

92500

Linear Constant Voltage LED Driver 12V 45W

1. Product Description



Isolated LED Driver for Class I LED Light Fixture

Category: AC220-240V, flicker free

Property: high PF, high efficiency, low THD

Application: indoor office lighting, commercial lighting & decorative lighting

Warranty: 2 years + 3 years extended warranty

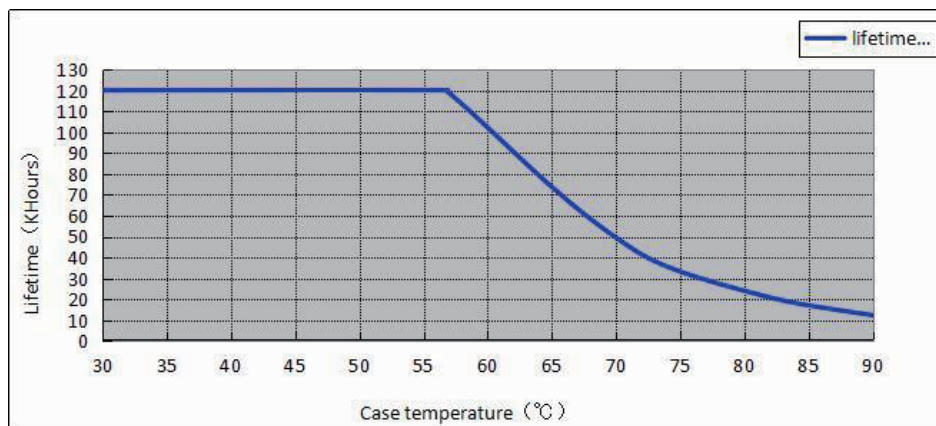
2. Technical Data

Output	Output Voltage	12VDC
	Output Current	3750mA max.
	Ripple Voltage	< 1V
	Voltage Tolerance	12±0.3V
	Time to Light	<0.5S @230Vac
	Temperature Drift	±10%
	Line Regulation	±5%
Input	Line Regulation	±5%
	Rated Input Voltage	AC: 220-240Vac (Limit voltage: 200-264Vac)
	Frequency	47Hz-63Hz
	Input Current	0.35A Max
	Power Factor	≥0.94/200Vac
		≥0.95/230Vac
		≥0.94/264Vac
	THD	≤20%
	Efficiency	≥88%/200Vac
		≥88%/230Vac
≥88%/264Vac		
In-Rush Current	<60A/350uS@230Vac	
Stand-by Power	≤1W@230Vac	
Protective Feature	Over-Voltage	≤16V (Cut off output voltage. Auto-recovery.)
	Over-Load	108%-150% (auto-recovery)
	Short-Circuit	Hiccup mode (auto-recovery)
Environment & Condition	Working Temperature	-30°C ~ +50°C
	Working Humidity	20-90%RH (no condensation)
	Storage Temperature/Humidit	-40°C ~ +80°C (6 months under the class I environment); 10-90%RH (no condensation)
	Atmospheric Pressure	86-106KPa
Safety & Norm	Hi-Pot Test	I/P-O/P: 3.75KVac, <5mA 60S; I/P-FG: 1.6KVac, <5mA 60S; O/P-FG: 0.5KVac, <5mA 60S
	Insulation Resistance	I/P-O/P, I/P-FG, O/P-FG: 500VDC, >100MΩ
	Surge Rating	Meet standards of IEC61000-4-5 (L-N:1KV; L/N-PG:2KV)
	EMI	Meet standards of EN55015, EN61000-3-2
	EMS	Meet standards of EN61000-4-2,3,4,5,6,8,11; EN61547
Others	IP Rating	IP20
	Warranty Condition	Max. case temperature must not exceed 70°C

Testing Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: TH9201B, stroboscope (flicker coefficient tester) 60N-01, etc.
Testing Condition	Unless otherwise stated, the electrical parameters above, including the power factor, THD and efficiency, are tested under the ambient temperature 25°C and humidity 50%, input 230Vac and 90% load.
Additional Remark	<ol style="list-style-type: none"> 1. It is recommended that the customer install an over-under-voltage protection and surge protection device in the fixture's power supply loop to ensure safe use of electricity. 2. The PC cover, outer housing, end caps and other accessory used for assembling the LED driver in the LED luminaire must conform to the fire rating of UL94 V-0 and above. 3. The driver is used as a component of the whole fixture and used with other lighting components (LED board, wires, heat sinks, etc). Because the EMC performance is affected by the light fixtures and the wiring, the manufacturer of light fixture needs to re-evaluate the whole device's EMC.

