

# 150W Constant Voltage Driver



■ Approve



### Features

- High efficiency up to 92%
- Built-in active PFC function
- All-Around Protection: OLP, SCP, OVP, 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

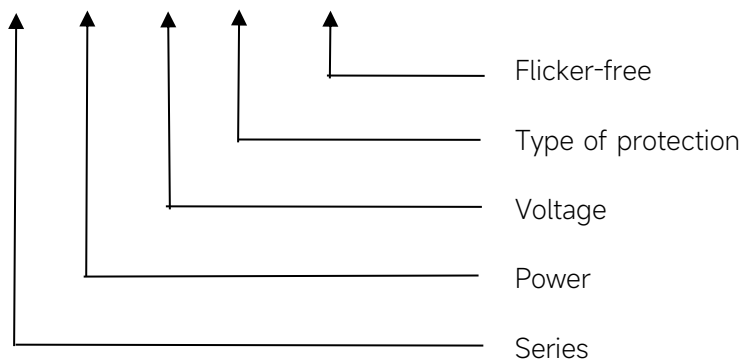
- high ceiling, tunnel lights, outdoor lights

## ◆ Description

VMS-150-XX IP67 L EXC series is a 150W, constant voltage IP67 LED driver that operates from 198-264Vac input with 12V/24V/36V/42/48V output voltage, excellent power factor and THD feature. With its dimensions from 176.4 x 55 x 36mm. This series of products is specially designed for direct power supply applications such as high ceiling, tunnel light and outdoor light products. 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 load, short circuit, over voltage and over temperature.

## ◆ Model code

### VMS-150-XX IP67 L EXC



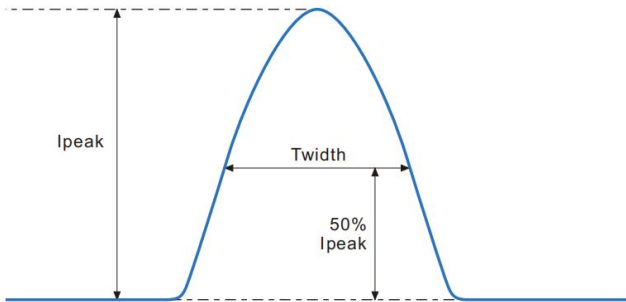
## ◆ Specification

Output	Constant Voltage	12VDC	24VDC	36VDC	42VDC	48VDC
	Current Range	0~12.5A	0~6.25A	0~4.17A	0~3.572A	0~3.125A
	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.)	91%	92%	92%	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	1.1A				
	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		18VDC	36VDC	50VDC	63VDC	
Short Circuit Protection		YES/Auto Resume				
Over Temperature Protection		YES/Auto Resume				
Capability	Surge capability (L-N)	4KV				
	Surge capability (L/N-Ground)	6KV				
Environment	Operating Temperature	-40°C~+55°C(Details can be seen "Load vs Ta" curve.)				
	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				
	Noise	≤25dB(A)@20cm				
Surface	Dimension	176.4x55x36(LXWXH)mm				
	material	metal case				
Standards	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,EN62493;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.The IC setting protection logic is: many times quick switch will caused 1s delay to power on, the interval pf start uptime more 2s, will be power on normally.</p> <p>5.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>6.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>	

## ◆ Inrush Current

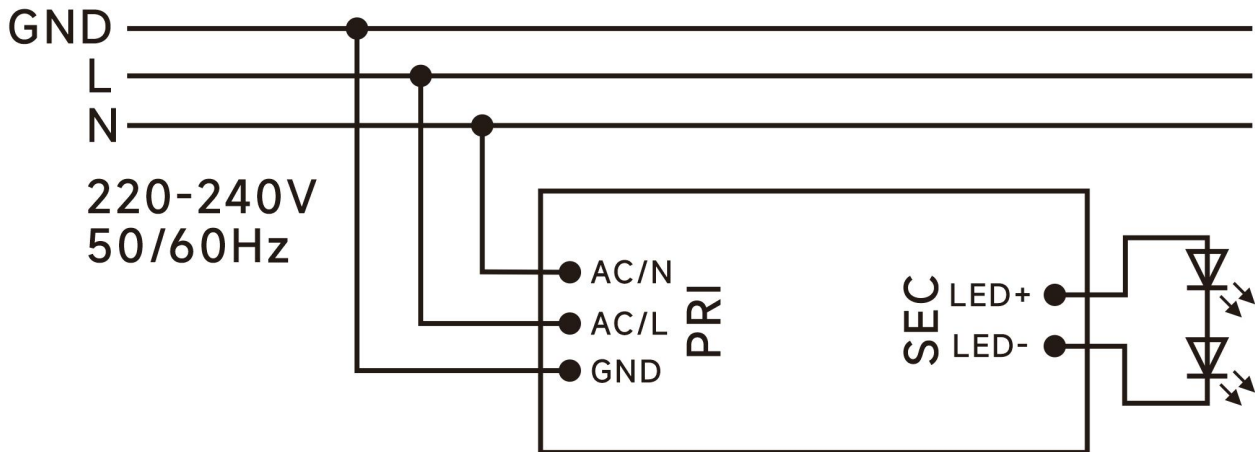
I <sub>peak</sub>	T <sub>width</sub>	B10	B16	B20	C10	C16	C20
56A	288μs	5pcs	9pcs	11pcs	9pcs	15pcs	18pcs



