

## 200W Constant Voltage Driver



■ Approve



### Features

- High efficiency up to 93%
- Built-in active PFC function
- All-Around Protection: OLP, SCP, OLP, OTP
- Waterproof (IP67) and Dry/Damp/Wet Location
- Input Surge Protection: 4kV line-line  
6kV line-ground
- Compact Metal Case, Free Air Convection
- High Reliability & Long Lifetime & 5 Years Warranty

### Applications

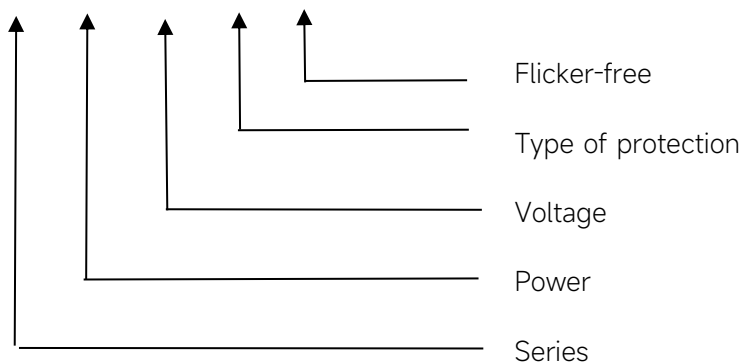
- high ceiling, tunnel lights, outdoor lights

### ◆ Description

VMS-200-XX IP67 L EXC series is a 200W, constant voltage IP67 LED driver that operates from 198-264Vac input with 12V or 24V or 36V or 42V or 48V output voltage, excellent power factor and THD feature. With its dimensions from 186.4 x 57 x 36mm. It is created for consisting of LED lamps, lampion, architecture and billboard lights. The high efficiency of these drivers and compact metal 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

VMS-200-XX IP67 L EXC



## ◆ Specification

Output	Constant Voltage	12VDC	24VDC	36VDC	42VDC	48VDC
	Current Range	0-15A	0-8.33A	0-5.56A	0-4.76A	0-4.17A
	Unload voltage Max.(VDC)	12.6VDC	25.2VDC	37.8VDC	44.1VDC	50.4VDC
	Voltage Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	SVM	≤0.4				
	P <sub>st</sub>	≤1				
	Efficiency(Typ.)	90%	92%	92%	93%	93%
Input	Rated input voltage	220-240VAC				
	Range of input voltage	198-264VAC				
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition				
	Frequency(Hz)	50/60 Hz				
	Displacement factor	≥0.95				
	Power Factor	>0.97@Full load,230V				
	Input Current max	1.4A				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	<7%@Full load,230V				
Protection	Over Load Protection	110-150%				
		YES/Auto Resume				
	Over Voltage Protection	16VDC	36VDC	50VDC	60VDC	63VDC
		YES/Auto Resume				
	Short circuit Protection	YES/Auto Resume				
capability	Over Temperature Protection	YES/Auto Resume				
	Surge capability (L-N)	4KV				
Environment	Surge capability (L/N-Ground)	6KV				
	Operating Temperature	-40°C~+55°C				
	Humidity	20%-90%RH				
	T <sub>c</sub>	90°C				
	Storage Temperature	-40°C~+85°C				
	Life time	> 50000h@T <sub>c</sub> =75°C				
Surface	Noise	≤25dB(A)@20cm				
	Dimension	186.4x57x36(LXWXH)mm				
Standards	material	metal case				
	Safety	GB19510. 1, GB19510. 14;IEC61347- 1, IEC61347-2- 13;AS/NZS 61347- 1, AS/NZS 61347-2- 13;AS 61347.2.13;EN62384;				

	EMC	GB/T17743, GB17625. 1;EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN55015, EN61000-3-2, EN61000-3-3, EN61547,EN 62493;EN61000-4-5;EN61000-4-2,3,4,5,6,8,11, EN61547
	ErP	ErP2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters NOT specially mentioned are measured at 230Vac input and 25°C of ambient temperature.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>5.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.</p> <p>6.If the rated power is exceeded for a long time, when the TC temperature is &gt;95°C, the over-temperature protection will be unlocked to shut down the output, and the output will be restored automatically after the temperature drops.</p> <p>7.The LED driver complies with the IP67 (and lower) protection rating standards, but is only suitable for indoor damp environments or outdoor sheltered locations (e.g., with rain protection). All products must not be used underwater or buried in the ground.</p> <p>8.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.</p>	

