



# TR30M SERIES 30W MEDICAL SWITCHING ADAPTER



## Features

- \* Universal Input: 90-264Vac
- \* Meets EN60601-1 and EN55011 Class B
- \* Continuous Short Circuit Protection
- \* Over Voltage Protection
- \* CEC Level IV Compliant except TR30M050  
Meets CEC Level III  
(Output Cable Length  $\leq$  1800mm)  
(TR30M050: Output Cable Length  $\leq$  720mm)
- \* Efficiency & Standby Power Meet Level V (Option)  
(Output Cable Length  $\leq$  1800mm)  
(TR30M050: Output Cable Length  $\leq$  720mm)  
(TR30M090: Output Cable Length  $\leq$  1220mm)



## Ordering information

TR30MXXX - XX

Model No. DC Plug Type

E XX

DC Cable Length and Type

- 01: 720mm
- 02: 1220mm
- 03: 1800mm
- 11: 720mm with Ferrite Core
- 12: 1220mm with Ferrite Core
- 13: 1800mm with Ferrite Core
- \* 18AWG / UL1185

MODEL	OUTPUT VOLTAGE	MIN. LOAD	OUTPUT CURRENT	RIPPLE & NOISE	VOLTAGE ACCURACY	LINE REGULATION	LOAD REGULATION	% EFF. (Typ.)
TR30M050	5V	0A	4A	50mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 6\%$	73%
TR30M090	9V	0A	3A	90mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 4\%$	77%
TR30M120	12V	0A	2.5A	120mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	78%
TR30M150	15V	0A	2A	150mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	80%
TR30M180	18V	0A	1.65A	180mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	80%
TR30M240	24V	0A	1.25A	240mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	82%

Specifications are subject to change without notice.

## Specifications

### INPUT SPECIFICATIONS:

Voltage .....	90~264Vac
Frequency .....	47 to 63Hz
Inrush Current .....	50A max. @240Vac
Input Current .....	0.6A max.

### OUTPUT SPECIFICATIONS:

Holdup Time .....	16ms typ. @115Vac
Short Circuit Protection .....	Continuous(Auto Recovery)
Over Voltage Protection .....	TVS Component to Clamp
Temperature Coefficient .....	±0.05%/°C

### GENERAL SPECIFICATIONS:

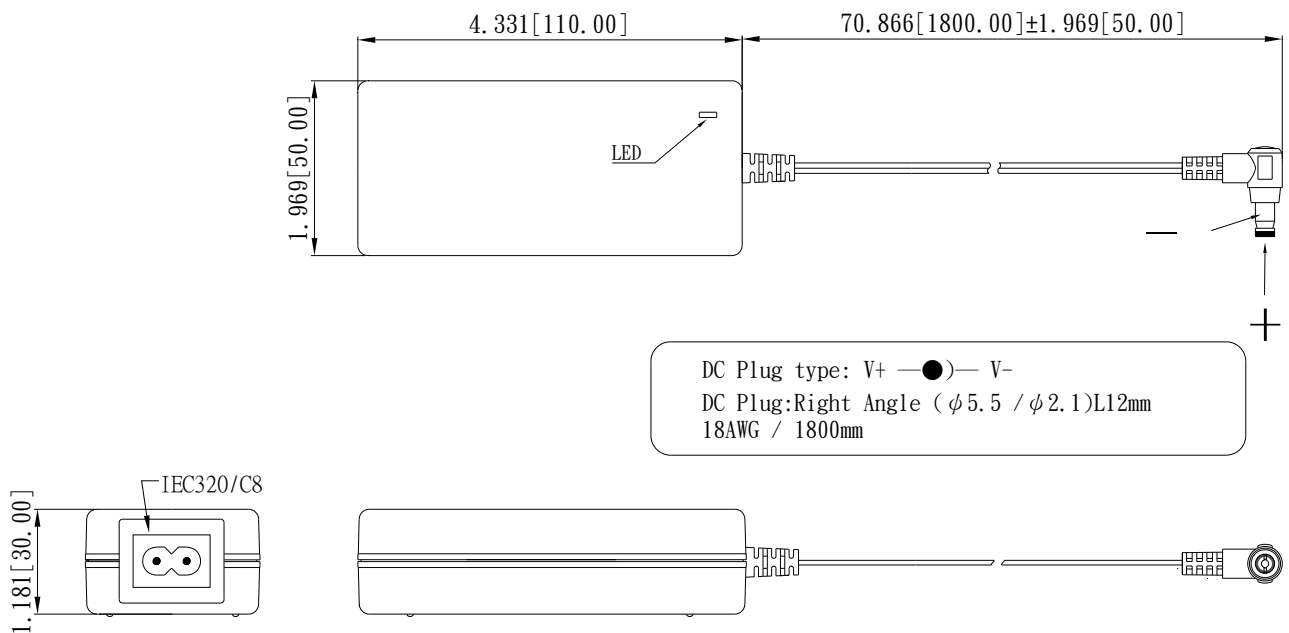
Isolation .....	Input to output = 5,656VDC
Operating Temperature .....	0 ~ 60°C (see derating curve)
Storage Temperature .....	-20~85°C
Humidity .....	93% RH max. Non condensing
Cooling .....	Natural Convection
Switching Frequency .....	70KHz Typical
MTBF .....	MIL-HDBK-217F, GB, 25°C/115VAC ..... 300K hrs min.
Altitude .....	2000m
Dimensions .....	4.331x1.969x1.181Inches (110.00x50.00x30.00mm)
Weight .....	220g(0.49 Pounds)

### SAFETY AND EMC:

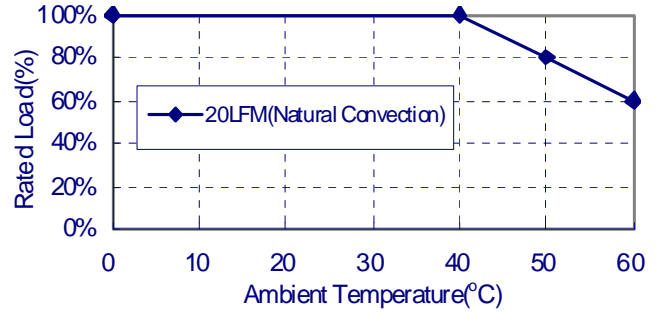
Emission and Immunity .....	EN55011, EN60601-1-2, EN61000-3-2 EN61000-3-3
Safety .....	IEC609501-1, IEC60601-1, EN60601-1, UL60601-1

### Mechanical Specification

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



## TR30M Series Derating Curve



### NOTE:

1. Voltage setpoint at 60% full load
2. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
3. Line regulation is measured from 100Vac to 240Vac with full load.
4. Load regulation is 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"



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