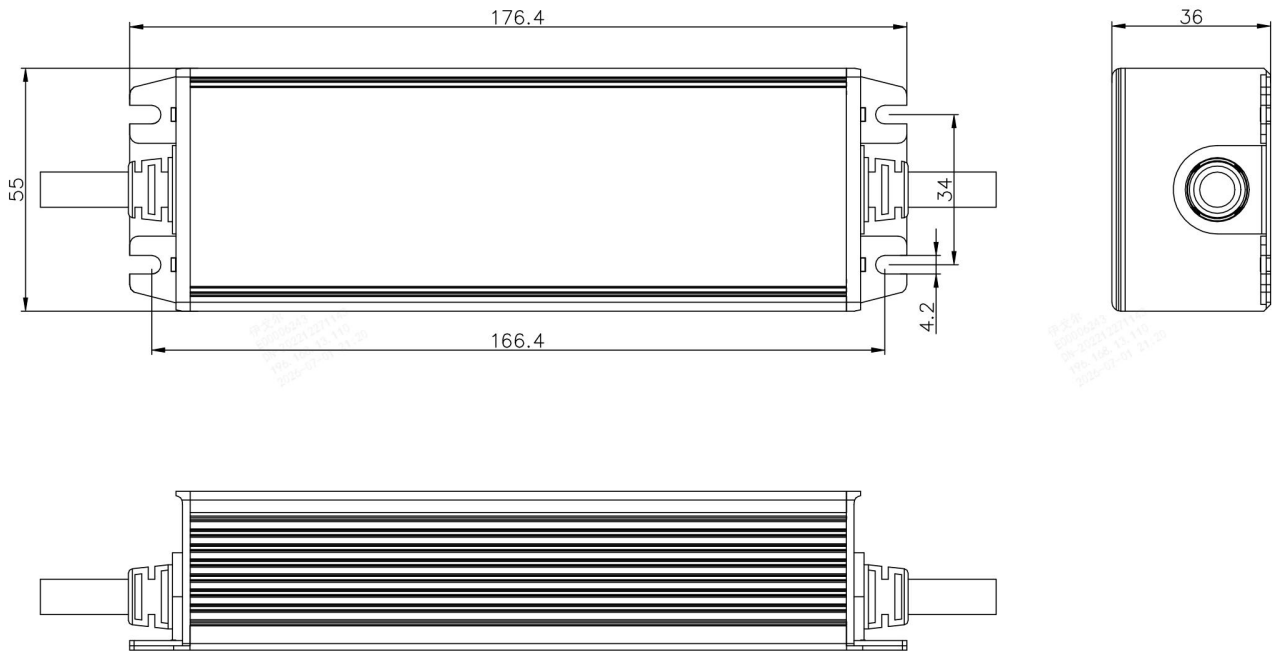
### Remarks:

- 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-150-XX IP67 L EXC	Input wire	300mm	Black	Brown/Blue/Yellow&Green	H05RN-F/3x1.0mm <sup>2</sup>
VMS-150-12 IP67 L EXC	Output wire	300mm	Black	Red/Black	H05RN-F/2x1.5mm <sup>2</sup>
VMS-150-24 IP67 L EXC	Output wire	300mm	Black	Red/Black	H05RN-F/2x1.0mm <sup>2</sup>
VMS-150-36 IP67 L EXC	Output wire	300mm	Black	Red/Black	H05RN-F/2x1.0mm <sup>2</sup>
VMS-150-42 IP67 L EXC	Output wire	300mm	Black	Red/Black	H05RN-F/2x1.0mm <sup>2</sup>
VMS-150-48 IP67 L EXC	Output wire	300mm	Black	Red/Black	H05RN-F/2x1.0mm <sup>2</sup>

