

100W Constant Voltage Driver



■ Approve



Features

- High efficiency up to 92%
- Built-in active PFC function
- All-Around Protection: OLP, SCP, OTP
- Compact plastic Case, Free Air Convection
- Waterproof(IP67) and UL Dry/Damp/Wet Location
- Input Surge Protection:2kV line-line
- High Reliability & Long Lifetime & 5 Years Warranty

Applications

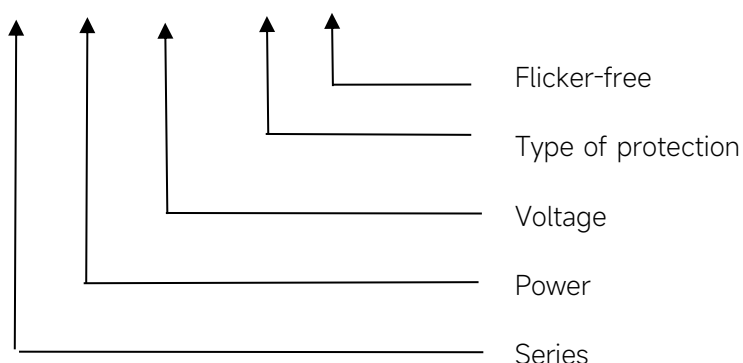
- LED strips

◆ Description

VTS-100-XX IP67 L series is a 100W, 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

VTS-100-XX IP67 L



◆ Specification

Output	Constant Voltage	12VDC	24VDC	48VDC
	Current Range	0-8.33A	0-4.17A	0-2.08A
	Voltage Accuracy	±5%		
	Output HF current ripple(≥1KHz)	±5%		
	Output LF current ripple(≤120Hz)	±5%		
	SVM	≤0.4		
	P _{st}	≤1		
	Efficiency(Typ.)	87%	89%	92%
Input	Rated input voltage	220-240VAC		
	Range of input voltage	176-264VAC		
	Frequency(Hz)	50/60Hz		
	Displacement factor	≥0.9		
	Power Factor	0.95@Full load,230V		
	Input Current max	0.68A		
	Start-up time	< 0.5S		
	No Load Power	≤0.5W		
	THD (Typ.)	<10%@Full load,230V		
Protection	Over Load Protection	110-150%		
		YES/Auto Resume		
	Short circuit Protection	YES/Auto Resume		
	Over Temperature Protection	YES/Auto Resume		
capability	Surge capability (L-N)	2KV		
	Surge capability (L/N-Ground)	NA		
Environment	Operating Temperature	-40°C~+40°C	-40°C~+45°C	
	Humidity	20%-90%RH		
	Tc	90°C		
	Storage Temperature	-40°C~+85°C		
	Life time	> 50000h@Tc=75°C		
	Noise	≤25dB(A)@10cm		
Surface	Dimension	190X52X33(LXWXH)mm		
standards	EN 61347-1;EN 61347-2-13;EN 62384;EN 61547;EN55015,EN61000-3-2,EN 61000-3-3			
Others	ErP	EU 2019/2020		
	RoHS	RoHS (2011/65/EU) (EU)2015/863		

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 Range	Output Voltage	Output Current Range	Max output Power	Power Factor	Typical Efficiency
VTS-100-12 IP67 L	176~264Vac	12V	0~8.33A	100W	0.95	87%
VTS-100-24 IP67 L	176~264Vac	24V	0~4.17A	100W	0.95	89%
VTS-100-48 IP67 L	176~264Vac	48V	0~2.08A	100W	0.95	92%

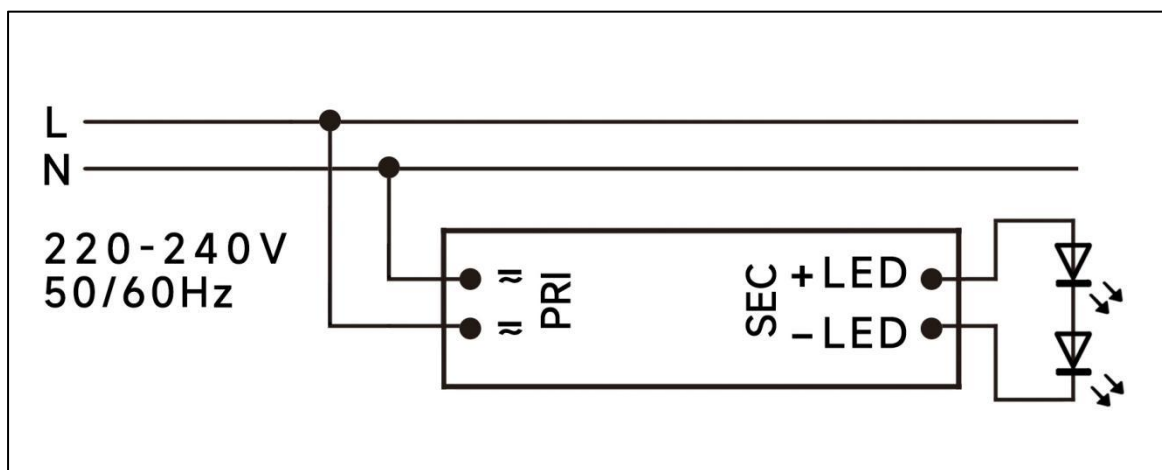
Note:

