



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)
- * Meets 2MOPP



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 / SPT1

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE & NOISE NOTE 1	VOLTAGE ACCURACY NOTE 2	LINE REGULATION NOTE 3	LOAD REGULATION NOTE 4	% EFF. (Typ.) NOTE 5
TR30M050	5V	4A	50mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 6\%$	76%
TR30M090	9V	3A	90mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 4\%$	82%
TR30M120	12V	2.5A	120mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	82%
TR30M150	15V	2A	150mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	85%
TR30M180	18V	1.65A	180mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	85%
TR30M240	24V	1.25A	240mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	84%

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 $\pm 0.05\%/^{\circ}\text{C}$

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 3000m
 Dimensions 4.331x1.969x1.181Inches (110.00x50.00x30.00mm)
 Weight 220g(0.49 Pounds)

SAFETY AND EMC:

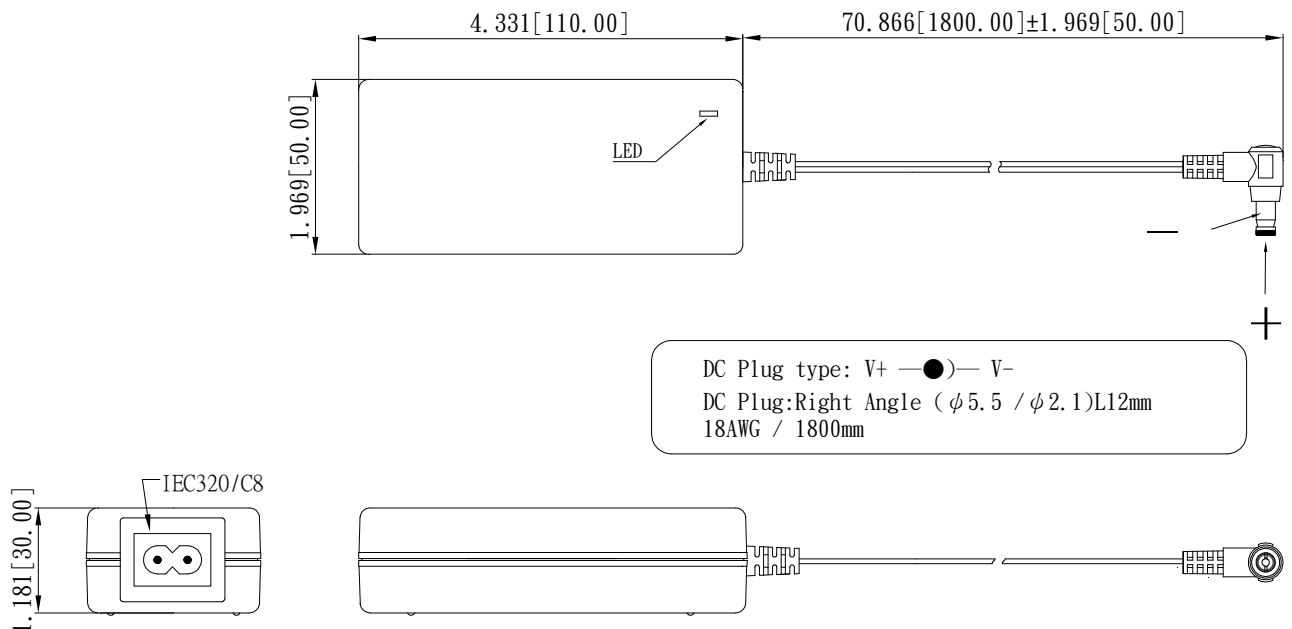
Emission and Immunity EN55011, EN60601-1-2, EN61000-3-2
 EN61000-3-3
 Safety IEC60601-1:2005, EN60601-1:2006, ANSI/AAMI ES60601-1:2005

Mechanical Specification

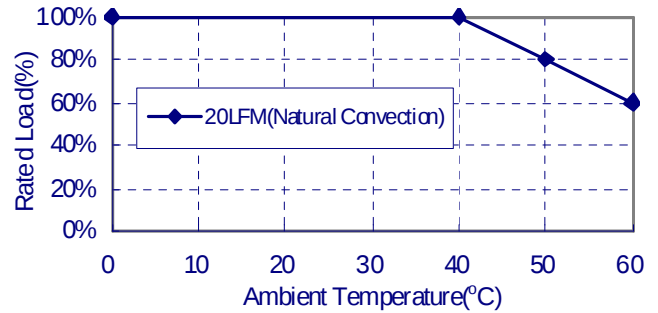
All Dimensions are in inches(mm)

Tolerance: Inches: X.XXX ± 0.02

Millimeters: X.XX ± 0.5

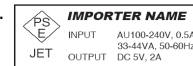


TR30M Series Derating Curve



NOTE:

1. 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 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% $\pm$ 40% load).
5. Typical efficiency at 230VAC and full load at 25°C.
6. "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

Mouser Electronics

Authorized Distributor

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Cincon:

[TR30M150-12E03](#) [TR30M120-12E03](#) [TR30M090-11E03](#) [TR30M180-12E03](#) [TR30M050-35E01-Level-V](#) [TR30M050-36E01-Level-V](#) [TR30M050-39E01-Level-V](#) [TR30M050-40E01-Level-V](#) [TR30M050-48E01-Level-V](#) [TR30M050-49E01-Level-V](#) [TR30M120-35E03-Level-V](#) [TR30M120-36E03-Level-V](#) [TR30M120-39E03-Level-V](#) [TR30M120-40E03-Level-V](#) [TR30M120-48E03-Level-V](#) [TR30M120-49E03-Level-V](#) [TR30M240-35E03-Level-V](#) [TR30M240-36E03-Level-V](#) [TR30M240-39E03-Level-V](#) [TR30M240-40E03-Level-V](#) [TR30M240-48E03-Level-V](#) [TR30M240-49E03-Level-V](#) [TR30M150-11E03](#) [TR30M050-12E03](#) [TR30M050-11E03](#) [TR30M240-11E03](#) [TR30M240-12E03](#) [TR30M120-11E03](#) [TR30M090-12E03](#) [TR30M180-11E03](#) [TR30M050-11E01-Level-V](#) [TR30M050-12E01-Level-V](#) [TR30M090-11E02-Level-V](#) [TR30M090-12E02-Level-V](#) [TR30M120-11E03-Level-V](#) [TR30M120-12E03-Level-V](#) [TR30M150-11E03-Level-V](#) [TR30M150-12E03-Level-V](#) [TR30M180-11E03-Level-V](#) [TR30M180-12E03-Level-V](#) [TR30M240-11E03-Level-V](#) [TR30M240-12E03-Level-V](#) [TR30M050-01E01-Level-V](#) [TR30M050-02E01-Level-V](#) [TR30M090-01E02-Level-V](#) [TR30M090-02E02-Level-V](#) [TR30M120-01E03-Level-V](#) [TR30M120-02E03-Level-V](#) [TR30M150-01E03-Level-V](#) [TR30M150-02E03-Level-V](#) [TR30M180-01E03-Level-V](#) [TR30M180-02E03-Level-V](#) [TR30M240-01E03-Level-V](#) [TR30M240-02E03-Level-V](#)