

160W Constant Voltage Driver



■ Approve

CE CB SELV

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:4kV line-line
- High Reliability & Long Lifetime & 3 Years Warranty

Applications

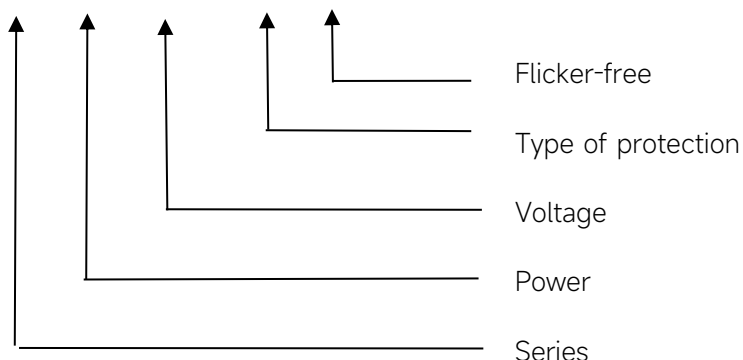
- LED strips

◆ Description

VTS-160-XX IP67 L series is a 160W, constant-Voltage IP67 LED driver that operates from 198-264Vac input with excellent power factor and THD feature. With its compact dimensions from 190 x 52 x 37.5 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.)	91%	92%	92%
Input	Rated input voltage	220-240VAC		
	Range of input voltage	198-264VAC		
	Frequency(Hz)	50/60Hz		
	Displacement factor	≥0.9		
	Power Factor	≥0.95@Full load,230V		
	Input Current max	0.91A		
	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)	4KV		
	Surge capability (L/N-Ground)	NA		
Environment	Operating Temperature	-40°C~+40°C		
	Humidity	20%-90%RH		
	Tc	85°C		
	Storage Temperature	-40°C~+85°C		
	Life time	> 50000h@Tc=75°C		
	Noise	≤25dB(A)@20cm		
Surface	Dimension	190X52X37.5(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 μ F 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.The IC setting protection logic is: many times quick switch will caused 1s delay to power on, the interval of start up time more 2s, will be power on normally.
- 5.All Eaglerise power supply are complied with EMI regulations. Since they are belong to component and will be installed inside system enclosure. When they are integrated into a system, the EMI characteristics of the system must be re-verified again.

◆ Model list

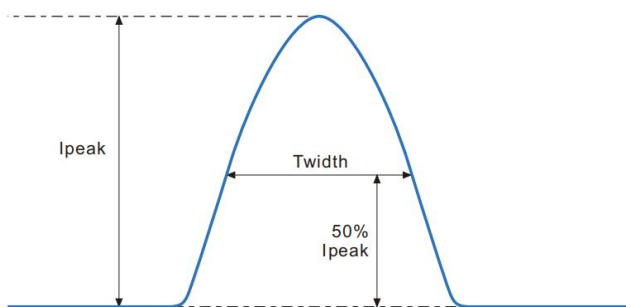
Model	Input Voltage Range	Output Voltage	Output Current Range	Max output Power	Power Factor	Typical Efficiency
VTS-160-12 IP67 L	198~264Vac	12V	0-13.3A	160W	0.95	91%
VTS-160-24 IP67 L	198~264Vac	24V	0-6.67A	160W	0.95	92%
VTS-160-48 IP67 L	198~264Vac	48V	0-3.33A	160W	0.95	92%

Note:

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

◆ Inrush Current

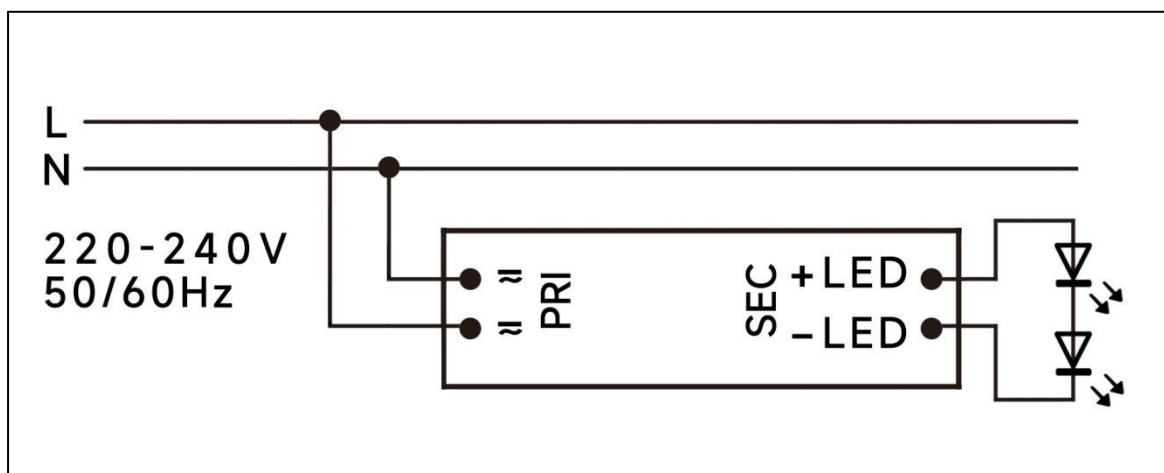
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
34.8A	310 μ s	7pcs	11pcs	14pcs	8pcs	14pcs	17pcs



Remarks:

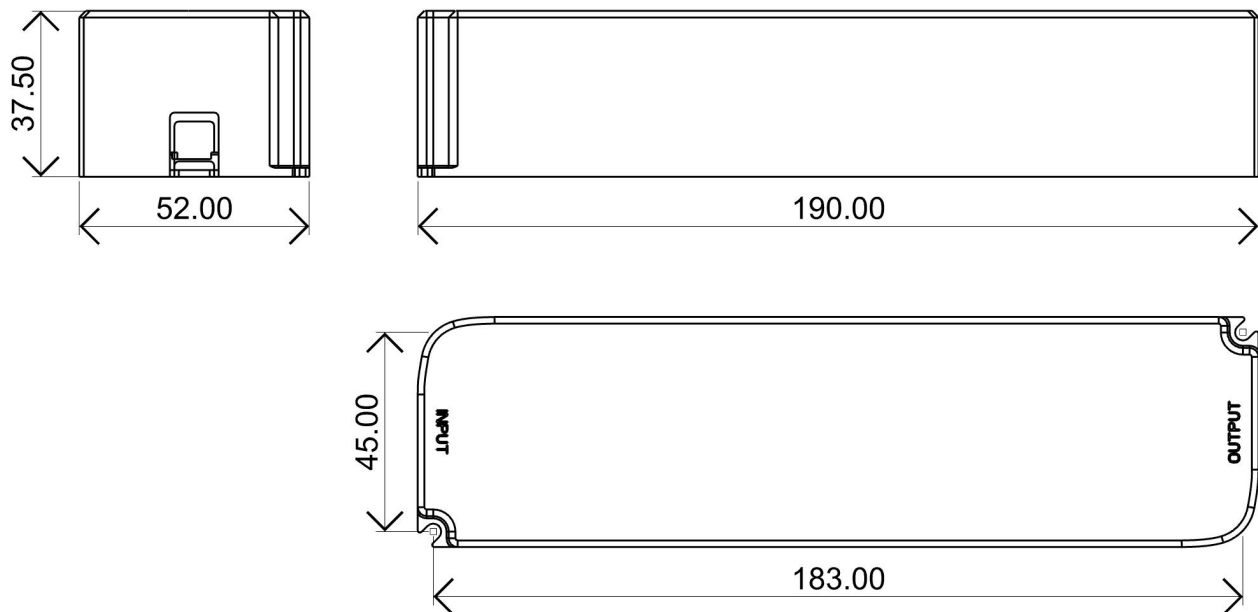
- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram



Preliminary

◆ 2D diagram

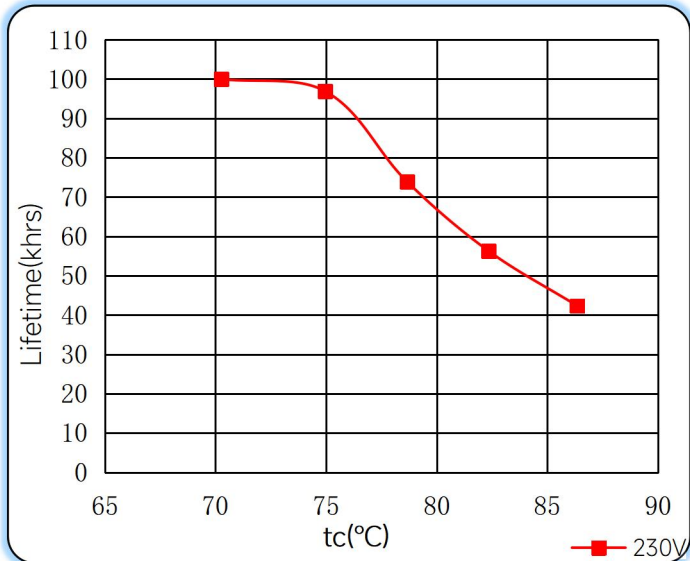


TYPE	Total Length	Outside Color	Inside Wires Color	Wire Model/Diameter
Input wire	0.36M	Black	Brown/Blue	H05RN-F/2x1.0mm ²
Output wire	0.36M	Black	Red/Black	H05RN-F/2x1.0mm ²

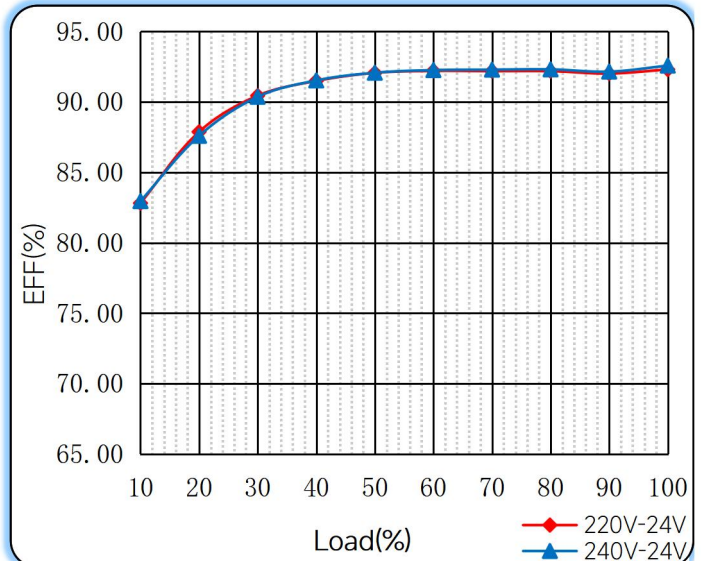
Note: Wire length of input and output can be changed as customer's requirement

