



TR100M SERIES

100W MEDICAL SWITCHING ADAPTER



Features

- * Universal Input Range 90~264VAC
- * Meets EN60601-1 and EN55011 Class B
- * Continuous Short Circuit Protection
- * Over Voltage Protection
- * Efficiency & Standby Power Meet Level V
(TR100M120~150: Output Cable Length \leq 1500mm 14AWG /UL1185)
(TR100M180~480: Output Cable Length \leq 1800mm 16AWG /UL1185)
- * Meets 2 MOPP



Ordering information

| TR100MXXX- XX | X | XX or XXX |
|---------------|--------------|------------------------------|
| Model No. | DC Plug Type | OVP |
| | | DC Cable Length and Type |
| | | E: with OVP |
| | | 11: 720mm with Ferrite Core |
| | | 12: 1220mm with Ferrite Core |
| | | 36: 1500mm with Ferrite Core |
| | | 13: 1800mm with Ferrite Core |

| MODEL | OUTPUT VOLTAGE | OUTPUT CURRENT | RIPPLE & NOISE NOTE 2 | VOLTAGE ACCURACY NOTE 1 | LINE REGULATION NOTE 3 | LOAD REGULATION NOTE 4 | % EFF. (Typ.) NOTE 5 |
|-----------|----------------|----------------|--------------------------|----------------------------|---------------------------|---------------------------|----------------------------|
| TR100M120 | 12 V | 8.34 A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 4\%$ | 88% |
| TR100M150 | 15 V | 6.67 A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 3\%$ | 88% |
| TR100M180 | 18 V | 5.56 A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 88% |
| TR100M190 | 19 V | 5.27 A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 88% |
| TR100M200 | 20 V | 5.0 A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 88% |
| TR100M240 | 24 V | 4.17 A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |
| TR100M480 | 48 V | 2.1 A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |

Specifications

INPUT SPECIFICATIONS:

Voltage 90~264Vac
 Frequency 47 to 63Hz
 Inrush Current Cold Start @25°C 100A max. @240Vac
 Conducted EMI CISPR/FCC Class B
 Isolation Input to output = 4k Vac
 Leakage Current 0.1mA max.

OUTPUT SPECIFICATIONS:

Hold-up Time 16ms typ. @115Vac
 Short Circuit Protection Hiccup Mode (Auto Recover)
 Over Voltage Protection TVS Component to Clamp
 Temperature Coefficient ±0.05%/°C

GENERAL SPECIFICATIONS:

Operating Temperature -20 ~ 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, at 25°C/115VAC 150Khrs min.
 Altitude 3000m
 Dimensions 5.591x2.283x1.457 inches (142.00x58.00x37.00mm)
 Weight 485g
 AC Inlet IEC320/C8

TR100M Series Derating Curve



SAFETY AND EMC:

Emission and Immunity EN55011, EN60601-1-2, EN61000-3-2
 EN61000-3-3
 Safety (Medical 3rd)..... IEC60601-1, EN60601-1
 UL ANSI/AAMI ES60601-1

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 measured from 100Vac to 240Vac, full load.
4. Load regulation measured from 60% to 100% full load and from 60% to 20% load (60% +/- 40% full load)
5. Typical efficiency with 230 VAC and max. load at 25°C.

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

Mouser Electronics

Authorized Distributor

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Cincon:

| | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| TR100M120-01E02-LVL-V | TR100M120-02E02-LVL-V | TR100M120-11E02-LVL-V | TR100M120-12E02-LVL-V |
| TR100M150-01E02-LVL-V | TR100M150-02E02-LVL-V | TR100M150-11E02-LVL-V | TR100M150-12E02-LVL-V |
| TR100M180-01E03-LVL-V | TR100M180-02E03-LVL-V | TR100M180-11E03-LVL-V | TR100M180-12E03-LVL-V |
| TR100M190-01E03-LVL-V | TR100M190-02E03-LVL-V | TR100M190-11E03-LVL-V | TR100M190-12E03-LVL-V |
| TR100M200-01E03-LVL-V | TR100M200-02E03-LVL-V | TR100M200-11E03-LVL-V | TR100M200-12E03-LVL-V |
| TR100M240-01E03-LVL-V | TR100M240-02E03-LVL-V | TR100M240-11E03-LVL-V | TR100M240-12E03-LVL-V |
| TR100M480-01E03-LVL-V | TR100M480-02E03-LVL-V | TR100M480-11E03-LVL-V | TR100M480-12E03-LVL-V |
| TR100M240-11E13-LVL-V | TR100M480-01E13-LVL-V | TR100M190-02E13-LVL-V | TR100M120-01E12-LVL-V |
| TR100M240-12E13-LVL-V | TR100M150-02E12-LVL-V | TR100M150-01E12-LVL-V | TR100M120-02E12-LVL-V |
| TR100M190-01E13-LVL-V | TR100M190-11E13-LVL-V | TR100M480-11E13-LVL-V | TR100M180-02E13-LVL-V |
| TR100M180-11E13-LVL-V | TR100M240-02E13-LVL-V | TR100M150-12E12-LVL-V | TR100M120-11E12-LVL-V |
| TR100M120-12E12-LVL-V | TR100M200-12E13-LVL-V | TR100M480-12E13-LVL-V | TR100M200-11E13-LVL-V |
| TR100M480-02E13-LVL-V | TR100M240-01E13-LVL-V | TR100M180-12E13-LVL-V | TR100M200-01E13-LVL-V |
| TR100M190-12E13-LVL-V | TR100M200-02E13-LVL-V | TR100M180-01E13-LVL-V | TR100M150-11E12-LVL-V |