



Thomas Research Products

SSL Solutions Faster Than The Speed Of Light®

TSV-300W Series

LED Drivers
Constant Voltage
Aluminum Housing

Total Power: 300 Watts
Input Voltage: 249-528 Vac
Outputs: Single from 24-48 Vdc
Waterproof Applications, IP67
High Power Factor
UL8750, IEC61347

Electrical Specifications

Input Voltage Range: 277 - 480 Nom. Vac (249 - 528 V Min/Max)
Frequency: 50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor: 0.90 @ full load, 277V through 480V
Inrush Current: 135 Amps max @ 480 Vac, cold start 25°C
Input AC Current: 1.4 A max 277Vac, 0.8 A max 480Vac
Maximum Power: 300W
Output Voltage Tolerance: ± 3%
Line Regulation: ± 1% Vac
Load Regulation: ± 1.5% Output current
Leakage Current: 0.75 mA 480Vac 50Hz
Typical Efficiency: 90-91% at 277Vac
Turn-on Delay: 1 S typical
Ripple and Noise: 2% V_o
Protection: Over-Current (Hiccup mode),
Over-Temperature (Latch mode), Lightning,
and Short Circuit Protection (Hiccup mode)

Environmental Specifications

Operating Temperature: -35°C to +70°C
Maximum Case Temp. 83°C
Storage Temperature: -40°C to +85°C
Humidity: 5% to 100%
Cooling: Convection
MTBF: 250,000 Hours at 480Vac input, 80% load and
25°C ambient conditions per MIL-HDBK-217F
Lifetime: 62,000 Hours @ 480V, 80% load, T_c = 60°C
Weight: 3.09 lbs. (1.4 kg)



Constant Voltage - Product Specifications

Model Number	Output Voltage (Vdc ±3%)	Output Current Range (mA)	Max. Output Power (W)	Typical Efficiency
TSV-300S024ST	24	0-12.5	300	90%
TSV-300S028ST	28	0-10.7	300	91%
TSV-300S036ST	36	0-8.33	300	91%
TSV-300S048ST	48	0-6.25	300	91%

Safety and EMC Compliance

UL/CUL	UL8750, UL1012, CSA-C22.2 No. 107.1
CE	EN61347-1, EN61347-2-13
EN 55015	Conducted emission Test & Radiated emission Test
EN 61000-3-3	Voltage fluctuations & flicker
FCC Part 15	ANSI C63.4:2009 Class B
EN 61000-4-2	Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient / Burst-EFT
EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 4kV, line to earth 6kV
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8	Power Frequency Magnetic Field Test
EN 61000-4-11	Voltage Dips
EN 61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment



Note:
LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED driver, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

Specifications subject to change without notice.

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