

Constant Voltage LED Power Supply

SL240-48VF



Product description

SL240 series is constant voltage LED drivers. Its input voltage range is 200-240Vac, with a conversion efficiency up to 93%. It adopts fanless design and works at -20°C~+45°C naturally. The temperature range of the cooling case, and has ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, and all-round protection functions, which 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 applied to indoor lighting. It is suitable for various application environments in almost all indoor places where LED luminaires can be installed. Comply with the world's lighting equipment safety regulations, and at the same time ensure the safety of users and lighting systems during installation.

Standards

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

Characteristics

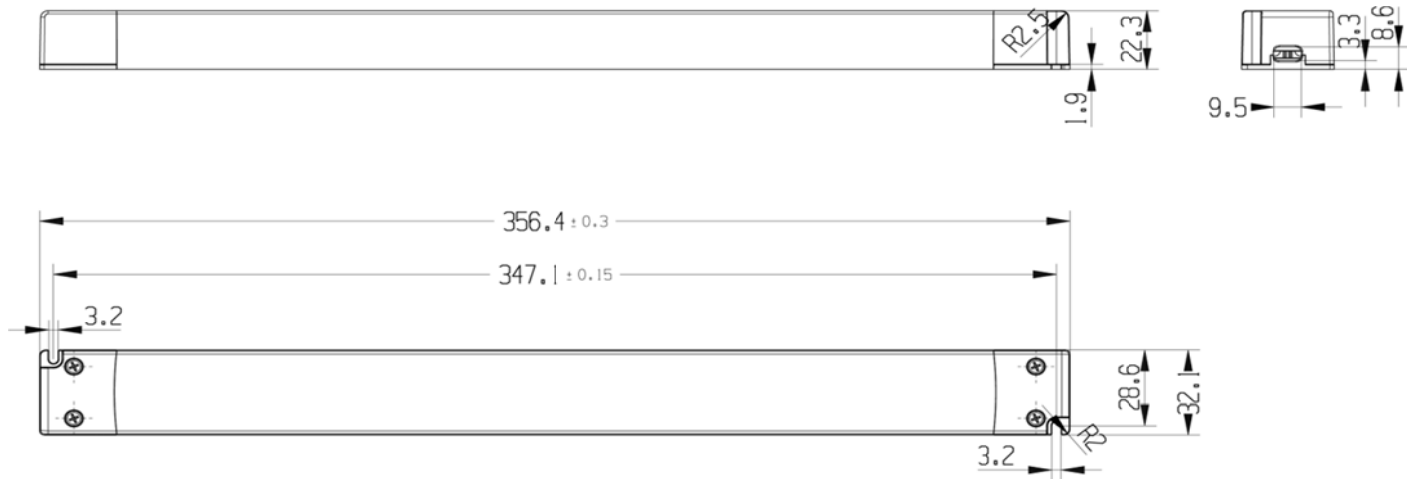
- European AC input range (200-240VAC)
- With active PFC function
- Waterproof IP20
- Suitable for dry indoor environments
- Protection type: short circuit/over temperature/over voltage protection
- Using plastic shell, internal potting
- Comply with world lighting equipment safety regulations
- Warranty 5 years

Specifications

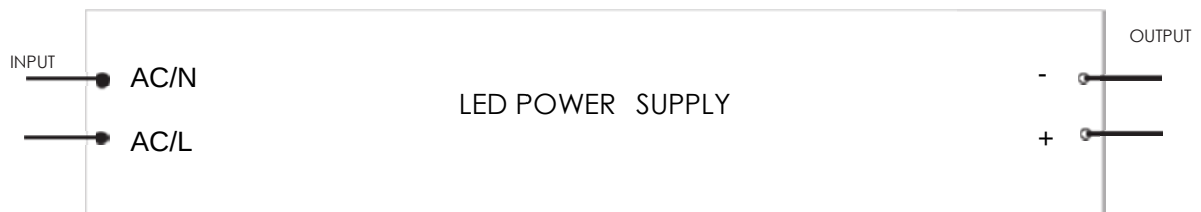
Model		SL240-48VF
Output	output power(W)	240
	output voltage range(V)	48
	output voltage tolerance	$\leq \pm 3\%$
	ripple voltage(mV)	150
	Line Regulation	1%
	Load Regulation	2%
	working current range(A)	0-5
	SVM	0.1
	Pst	0.1
	turn on time(S)	<0.5
Input	rated DC supply voltage(Vdc)	254-431
	rated supply voltage(Vac)	200-240
	voltage range(Vac)	180-264
	line frequency(Hz)	50/60
	input current(A)	1.2@230V
	efficiency (TYPE)	94%@full load
	average efficiency(TYPE) ³	93%
	no load power consumption(W)	$\leq 0.5W$
	power factor	0.98@full load
	Displacement factor	0.98
	THD(typ.) THD (Type)	<15%@full load 230V
	inrush current(Ipk)	75A@twidth=500us
	Leakage current (mA)	0.75@264Vac
Protection	short circuit protection	hiccup mode, restart automatically after fault correction.
	over load protection	exceed maximum rated load times 1.6
	Over voltage protection	hiccup mode, restart automatically after fault correction.
	Over temperature protection	hiccup mode, restart automatically after fault correction
	surge capacity	L-N: 1KV
	Withstand voltage	Input-Output: 3000V/5mA/1min
Ambient and Lifetime	Ta(C)	-20...45(See derating curve)
	Tc max.(C)	max.90
	Storage Temperature(C)	-40...85
	ambient humidity range	5%...85%RH, Not condensing
	nominal life-time(hrs)	

		50'000@TC
Other	dimensions (L×W×H)(mm)	356.4*32.1*22.3 (mm)
	weight(g)	620g
	casing material	Plastic
	housing colour	White
	type of protection	IP20
	protection class	class II
	certificate	
Note	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 model's 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.	

Dimensions(mm)



Wiring Diagram



AC	H03VVH2-F 2*0.75mm ²
DC	H05VVH2-F 2*1.0mm ²

Electrical curves

Fig. 1 Output load-Temperature curve

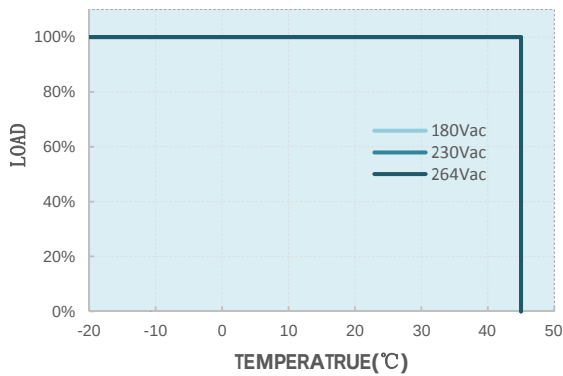


Fig. 2 Static characteristic curve

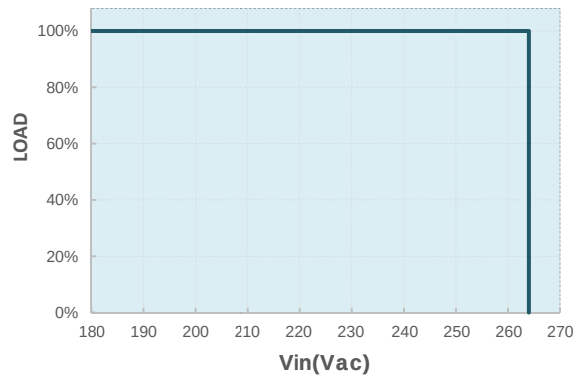


Fig. 3 I-V curve

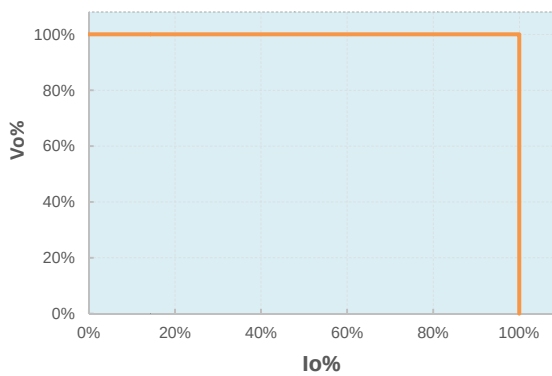


Fig. 4 Power factor characteristic curve

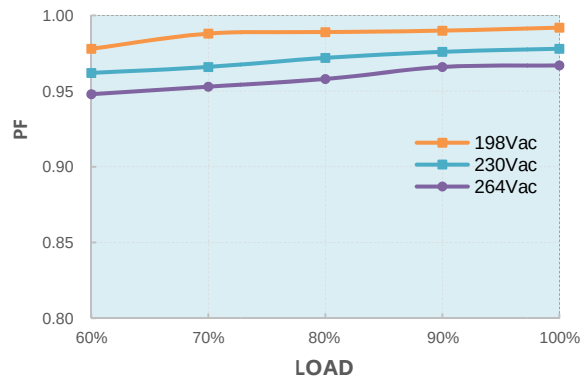


Fig.5 Total harmonic distortion curve (THD)

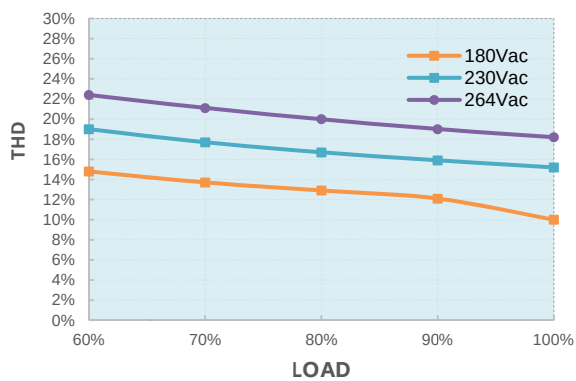
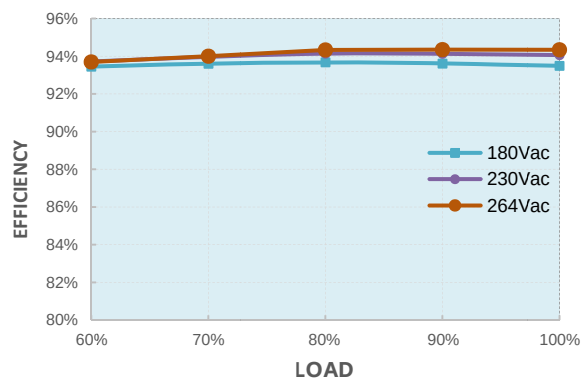


Fig.6 Efficiency-Load curve



MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SL240-48VF	4	5	6	7	5	6	7	9

Package

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

Revision history

Date	Rev.	Remark
2023.7.7	A1	Version upate