



SERIES: EMSA 18W

DESCRIPTION: SWITCHING POWER SUPPLY

**FEATURES**

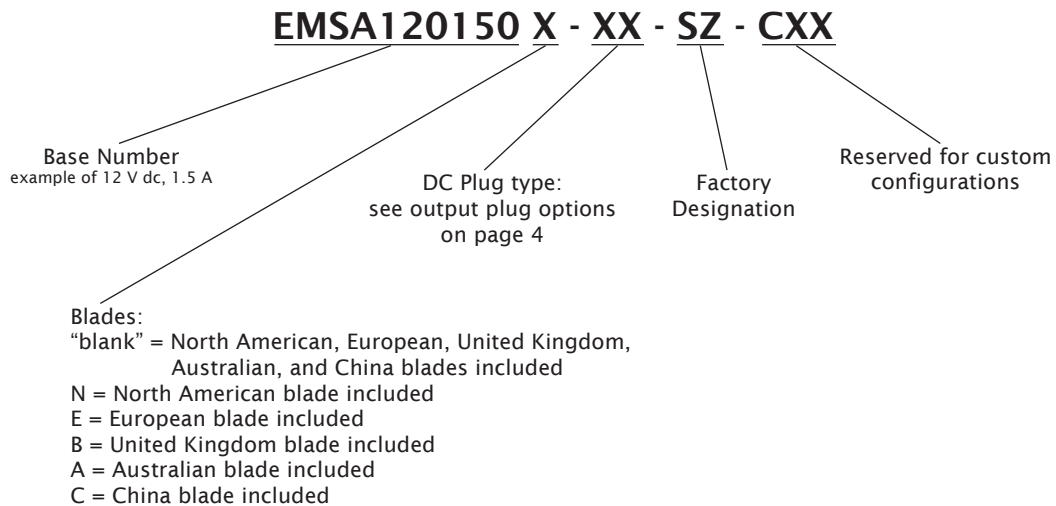
- universal AC input
- regulated output voltage
- short circuit protection
- meets EISA / efficiency level V regulations
- custom designs available



MODEL	output voltage		output current		output wattage	ripple*	efficiency level	cord length (mm)
	nominal (V dc)		min (A)	max (A)	max (W)	max. (mVp-p)		
EMSA050300	5		0	3.0	15	150	V	1530 ±100
EMSA060300	6		0	3.0	18	150	V	1530 ±100
EMSA090200	9		0	2.0	18	150	V	1530 ±100
EMSA120150	12		0	1.5	18	150	V	1530 ±100
EMSA150120	15		0	1.2	18	150	V	1530 ±100
EMSA180100	18		0	1.0	18	180	V	1530 ±100
EMSA200090	20		0	0.9	18	200	V	1530 ±100
EMSA240070	24		0	0.7	18	240	V	1530 ±100

\*at full load, 100 ~ 240 V ac input, measured at 20MHz bandwidth with a 10 uF electrolytic cap and a 0.1 uF ceramic cap on the output

**PART NUMBER KEY**





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## INPUT

parameter	conditions/description	min	nom	max	units
rated input voltage		100		240	V ac
input voltage range		90		264	V ac
rated frequency		50		60	Hz
frequency range		47		63	Hz
rated input current				0.6	A
inrush current	5, 6 V output: 115 V ac, cold start 5, 6 V output: 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		%
over voltage protection	output voltage clamped by internal protection zener				
short circuit protection	output shut down and auto-restart				

## SAFETY & EMI

parameter	conditions/description	min	nom	max	units
HI-POT	input to output at 10 mA for 1 minute			3,000 4,242	V ac V dc
insulation resistance	input to output at 500 V dc	100			MΩ
safety approvals	UL/cUL, GS, RCM, BSMI				
EMI standard	FCC class B, CE, VCCI-II				
leakage current				0.25	mA
RoHS compliant	yes				

