

Constant Voltage LED Driver

SL240-24VF-1

SL240-48VF-1



Product description

The SL240 series is an indoor constant voltage LED driver with an input voltage range of 198-264Vac and a conversion efficiency of up to 95%. It adopts a fanless design and works at -20°C ~ +45°C with natural cooling radiator. Case temperature range, ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, and all-round protection functions not only greatly improve the reliability of the product, but also ensure the product life cycle. This series of products is designed for LED lighting design and used in indoor lighting.

Standards

EN61347-1
EN61347-2-13
EN61547
EN55015
EN61000-3-2
EN61000-3-3
EN62384
EN62493

Characteristics

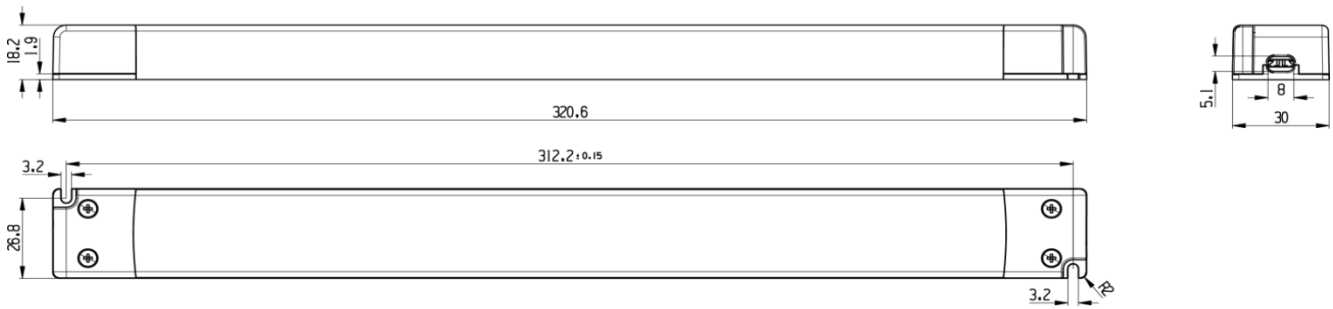
- AC input range (198-264VAC)
- With active PFC function
- IP20
- Suitable for indoor environments
- Protection type: short circuit/over temperature/over voltage protection
- Plastic case
- Comply with world lighting equipment safety regulations
- 5 years warranty

Specifications

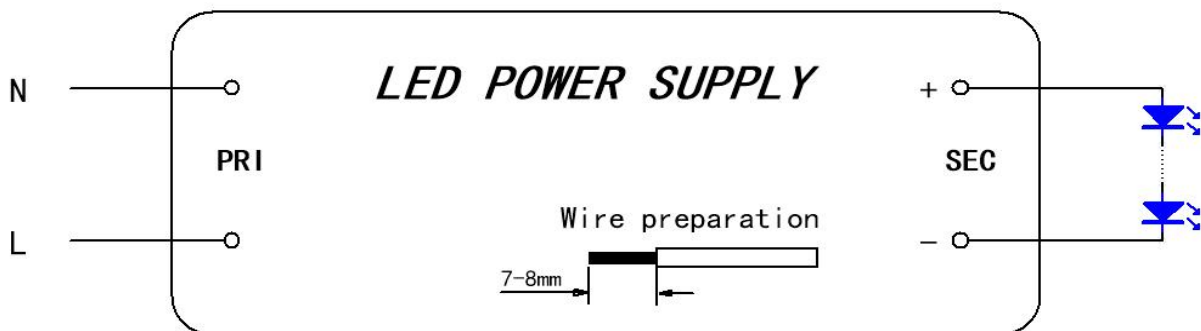
Model		SL240-24VF-1	SL240-48VF-1
Output	Turn on time(S)	<0.5	<0.5
	Output power(W)	240	240
	Output voltage(V)	24	48
	Output voltage tolerance	5%	5%
	Ripple voltage(mV)	240	480
	Line Regulation	1%	1%
	Load Regulation	1%	1%
	Working current range(A)	0-10	0-5
	SVM	<0.4	
	Pst	<1.0	
	Dimming type	NA	
	Dimming range	NA	
	Input	Rated DC supply voltage(Vdc)	311-373
Rated supply voltage(Vac)		220-240	
Voltage range(Vac)		198-264	
Line frequency(Hz)		50/60	
Input current(A)		1.3	
Efficiency (TYPE)		95%@full load	95%@full load
Average efficiency(TYPE) 3 (TYPE)3		94.5%	94.5%
No load power consumption(W)		0.5W	
Power factor		0.95@full load	
Displacement factor		0.95	
THD(typ.) THD		4%	
Inrush current(Ipk) Ipk		80A/400uS	
Leakage current (mA)		0.7@240Vac 60Hz	
Protection	Short circuit protection	hiccup mode, restart automatically after fault correction.	
	Over load protection	hiccup mode, restart automatically after fault correction.	
	Over voltage protection	Yes(latch off)	
	Over temperature protection	Yes(latch off)	
	Surge capacity	L-N: 1KV	

	Withstand voltage	Input-Output:3000V/5mA/1min
Ambient and Life	Ta(C)	-20-45
	Tc max.(C)	max.90
	Storage Temperature(C)	-30...80
	Ambient humidity range	5%...85%RH, Not condensing
	Nominal life-time(hrs)	50'000@Ta 40
Other	Dimensions (LWH)(mm)	320.6x30x18.2
	Weight(g)	320
	Casing material	Plastic
	Housing colour	White
	Type of protection	IP20
	Protection class	Class II
	Certificate	TUV,CE,UKCA,ENEC
Note	<p>1.Tolerance:includes set up tolerance, line regulation and load regulation. 2.Tested at full load,230Vac.Refer to"Power Factor" and "EFFICIENT"curve graphs. 3.Calculate the models average efficiency for each test voltage by testing at 100%, 75%, 50%, and 25% of rated current and then computing the simple arithmetic average of these four values. 4.All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature. 5.The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</p>	

Dimensions(mm)



Wiring Diagram



AC	Terminal block
DC	Terminal block

Electrical curves

Fig. 1 Output load-Temperature curve

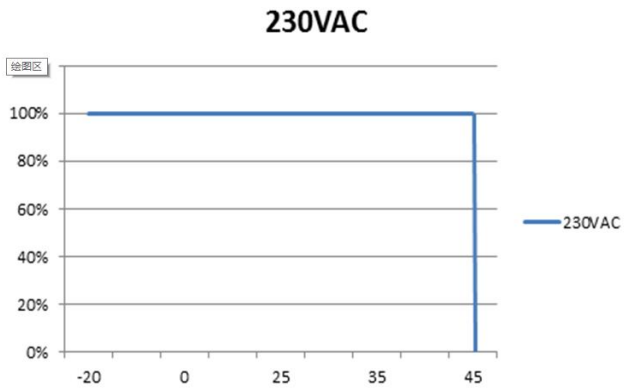


Fig. 2 Static characteristic curve

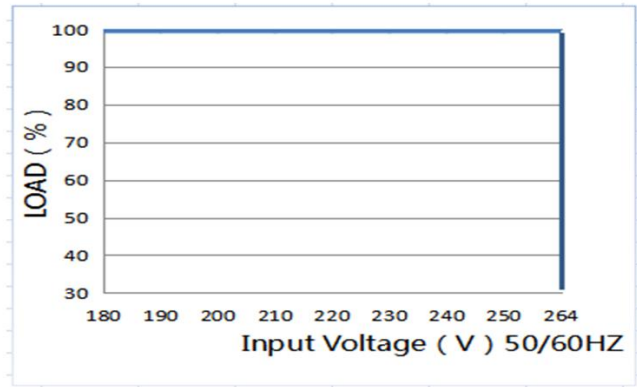


Fig. 3 I-V curve

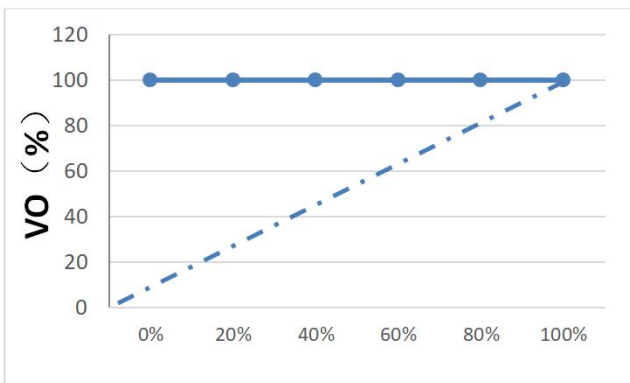


Fig. 4 Power factor characteristic curve

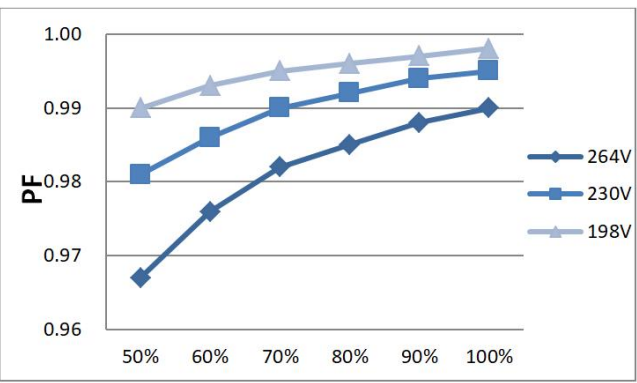


Fig.5 Total harmonic distortion curve

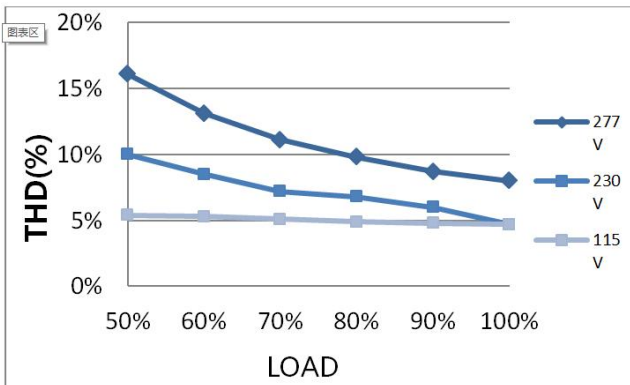
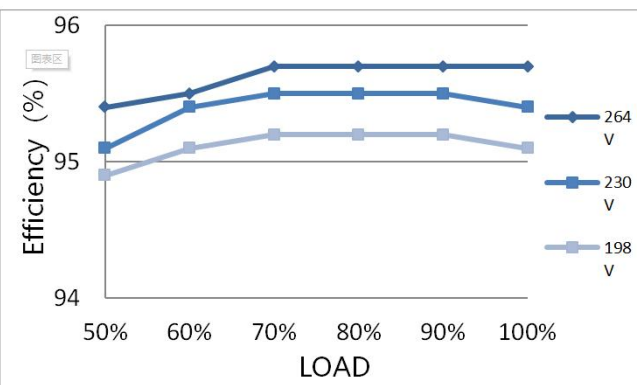


Fig.6 Efficiency-Load curve



MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SL240-24/48VF-1	3	4	5	6	4	5	6	8

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SL240-24/48VF-1			

Revision history

Date	Rev.	Remark
2023.10.16	A0	Initial release