



# TR15RA SERIES

## 15W SWITCHING ADAPTER

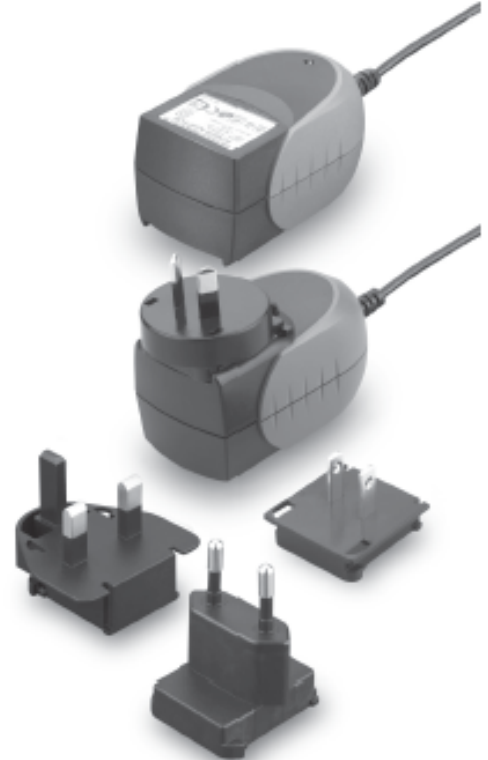


### Features

- \* Universal Input Range 90~264VAC
- \* Two Color Case
- \* Meets EN55022 Class "B"
- \* Continuous Short Circuit Protection
- \* Interchangeable AC Plugs
- \* Over Voltage Protection
- \* Meet CoC V5 Tier 2 & DoE Level VI  
(Output Cable Length  $\leq$  1800mm)

### Ordering information

TR15RAXXX - XX	E XX	-	XX	-BK
Model No.	DC Plug Type	DC Cable Length and Type	Color of Overmold Case	
		01: 720mm	BE: Blue	
		02: 1220mm	GY: Gray	
		03: 1800mm	RD: Red	
		11: 720mm with Ferrite Core	PE: Purple	
		12: 1220mm with Ferrite Core	OE: Orange	
		13: 1800mm with Ferrite Core		
		* 18AWG / UL1185		



MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE & NOISE NOTE 1	VOLTAGE ACCURACY NOTE 2	LINE REGULATION NOTE 3	LOAD REGULATION NOTE 4	% EFF. (AVG.)
TR15RA050	5 V	2.0 A	1%	$\pm 3\%$	$\pm 1\%$	$\pm 4\%$	79.01%
TR15RA059	5.9 V	1.7 A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	79.03%
TR15RA090	9 V	1.4 A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	83.55%
TR15RA120	12 V	1.1 A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	83.81%
TR15RA150	15 V	1.0 A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	84.51%
TR15RA180	18 V	830 mA	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	84.49%
TR15RA240	24 V	625 mA	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	84.51%

## Specifications

### INPUT SPECIFICATIONS:

Voltage ..... 90~264Vac  
 Frequency ..... 47 to 63Hz  
 Inrush Current ..... 90A max. @240Vac  
 Leakage Current ..... 0.25mA max.

### OUTPUT SPECIFICATIONS:

Hold-up Time ..... 10ms typ. @115Vac  
 Short Circuit Protection ..... Continuous(Auto Recovery)  
 Over Voltage Protection ..... TVS Component to Clamp  
 Temperature Coefficient ..... ±0.05% / °C

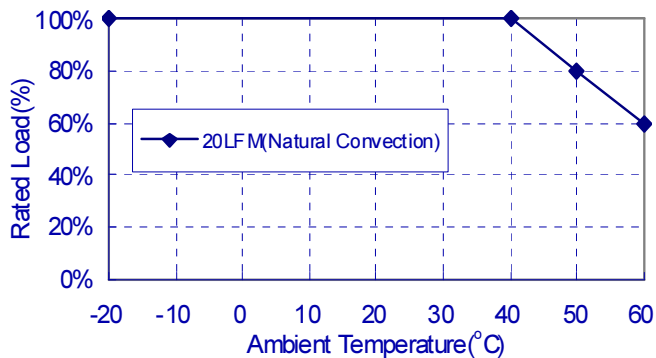
### GENERAL SPECIFICATIONS:

Isolation ..... Input to output = 4,242VDC  
 Operating Temperature ..... -20 ~ 60°C (see derating curve)  
 Storage Temperature ..... -20~85°C  
 Humidity ..... 93% RH max. Non condensing  
 Cooling ..... Natural Convection  
 Switching Frequency ..... 65KHz Typical  
 MTBF ..... MIL-HDBK-217F, GB, at 25°C/115VAC ..... 200Khrs min.  
 Altitude ..... 2000m  
 Dimensions ..... 3.173x1.885x1.705 inches (80.60x47.90x43.30mm)  
 Weight ..... 150g(0.33 Pounds)

### SAFETY AND EMC:

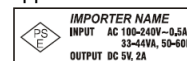
Emission and Immunity ..... EN55022 Class B, EN61000-6-3  
 EN61000-3-2, EN61000-3-3, EN55024, EN61204-3 , EN61000-6-1  
 Safety ..... IEC60950-1, EN60950-1 , UL60950-1

## TR15RA Series Derating Curve



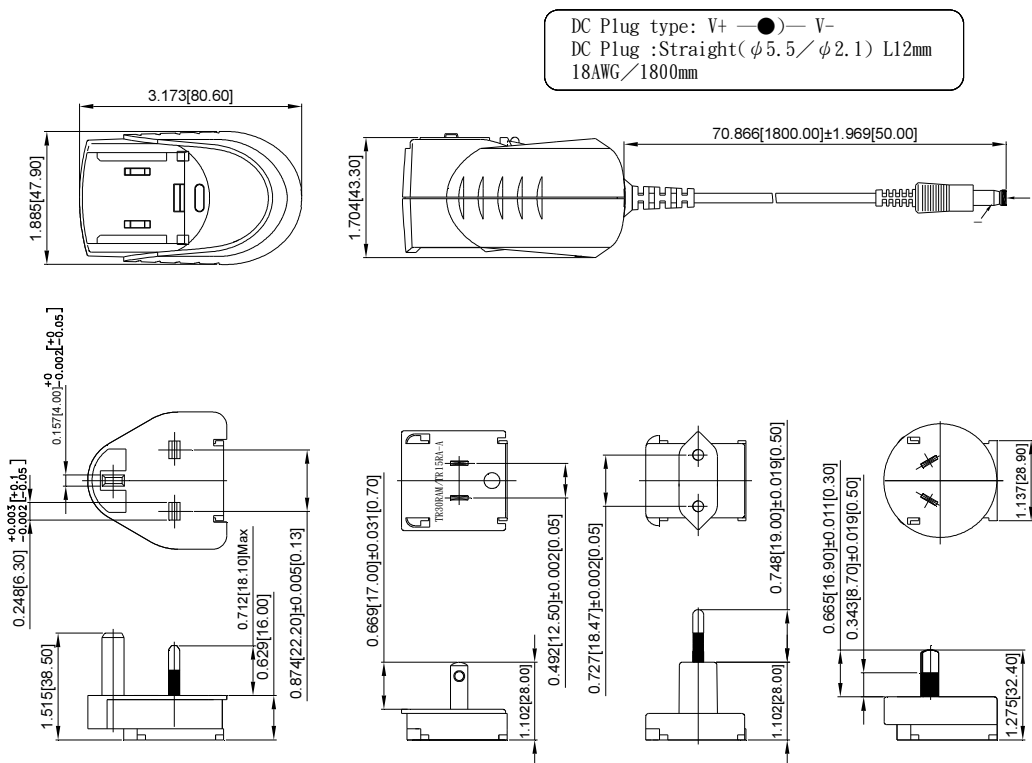
### ▶

1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
2. Voltage setpoint at 60% full load.
3. Line regulation measured from 100Vac to 240Vac full load.
4. Load regulation measured from 60% to full load and from 60% to 20% load (60% +/- 40% load).
5. "Various TR Series adapters are PSE certified. PSE certification alone is not sufficient for importation into Japan. A valid PSE mark must contain the name of the importer as shown in the example below. If PSE mark is required, the name of the registered importer must be supplied to Cincon on order placement. Product labels will not contain PSE mark if importer name is not supplied. Consult factory or local representative for details".



## Mechanical Specification

All Dimensions are in inches[mm]  
 Tolerance: Inches: X.XXX±0.02  
 Millimeters: X.XX±0.5



Typical at 25°C, nominal line and 75% load, unless otherwise Specified