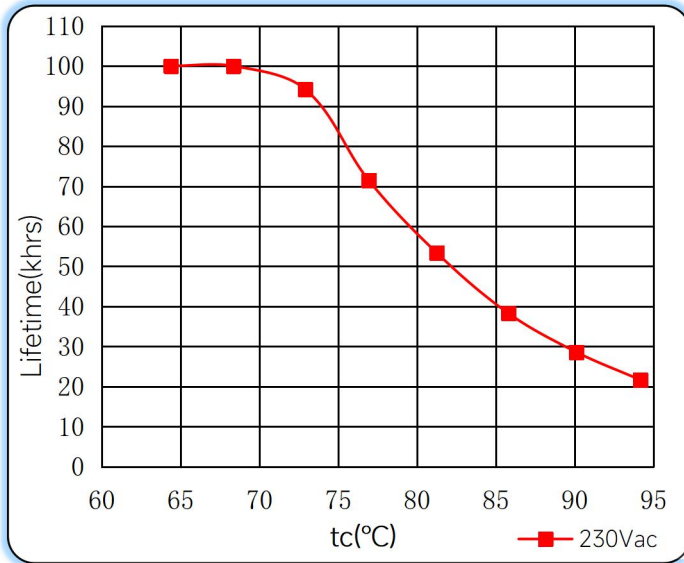
Note: Wire length of input and output can be changed as customer's requirement

## ◆ Packaging

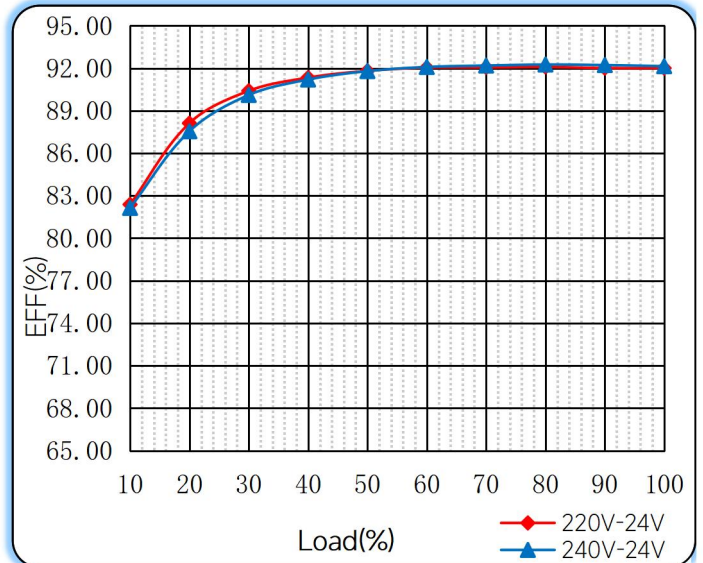
Model	Product Dimensions(mm)	weight/piece	Outer carton dimension(mm)	Quantity/carton	Net weight/carton(Kg)	Gross weight/carton(Kg)
VMS-150-XX IP67 L EXC	176.4x55x36	0.645	295X255X200	25	16.125	16.68

