Constant Voltage LED Power Supply

SL240-12/24/48VF-1



Product description

SL240 is an indoor constant voltage power supply. Its input voltage range is 198-264Vac , with the high efficiency up to 95%, fanless design, working in the temperature range of - 20 ° C to + 45° C under free air convection. It has ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, with all-round protection functions which not only greatly improves the reliability of the product, but also ensures the life cycle of product. This series for LED Lighting design, applied to indoor lighting design. Suitable for almost any indoor location where LED Lighting can be installed in a variety of applications. Comply with the world lighting equipment safety specifications, at the same time to ensure the safety of users and lighting system in the installation process.

Standards

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

Characteristics

- European AC input（198-264VAC）
- Built-in active PFC function
- IP20
- Suitable for dry indoor environment
- Protections: Short circuit / Over voltage / Over temperature/Over load
- Adopt plastic case and internal glue filling
- Compliance to worldwide safety regulations for lighting
- 5 years warranty

SNAPPY
KNOW HOW. NO LIMITS.

Specifications

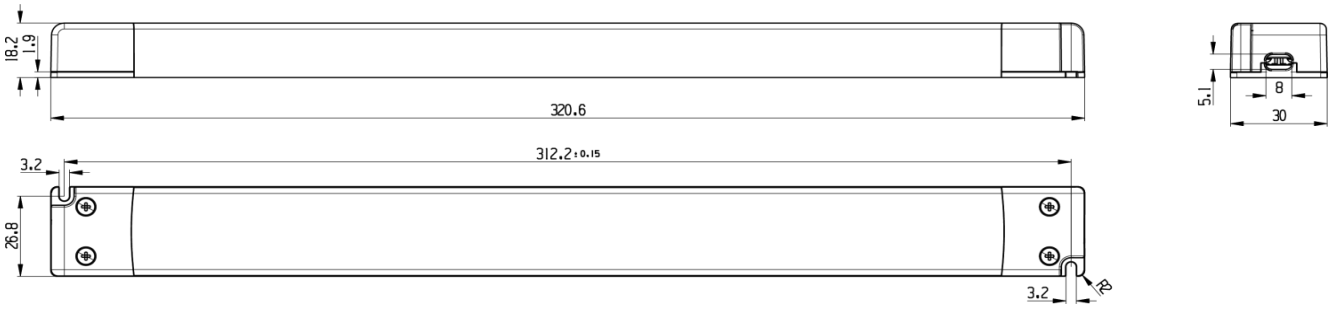
Model		SL240-12VF-1	SL240-24VF-1	SL240-48VF-1
Output	turn on time(S)	＜0.5	＜0.5	＜0.5
	output power(W)	192	240	240
	output voltage(V)	12	24	48
	output voltage tolerance	≤±5%	≤±5%	≤±5%
	ripple voltage(mV)	160	240	480
	Line Regulation	1%	1%	1%
	Load Regulation	1%	1%	1%
	working current range(A)	0-16	0-10	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)	1.1	1.3	1.3
	efficiency (TYPE)	94%@full load	95%@full load	95%@full load
	average efficiency(TYPE) 3	93.5%	94.5%	94.5%
	no load power consumption(W)	≤0.5W		
	power factor	0.95@full load		
	Displacement factor	0.95		
	THD(typ.)	4%		
	inrush current(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	Ta(℃)	-20…45		
	Tc max.(℃)	max.90		
	Storage Temperature(℃)	-30...80		

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and Life	ambient humidity range	5%...85%RH, Not condensing
	nominal life-time(hrs)	50'000@Ta35℃
Other	dimensions (L×W×H)(mm)	320.6x30x18.2
	weight(g)	320
	casing material	plastics
	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.	

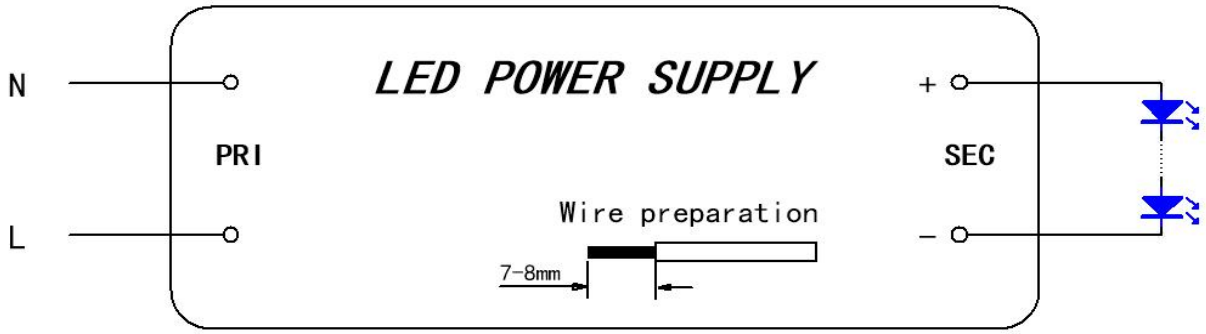
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Dimensions(mm)



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Wiring Diagram



AC	Connector + H03VVH2-F 2*0.75mm^2
DC	Connector + H03VVH2-F 2*0.75mm^2*2（24V）H03VVH2-F 2*0.75mm^2(48V)

