Constant Voltage LED Power Supply

SL150-12/24/48VF-1

Product description

SL150 series is an indoor and outdoor constant voltage LED POWER SUPPLY, its input voltage range of 198-264Vac, with a maximum of up to 93% conversion efficiency, fanless design, working at -20 ° C ~ +45 ° C natural cooling chassis temperature range, and has a high power factor, ultra-low harmonic distortion, low standby power consumption, a full range of protection features, not only greatly improve product reliability and ensure product life cycle. This series of products is designed for LED lighting, and the application of LED lighting can be realized in a wide range of applications. This series of products for LED lighting design, designed for indoor lighting applications. Suitable for almost all indoor places where LED lamps can be installed in a variety of applications. Complies with the World Safety Code for Lighting Equipment and ensures the safety of the user and the luminaire system during installation.

Standards

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

Characteristics

- European AC input range（198-264VAC）
- With active PFC function
- Waterproof IP20
- Suitable for indoor environments
- Protection: Short circuit / Over temperature / Over -voltage protection
- Plastic shell
- Conforms to world lighting safety regulations
- Warranty 5 years

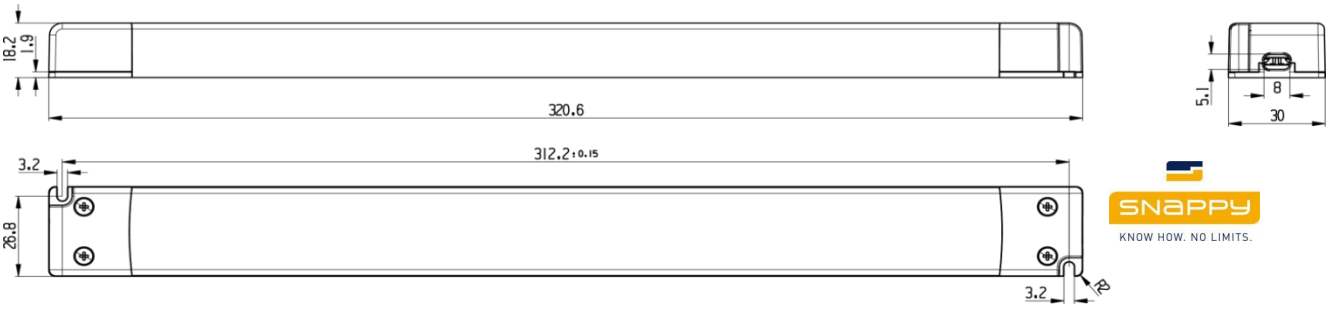
SNAPPY
KNOW HOW. NO LIMITS.

Specifications

Model		SL150-12VF-1	SL150-24VF-1	SL150-48VF-1
Output	turn on time(S)	＜0.5	＜0.5	＜0.5
	output power(W)	132	150	150
	output voltage(V)	12	24	48
	output voltage tolerance	≤±5%	≤±5%	≤±5%
	ripple voltage(mV)	240	400	800
	Line Regulation	1%	1%	1%
	Load Regulation	1%	1%	1%
	working current range(A)	0-11	0-6.25	0-3.125
	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)	1.0		
	efficiency (TYPE)	92.5%@full load	93.5%@full load	93.5%@full load
	average efficiency(TYPE) 3	91%	91.5%	91.5%
	no load power consumption(W)	≤0.5W		
	power factor	0.95@full load		
	Displacement factor	0.95		
	THD(typ.)	10%		
	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(automatic reboot)		
	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@Ta35°C
Other	dimensions (L×W×H)(mm)	320.6x30x18.2
	weight(g)	250
	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.	

Dimensions(mm)



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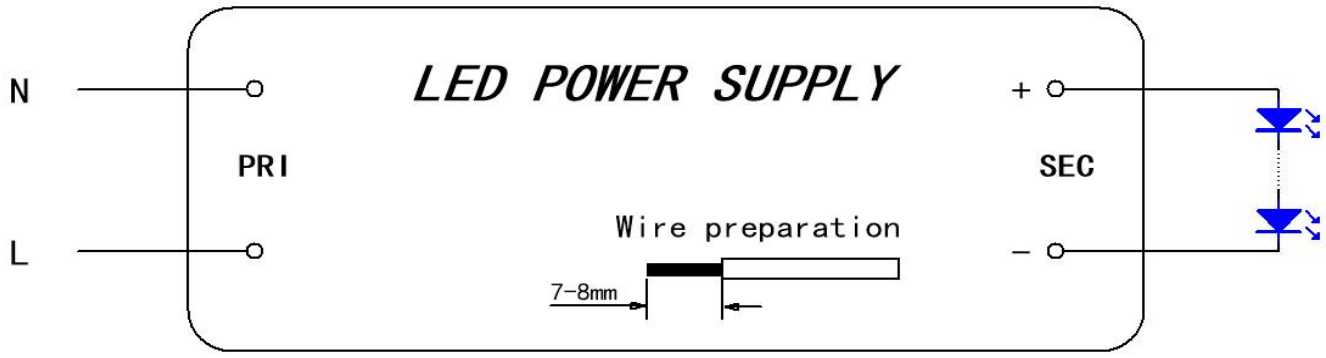
Wiring Diagram



