

# **40W Constant Voltage Driver**



#### Features

- High efficiency up to 88%
- 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 & 3 Years Warranty

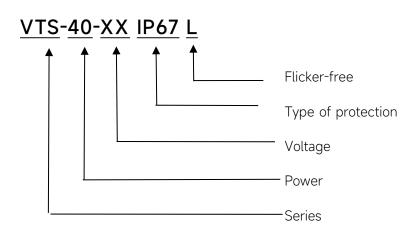
Applications

• LED strips

### Description

The VTS-40-XX IP67 L series is a 40W, constant-Voltage IP67 LED driver that operates from 198-264Vac 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

	Constant Voltage	12VDC	24VDC			
	Current Range	0-3.34A	0-1.67A			
	Voltage Accuracy	±5%	I			
Output	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(<120Hz)	±5%				
	SVM	≤0.4				
	P <sub>st</sub>	<1 ≤1				
	Efficiency(Typ.)	86% 88%				
	Rated input voltage	220-240VAC				
	Range of input voltage	198-264VAC				
	Frequency(Hz)	47-63 Hz				
	Displacement factor	≥0.9				
Input	Power Factor	0.95@Full load,230V				
	Input Current max	0.25A				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	<10%@Full load,230V				
	Over Load Protection	110-150%				
Protection		YES/Auto Resume				
FIOLECTION	Short circuit Protection	YES/Auto Resume				
	Over Temperature Protection	YES/Auto Resume				
	Operating Temperature	-20°C~+70°C				
	Humidity	20%-90%RH				
Environment	Тс	90°C				
	Storage Temperature	-20°C~+85°C				
	Life time	> 50000h@Tc=85°C				
Surface	Dimension	148X 42 X 30(LXWXH)mm				
standards	EN 61347-1;EN 61347-2-13;EN 623	84;EN 61547;EN55015,EN61000-3-2,EN	61000-3-3			
Others	ErP	EU 2019/2020				
Others	RoHS	RoHS (2011/65/EU) (EU)2015/863				
Note	<ul> <li>1.All parameters NOT specially mentioned are measured at 230Vac input and 25°C of ambient temperature.</li> <li>2.Ripple &amp; Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF &amp; 47 µF parallel capacitor.</li> <li>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.</li> <li>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.</li> </ul>					



#### Model list

Model	Input Voltage	Output	Output Current	May autout Dowor	Power Factor	Typical
Model	Range	Voltage	Range	Max output Power	Fower Factor	Efficiency
VTS-40-12 IP67 L	198~264Vac	12V	0~3.34A	40W	0.95	86%
VTS-40-24 IP67 L	198~264Vac	24V	0~1.67A	40W	0.95	88%

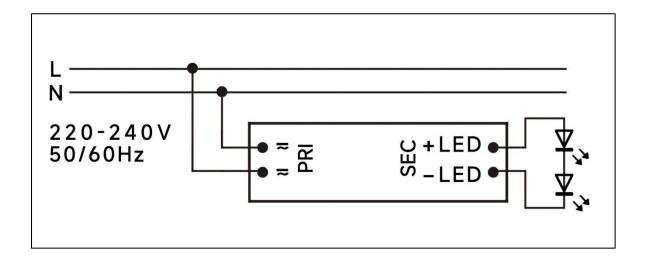
Note:

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

### Circuit Breaker

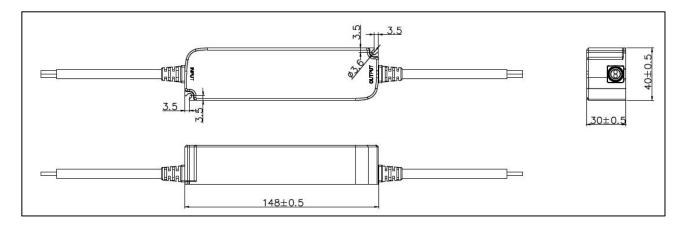
I <sup>peak</sup>	Twidth	B10	B16	B20	C10	C16	C20
26.9A	205.2µs	14pcs	23pcs	29pcs	24pcs	39pcs	49pcs

#### Wiring diagram





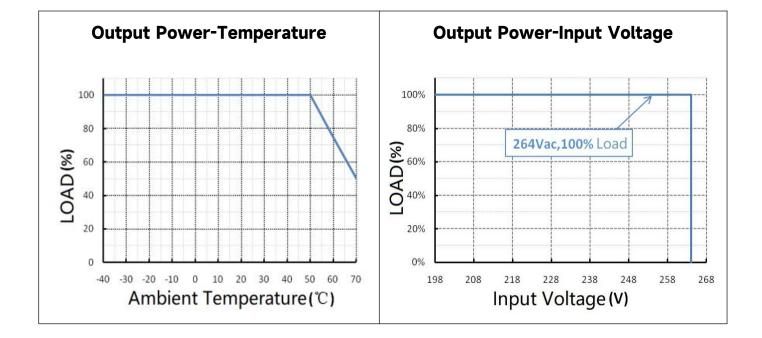
### ♦ 2D diagram



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

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

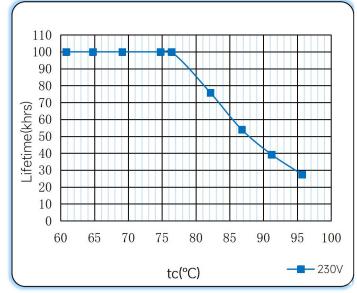
### Derating

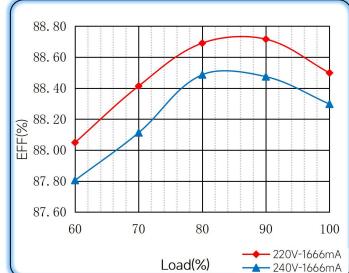




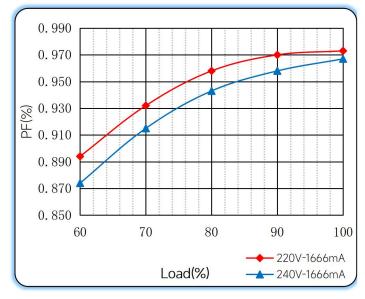
#### Curve for VTS-40-24 IP67 L

#### Lifetime vs. Temperature Curve



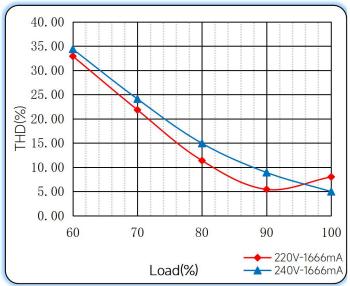


#### **Power Factor Characteristics**



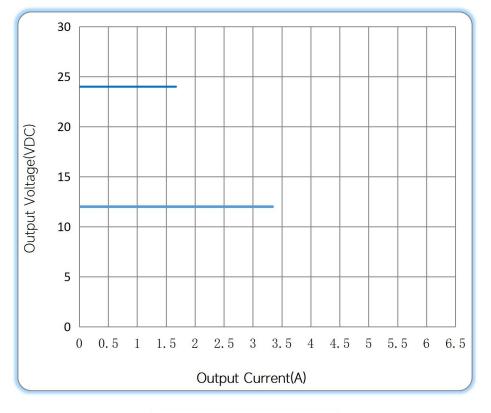
#### THD vs. Load

Efficiency vs. Load





#### Operating window



Operating window 100%

#### • Revision Updates

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

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Manual