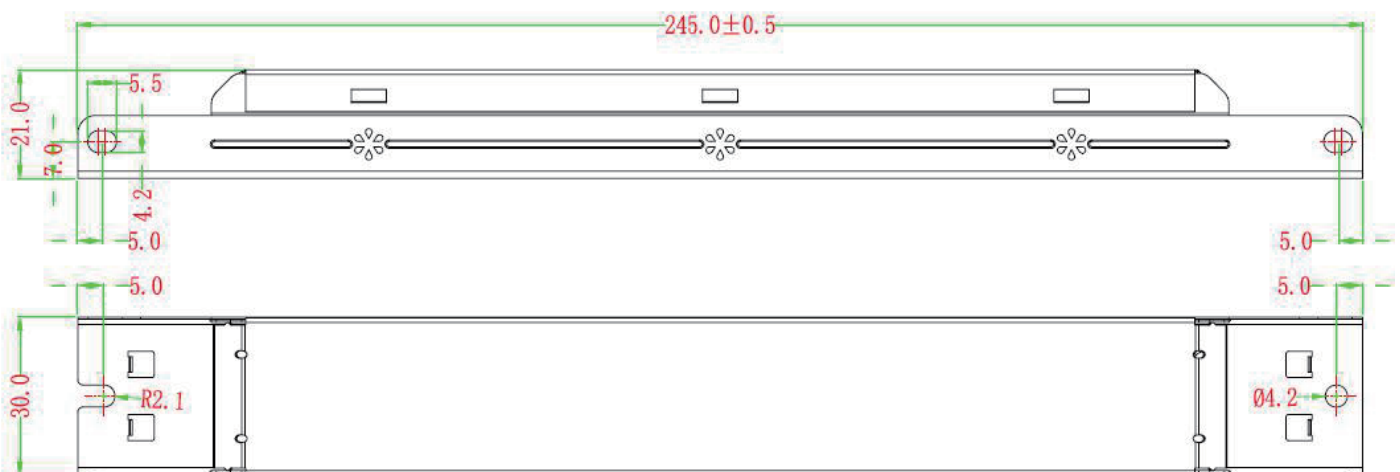
3. Product Lifetime Curve

The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40°C, 50°C, 60°C, 70°C and 80°C.

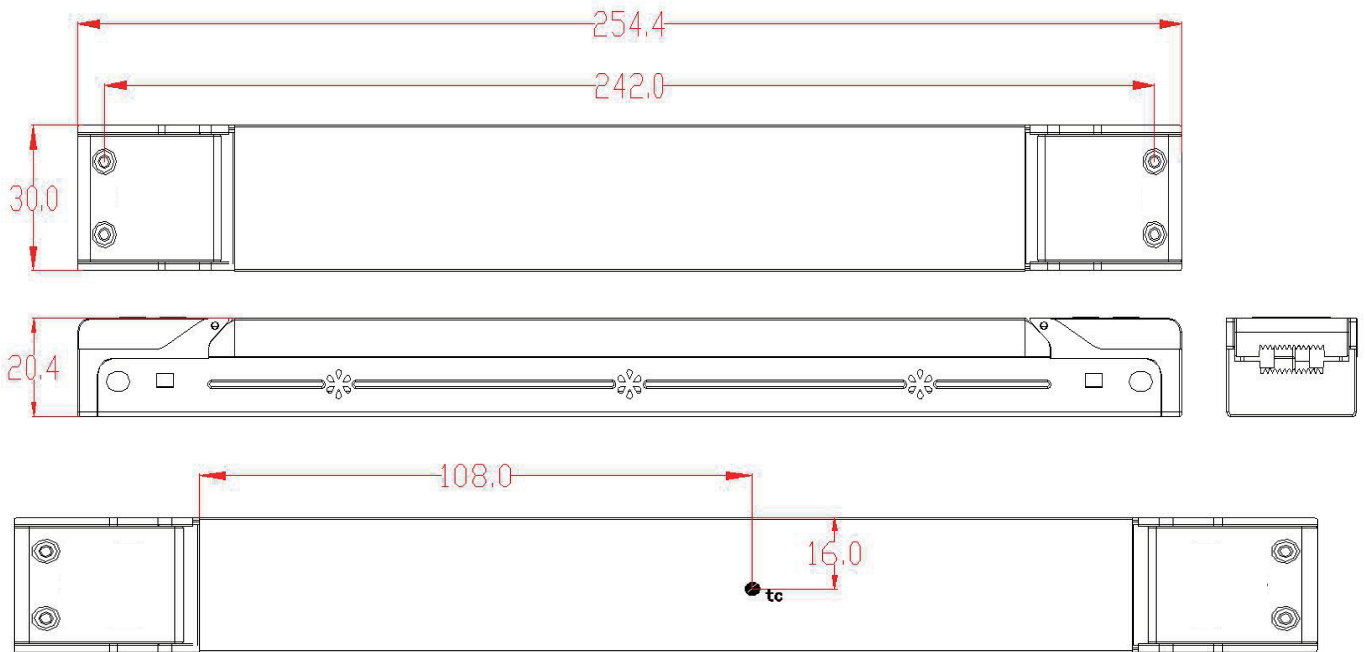


4. Dimensional Drawing (Unit: mm; Tolerance: +0.5mm)

4.1 Dimension of the Housing



4.2 Dimension of the Housing & the End Caps



5. Wiring Diagram:

