

**V-INFINITY**  
a division of CUI INC

date 09/2010

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**SERIES: 6 W MULTI-BLADE****DESCRIPTION: SWITCHING POWER SUPPLY****FEATURES**

- universal AC input
- regulated output voltage
- interchangeable input blades
- short circuit, over load protection
- meets EISA / efficiency level IV 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)		
EMS050120	5		0	1.2	6	100	IV	1830 +150/-0
EMS060100	6		0	1	6	100	IV	1830 +150/-0
EMS090066	9		0	0.66	6	100	IV	1830 +150/-0
EMS120050	12		0	0.5	6	100	IV	1830 +150/-0
EMS150040	15		0	0.4	6	150	IV	1830 +150/-0
EMS180033	18		0	0.33	6	180	IV	1830 +150/-0
EMS240025	24		0	0.25	6	240	IV	1830 +150/-0

\*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****EMS050120 - PXXXX - SZ - CXX**Base Number  
example of 5 V dc, 1.2 ADC Plug type:  
see output plug options  
on page 5Factory  
DesignationReserved for custom  
configurations

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**SERIES: 6 W MULTI-BLADE****DESCRIPTION: SWITCHING POWER SUPPLY**

## 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				0.3	A
inrush current	115 V ac, full load, cold start, 25°C 230 V ac, full load, cold start, 25°C			15 30	A A
no load power consumption	100 ~ 240 V ac input			0.3	W

## OUTPUT

parameter	conditions/description	min	nom	max	units
line regulation			±1		%
load regulation			±5		%
over voltage protection	output shut down	140%		200%	V dc
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 second			3000 4242	V ac V ac
insulation resistance	input to output at 500 V dc	100			MΩ
safety approvals	UL/cUL, CB (IEC60950-1), CE (GS/TUV EN60950-1)				
EMI standard	FCC part 15 class B, CE (EN55022, EN55024)				
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		70	°C
storage humidity		10		90	%



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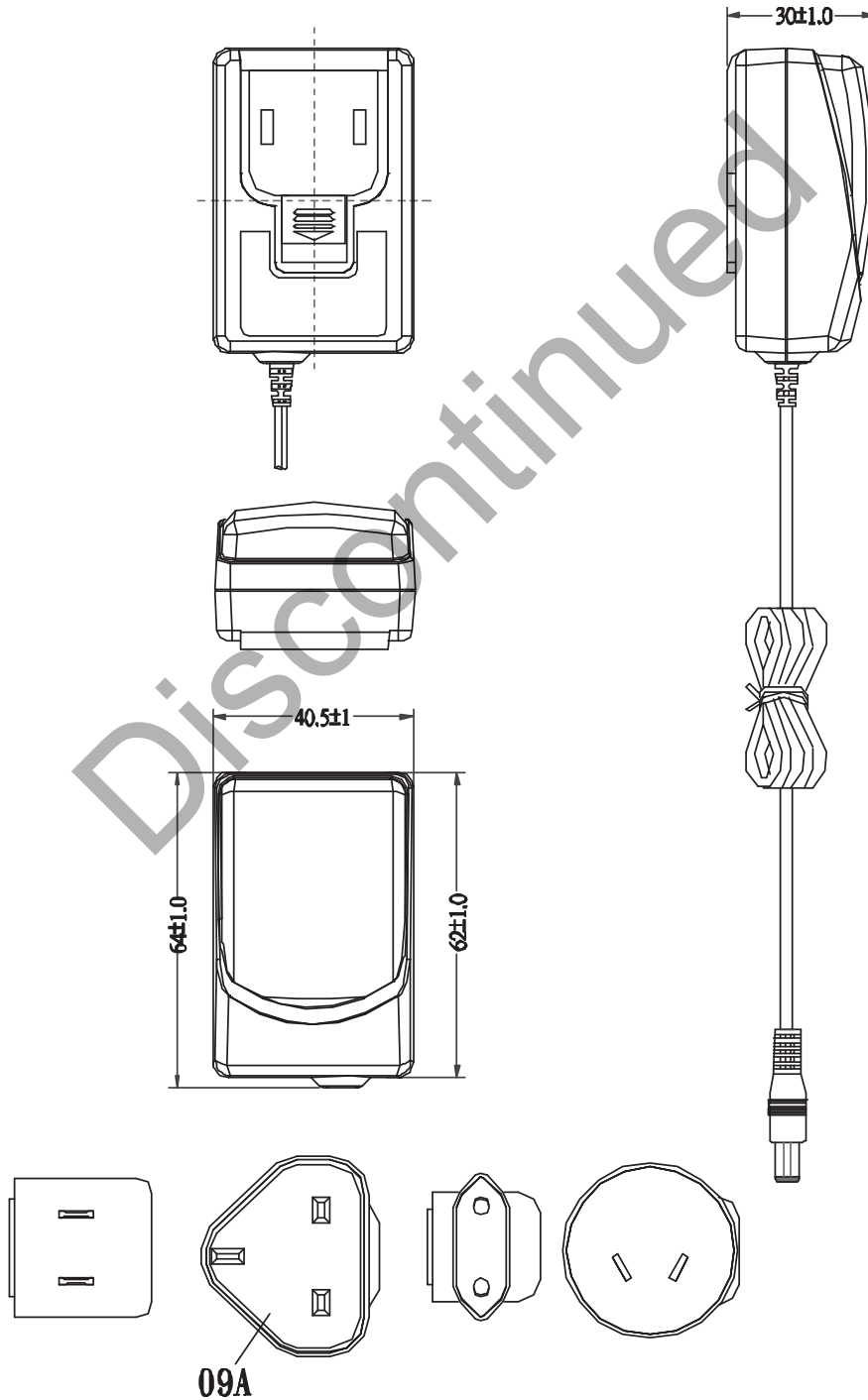
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SERIES: 6 W MULTI-BLADE

