

Constant Voltage LED Driver

SS30-12VF

SS30-24VF

SS30-48VF



Product description

SS30-12/24/48VF is an indoor constant voltage LED driver with an input voltage range of 198-264Vac and a conversion efficiency of up to 87%. It adopts a fanless design and operates at -20C~+ The 45C natural cooling case temperature range, high power factor, low total harmonic distortion, low standby power consumption, and all-round protection functions not only greatly improve the reliability of the product, but also ensure the product life cycle.

Standards

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

Characteristics

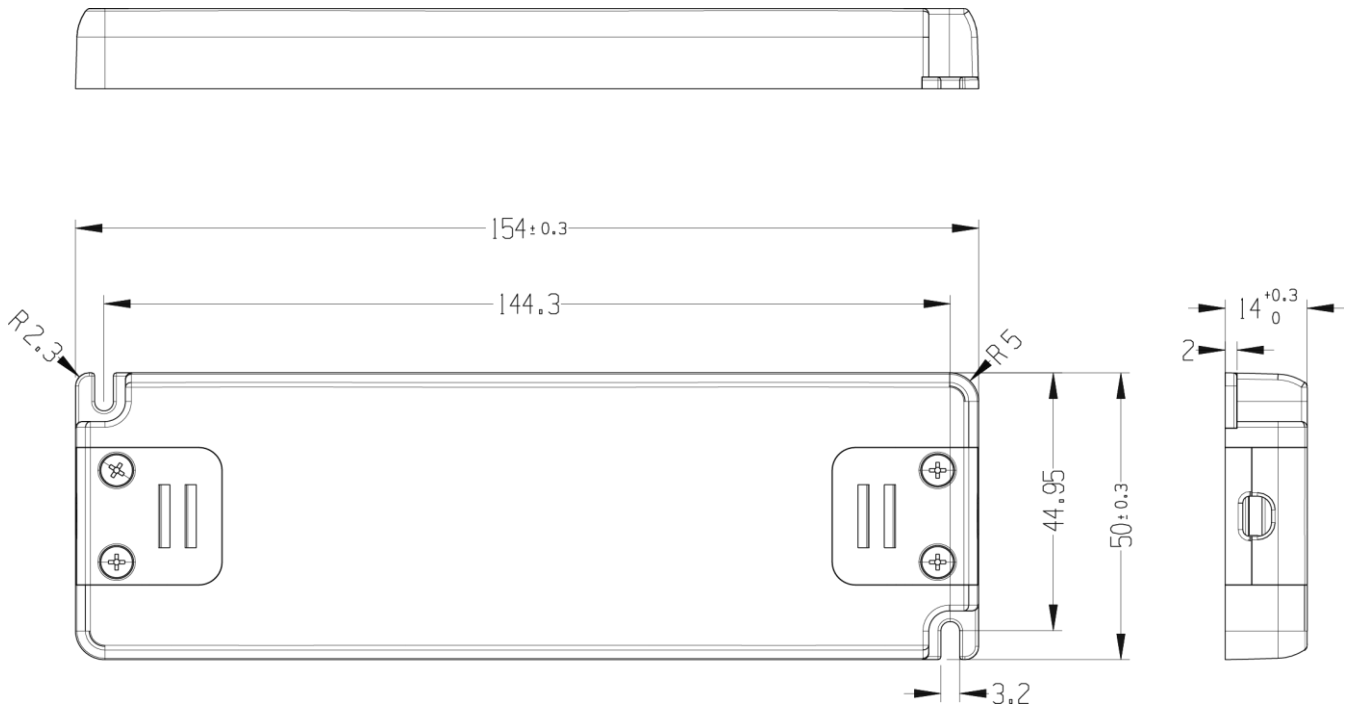
- AC Input range (220-240VAC)
- With active PFC function
- IP20
- Suitable for dry indoor environments
- Protection type: short circuit/over temperature/over voltage/over load protection
- Plastic case
- Comply with world lighting equipment safety regulations
- 5 years warranty