## ENVIRONMENTAL

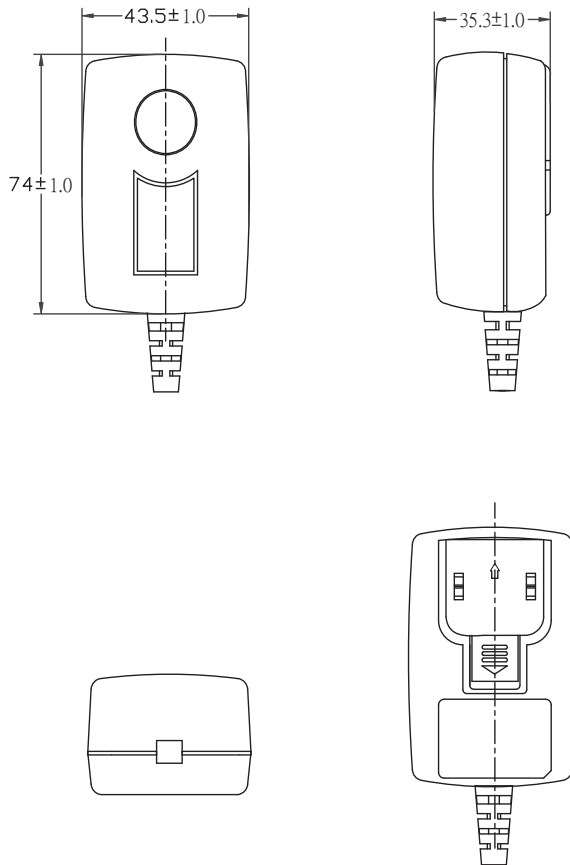
parameter	conditions/description	min	nom	max	units
operating temperature		0		40	°C
operating humidity		20		80	%
storage temperature		-10		75	°C
storage humidity		10		90	%



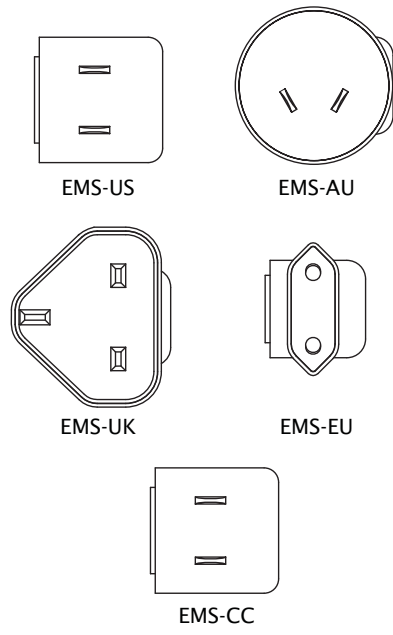
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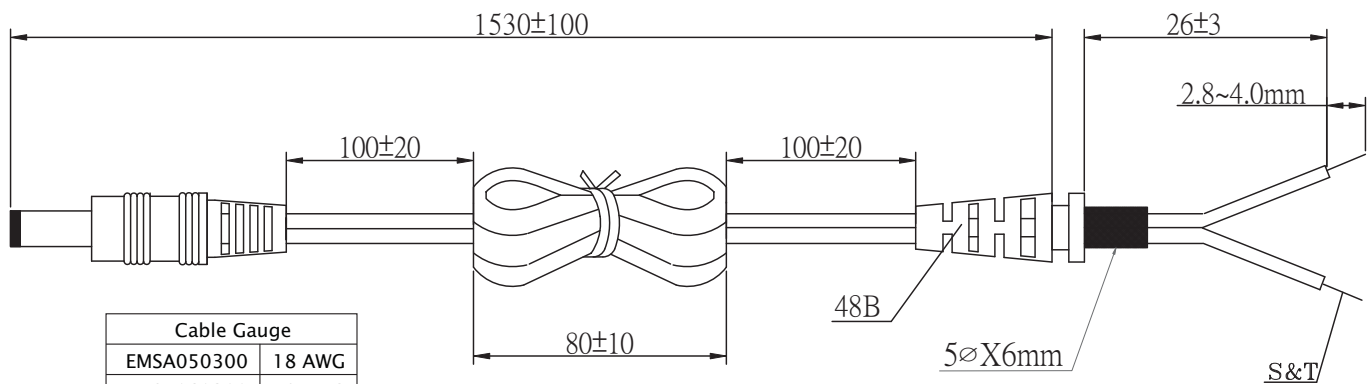
**MECHANICAL DRAWING**



input plug	multi-blade (UL, VDE, UK, SAA, CCC)
weight	167 g
case size	74 L x 43.5 W x 35.3 H mm tolerance: ±1 mm



**DC CORD**



Cable Gauge	
EMSA050300	18 AWG
EMSA060300	18 AWG
EMSA090200	20 AWG
EMSA120150	20 AWG
EMSA150120	20 AWG
EMSA180100	22 AWG
EMSA200090	22 AWG
EMSA240070	22 AWG