DESCRIPTION: SWITCHING POWER SUPPLY

MECHANICAL DRAWING

input plug	interchangeable pin (UL, UK, VDE, SAA)
case size	64 L x 40.5 W x 30 H mm tolerance: $\pm 1$ mm

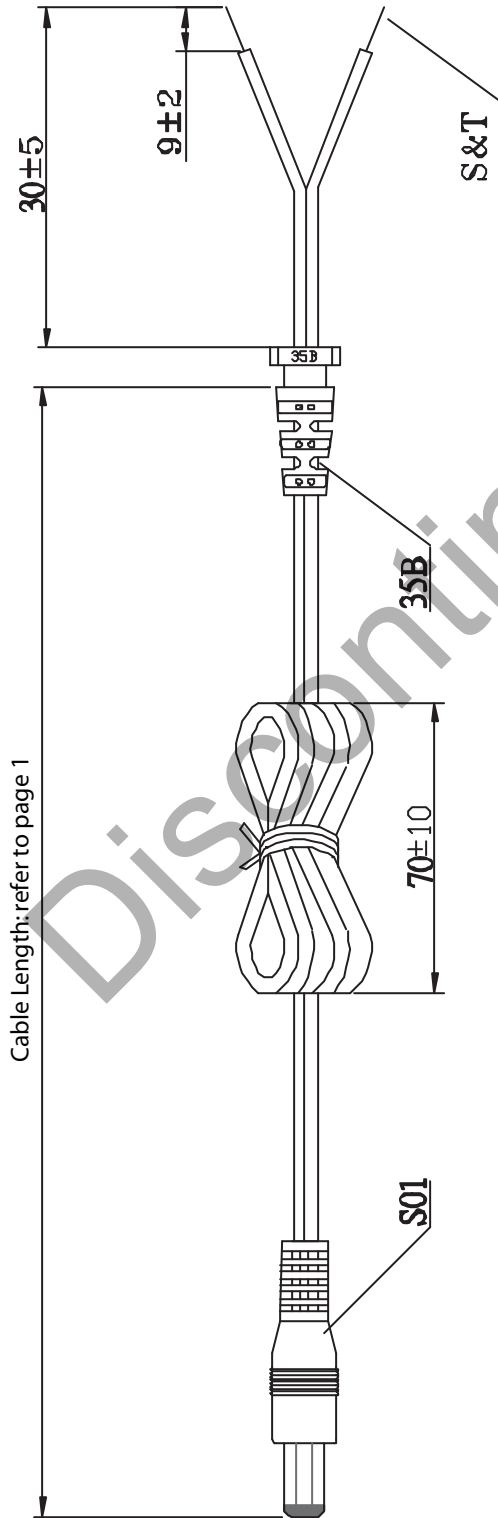




SERIES: 6 W MULTI-BLADE

DESCRIPTION: SWITCHING POWER SUPPLY

DC CORD



Black wire, white stripe: Positive

Cable Gauge	
EMS050120	20 AWG
EMS060100	20 AWG
EMS090066	22 AWG
EMS090166	22 AWG
EMS120050	22 AWG
EMS150040	22 AWG
EMS180033	22 AWG
EP5240025	22 AWG