◆ Curve for VTS-100-12 IP67 L

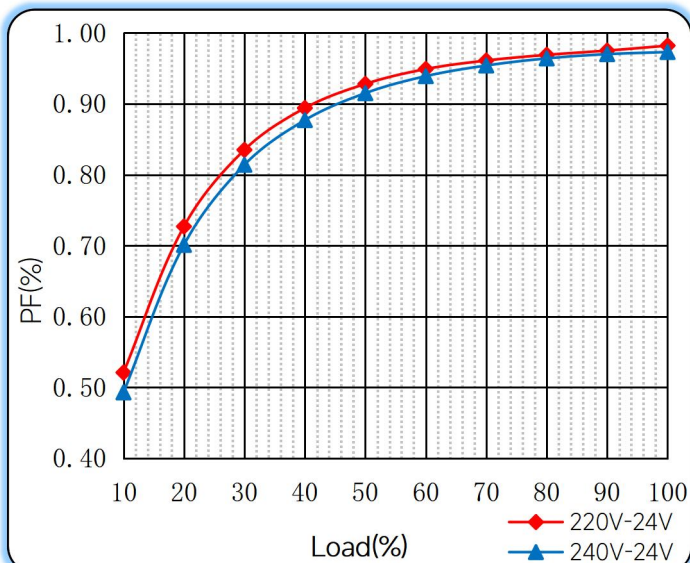
Lifetime vs. Temperature Curve



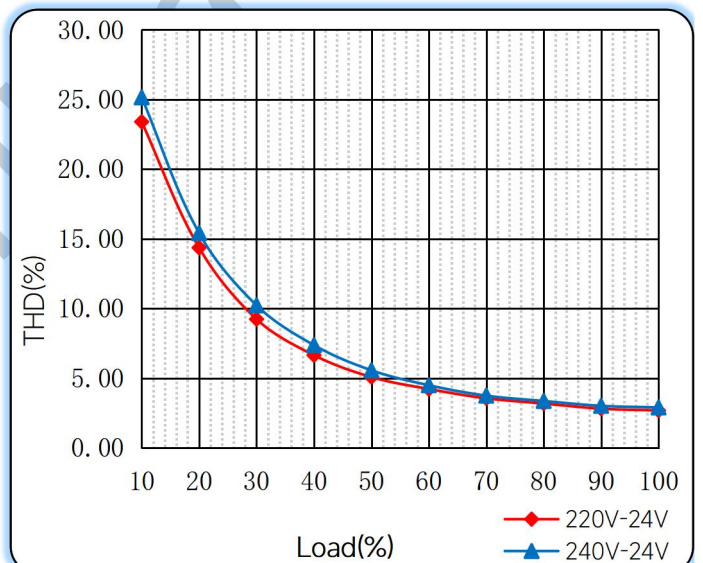
Efficiency vs. Load



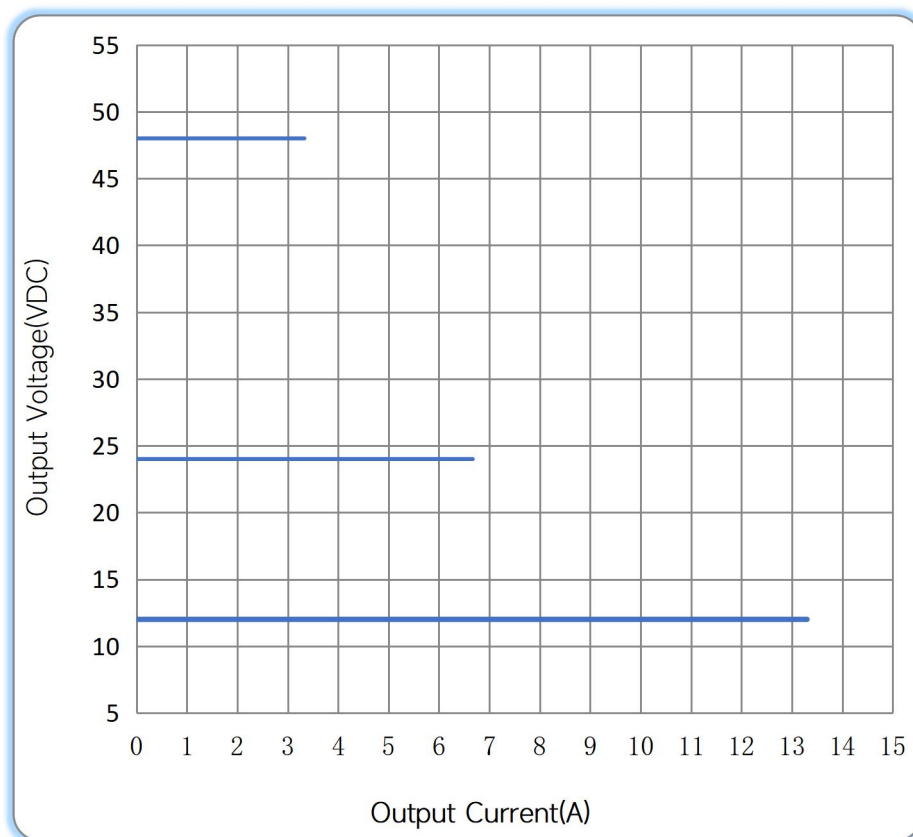
Power Factor Characteristics



THD vs. Load



◆ Operating window



Operating window 100%

◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/07/15
Power Factor	0.95@Full load,230V	≥0.95@Full load,230V	B	2024/11/06

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Manual