Black wire, white stripe: Positive

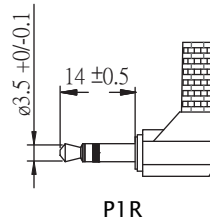
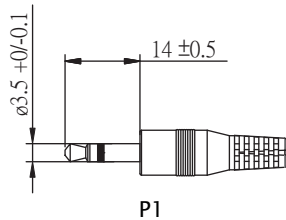


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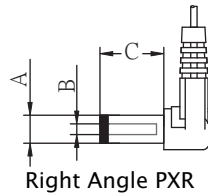
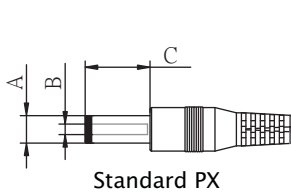
**OUTPUT PLUG OPTIONS**

**3.5 mm Phono Plug**



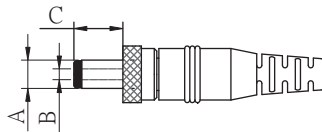
\*Tip positive

**Standard DC Plug**



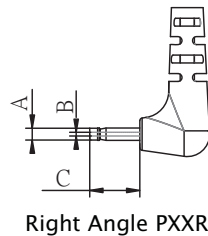
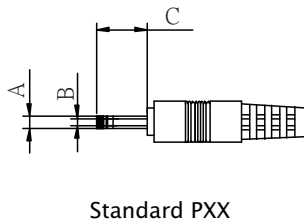
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm
P7/P7R	3.5	1.3	9.5	mm
P8/P8R	3.8	1.35	9.5	mm
P9/P9R	3.8	1.05	9.5	mm

**Locking DC Plug**

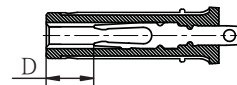


	A	B	C	Unit
P10	5.5	2.1	9.5	mm
P11	5.5	2.5	9.5	mm

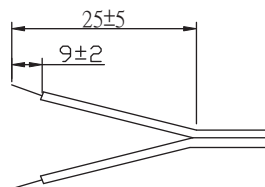
**EIAJ Plugs**



	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

⊖ — ⊕      ⊕ — ⊖

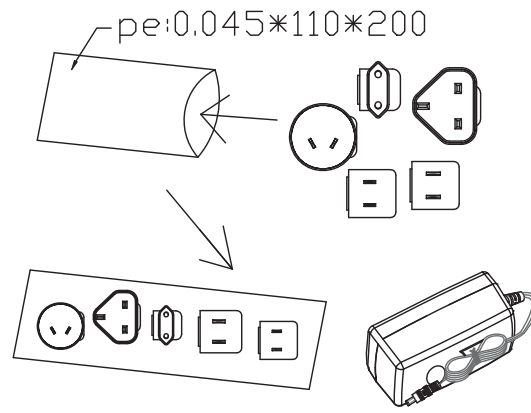
\*Contact CUI for additional output plug options.



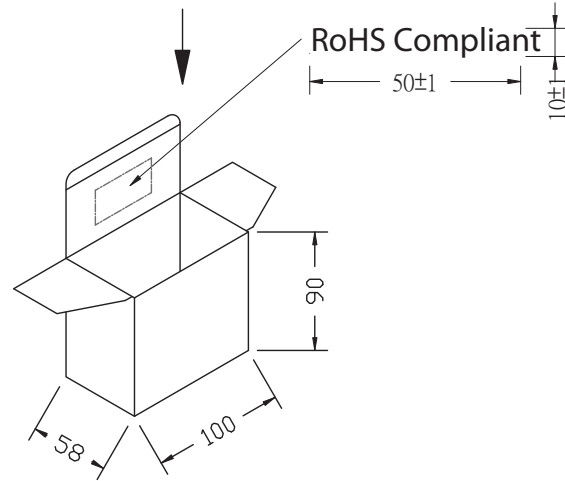
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**INDIVIDUAL PACKAGING**



tolerance  $\pm 1$  mm



**PACKAGING**

tolerance  $+7 / -0$  mm

EXTERNAL CARTON MATERIAL:A=B(6mm)

INTERNAL CARTON MATERIAL:B3B(3mm)

CARTON SIZE: 485X428X210mm

Q'TY: 60pcs(20x3x1)

"RoHS Compliant"

