

Constant Voltage LED Power Supply

SL60-12VF-1

SL60-24VF-1



Product description

SL60-12/24VF-1 is an indoor constant voltage power supply. Its input voltage range is 198-264Vac, with the high efficiency up to 88%, 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 of products designed for LED lighting, applied to indoor lighting design, has a high cost performance.

Standards

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

Characteristics

- European AC input(220-240VAC)
- 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

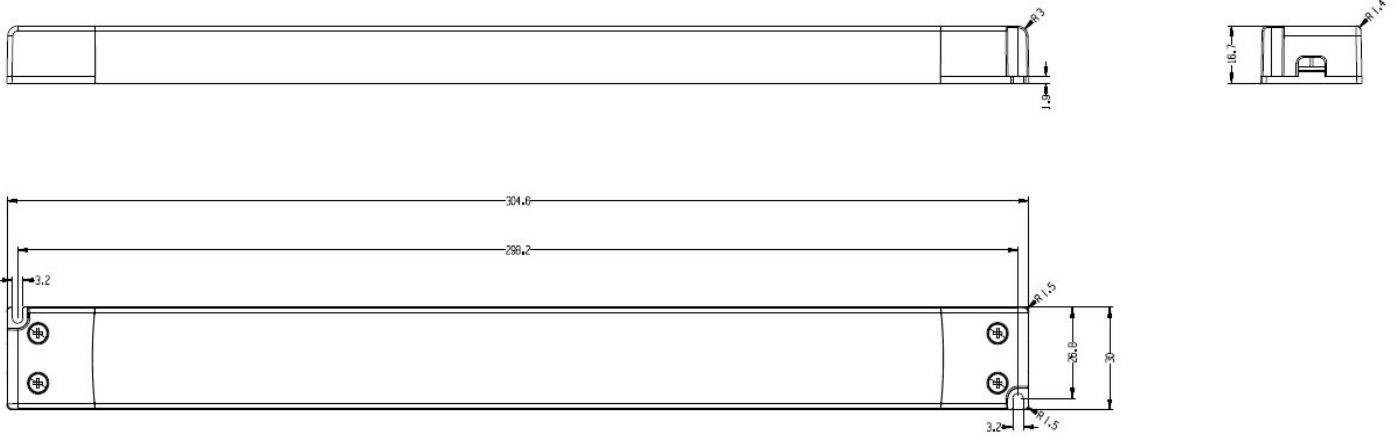
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Specifications

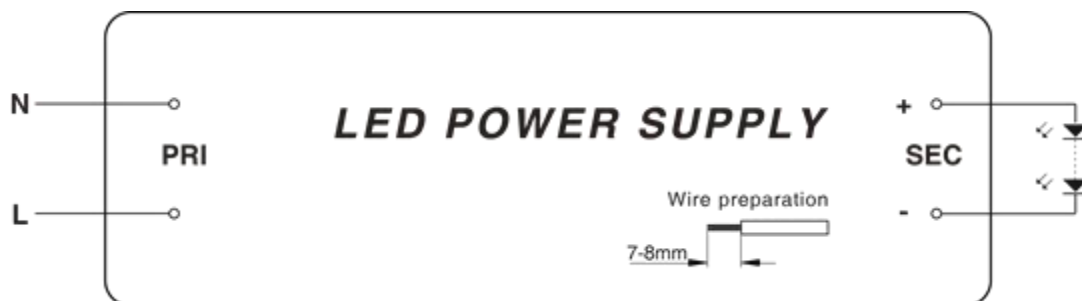
Model		SL60-12/24VF-1	
Output	turn on time(S)	<0.5S	<0.5S
	output power(W)	60W	
	output voltage(V)	12V	24V
	output voltage tolerance	$\leq \pm 5\%$	
	ripple voltage(mV)	$\leq 380\text{mVp-p}$	$\leq 380\text{mVp-p}$
	Line Regulation	$\pm 1\%$	
	Load Regulation	$\pm 2\%$	
	working current range(A)	0-5	0-2.5
Input	rated DC supply voltage(Vdc)	NA	
	rated supply voltage(Vac)	220-240V	
	voltage range(Vac)	198-264V	
	line frequency(Hz)	50/60HZ	
	input current(A)	<0.5A	<0.5A
	efficiency(TYPE)	86%@full load,230Va	86%@full load,230Va
	average efficiency(TYPE) 3	--	
	no load power consumption(W)	$\leq 0.5\text{W}$	
	power factor	0.95@230Vac, full load	
	Displacement factor	0.95@230Vac, full load	
	THD(typ.) THD	8%	
	inrush current(Ipk)	70A/162uS@50%	
	Leakage current (mA)	0.75mA@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	hiccup mode, restart automatically after fault correction.	
	Over temperature protection	Latch off	
	surge capacity	L-N: 1KV	
	Withstand voltage	Input-Output: 3750V/5mA/1min	
Ambient and Life	Ta(C)	-20...45(See derating curve)	
	Tc max.(C)	max.90	
	Storage Temperature(C)	-40...+85℃	
	ambient humidity range	10%...90%RH, Not condensing	
	nominal life-time(hrs)	50'000@Ta	

