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Curtis Industries
TMG-Z30TEC-D

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Power **Supplies**

TRI-MAG, LLC
A Curtis Industries Company

GREEN POWER

TMG-Z30TEC-D | 277V Input LED Driver Series

300W/360W 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 @ Full Load
- 18 CFM Cooling Required at Rated Output

Description

The **TMG-Z30TEC-D** is a 300W, enclosed, forced-air 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-Z30TEC-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)	100 VAC to 277 VAC
Input Voltage (Min/Max)	90 VAC to 305 VAC
Input Frequency	47 Hz to 63 Hz
Inrush Current	< 30A at 115VAC or < 60A at 230VAC cold start, 25°C
Power Factor	> 95%
Input Protection	Internal 3.15 A / 250 VAC fuse in line

Output

Output Power	300 Watts with 18CFM Cooling Air
Output Voltage	48 VDC
Output Current	6.25 A, Peak: 7.5 A
Initial Set Accuracy	Single output models: ± 1%
Minimum Load	No minimum load required
Start Up Rise Time	2 ms typical
Hold Up Time	16 ms typical at rated load and 115VAC
Line Regulation	+ 1%
Load Regulation	+ 1%
Ripple & Noise	250 mV pk-pk typical, 15MHz Bandwidth
Overvoltage Protection	Latch off
Overload Protection	Auto recovery
Short Circuit Protection	Auto recovery
Auxiliary Output	+12 VDC @ 0.5 A

General

Efficiency	> 90% @ Full Load & nominal inputs
Isolation	3000 VAC Input to Output 1500 VAC Input to Ground 500 VDC Output to Ground
Isolation Resistance	50 MΩ
Switching Frequency	120 kHz
Signals	Fan: +12 VDC Auxiliary Output
MTBF	> TBD to MIL-HDBK-217F at 25°C

Environmental

Operating Temperature	-20°C to 50°C, No De-rating De-rating: 2.5%/°C > 50°C to 70°C
Cooling	300 W with 18CFM forced air 225 W free air convection
Operating Humidity	5-95% RH, non-condensing
Storage Temperature	-40°C to +85°C
RoHS Compliance	ROHS Compliant

EMC and Safety

Safety Approvals	UL 1310 Class 1 UL 8750
Emissions	FCC Part 15 Class A
Harmonics	EN 61000-3-3

Construction and Warranty

Enclosure Dimensions	83.8 x 127 x 53 (mm) or less	
Enclosure Description	Full enclosure, openings < 2mm	
Input Connectivity	10", 18AWG Leads:	Line: Black Neutral: White Ground: Green
Output Connectivity	10", 18AWG Leads:	DC+: Black DC -: White
Warranty	5 Years	

TMG-Z30TEC-D | 277V Input LED Driver Series

Output Specifications

Model No.	Application	Output Rail	Load (A)				Voltage Accuracy	Ripple Noise	Line Reg.	Load Reg.
			Min	Rated	Max	Peak				
TMG-Z30TEC-D	LED Lighting	+48V	0	6.25	6.25	7.5	+47.90V~+48.10V	250mVpp	± 1%	± 1%

Notes

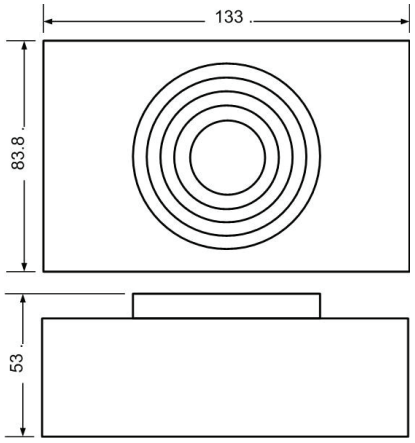
Contact factory for Safety Agency Approved status.

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.

Mechanical Specifications

Notes

1. Dimensions in mm Tolerance: ± 0.4mm
2. Size:
   83.8 x 133 x 53 (mm)
   3.30 x 5.23 x 2.08 (inches)
3. Connectors:
   AC input: 254 mm, 18 AWG wires: Line: Black
   Neutral: White
   Ground: Green
4. DC output: 254 mm, 18 AWG wires: DC+: Black
   DC-: White
5. Auxiliary (Fan) Output: Molex 5045-02A or equivalent



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