



TRH70A SERIES

70W SWITCHING ADAPTER



Features

- * Universal Input Range 90~264VAC
- * Meets EN55022 Class B and CISPR/FCC Class B
- * Continuous Short Circuit Protection
- * Over Voltage Protection
- * Meet CoC Tier 2 & DoE Level VI
(Output Cable Length \leq 1800mm)
(TRH70A120: Output Cable Length \leq 720mm)
(TRH70A150: Output Cable Length \leq 1220mm)
(TRH70A180, TRH70A190: Output Cable Length \leq 1800mm 16AWG)
- * No load Power Consumption < 150mW



Ordering information

| | | | |
|-----------|--------------|-----|--------------------------------------|
| TRH70XXX | - .XX | E | XX |
| Model No. | DC Plug Type | OVP | 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 |
| | | | * 16AWG / UL1185 FOR 12V,15V,18V,19V |
| | | | * 18AWG / UL1185 FOR 24V,28V,36V,48V |

| MODEL | OUTPUT VOLTAGE | OUTPUT CURRENT | RIPPLE & NOISE NOTE 1 | VOLTAGE ACCURACY NOTE 2 | LINE REGULATION NOTE 3 | LOAD REGULATION NOTE 4 | AVERAGE EFFICENCY min. NOTE 5 |
|-----------|----------------|----------------|--------------------------|----------------------------|---------------------------|---------------------------|----------------------------------|
| TRH70A120 | 12V | 5.80A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 4\%$ | 89% |
| TRH70A150 | 15V | 4.65A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 3\%$ | 89% |
| TRH70A180 | 18V | 3.90A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |
| TRH70A190 | 19V | 3.70A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |
| TRH70A240 | 24V | 3.00A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |
| TRH70A280 | 28V | 2.50A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |
| TRH70A360 | 36V | 2.00A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |
| TRH70A480 | 48V | 1.50A | 1% | $\pm 2\%$ | $\pm 1\%$ | $\pm 2\%$ | 89% |

Specifications

INPUT SPECIFICATIONS:

Voltage 90~264Vac
 Frequency 47 to 63Hz
 Input Current 1.5A max.
 Inrush Current Cold Start @25°C 100A max. @ 240Vac
 Leakage Current 3.5mA max.

OUTPUT SPECIFICATIONS:

Hold-up Time 8ms 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 ~ 70°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 5000m
 Dimensions 4.724x2.047x1.220 inches (120.00x52.00x31.00mm)
 Weight 300g
 AC Inlet IEC320/C14

SAFETY AND EMC:

Emission and Immunity EN55022 Class B, FCC Part 15 Class B
 EN61000-6-3, EN61000-3-2, EN61000-3-3
 EN55024, EN61204-3, EN61000-6-1
 Safety Class I, IEC60950-1, EN60950-1, UL60950-1

Mechanical Specification

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

TRH70A 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 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. Average Efficiency measured at 25%,50%,75%,100% load and input voltage is 115Vac / 230Vac



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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Cincon:

| | | | |
|--|--|--|--|
| TRH70A120-23E11-Level-VI | TRH70A180-39E03-Level-VI | TRH70A240-36E03-Level-VI | TRH70A240-35E03-Level-VI |
| TRH70A480-12E03-Level-VI | TRH70A150-11E02-Level-VI | TRH70A240-12E03-Level-VI | TRH70A480-11E03-Level-VI |
| TRH70A180-11E03-Level-VI | TRH70A190-11E03-Level-VI | TRH70A240-40E03-Level-VI | TRH70A120-40E01-Level-VI |
| TRH70A180-12E13-Level-VI | TRH70A180-36E03-Level-VI | TRH70A240-39E03-Level-VI | TRH70A180-48E03-Level-VI |
| TRH70A120-35E01-Level-VI | TRH70A150-02E02-Level-VI | TRH70A180-49E03-Level-VI | TRH70A240-11E03-Level-VI |
| TRH70A150-12E02-Level-VI | TRH70A120-02E01-Level-VI | TRH70A480-01E03-Level-VI | TRH70A180-01E03-Level-VI |
| TRH70A240-48E03-Level-VI | TRH70A190-02E03-Level-VI | TRH70A190-01E03-Level-VI | TRH70A190-12E03-Level-VI |
| TRH70A240-02E03-Level-VI | TRH70A120-11E01-Level-VI | TRH70A120-48E01-Level-VI | TRH70A180-12E03-Level-VI |
| TRH70A180-35E03-Level-VI | TRH70A120-49E01-Level-VI | TRH70A240-49E03-Level-VI | TRH70A120-39E01-Level-VI |
| TRH70A480-02E03-Level-VI | TRH70A180-40E03-Level-VI | TRH70A240-01E03-Level-VI | TRH70A150-01E02-Level-VI |
| TRH70A180-02E03-Level-VI | TRH70A120-12E01-Level-VI | TRH70A120-36E01-Level-VI | TRH70A120-01E01-Level-VI |
| TRH70A240-11E11-Level-VI | TRH70A280-49E01-Level-VI | TRH70A280-36E01-Level-VI | TRH70A280-01E01-Level-VI |
| TRH70A360-36E01-Level-VI | TRH70A280-02E01-Level-VI | TRH70A280-02E02-Level-VI | TRH70A360-48E01-Level-VI |
| TRH70A360-40E01-Level-VI | TRH70A280-12E01-Level-VI | TRH70A280-12E02-Level-VI | TRH70A360-35E01-Level-VI |
| TRH70A360-49E01-Level-VI | TRH70A360-11E01-Level-VI | TRH70A360-23E11-Level-VI | TRH70A280-39E01-Level-VI |
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