



TRH50A SERIES

50W SWITCHING ADAPTER



Features

- * Universal Input Range 90~264VAC
- * Meets EN55032 Class B and CISPR/FCC Class B
- * Continuous Short Circuit Protection
- * Over Voltage Protection
- * Meet CoC Tier 2 & DoE Level VI
- * No load Power Consumption<150mW
- * Approved IEC62368-1, UL62368-1, EN62368-1
(Output Cable Length $\leq$ 1800mm)
(TRH50A120, TRH50A150: Output Cable Length $\leq$ 1220mm)
(TRH50A180, TRH50A190: Output Cable Length $\leq$ 1800mm 16AWG)



Ordering information

TRH50XXX	- 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 NOTE2	LINE REGULATION NOTE3	LOAD REGULATION NOTE4	AVERAGE EFFICIENCY min. NOTE5
TRH50A120	12V	4.2A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	89%
TRH50A150	15V	3.36A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	89%
TRH50A180	18V	2.8A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	89%
TRH50A190	19V	2.65A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	89%
TRH50A240	24V	2.1A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	89%
TRH50A280	28V	1.8A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	89%
TRH50A360	36V	1.4A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	89%
TRH50A480	48V	1.05A	1%	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	89%

Specifications

INPUT SPECIFICATIONS:

Voltage 90~264Vac
 Frequency 47 to 63Hz
 Input Current 1.2A 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 $\pm 0.05\%/^{\circ}\text{C}$

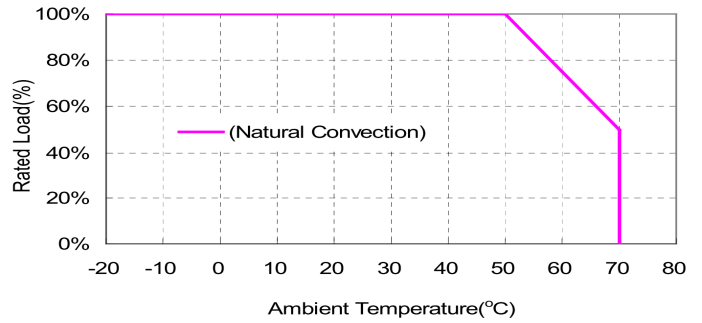
GENERAL SPECIFICATIONS:

Isolation Input to output = 3000VAC
 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 EN55032 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, IEC62368-1/60950-1, UL62368-1/60950-1
 EN62368-1/60950-1