Specifications

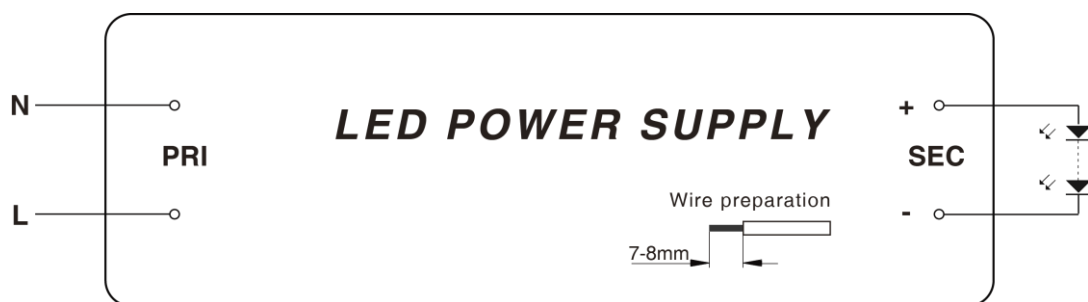
Model		SS30-12VF	SS30-24VF	SS30-48VF
Output	Turn on time(S)	<0.5		
	Output power(W)	30		
	Output voltage(V)	12	24	48
	Output voltage tolerance	5%		
	Ripple voltage(mV)	360mVp-p	360mVp-p	360mVp-p
	Line Regulation	1% @ full load		
	Load Regulation	1%		
	Working current range(A)	0-2.5	0-1.25	0-0.625
Input	Rated DC supply voltage(Vdc)	NA		
	Rated supply voltage(Vac)	220-240		
	Voltage range(Vac)	198-264		
	Line frequency(Hz)	50/60		
	Input current(A)	<0.5	<0.5	<0.5
	Efficiency (TYPE)	86%@full load,230Vac	87%@full load,230Vac	87%@full load,230Vac
	Average efficiency(TYPE) (TYPE)	84.5%	85.5%	86%
	No load power consumption(W)	0.5W		
	Power factor	<u>0.95@230Vac, full load</u>		
	Displacement factor	0.95		
	THD(typ.) THD	8%		
	Inrush current(Ipk) Ipk	Max. 30A/110uS@50%		
	Leakage current (mA)	<u>0.75mA@240Vac 60Hz</u>		
	Protection	Short circuit protection	hiccup mode, restart automatically after fault correction.	
Over load protection		hiccup mode, restart automatically after fault correction.		
Over voltage protection		NA		
Over temperature protection		Latch off, restart automatically after fault correction.		
Surge capacity		L-N: 1KV		
Withstand voltage		Input-Output: 3750V/5mA/1min		
	Ta(C)	-20-45(See derating curve)		
	Tc max.(C)	max.85		

Ambient and Life	Storage Temperature()	-40...+85
	Ambient humidity range	10%...90%RH, Not condensing
	Nominal life-time(hrs)	50'000@Ta
Other	Dimensions (LWH)(mm)	154 * 50 * 14
	Weight(g)	87
	Casing material	Plastic
	Housing colour	White
	Type of protection	IP20
	Protection class	Class II
	Certificate	CE,TUV,UKCA
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 models 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	Terminal block for H03VVH2-F 2x0.75mm ²
DC	Terminal block for H03VVH2-F 2x0.75mm ²