## ◆ Curve for VMS-150-XX IP67 L EXC

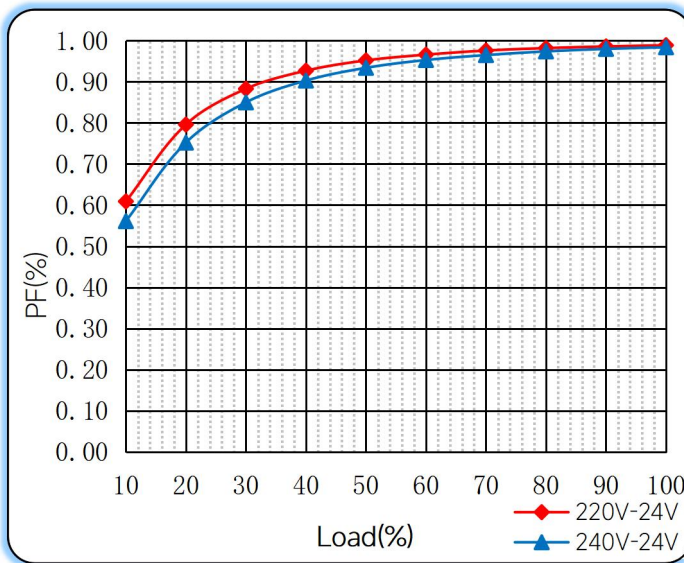
### Lifetime vs. Temperature Curve



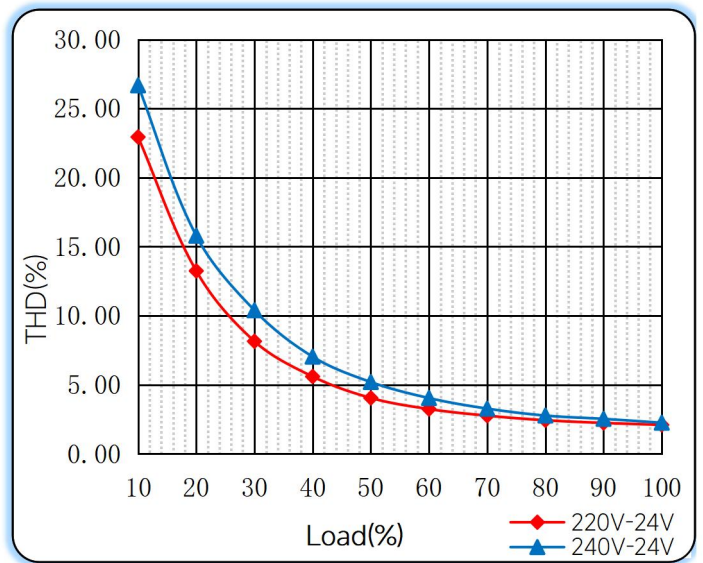
### Efficiency vs. Load



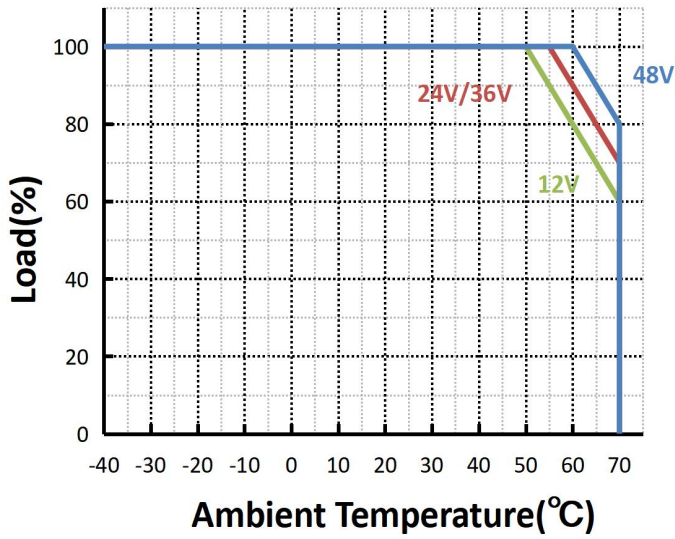
### Power Factor Characteristics



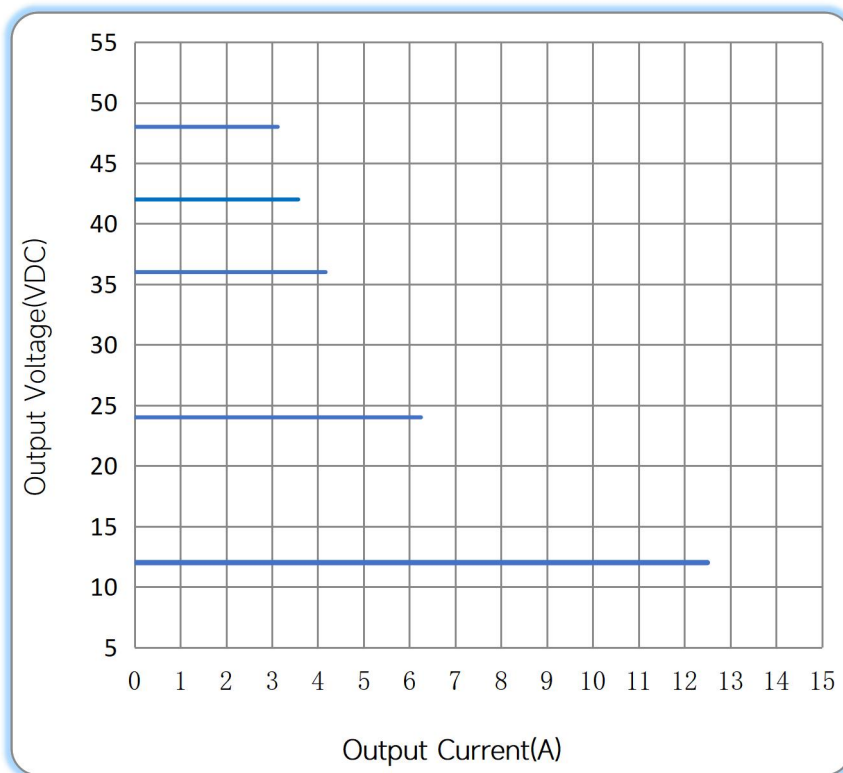
### THD vs. Load



Load vs. Ta



◆ Operating window



— Operating window 100%

**◆ Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/05/15
Over Load Protection	110-140%	110-150%	B	2025/01/06
Operating Temperature	-40°C~+50°C	-40°C~+55°C	C	2025/06/05
Wiring diagram			D	2025/08/01

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

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Manual