TMG-Z15TEC-D | 277V Input LED Driver Series

50W/220W Peak

- UL 1310 Class 1, UL 60950-1 and UL 8750 **LED Lighting**
- Safety Approvals
- Built-in Active PFC > 95% @ Full Load and Nominal Line Voltage
- Efficiency > 90% @ Full Load and Nominal Line Voltage
- Operation from –20°C to 50°C
- Convection Cooling at Rated Output



The TMG-Z15TEC-D is a 150W, enclosed, convection-cooled power supply designed for input voltages exceeding the "Universal" 90 - 264VAC input range. A minimal height design makes it ideal for housings and applications where space consumption is a leading concern. Built-in active Power Factor Correction and efficiencies >90% make the TMG-Z15TEC-D ideal for use in applications requiring UL 1310 approval as well as UL 8750 LED lighting installations with nominal input voltages up to 277VAC (305VAC Max).

Specifications

Input

Input Voltage (Nominal): Input Voltage (Min/Max): Input Frequency

Inrush Current

Power Factor Input Protection No Load Input Power

- 100 VAC to 277 VAC
- 90 VAC to 305 VAC
- 47 Hz to 63 Hz
- < 30 A at 115 VAC or < 60 A at 230 VAC cold start, 25°C
- Internal 3.15 A / 250 VAC fuse in-line
- < 0.5 W; 12V Aux output unused

Output

Output Power Output Voltage **Output Current** Initial Set Accuracy Minimum Load Start Up Rise Time Hold Up Time Line Regulation

Load Regulation Ripple & Noise Overvoltage Protection

Overload Protection **Short Circuit Protection Auxiliary Output**

- 150 Watts free-air convection
- 48 VDC
- Rated 3.2 A, Peak 4.6 A
- Single output models: ± 1%
- No minimum load required
- 2 ms typical
- 16 ms typical at rated load and 115 VAC
- + 1%
- + 1%
- 250 mV pk-pk typical, 15 MHz Bandwidth
- Latch off
- Auto recovery
- Auto recovery
- +12 VDC @ 0.5 A

General

Efficiency Isolation

> 90% @ Full Load & nominal inputs

3000 VAC Input to Output 1500 VAC Input to Ground 500 VDC Output to Ground

Isolation Resistance Switching Frequency

Signals

MTBF

120 kHz

 $50 M\Omega$

Fan: +12 VDC Auxiliary Output

> TBD to MIL-HDBK-217F at 50°C

Environmental

Operating Temperature Range

Cooling

Operating Humidity Storage Temperature

RoHS Compliance

-20°C to 50°C, No De-rating De-rating: 2.5%/°C > 50°C to 70°C

150 W free-air convection

5-95% RH, non-condensing

-40°C to +85°C

ROHS Compliant

EMC and Safety

Safety Approvals

UL 1310 - Class 1 Power Units UL 8750 - LED Equipment for Lighting

Fmissions Harmonics FCC Part 15 Class A

EN 61000-3-3

Construction and Warranty

Enclosure Dimensions Enclosure Description Input Connectivity

83.8 x 133 x 43 (mm) or less

Full enclosure, openings < 2mm

10", 18AWG Leads:

Line: Black Neutral: White Ground: Green

Output Connectivity

10", 18AWG Leads:

DC+: Black DC -: White

Warranty 5 Years



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Output Specifications

	Model No.	Application	Output Rail	Load (A)				Voltage Accuracy	Ripple Noise	Line Reg.	Load Reg.
				Min	Rated	Max	Peak	Voltage Accuracy	hippie Noise	Lille Reg.	Load Reg.
	TMG-Z15TEC-D	LED Lighting	+48V	0	3.2	3.2	4.6	+47.90V~+48.10V	250mVpp	± 1%	± 1%

Notes

Contact factory for Safety Agency Approved status.

- 1. Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
- 2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- 3. Line Regulation is defined by changing ± 10% of input voltage from nominal line at rated load.
- 4. Load Regulation is defined by changing ± 40% of measured output load from 60% rated load.
- 5. The ripple and noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47 μF capacitor at rated load and nominal line.
- 6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to 95% output voltage at rated load and nominal line.
- 7. Efficiency is measured at rated load and nominal line.
- 8. No load input power is less than 0.5W only if auxiliary 12V output is not used.

Mechanical Specifications

Notes

1. Dimensions in mm Tolerance: ± 0.4mm

2. Size:

83.8 x 133 x 43 (mm) 3.3 x 5.24 x 1.69 (inches)

3. Connectors:

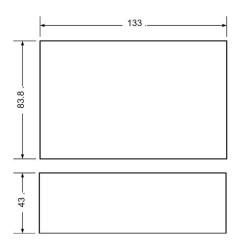
AC input: 254 mm, 18 AWG wires: Line: Black

Neutral: White Ground: Green

DC output: 254 mm, 18 AWG wires: DC+: Black

DC-: White

Auxiliary (Fan) Output: Molex 5045-02A or equivalent



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