

60W Constant Voltage Slim-US Series



Features

- Class II, SELV, Independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OTP
- Power Factor > 0.95
- Efficiency ≥89%
- 5 years warranty

Applications

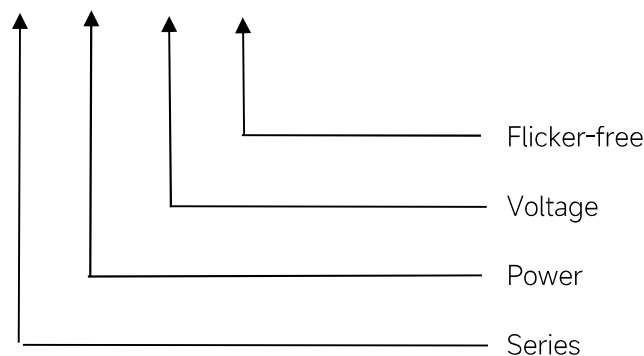
- LED strips

◆ Description

US-60-24 LR2 is a 60W constant voltage LED driver that operates from 198-264Vac input with 24V output voltage. With it's slim dimensions from 329 x 30x 17mm. It is easy to integrate in LED strips product. To ensure trouble-free operation, protection is provided against output short circuit, over Load and over temperature.

◆ Model code

US-60-24 LR2

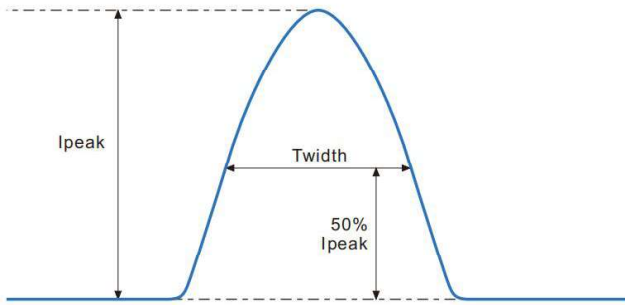


◆ Specification

Output	Constant Voltage	24VDC
	Current Range	0-2.5A
	Voltage Accuracy	±5%
	Output HF current ripple(≥1KHz)	±2%
	Output LF current ripple(≤120Hz)	±1%
	SVM	≤0.4
	Pst	≤1
	Efficiency(Typ.)	≥89%
Input	Rated input voltage	220-240VAC
	Range of input voltage	198-264VAC
	Frequency(Hz)	50/60 Hz
	Power Factor	> 0.95@Full load,230V
	Input Current max	0.46A
	Start-up time	< 1S
	No Load Power	≤0.5W
	THD (Typ.)	< 12%@Full load,230V
Protection	Over Load Protection	105-150% YES/Auto Resume
	Short circuit Protection	YES/Auto Resume
	Over Temperature Protection	YES/Auto Resume
Environment	Operating Temperature	-20°C~+45°C
	Humidity	20%-90%RH
	Tc	90°C
	Storage Temperature	-40°C~+60°C
	Life time	> 50000h@Tc=75°C
Surface	Dimension	329X30X17(LXWXH)mm
standards	EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; EN 61547;	
Others	ErP	EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.</p> <p>3.Data are typical values obtained from test samples.</p> <p>4.Dimmers are not recommended for this product.</p> <p>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.</p>	