## ◆ Model list

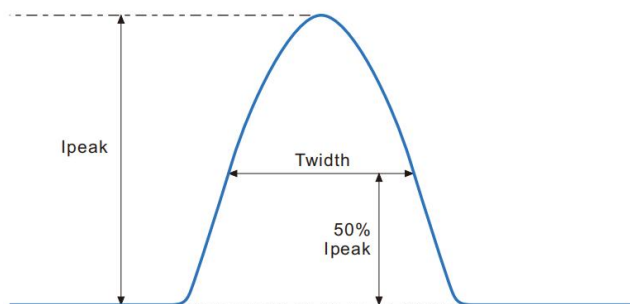
Model	Output Voltage	Output Current Range	Max output Power	Power Factor	Typical Efficiency
VMS-200-12 IP67 L EXC	12V	0-15A	180W	0.95	90%
VMS-200-24 IP67 L EXC	24V	0~8.33A	200W	0.95	92%
VMS-200-36 IP67 L EXC	36V	0~5.56A	200W	0.95	92%
VMS-200-42 IP67 L EXC	42V	0~4.76A	200W	0.95	92%
VMS-200-48 IP67 L EXC	48V	0~4.17A	200W	0.95	92%

Note:

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

## ◆ Inrush Current

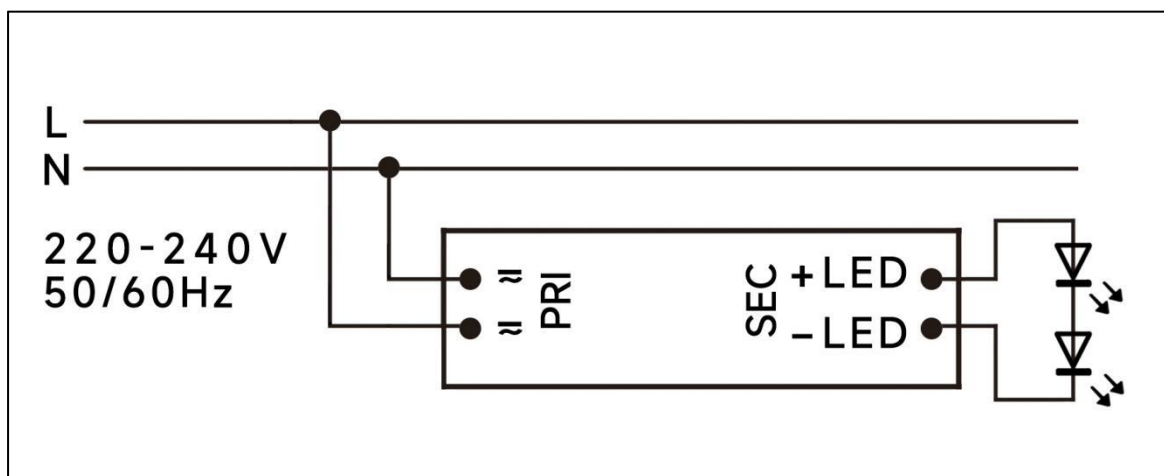
$I_{peak}$	Twidth	B10	B16	B20	C10	C16	C20
48.2A	624 $\mu$ s	2pcs	4pcs	5pcs	4pcs	6pcs	8pcs



