Constant Voltage LED Power Supply

SL100-12VFT
SL100-24VFT

Product description

SL100-12/24VFT is a triac dimming constant voltage LED driver, the input voltage range is 220-240VAC, and the working range is -20°C ~ +45°C natural cooling and heat dissipation, this product is not only cost-effective, but also integrates 4 dimming methods; in order to improve the safety of the product, open circuit, short circuit and overload protection functions are added to the circuit. This series of products is designed for LED lighting and is suitable for indoor IP20 places with LED lighting. Comply with European 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
EN62384
EN62493

Characteristics

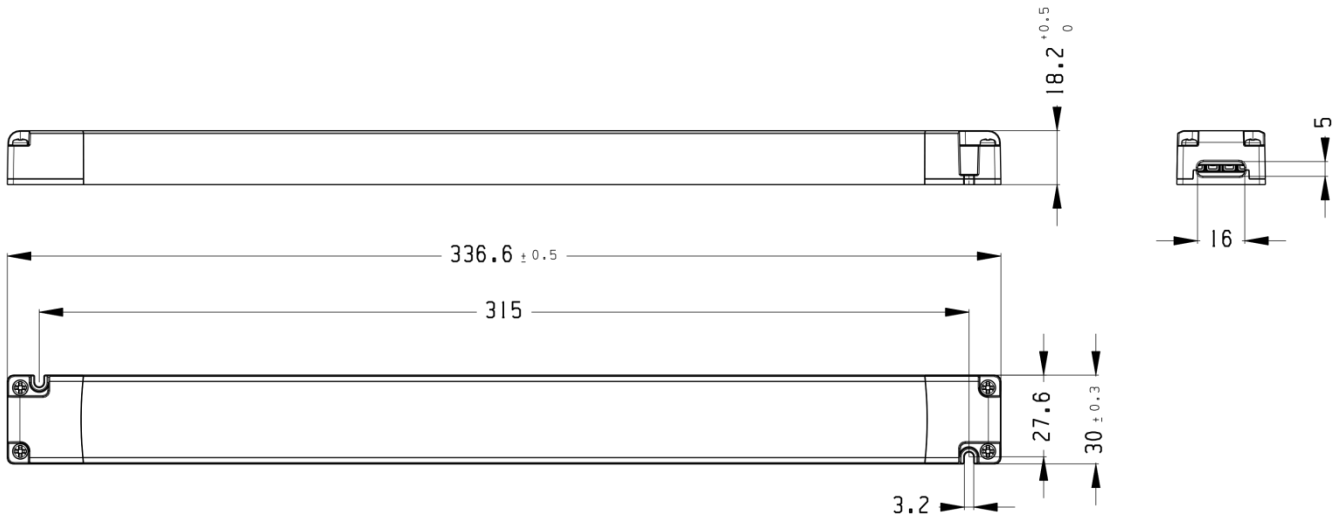
- Compatible with Triac leading or trailing cut dimmers
- High input range (220-240VAC)
- Waterproof IP20
- With active PFC
- Suitable for indoor environment
- Protection type: short circuit/over temperature/over voltage protection
- Using plastic ultra-thin strip shell, internal glue filling
- Built-in lightning protection device, meet differential mode common mode 1kV
- Dimming range:1-100%
- Warranty 5 years

Specifications

Model		SL100-12VFT	SL100-24VFT
Output	output power(W)	20-100	20-100
	output voltage range(V)	12	24
	output current(A)	1.66 - 8.33A	0.83 – 4.16A
	output voltage tolerance	≤±5%	≤±5%
	Line Regulation	2%	2%
	Load Regulation	5%	5%
	Dimming mode	Triac	Triac
	SVM	0.1	0.1
	Pst	0.1	0.1
	turn on time(S)	＜0.5	＜0.5
Input	rated DC supply voltage(Vdc)	NA	NA
	rated supply voltage(Vac)	220-240	220-240
	voltage range(Vac)	198-264	198-264
	line frequency(Hz)	50/60	50/60
	input current(A)	0.6@230V	0.6@230V
	efficiency (TYPE)	89.5%@full load	91%@full load
	average efficiency(TYPE) 3	88.1%	88.8%
	power factor	0.98@full load	0.98@full load
	Displacement factor	0.98	0.98
	THD(typ.) THD	18%@full load 230V	18%@full load 230V
	inrush current(Ipk) （Ipk）	85A@twidth=500us	85A@twidth=500us
	Leakage current (mA)	0.75@240Vac 60Hz	0.75@240Vac 60Hz
Protection	short circuit protection	Yes(latch off)	Yes(latch off)
	over load protection	exceed maximum rated load times 1.1-1.6 latch off	exceed maximum rated load times 1.1-1.6 latch off
	Over voltage protection	Yes(latch off)	Yes(latch off)
	Over temperature protection	Yes(latch off)	Yes(latch off)
	surge capacity	L-N: 1KV	L-N: 1KV
	Withstand voltage	Input-Output:3750V/5mA/1min	Input-Output:3750V/5mA/1min
Ambient and Life time	Ta(C)	-20…45	-20…45
	Tc max.(C)	max.85	max.85
	Storage Temperature(C)	-40...80	-40...80
	ambient humidity range	5%...85%RH, Not condensing	5%...85%RH, Not condensing
	nominal life-time(hrs)	50'000@Tc 80	50'000@Tc 80