TRH50A Series Derating Curve

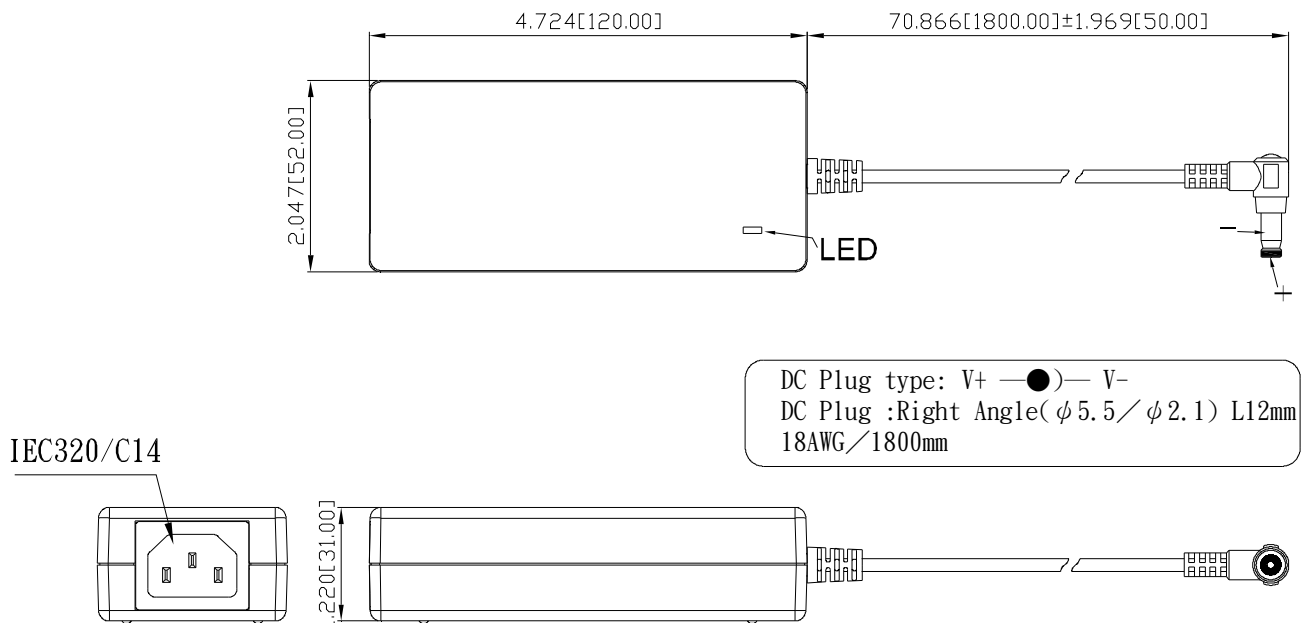


NOTE:

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.

Mechanical Specification

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



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

Mouser Electronics

Authorized Distributor

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Cincon:

TRH50A150-01E02-Level-VI	TRH50A120-11E01-Level-VI	TRH50A120-49E01-Level-VI	TRH50A180-12E03-Level-VI
TRH50A150-11E02-Level-VI	TRH50A190-11E03-Level-VI	TRH50A120-48E01-Level-VI	TRH50A240-39E03-Level-VI
TRH50A120-12E01-Level-VI	TRH50A150-48E02-Level-VI	TRH50A180-02E03-Level-VI	TRH50A240-35E03-Level-VI
TRH50A120-40E01-Level-VI	TRH50A150-12E02-Level-VI	TRH50A190-12E03-Level-VI	TRH50A240-40E03-Level-VI
TRH50A240-01E03-Level-VI	TRH50A150-40E02-Level-VI	TRH50A120-39E01-Level-VI	TRH50A240-48E03-Level-VI
TRH50A480-11E03-Level-VI	TRH50A480-02E03-Level-VI	TRH50A180-01E03-Level-VI	TRH50A480-01E03-Level-VI
TRH50A120-02E01-Level-VI	TRH50A240-49E03-Level-VI	TRH50A150-36E02-Level-VI	TRH50A150-12E12-Level-VI
TRH50A190-01E03-Level-VI	TRH50A240-02E03-Level-VI	TRH50A240-11E03-Level-VI	TRH50A120-35E01-Level-VI
TRH50A120-36E01-Level-VI	TRH50A190-02E03-Level-VI	TRH50A240-36E03-Level-VI	TRH50A150-35E02-Level-VI
TRH50A240-12E03-Level-VI	TRH50A150-49E02-Level-VI	TRH50A150-39E02-Level-VI	TRH50A180-11E03-Level-VI
TRH50A150-02E02-Level-VI	TRH50A480-12E03-Level-VI	TRH50A120-01E01-Level-VI	TRH50A120-11E11-Level-VI
TRH50A240-01E12-LEVEL-VI	TRH50A360-01E12-Level-VI	TRH50A360-35E03-Level-VI	TRH50A360-40E03-Level-VI
TRH50A360-01E03-Level-VI	TRH50A360-11E03-Level-VI	TRH50A360-12E03-Level-VI	TRH50A360-39E03-Level-VI
TRH50A360-48E03-Level-VI	TRH50A360-49E03-Level-VI	TRH50A360-02E03-Level-VI	TRH50A120-11E02-Level-VI
TRH50A360-36E03-Level-VI	TRH50A120-12E02-Level-VI	TRH50A240-12E13-Level-VI	TRH50A280-01E12-Level-VI
TRH50A240-11E01 VI	TRH50A120-02E02 VI	TRH50A150-11E11- LEVEL-VI	