

160W Constant Voltage Driver



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 & 3 Years Warranty

Applications

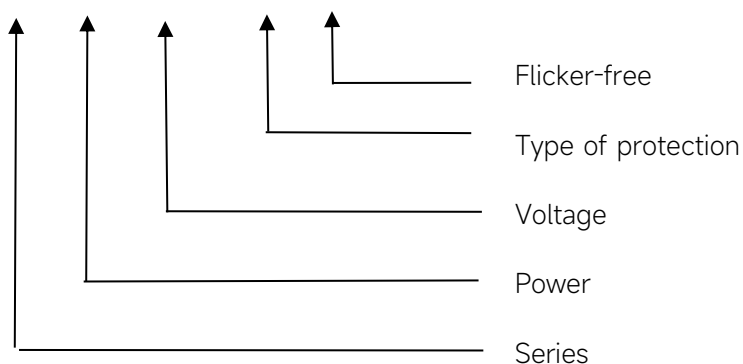
- LED strips

◆ Description

VTS-160-XX IP67 L series is a 160W, constant-Voltage IP67 LED driver that operates from 176-264Vac input with excellent power factor and THD feature. With its compact dimensions from 190 x 52 x 33 mm 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-160-XX IP67 L



◆ Specification

Output	Constant Voltage	12VDC	24VDC	48VDC
	Current Range	0-13.3A	0-6.67A	0-3.33A
	Voltage Accuracy	±5%		
	Output HF current ripple(≥1KHz)	±5%		
	Output LF current ripple(≤120Hz)	±5%		
	SVM	≤0.4		
	P _{st}	≤1		
	Efficiency(Typ.)	90%	91%	92%
Input	Rated input voltage	220-240VAC		
	Range of input voltage	176-264VAC		
	Frequency(Hz)	47-63 Hz		
	Displacement factor	≥0.9		
	Power Factor	0.95@Full load,230V		
	Input Current max	A		
	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		
Environment	Operating Temperature	-40℃~+70℃		
	Humidity	20%-90%RH		
	Tc	85℃		
	Storage Temperature	-40℃~+85℃		
	Life time	> 50000h@Tc=75℃		
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℃ 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

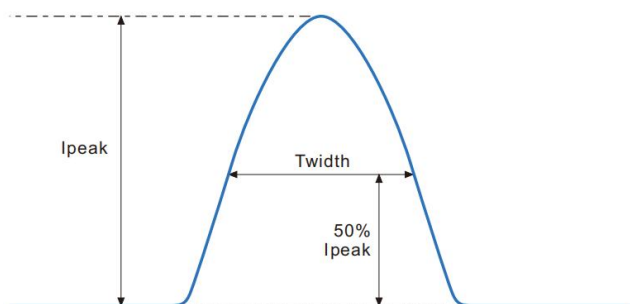
Model	Input Voltage Range	Output Voltage	Output Current Range	Max output Power	Power Factor	Typical Efficiency
VTS-160-24 IP67 L	176~264Vac	12V	0-13.3A	160W	0.95	90%
VTS-160-24 IP67 L	176~264Vac	24V	0-6.67A	160W	0.95	91%
VTS-160-48 IP67 L	176~264Vac	48V	0-3.33A	160W	0.95	92%

Note:

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

◆ Inrush Current

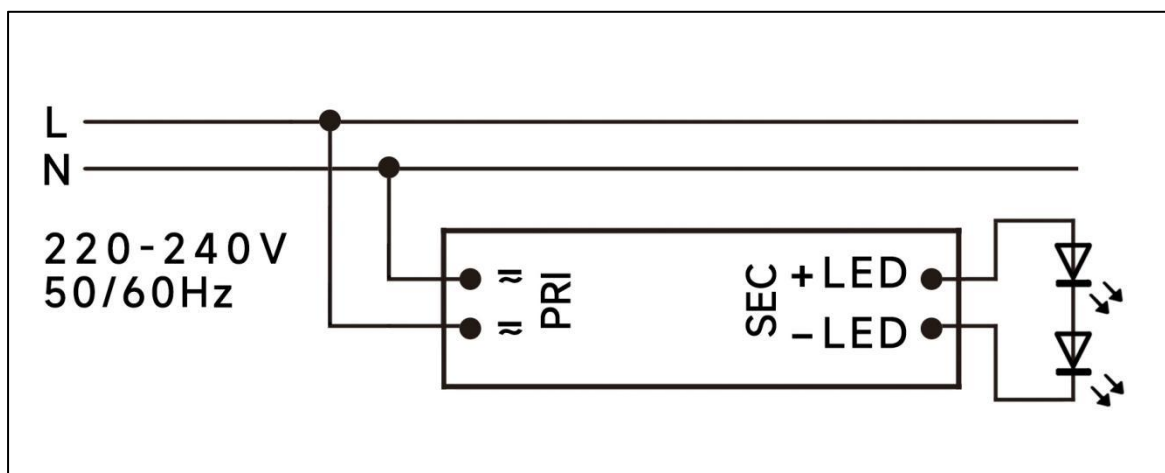
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
A	μs	pcs	pcs	pcs	pcs	pcs	pcs



Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram



◆ Curve for VTS-100-12 IP67 L

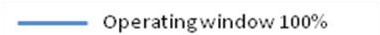
Lifetime vs. Temperature Curve

Efficiency vs. Load

Power Factor Characteristics

THD vs. Load

◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/07/15

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Manual