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

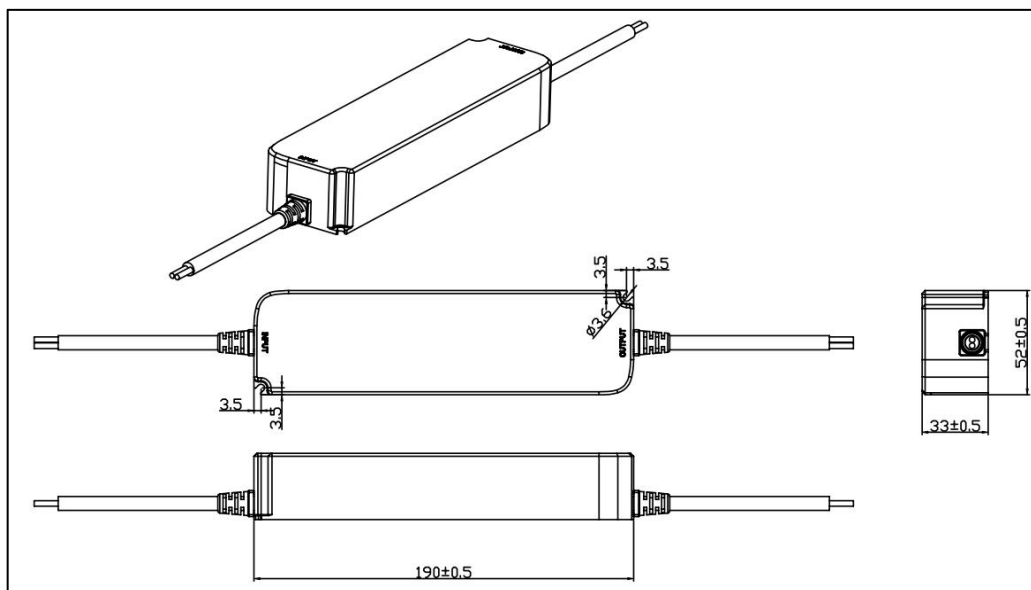
◆ Circuit Breaker

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
44.6A	302μs	5pcs	9pcs	11pcs	9pcs	15pcs	19pcs