Other	dimensions (L×W×H)(mm)	304.6mm * 30mm * 16.7mm
	weight(g)	175±5g
	casing material	plastics
	housing colour	white
	type of protection	IP20
	protection class	Class 2
	certificate	
Note	<p>1.Tolerance:includes set up tolerance, line regulation and load regulation.</p> <p>2.Tested at full load,230Vac.Refer to"Power Factor" and "EFFICIENT"curve graphs.</p> <p>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.</p> <p>4.All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature.</p> <p>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	Connector: H03VVH2-F 2×0.75mm ²
DC	Connector: H05VVH2-F 2×1.0mm ²

Electrical curves

Fig. 1 Output load-Temperature curve

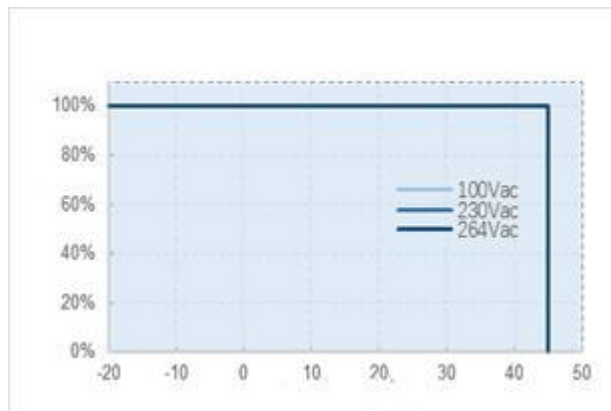


Fig. 2 Static characteristic curve

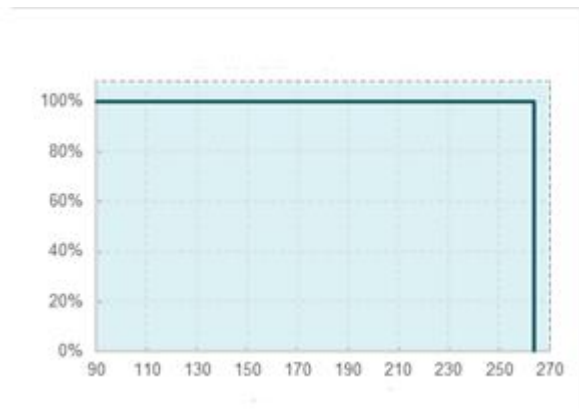


Fig. 3 I-V curve

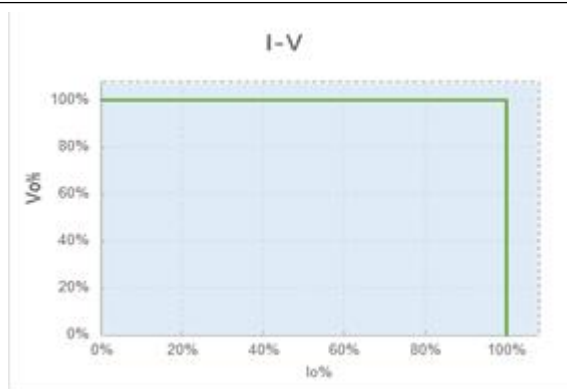


Fig. 4 Power factor characteristic curve

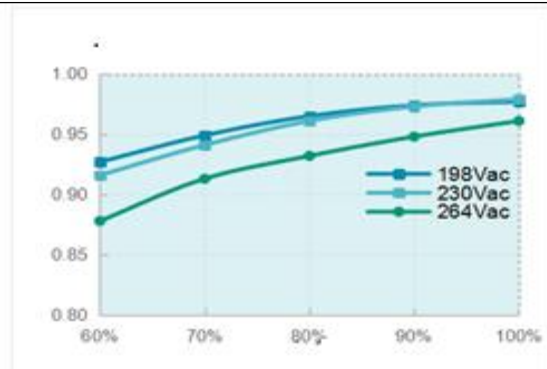


Fig.5 Total harmonic distortion curve (THD)

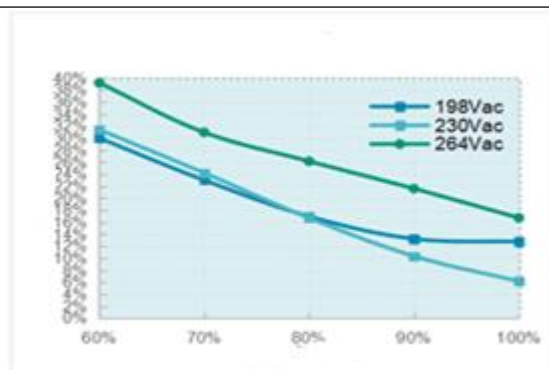
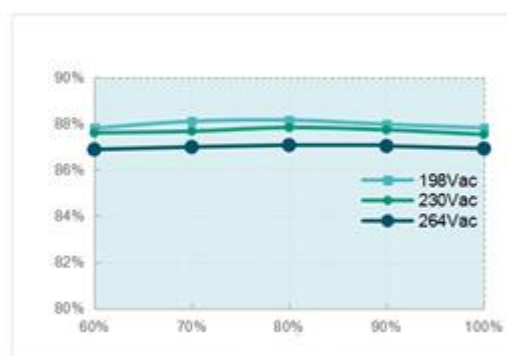


Fig.6 Efficiency-Load curve



MCBS

Model \ MCBS	B10	B13	B16	B20	C10	C13	C16	C20
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SL60-12VF-1	13	17	21	26	16	21	26	33
SL60-24VF-1	13	17	21	26	16	21	26	33

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SL60-12VF-1			
SL60-24VF-1			

Revision history

Date	Rev.	Remark
2023.3.24	A1	Initial release.