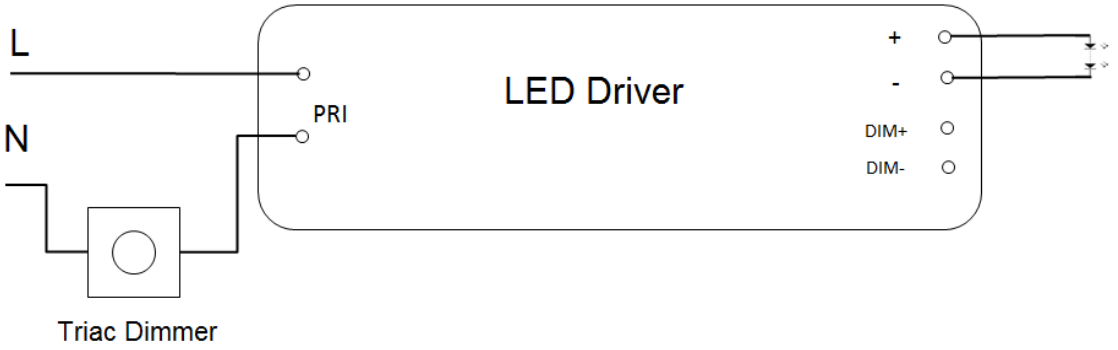
Other	dimensions (L×W×H)(mm) 尺寸	336.6*30*18.2mm	336.6*30*18.2mm
	weight(g)		
	casing material	PC	PC
	housing colour	white	white
	type of protection	IP20	IP20
	protection class	class Ⅱ	class Ⅱ
	certificate		
Note	1.Tolerance:includes set up tolerance, line regulation and load regulation. 2.Tested at full 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

1.



AC	Terminal block + H03VVH2-F 2*0.75mm^2
DC	12V: terminal block + H03VVH2-F 2*1.0mm^2 24V: terminal block + H03VVH2-F 2*0.75mm^2