◆ Wiring diagram



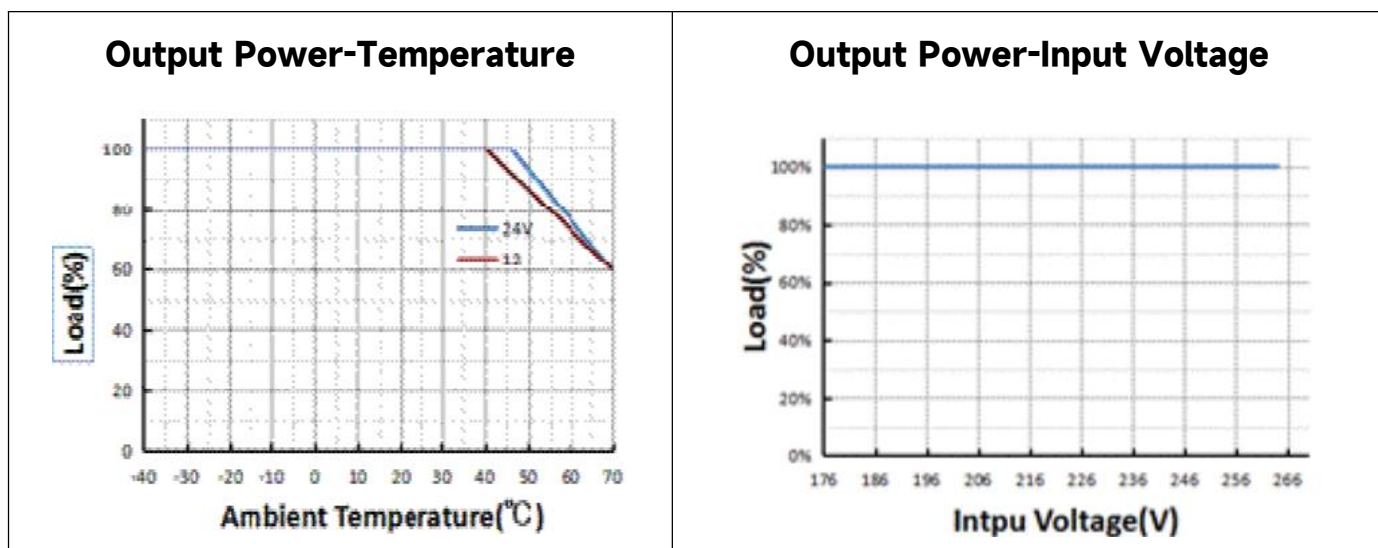
◆ 2D diagram



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

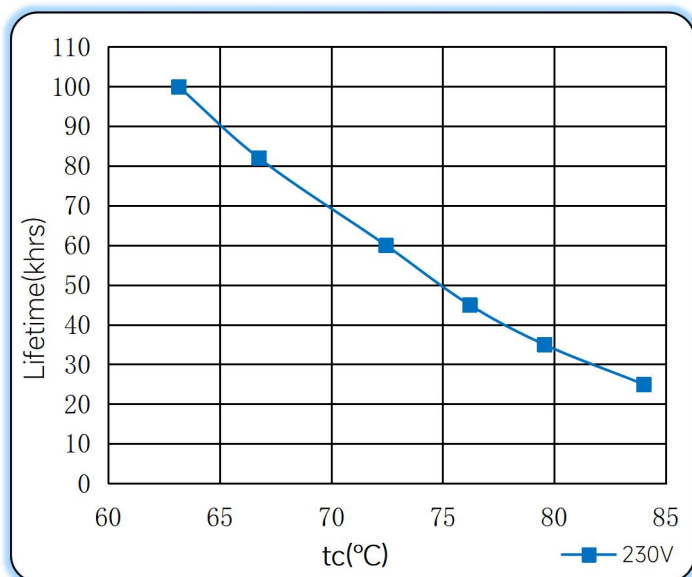
Note: Wire length of input and output can be changed as customer's requirement

