVp-p)	efficiency level
EMSA050100	5	1	5	150	V

Notes: 1. At full load, 100 ~ 240 Vac input, 20 MHz bandwidth oscilloscope, each output terminated with 10 µF aluminum electrolytic and 0.1 µF ceramic capacitors.

**PART NUMBER KEY**

**EMSA050100 X - I38 - SZ - CXX**

Base Number  
example of 5 Vdc, 1 A

DC Plug Type

Factory Designation

Reserved for Custom Configurations

Blades:  
 "blank" = North American, European, United Kingdom, and Australian blades included  
 N = North American blade included  
 E = European blade included  
 B = United Kingdom blade included  
 A = Australian blade included  
 K = No blades included

**INPUT**

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				0.2	A RMS
inrush current	at 115 Vac, cool start at 230 Vac, cool start			15 30	A A
no load power consumption				0.3	W

**OUTPUT**

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

**PROTECTION**

parameter	conditions/description
over voltage protection	output voltage clamped by internal protection zener
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 Vdc	100			MΩ
safety approvals	UL/cUL, EN 60950-1/IEC 60950-1, RCM, CE				
EMI/EMC	FCC Class B, EN 55022 Class B, EN 55024, CISPR 22, EN 61000-3-(2,3), IEC 61000-4-(2,3,4,5,6,8,11)				
leakage current				0.25	mA
RoHS compliant	yes				

**ENVIRONMENTAL**

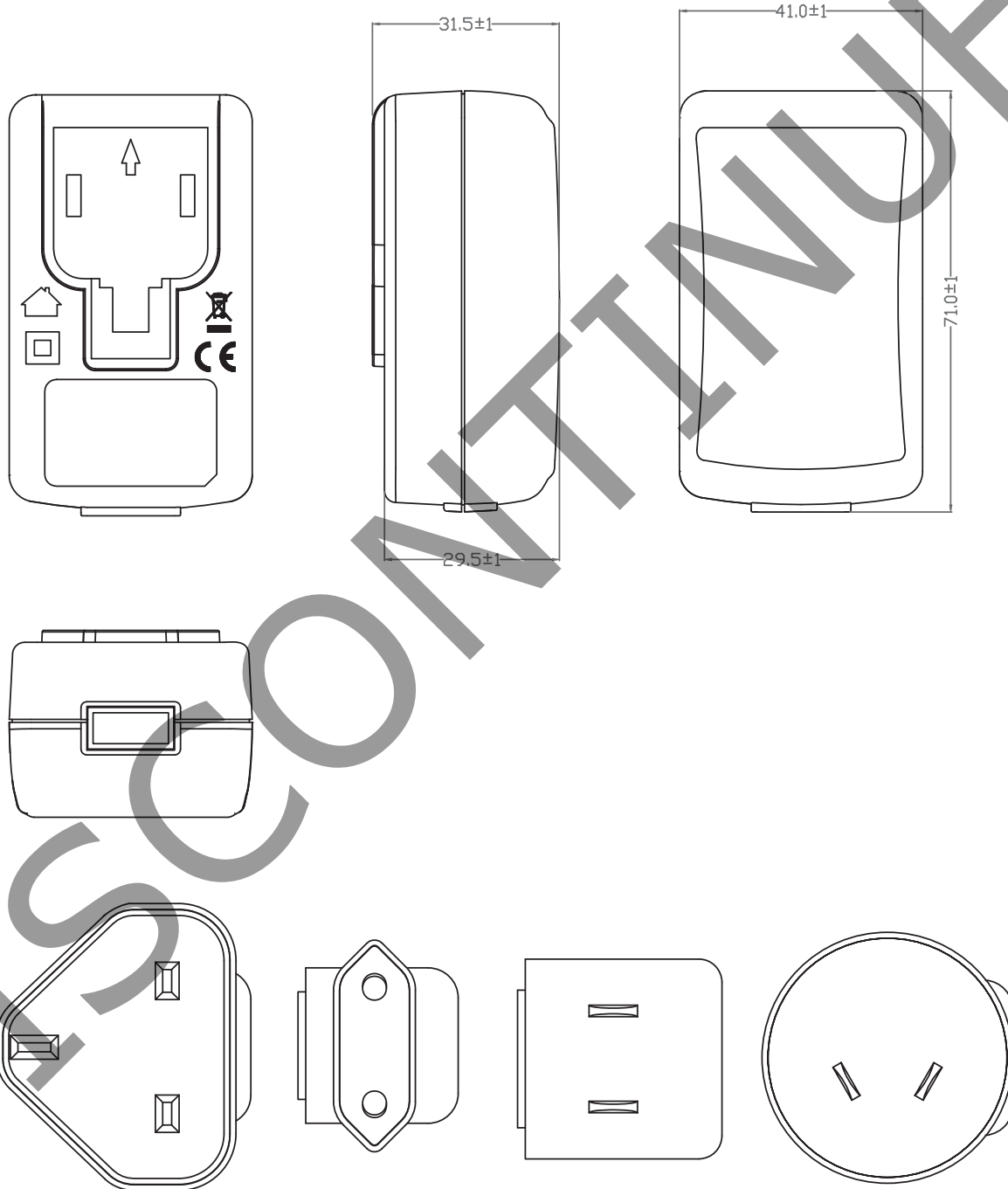
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		70	°C
operating humidity		20		80	%
storage humidity		10		90	%

## MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	2.453 x 1.055 x 2.453 (62.3 x 26.8 x 42 mm)				inch
input plug	multi-blade (US, UK, Europe, Australia)				

## MECHANICAL DRAWING

units: mm



EMS-UK

EMS-EU

EMS-US

EMS-AU

## REVISION HISTORY

rev.	description	date
1.0	initial release	08/15/2011
1.01	new template applied	01/12/2012
1.02	V-Infinity branding removed, safety and EMI/EMC data updated	08/21/2012

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

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.



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