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Electrical curves

Fig. 1 Output load-Temperature curve

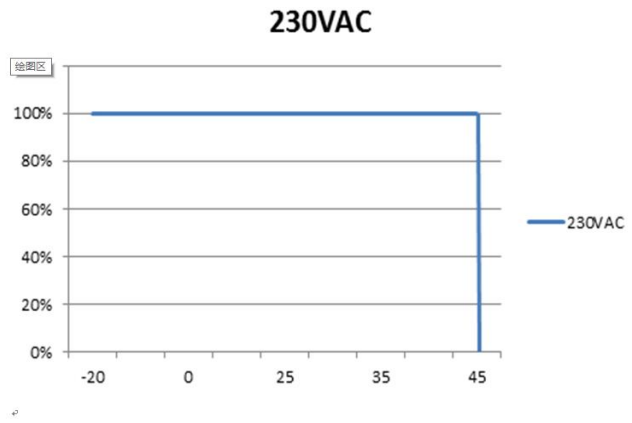


Fig. 2 Static characteristic curve

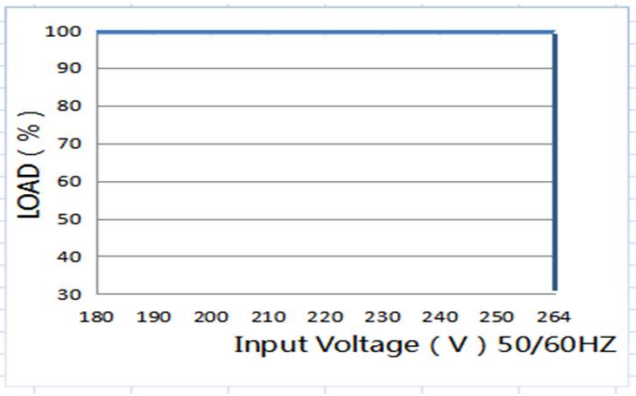


Fig. 3 I-V curve

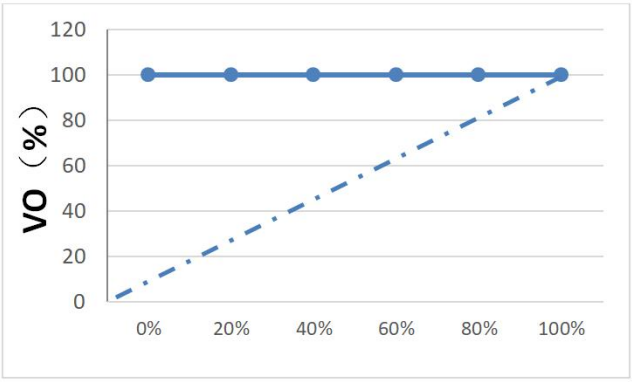


Fig. 4 Power factor characteristic curve

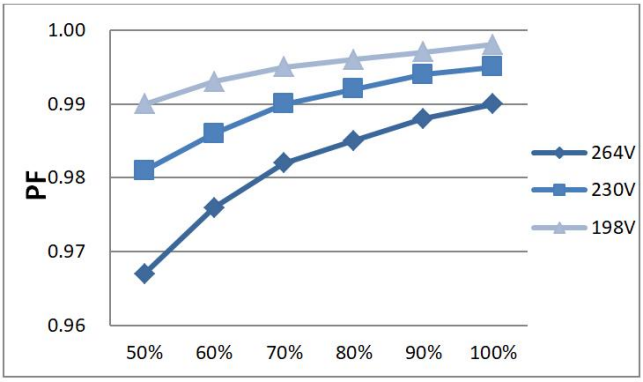


Fig.5 Total harmonic distortion curve（THD）

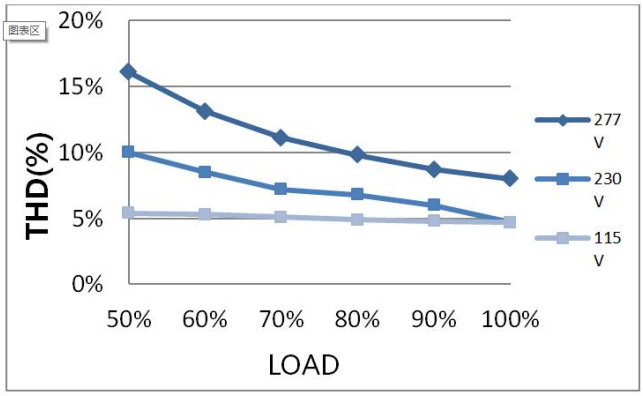
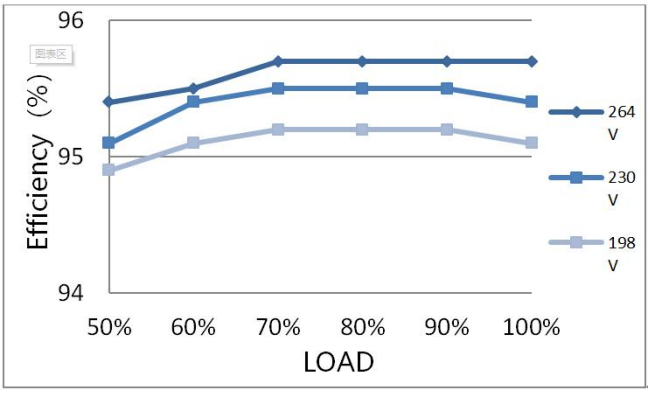


Fig.6 Efficiency-Load curve



MCBS

MCBS / Model	B10	B13	B16	B20	C10	C13	C16	C20
SL240-12/24/48VF-1	4	5	6	8	5	6	7	9

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SL240-12/24/48VF-1			

Revision history

Date	Rev.	Remark
2023.10.12	A0	Initial release.
2024.7.10	A1	Add 50'000@Ta35℃
2024.11.06	A2	Add 12V