

TR60M

S E R I E S

60W SWITCHING ADAPTER



Features

- Universal Input Range 90-264VAC
- Meets EN60601-1 and EN55011 Class B
- Continuous Short Circuit Protection
- Over Voltage Protection
- Meet CEC Level IV (Output Cable Length \leq 1800mm) (TR60M Series meets CEC IV except TR60M05 is Non-CEC Compliant) (TR60M12: Output Cable Length \leq 1220mm 16AWG)
- Efficiency & Standby Power Meet Level V (Option) (Output Cable Length \leq 1800mm) (TR60M12: Output Cable Length \leq 720mm 16AWG) (TR60M15: Output Cable Length \leq 1220mm 16AWG) (TR60M18, TR60M19: Output Cable Length \leq 1500mm 18AWG)

Ordering information

TR60MXX	- XX	X	XX
Model No.	DC Plug Type * Please see Page 215 for more detailed descriptions	OVP E: With 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 * 18AWG / UL1185

MODEL	OUTPUT VOLTAGE	MIN. LOAD	OUTPUT CURRENT	RIPPLE & NOISE	VOLTAGE SETPOINT	LINE REGULATION	LOAD REGULATION	%EFF. (Typ.)
TR60M05	5V	0 A	6A	50mVp-p	\pm 4%	\pm 1%	\pm 6%	71%
TR60M12	12V	0 A	5A	120mVp-p	\pm 2%	\pm 1%	\pm 5%	83%
TR60M15	15V	0 A	4A	150mVp-p	\pm 2%	\pm 1%	\pm 3%	84%
TR60M18	18V	0 A	3.33A	180mVp-p	\pm 2%	\pm 1%	\pm 2%	84%
TR60M19	19V	0 A	3.15A	190mVp-p	\pm 2%	\pm 1%	\pm 2%	85%
TR60M24	24V	0 A	2.5A	240mVp-p	\pm 2%	\pm 1%	\pm 2%	85%
TR60M36	36V	0 A	1.66A	360mVp-p	\pm 2%	\pm 1%	\pm 2%	86%
TR60M48	48V	0 A	1.25A	480mVp-p	\pm 2%	\pm 1%	\pm 2%	87%

Specifications

INPUT SPECIFICATIONS:

Voltage	90-264Vac
Frequency	47 to 63Hz
Inrush Current	80A max. @240Vac
Conducted EMI	CISPR/FCC Class B
Leakage Current	0.1mA max.

OUTPUT SPECIFICATIONS:

Holdup Time8ms typ. @115Vac
Short Circuit Protection	Continuous
Over Voltage Protection	Yes
Temperature Coefficient	±0.05%/°C

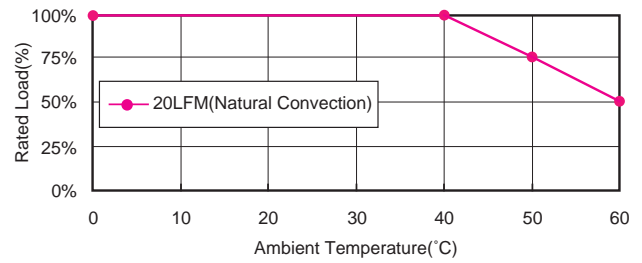
GENERAL SPECIFICATIONS:

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	100KHz Typical
MTBF	MIL-HDBK-217F, GB, at 25°C/115VAC
Altitude	3000m
Dimensions	5.197x2.283x1.201Inches (132.00x58.00x30.50mm)
Weight	345g(0.76 Pounds)

SAFETY AND EMC:

Emission and Immunity	EN55022 Class B, FCC Part 15 Class B
	EN61000-3-2, EN61000-3-3, EN55024
	EN61204-3
Safety	EC60950-1, EN60950-1, UL60950-1

TR60M Series Derating Curve



NOTE:

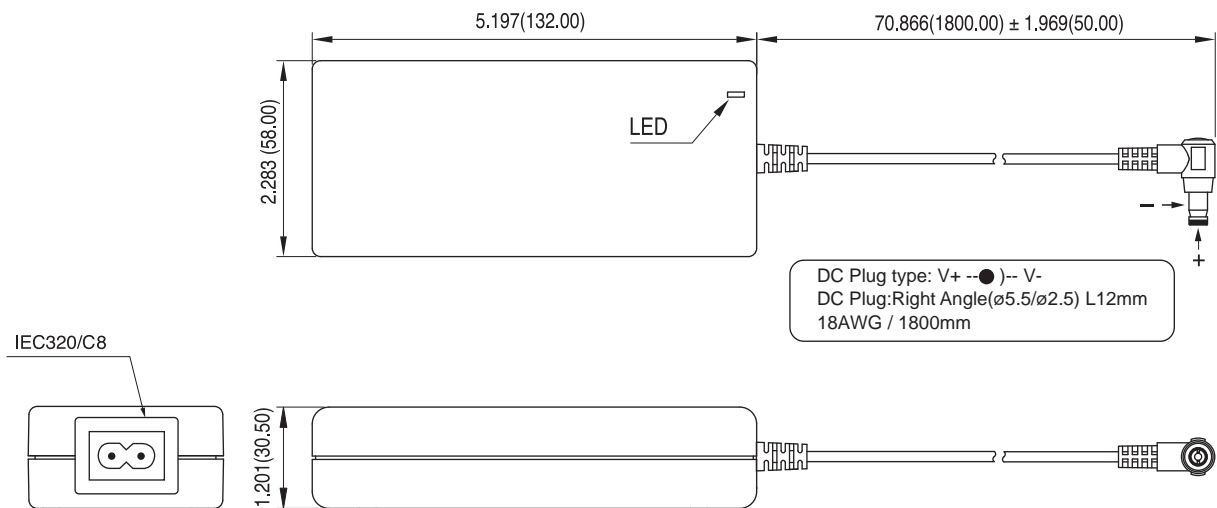
- Voltage setpoint at 60% load.
- Add a 0.1µF ceramic capacitor and a 10µF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
- Line regulation measured from 100Vac to 240Vac, full load.
- Load regulation measured from 60% to full load and from 60% to 20% load (60% +/- 40% load)
- "Various 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"



TR60M

Mechanical Specification

All Dimensions 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