Electrical curves

Fig. 1 Output load-Temperature curve

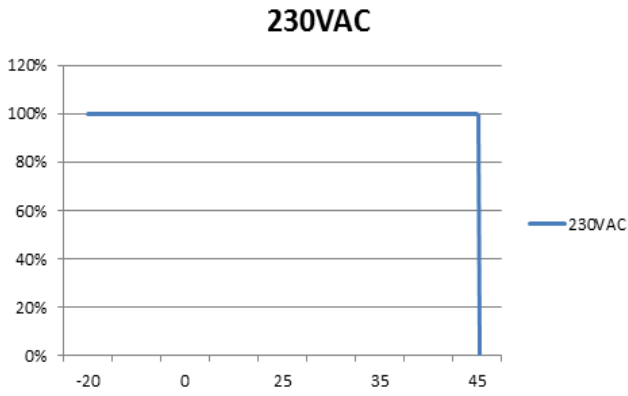


Fig. 2 Static characteristic curve

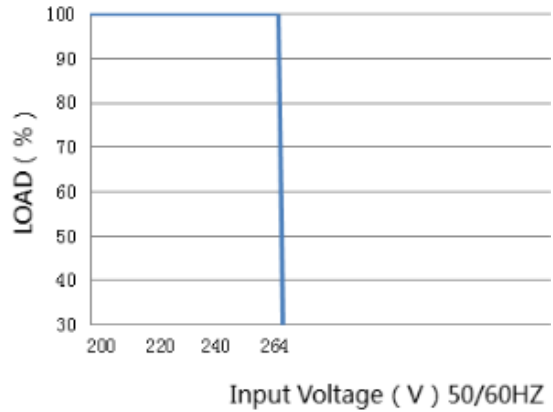


Fig. 3 I-V curve

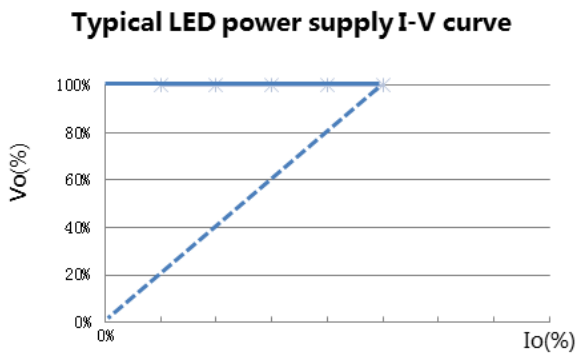


Fig. 4 Power factor characteristic curve

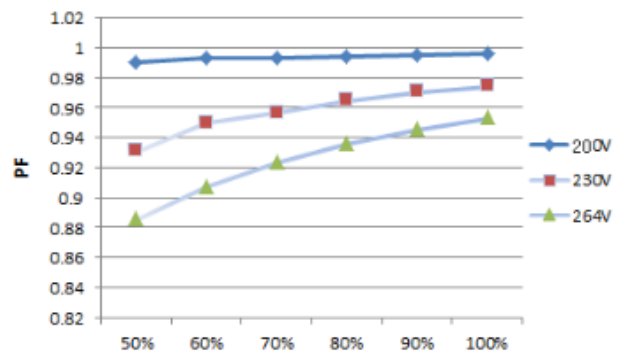


Fig.5 Total harmonic distortion curve

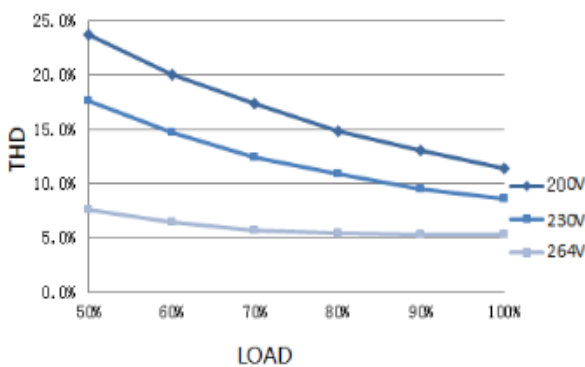
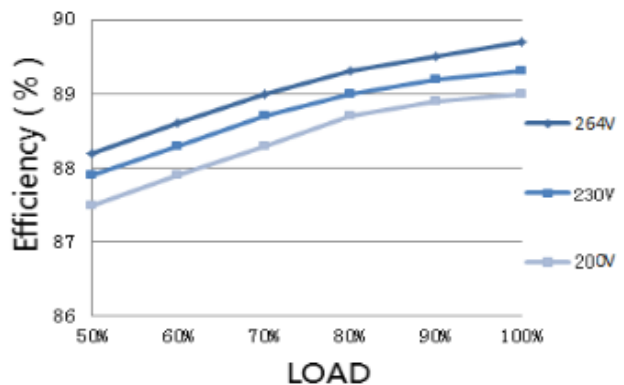


Fig.6 Efficiency-Load curve



MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SS30-12VF	29	38	46	58	36	47	58	73
SS30-24VF	29	38	46	58	36	47	58	73
SS30-48VF	29	38	46	58	36	47	58	73

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Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SS30-12VF			
SS30-24VF			
SS30-48VF			

Revision history

Date	Rev.	Remark
2019.6	A1	Official release
2023.1.6	A2	48VDC added