

## Switch Mode Power Supplies Encapsulated Constant Voltage

# **TLD1020-12**

### **Description:**

The TLD1020-12 is a compact and lightweight Constant Voltage Switch Mode Power Supply. Waterproof design within a 2x4 J box, IP66, NEMA 4 suitable for dry and damp locations. Convection cooled plastic housing. Designed for outdoor and indoor applications. Some typical applications include LED's, Lighting, etc.

### **Specifications (@25C)**

### **Electrical Specifications:**

Input Voltage: Input Frequency Range (1): Max Input Current: Max Inrush Current: Power Factor: Output: Crest Factor (Ipk): Leakage Current: Efficiency: Maximum power: Current Accuracy: Load Regulation: Hold up time: Protection: 90-264Vac 47-63Hz 0.6A @ 115Vac; 0.3A @ 230Vac <5A @ 115Vac, 10A @ 220Vac >0.9 at full load, 115Vac 12Vdc±5%, 1.66Adc Max 1.5 Max. 300µA Typical 84% Typical at full load 20W ±1% (when applicable) ±3% Half cycle minimum at 120 VAC and 80% of rated voltage Over-voltage, Over current and Short circuit protection:

### Environmental Specifications: Operating Temperature:

Storage Temperature:

Operating Humidity:

Cooling:

MTBF:

EMC:

Vibration:

-30 to 60°C (De-rating: 1%/°C from 60-70°C) -40 to 85°C 5 to 95% RH (non-Condensing) Convection cooling 5 to 50Hz >100,000 Hours at full load and 25°C ambient conditions Compliant to 47CFR, Part 2, Part 15 and Cispr PUB, 22 Class B

### **General Specifications:**

Connections: Dimensions (WxLxH): Weight: Warranty: 5in leads - Input: 18 AWG; Output: 18 AWG 40.0x95.0x25mm 120g 3 years @ 40°C, 100% Load

Safety Standards: Standards:

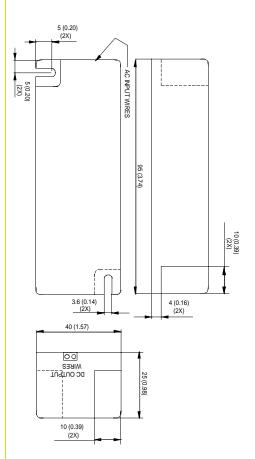
UL (cUL) 1310, UL48 CF

Auto-recovery



RoHS Compliance: This power supply meets the requirements 2002/95/EC, know as the RoHS initiative.





# **TLD1020/40 Series**

### 20~40 Watt Single Output Encapsulated Switching Power Supply with Power Factor Correction for Indoor & Outdoor IP66 / NEMA 4 Applications

10.0 (2X)

4.0 (2X)



### AC Input Wires 95.0 $\subset$ 10.0 (2X) 3.6 (2X) 5.0 1 (2X) ↓ 5.0 (2X) DC Output Wires 10.0 (2X) TLD40 DC Output Wires AC Input Wires 4.0 (2X) . 95.0 32.0 10.0 (2X) (2X) 70.0 5.0 T U Unit: mm Tolerance: ±1.0mm 5.0 (2X)

### **SPECIFICATIONS (@25°C)**

### Input Characteristics

Input Voltage: Input Frequency Range: Power Factor: Crest Factor (Ipk): Max Input Current (max):

Max Inrush Current:

### **Output Characteristics**

Adjustment Range: Setpoint Accuracy Current Accuracy: Ripple/Noise (pk-pk 20MHz): ±5% Regulation: Hold-up Time: Over Current Protection: Over Voltage Protection:

90 - 264VAC 47 - 63Hz 0.9 at Full Load & 115 VAC 1.5 Max TLD1020: 0.3/ 0.15A @ 115/230 VAC TLD040: 0.5/0.25a @ 115/230 VAC 5 / 10A @ 115 / 230 VAC (cold start)

Fixed ±5% ±1% (when applicable) ±3.0% Load / ±3.0% Line 1/2 Cycle @ 120 VAC & 80% Load (min) 120% (Auto-recovery) 120% (Auto-recovery)

### General Specifications

Dimension (LxWxH):

Weight: Reliability (MTBF) Warranty:

TLD1020: 3.74 x 1.57 x 0.97" / 95 x 40 x 25mm TLD1040: 3.74 x 2.76 x1.26" / 95 x 70 x 32mm 120g >100k hrs. (Full Load & 25°C Operation) 3 years

### **Environmental Specifications**

**Operating Temperature:** 

Storage Temperature: Cooling: Humidity: Vibration:

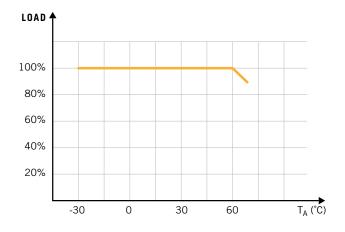
-30~+60°C Full Load, derate 1%/°C from 60~70°C max -40~+85°C **Convection Cooled Operation** 5~95% RH, non-condensing 5 - 50Hz, 2G 1min / cycle, period of 60min, each axis

### **EMC & Safety Specifications**

EMC Emissions:	Compliant to 47CFR, Part 2, Part 15
	and Cispr PUB, 22
Class II Safety Approval:	UL/cUL 1310, UL48, CE Mark (LVD)

**CONNECTOR TYPES** Input: 18AWG Wire, 5 inch leads Output: 18AWG Wire, 5 inch leads

### **DERATING CURVE**



Constant Voltage Models	Voltage	Current	Efficiency
TLD1020-12	12V	1.66A	84%
TLD1020-24	24V	0.83A	84%
TLD1040-12	12V	3.33A	84%
TLD1040-24	24V	1.67A	84%

Constant Current Models	Adc	VDC	Efficiency
TLD1020-24-C0350	350mA	12~24V	84%
TLD1020-24-C0700	700mA	12~24V	84%
TLD1020-36-C0350	350mA	18~36V	84%
TLD1040-24-C1050	1050mA	12~24V	84%
TLD1040-36-C0700	700mA	18~36V	84%
TLD1040-36-C1050	1050mA	18~36V	84%