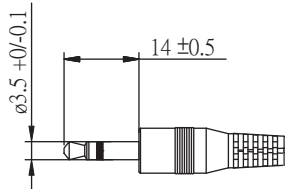


SERIES: 6 W MULTI-BLADE

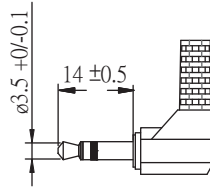
DESCRIPTION: SWITCHING POWER SUPPLY

**OUTPUT PLUG OPTIONS**

**3.5 mm Phono Plug**



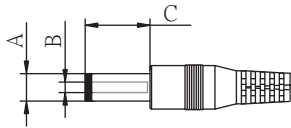
P1



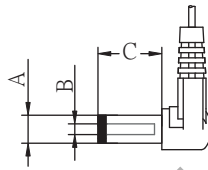
P1R

\*Tip positive

**Standard DC Plug**



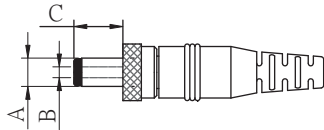
Standard PX



Right Angle PXR

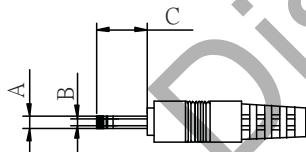
	A	B	C	Unit
P5/P5R	5.5	2.1	9.5	mm
P6/P6R	5.5	2.5	9.5	mm
P7/P7R	3.5	1.3	9.5	mm
P8/P8R	3.8	1.35	9.5	mm
P9/P9R	3.8	1.05	9.5	mm

**Locking DC Plug**

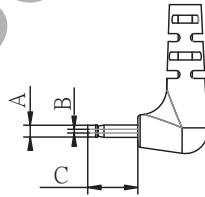


	A	B	C	Unit
P10	5.5	2.1	9.5	mm
P11	5.5	2.5	9.5	mm

**EIAJ Plugs**

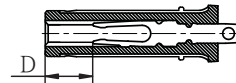


Standard PXX

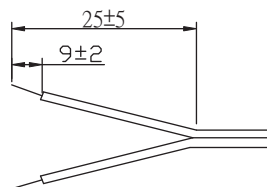


Right Angle PXXR

	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

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\*Contact CUI for additional output plug options.



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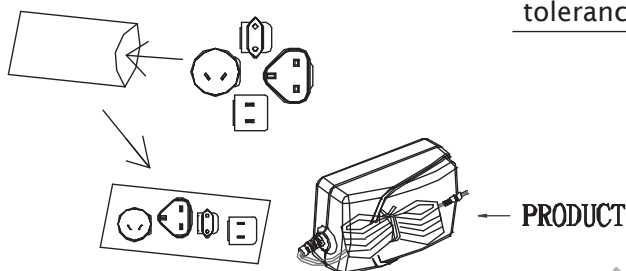
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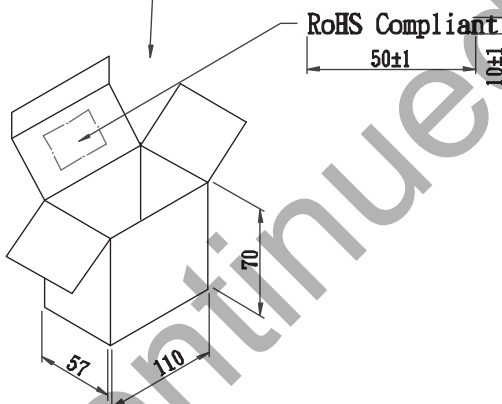
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DESCRIPTION: SWITCHING POWER SUPPLY

**INDIVIDUAL PACKAGING**



tolerance  $\pm 1$  mm



**PACKAGING**

tolerance  $+7 / -0$  mm

CARTON INTERNAL SIZE: 450\*308\*300mm

Q' TY: 80PCS(20\*4)

"RoHS Compliant"