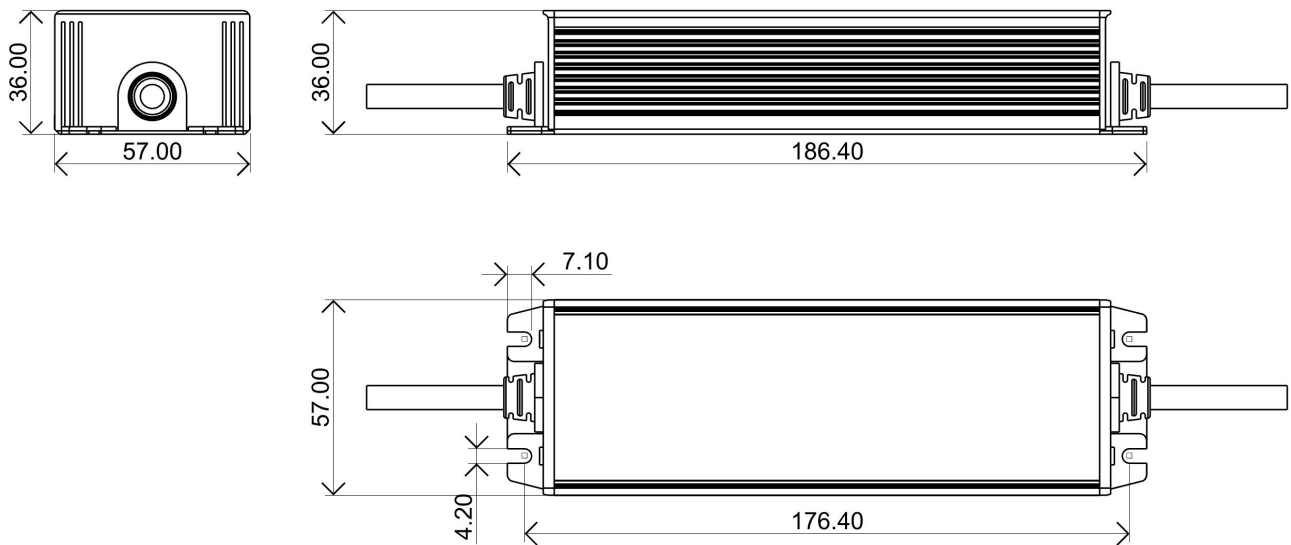
Remarks:

- 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



## ◆ 2D diagram

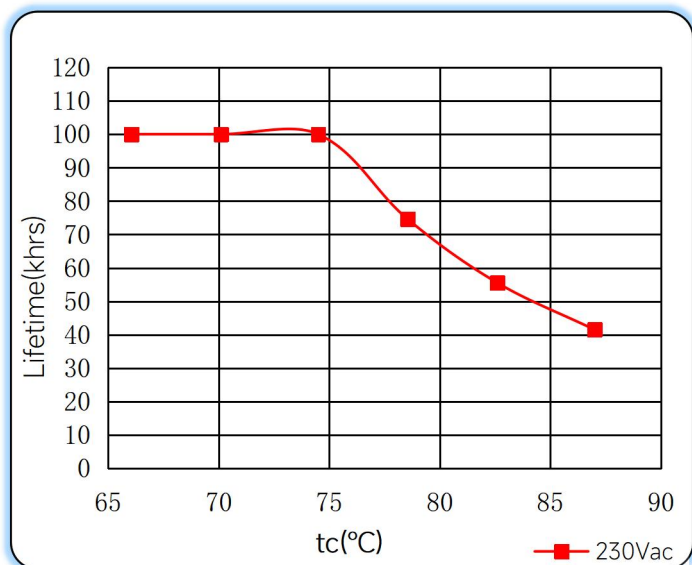


Model	TYPE	Total Length	Outside Color	Inside Wires Color	Wire Model/Diameter
VMS-200-XX IP67 L EXC	Input wire	0.36M	Black	Brown/Blue/Yellow&Green	H05RN-F/3x1.0mm <sup>2</sup>
VMS-200-12 IP67 L EXC	Output wire	0.36M	Black	Red/Black	H05RN-F/2x1.5mm <sup>2</sup>
VMS-200-24 IP67 L EXC	Output wire	0.36M	Black	Red/Black	H05RN-F/2x1.5mm <sup>2</sup>
VMS-200-36 IP67 L EXC	Output wire	0.36M	Black	Red/Black	H05RN-F/2x1.0mm <sup>2</sup>
VMS-200-42 IP67 L EXC	Output wire	0.36M	Black	Red/Black	H05RN-F/2x1.0mm <sup>2</sup>
VMS-200-48 IP67 L EXC	Output wire	0.36M	Black	Red/Black	H05RN-F/2x1.0mm <sup>2</sup>