AC	Terminal block + H03VVH2-F 2*0.75mm^2
DC	Terminal block + H03VVH2-F 2*0.75mm2 *2（for 12V）H05VVH2-F 2*1.0mm^2(for24 and 48V)

Electrical curves

Fig. 1 Output load-Temperature curve

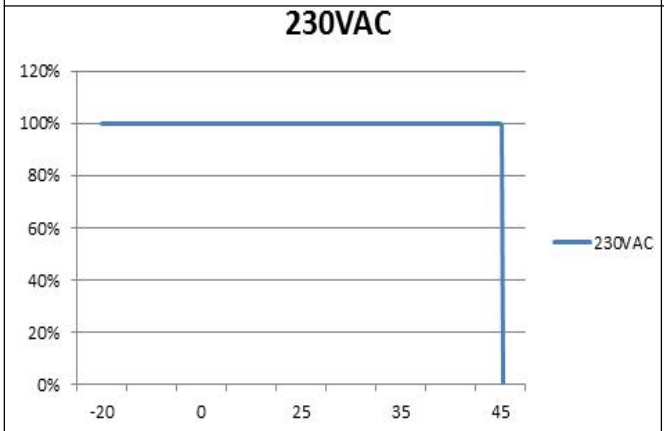


Fig. 2 Static characteristic curve

Fig. 3 I-V curve

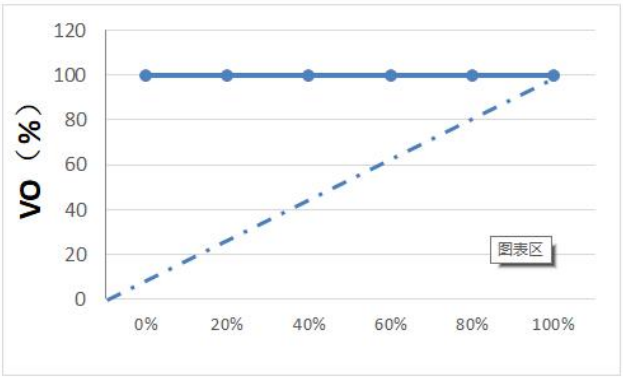


Fig. 4 Power factor characteristic curve

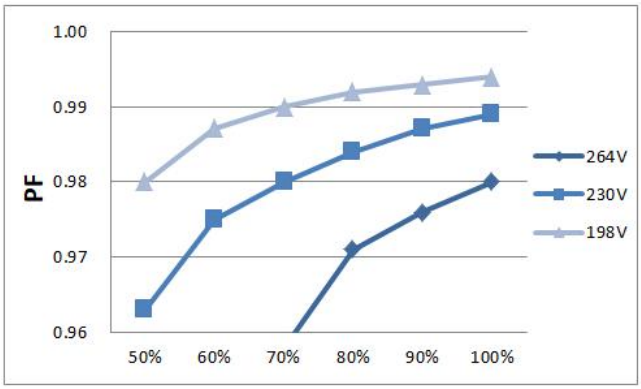


Fig.5 Total harmonic distortion curve（THD）

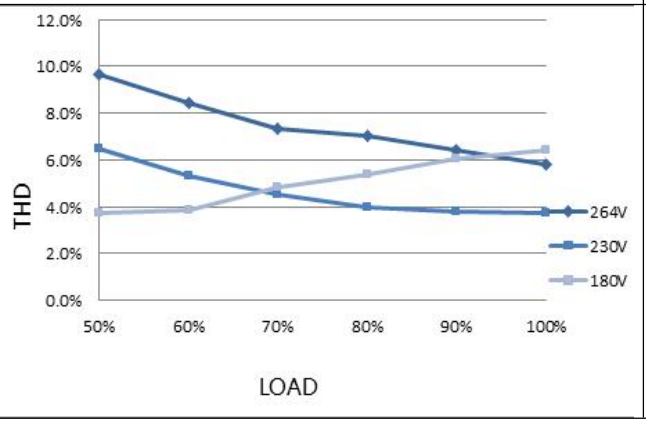
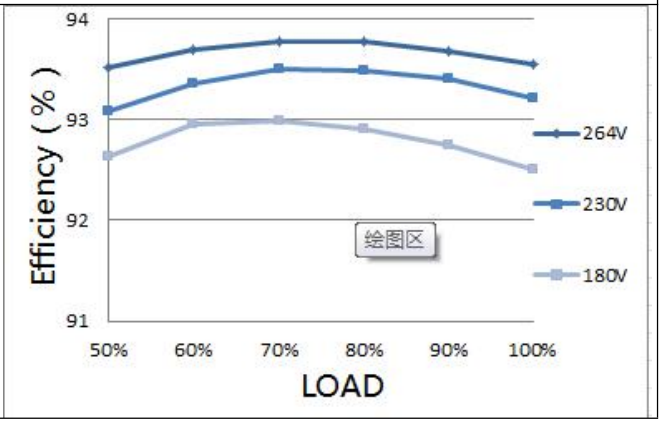


Fig.6 Efficiency-Load curve



MCBS / Model	B10	B13	B16	B20	C10	C13	C16	C20
SL150-12/24/48VF-1	6	7	9	11	7	9	11	13

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SL150-12/24/48VF-1			

Revision history

Date	Rev.	Remark
2023.4.12	A3	revise and publish