◆ Inrush Current

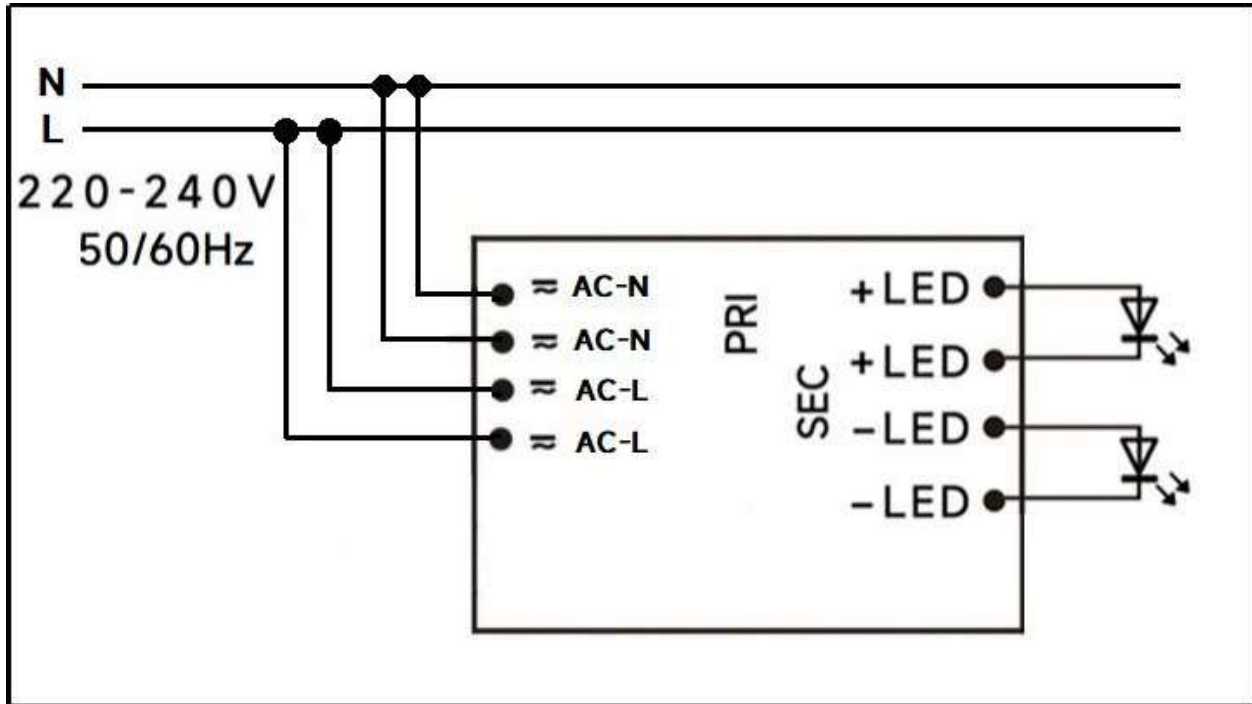
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
24.8A	194μs	16pcs	26pcs	33pcs	17pcs	27pcs	34pcs



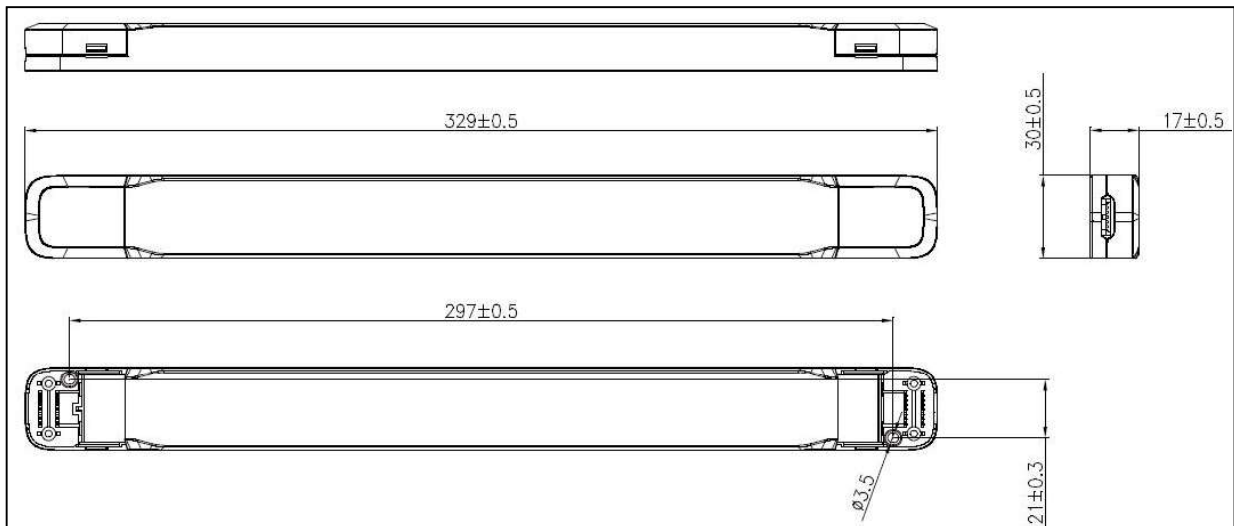
Remarks:

- 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**



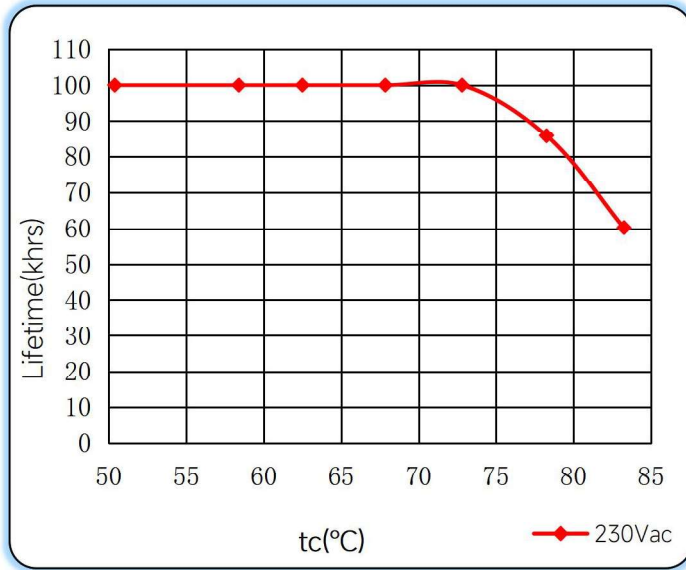
◆ Wiring & Connections

Specification item		Value (Unit)
Input	Input wire cross-section	0.5...1.5 mm ² (With A side caps: 0.75...1.5 mm ²)
	Input wire gauge.	16...20 AWG (With A side caps: 16...22 AWG)
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm ² (With A side caps: 0.75...1.5 mm ²)
	Output wire gauge.	16...20 AWG (With A side caps: 16...22 AWG)
	Output wire strip length	7...9mm

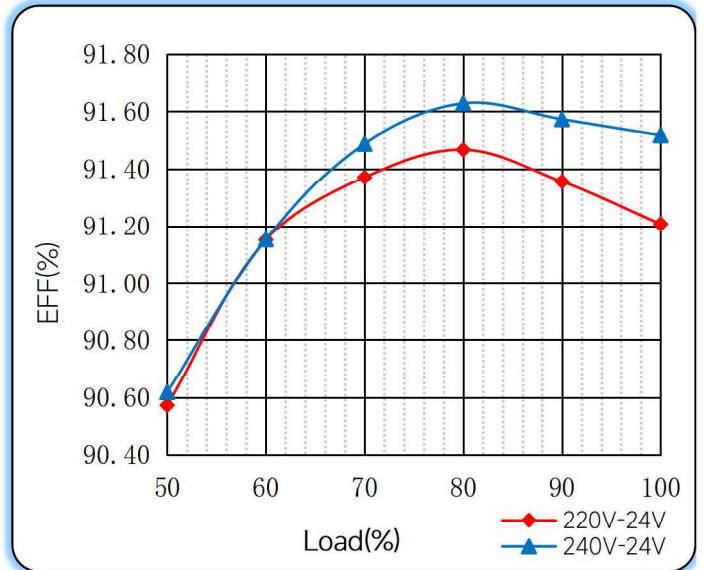
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ **Curve for US-60-24 LR2**

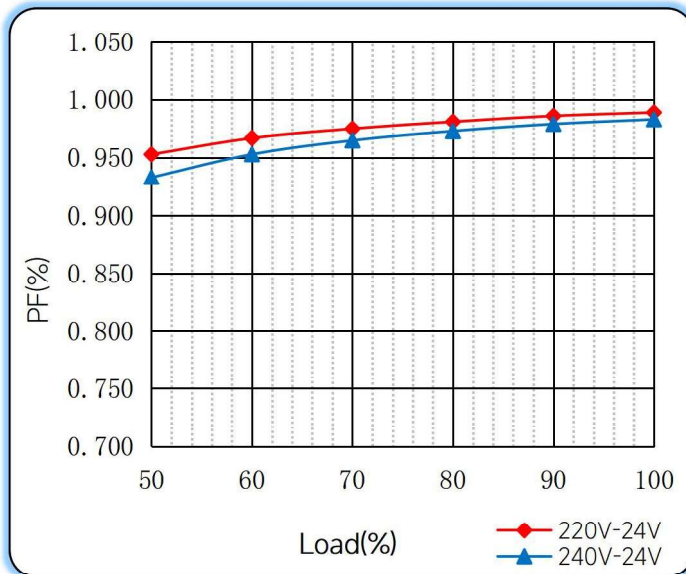
Lifetime vs. Temperature Curve



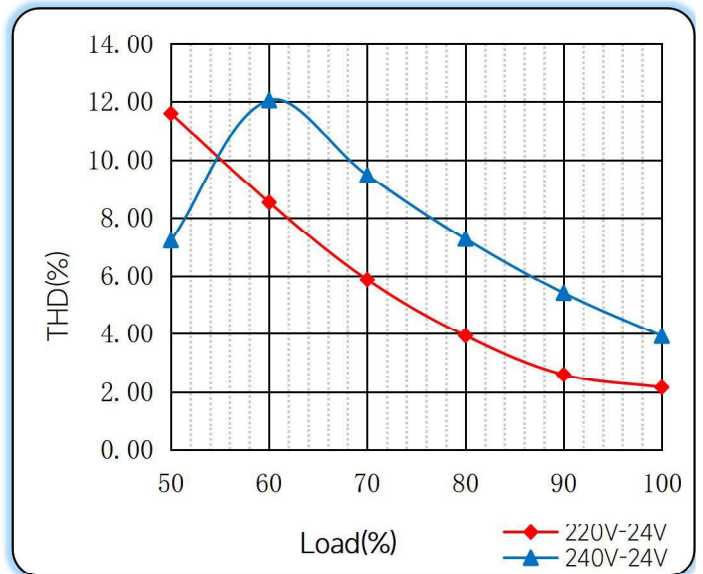
Efficiency vs. Load



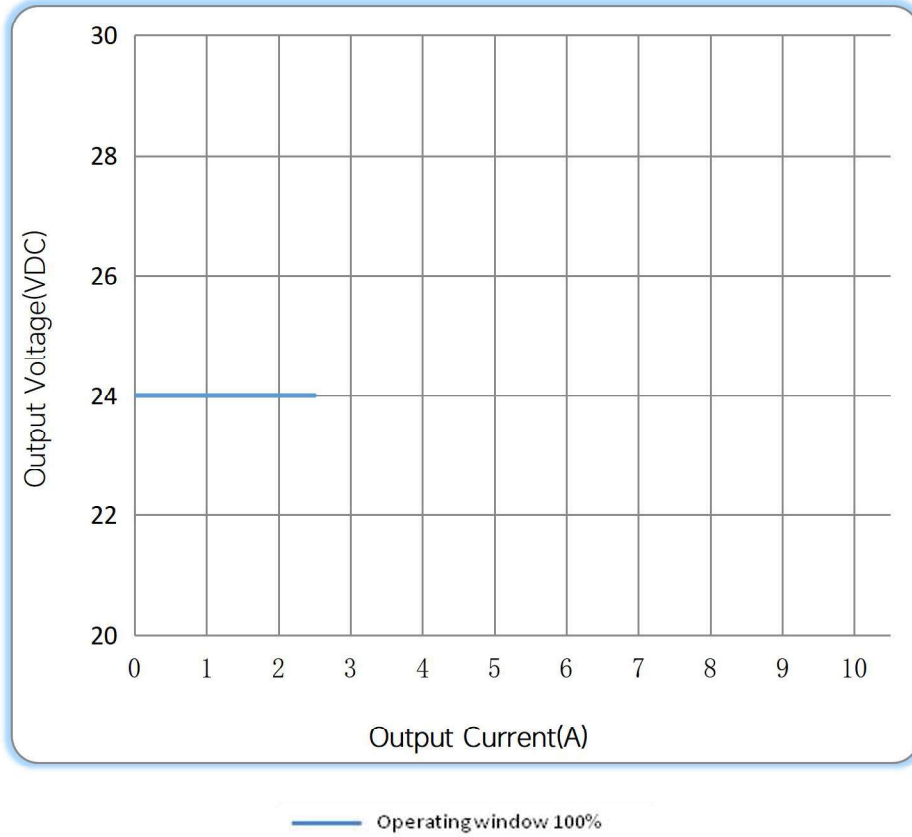
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/01/04

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Manual