



TR60M SERIES 60W 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
(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)
- * CEC Level IV Compliant
(Output Cable Length \leq 1800mm)
(TR60M Series meets CEC IV except
TR60M05 is Non-CEC Compliant)
(TR60M12: Output Cable Length \leq 1220mm 16AWG)



Ordering information

TR60MXX- XX X XX
 Model No. DC Plug Type OVP DC Cable Length and Type
 E: With OVP
 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	0A	6A	50mVp-p	$\pm 4\%$	$\pm 1\%$	$\pm 6\%$	71%
TR60M12	12V	0A	5A	120mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 5\%$	83%
TR60M15	15V	0A	4A	150mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 3\%$	84%
TR60M18	18V	0A	3.33A	180mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	84%
TR60M19	19V	0A	3.15A	190mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	85%
TR60M24	24V	0A	2.5A	240mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	85%
TR60M36	36V	0A	1.66A	360mVp-p	$\pm 2\%$	$\pm 1\%$	$\pm 2\%$	86%
TR60M48	48V	0A	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 Time	8ms typ. @115Vac
Short Circuit Protection	Continuous
Over Voltage Protection	Yes
Temperature Coefficient	±0.05%/°C

GENERAL SPECIFICATIONS:

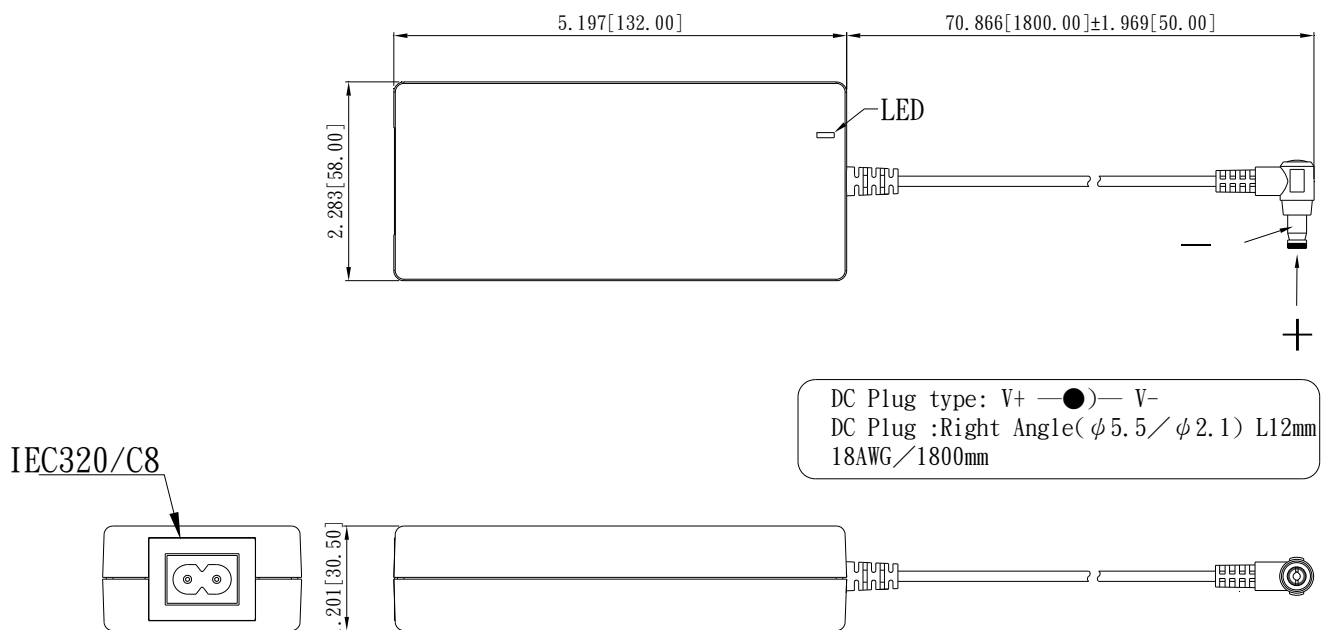
Isolation	Input to output =5,656VDC
Operating Temperature	0 ~ 60°C (see derating curve)
Storage Temperature	-20 ~ 85°C
Humidity	93% RH max. Non condensing
Cooling	Natural Convection
Switching Frequency	100KHz Typical
MTBF	MIL-HDBK-217F, GB, at 25°C/115VAC 200K hrs min.
Altitude	3000m
Dimensions	5.197x2.283x1.201inches (132.00x58.00x30.50mm)
Weight	345g(0.76 Pounds)

SAFETY AND EMC:

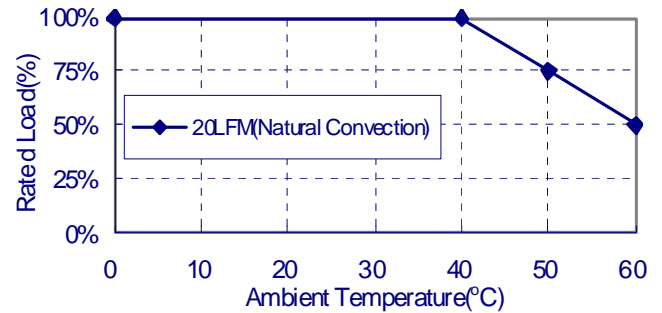
Emission and Immunity	EN55011, EN60601-1-2, EN61000-3-2 EN61000-3-3
Safety	IEC60601-1, EN60601-1, UL60601-1

Mechanical Specification

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



TR60M Series Derating Curve



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. "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"



