

60W Constant Voltage Driver





Features

- High efficiency up to 89%
- Built-in active PFC function
- All-Around Protection: OLP,SCP,OTP
- Compact plastic Case, Free Air Convection
- Waterproof(IP67) and ULDry/Damp/Wet Location
- Input Surge Protection:2kV line-line
- High Reliability & Long Lifetime & 5 Years
 Warranty

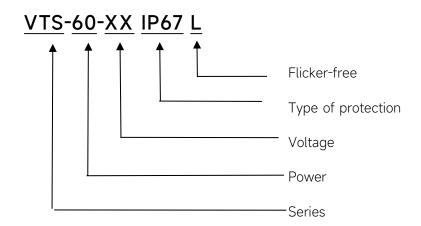
Applications

LED strips

Description

The VTS-60-XX IP67 L series is a 60W, constant-Voltage IP67 LED driver that operates from 176-264Vac input with excellent power factor and THD feature. This series of products is specially designed for direct power supply applications such as LED strips. The high efficiency of these drivers and compact plastic case enable them to run cooler, significantly improving reliability and extending product life. To ensure trouble-free operation, protection is provided against input surge, output over voltage, short circuit, and over temperature.

♦ Model code





♦ Specification

Output	Constant Voltage	12VDC	24VDC		
	Current Range	0-5A	0-2.5A		
	Voltage Accuracy	±5%			
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4			
	P _{st}	ৰ			
	Efficiency(Typ.)	86.5%			
	Rated input voltage	220-240VAC	***************************************		
	Range of input voltage	176-264VAC			
	Frequency(Hz)	47-63 Hz			
	Displacement factor	≥0.9			
Input	Power Factor	0.95@Full load,230V			
	Input Current max	0.43A			
	Start-up time	< 0.5S			
	No Load Power	<0.5W			
	THD (Typ.)	<5%@Full load,230V			
	0 1 15:	110-150%			
Darlandina	Over Load Protection	YES/Auto Resume			
Protection	Short circuit Protection	YES/Auto Resume			
	Over Temperature Protection	YES/Auto Resume			
	Operating Temperature	-40°C~+50°C			
	Humidity	20%-90%RH			
Environment	Tc	90℃			
	Storage Temperature	-40°C~+85°C			
	Life time	>50000h@Tc=80°C			
Surface	Dimension	162.5X42.5X32(LXWXH)mm			
standards	EN 61347-1;EN 61347-2-13;EN 62384;EN 61547;EN55015,EN61000-3-2,EN 61000-3-3				
	ErP	EU 2019/2020			
Others	RoHS	RoHS (2011/65/EU) (EU)20	15/863		
Note	1.All parameters not specially mentioned are measured at 230Vac input and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 µF parallel capacitor.				
	3. This LED driver meets the EMI specifications above, but EMI performance of a lighting fixture also depends on the other devices on the fixture. 4. When the withstand voltage test is performed, the gas discharge tube grounding/disconnecting device (nut and metal lock piece)				
	located on the driver input should be temporarily removed to prevent the gas discharge tube inside the driver from functioning(refer to IEC60598-1-10.2). After the test is completed, the nut and metal lock piece must be reinstalled to restore the power line to the ground surge protection function and ensure reliable contact between the metal lock piece and the end cover.				



♦ Model list

Model	Input Voltage	Output	Output Current May output Pour	May output Dower	Power Factor	Typical
Model	Range	Voltage	Range	Max output Power		Efficiency
VTS-60-12 IP67 L	176~264Vac	12V	0~5A	60W	0.95	86.5%
VTS-60-24 IP67 L	176~264Vac	24V	0~2.5A	60W	0.95	89.0%

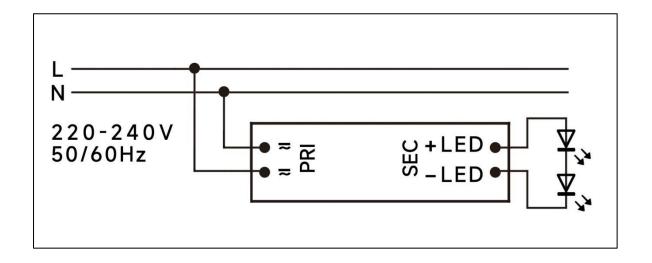
Note:

Test condition: 230Vac/50Hz, at full Load;

♦ Circuit Breaker

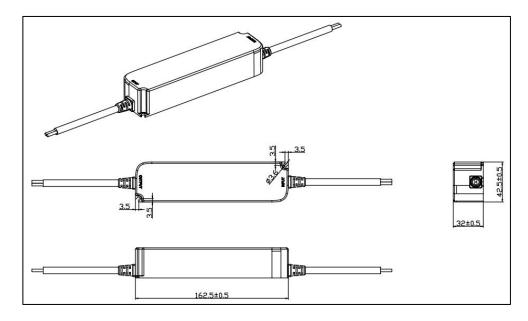
Ipeak	Twidth	B10	B16	B20	C10	C16	C20
44.2A	229.5µs	8pcs	12pcs	16pcs	13pcs	21pcs	26pcs

♦ Wiring diagram





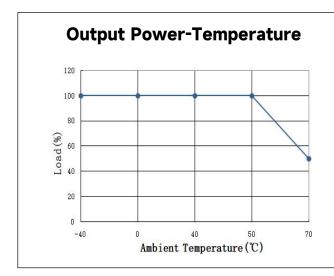
♦ 2D diagram

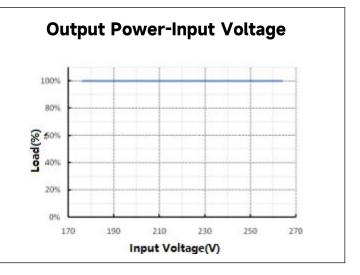


TYPE	Total Length	Outside Color	Inside Wires Color	Wire Model/Diameter
Input wire	0.36M	Black	Brown/Blue	H05RN-F/2x1.0mm ²
Output wire	0.36M	Black	Red/Black	H05RN-F/2x1.0mm ²

Note: Wire length of input and output can be changed as customer's requirement

♦ Derating

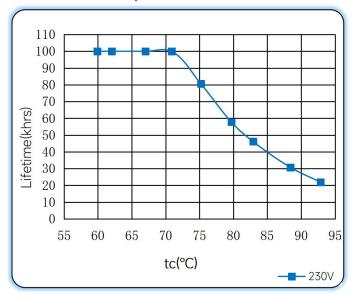






◆ Curve for VTS-60-24 IP67 L

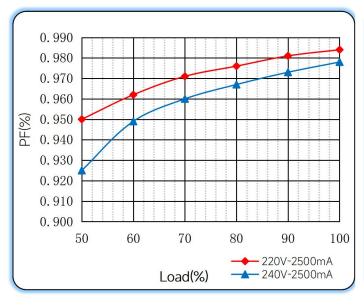
Lifetime vs. Temperature Curve



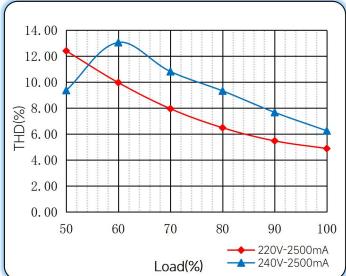
Efficiency vs. Load



Power Factor Characteristics

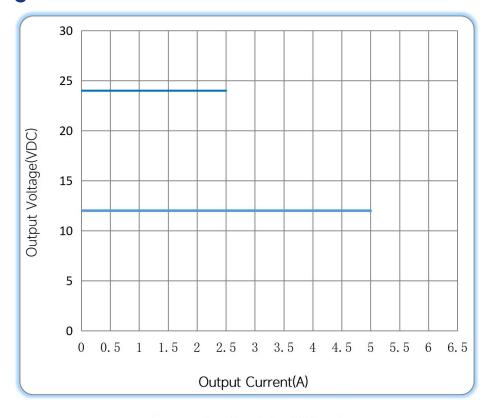


THD vs. Load





♦ Operating window



Operating window 100%

♦ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			А	2022/05/15

Remark: The final interpretation of the contents of the specification belongs to Astralux.

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