Electrical curves

Fig. 1 Output load-Temperature curve

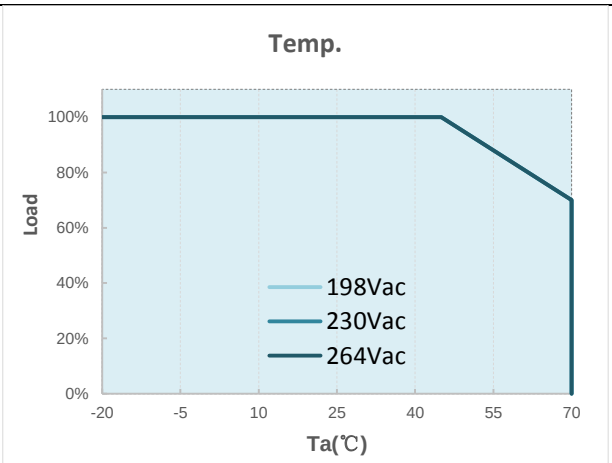


Fig. 2 Static characteristic curve

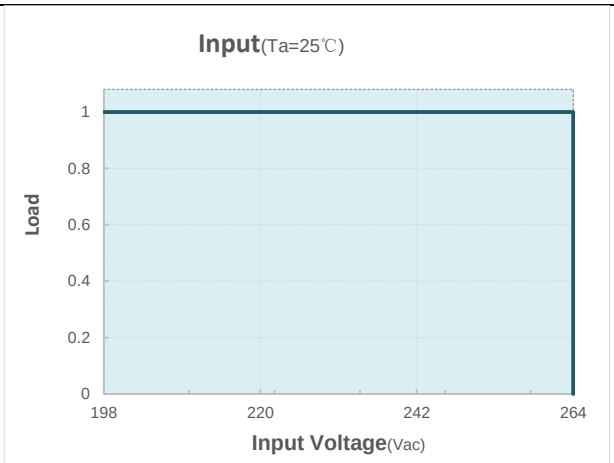


Fig. 3 I-V curve

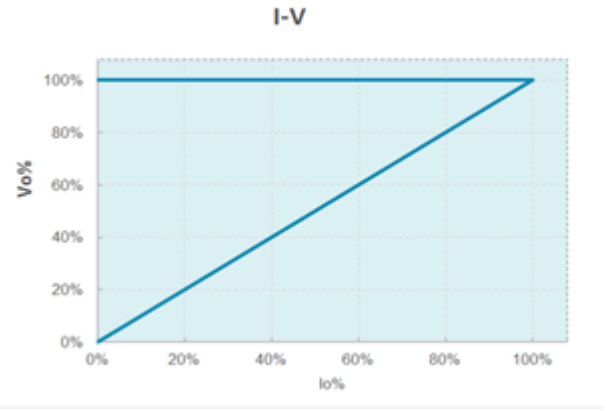


Fig. 4 Power factor characteristic curve

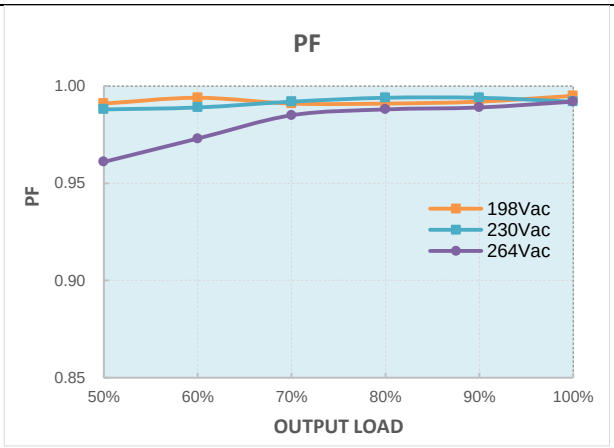


Fig.5 Total harmonic distortion curve（THD）

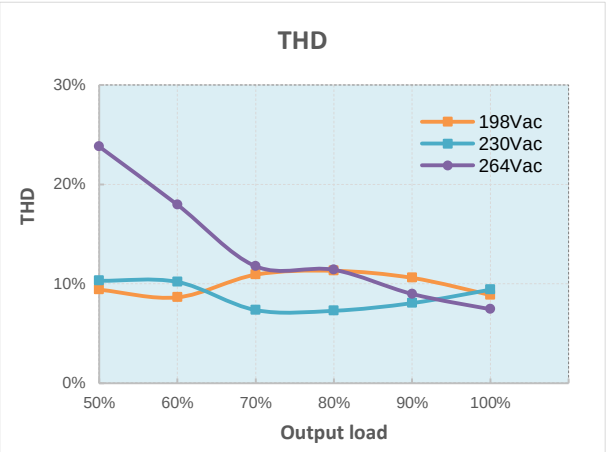
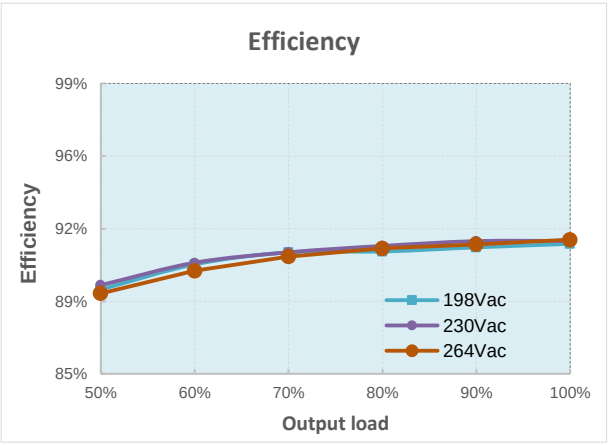


Fig.6 Efficiency-Load curve



MCBS

MCBS / Model	B10	B13	B16	B20	C10	C13	C16	C20
SL100-12VFT	6	8	10	13	8	10	13	16
SL100-24VFT	6	8	10	13	8	10	13	16

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SL100-12VFT			
SL100-24VFT			

Revision history

Date	Rev.	Remark
2023.6.20	A0	Initial release.