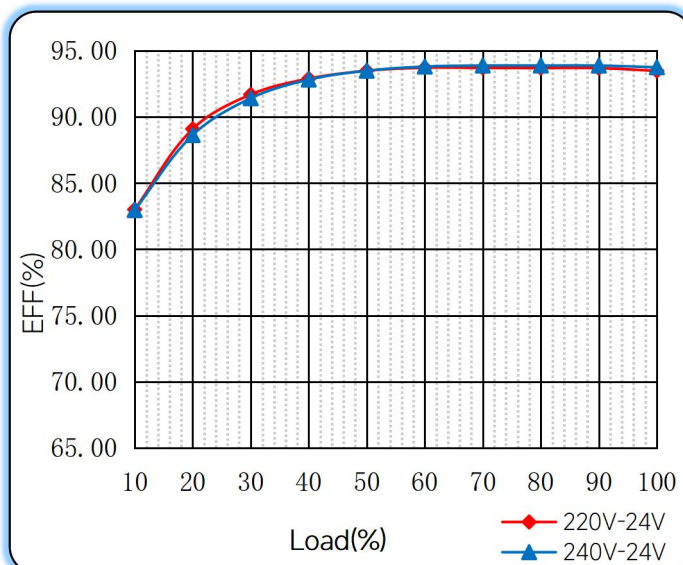
Note: Wire length of input and output can be changed as customer's requirement