◆ Derating

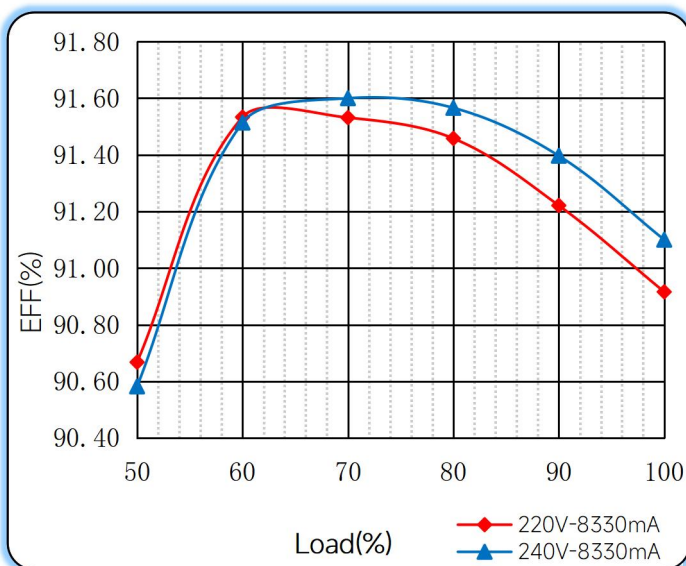


◆ Curve for VTS-100-12 IP67 L

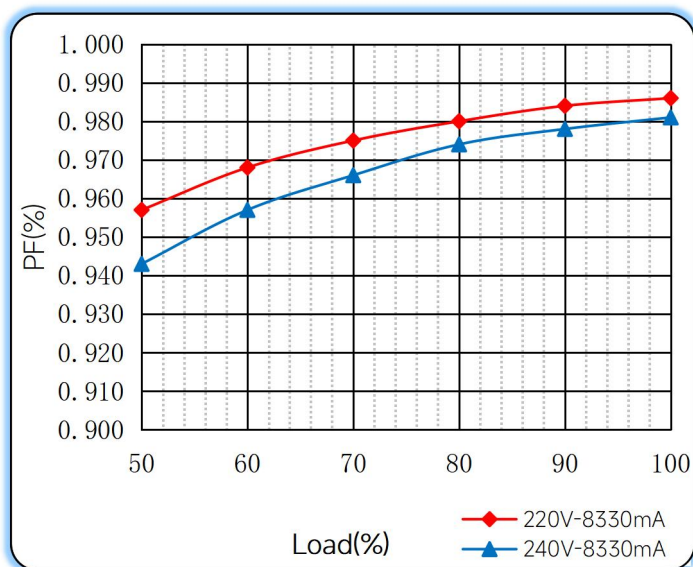
Lifetime vs. Temperature Curve



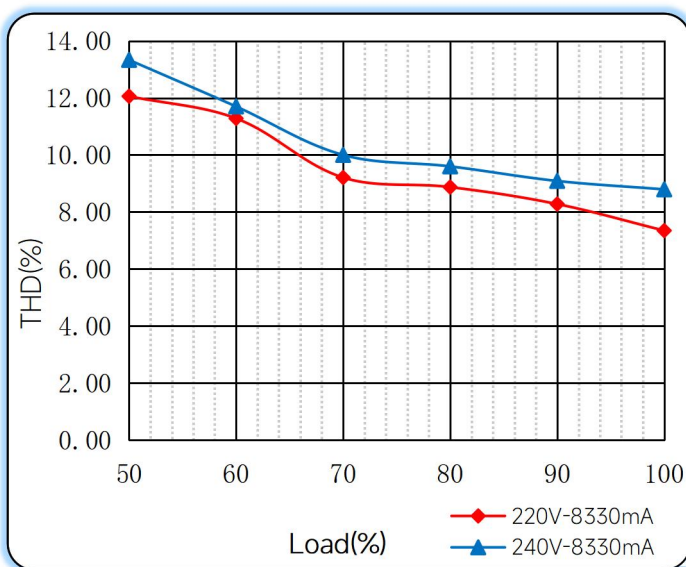
Efficiency vs. Load



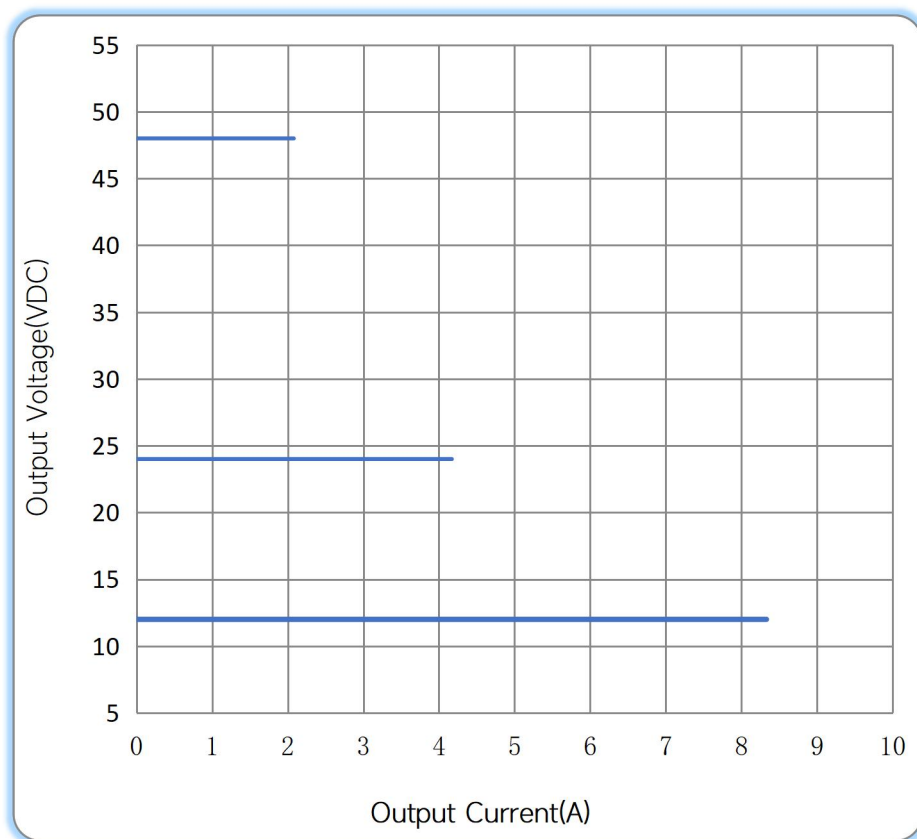
Power Factor Characteristics



THD vs. Load



◆ Operating window



— Operating window 100%

◆ Revision Updates

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

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Manual