## ◆ Curve for VMS-200-XX IP67 L EXC

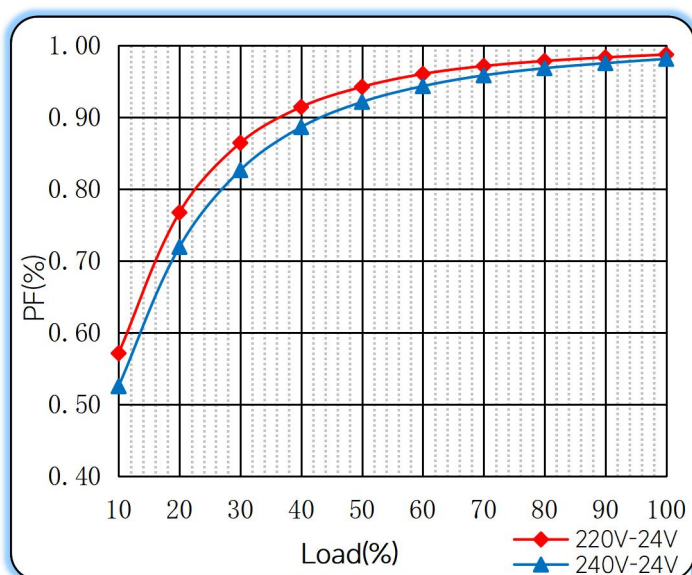
### Lifetime vs. Temperature Curve



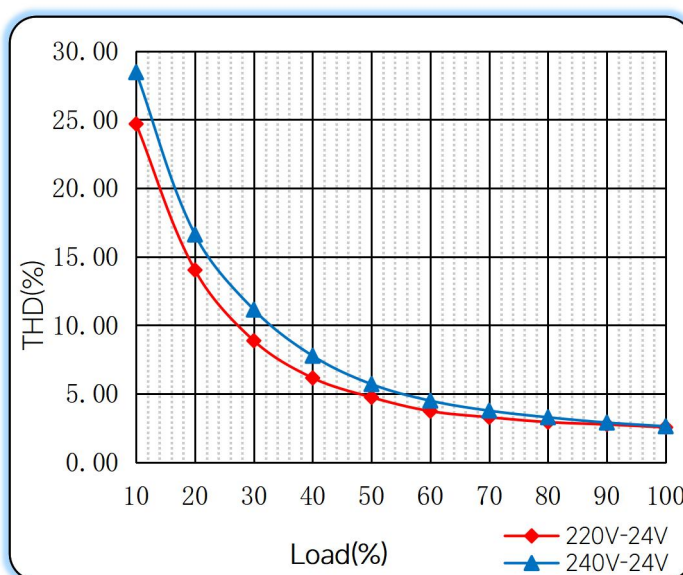
### Efficiency vs. Load



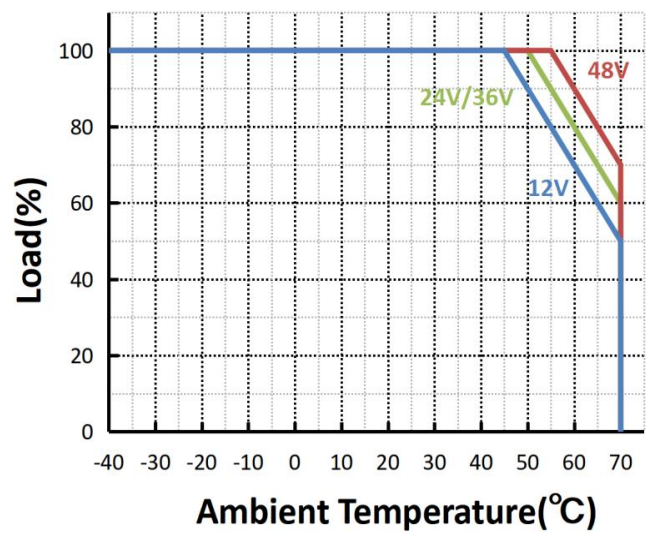
### Power Factor Characteristics



### THD vs. Load

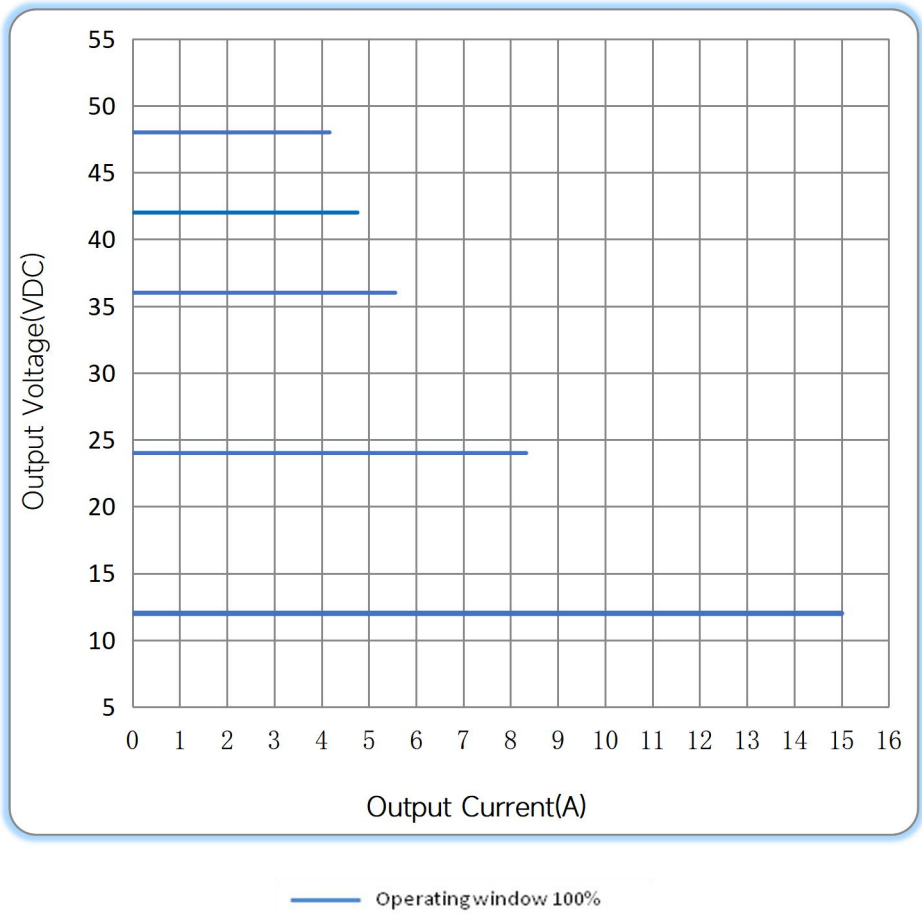


Load vs. Ta





◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/05/15
Operating Temperature	-40°C~+50°C	-40°C~+55°C	B	2025/06/05

Remark:The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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Manual