Constant Voltage LED Power Supply

SEA120-24VL SEA120-48VL

Product description

SEA120 is an indoor constant voltage LED driver power supply with an input voltage range of 220-240Vac and a conversion efficiency of up to 90%. It works in the natural cooling case temperature range of -20°C~+45°C and has Ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, and all-round protection functions not only greatly improve product reliability, but also ensure product life cycle. This series of products is designed for LED lighting design and used in indoor lighting. Suitable for various application environments in almost all indoor places where LED lamps can be installed. Complies with world lighting equipment safety regulations while ensuring the safety of users and lighting systems during installation.

Standards

EN61347-1
EN61347-2-13
AS/NZS 61347.2.13
EN55015
EN61000-3-2
EN62493

Characteristics

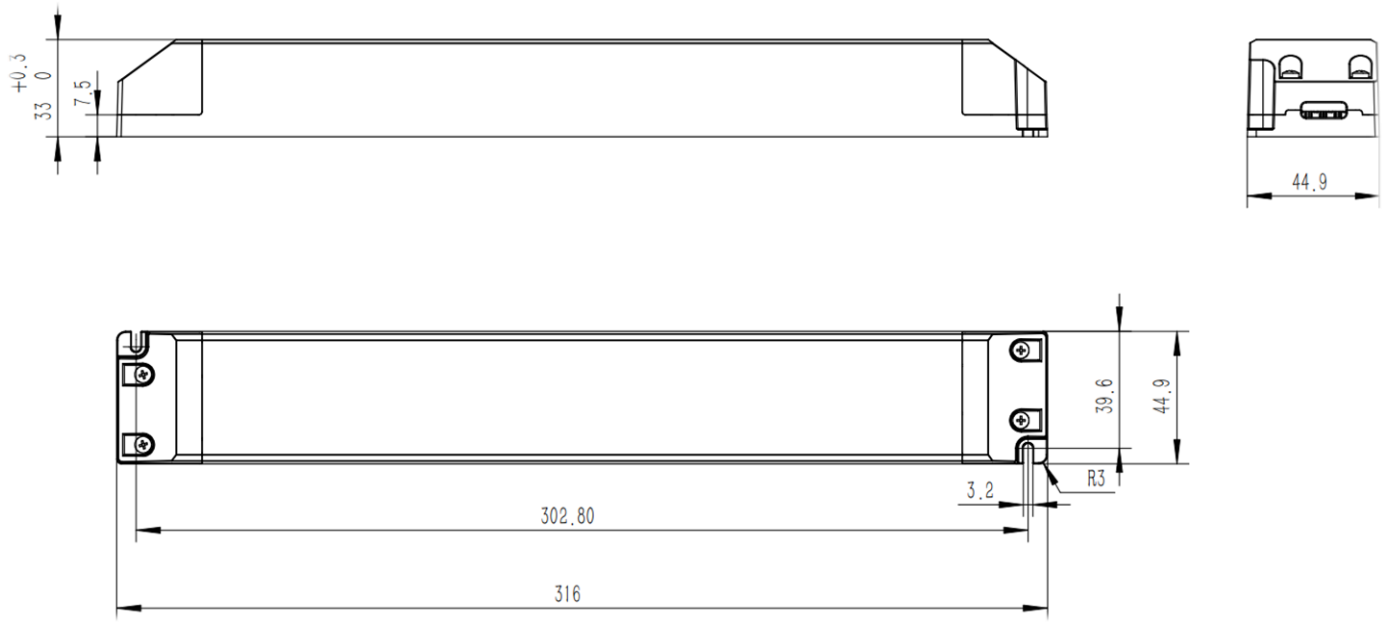
. European AC input range (220-240VAC)
. With active PFC function
. Waterproof grade IP20
. Suitable for indoor environments
. Protection type: short circuit/overvoltage/overtemperature protection
. Made of plastic shell and filled with glue inside.
. Comply with world lighting equipment safety regulations
. 5 years warranty

Specifications

Model		SEA120-24VL	SEA120-48VL
Output	turn on time(S)	＜0.5	＜0.5
	output power(W)	120	120
	output voltage(V)	24	48
	output voltage tolerance	±5%	±5%
	ripple voltage	±3%	±3%
	Line Regulation	±3%	±3%
	Load Regulation	±3%	±3%
	working current range(A)	0-5	0-2.5
	SVM	SVM≤0.4	SVM≤0.4
	Pst	Pst LM≤1	Pst LM≤1
	dimming type	N/A	N/A
	dimming range	N/A	N/A
Input	rated DC supply voltage(Vdc)	--	--
	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)	0.7/198V	0.7/198V
	efficiency	89%@full load	90%@full load
	average efficiency 3 3	89%	90%
	no load power consumption(W)	≤0.5W	≤0.5W
	power factor	0.95@full load	0.95@full load
	THD(typ.) THD（）	10%	10%
	inrush current(Ipk) （Ipk）	55A/200uS	55A/200uS
	Leakage current	＜0.7mA	＜0.7mA
Protection	short circuit protection	hiccup mode, restart automatically after fault correction.	hiccup mode, restart automatically after fault correction.
	over load protection	exceed maximum rated load times 1.2	exceed maximum rated load times 1.2
	Over voltage protection	N/A	N/A
	Over temperature protection	IC detect	IC detect
	surge capacity	L-N: 1000V	L-N: 1000V
	Withstand voltage	Input-Output：3750V/5mA/1min	Input-Output：3750V/5mA/1min
	Ta(C)	-20…45	-20…45

Ambient and Life	Tc max.(C)	max.85	max.85
	Storage Temperature(C)	-40...85	-40...85
	ambient humidity range	5%...85%RH, Not condensing	5%...85%RH, Not condensing
	nominal life-time(hrs)	50'000@Ta	50'000@Ta
Other	dimensions (L×W×H)(mm)	316*44.9*33	316*44.9*33
	weight(g)	530	530
	casing material	Plastic	Plastic
	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)



AC	Terminal block H03VVH2-F 2*0.75mm^2
DC	Terminal block H03VVH2-F 2*0.75mm2 *2

SEA120-24VL

Fig. 1 Output load-Temperature curve
1 -

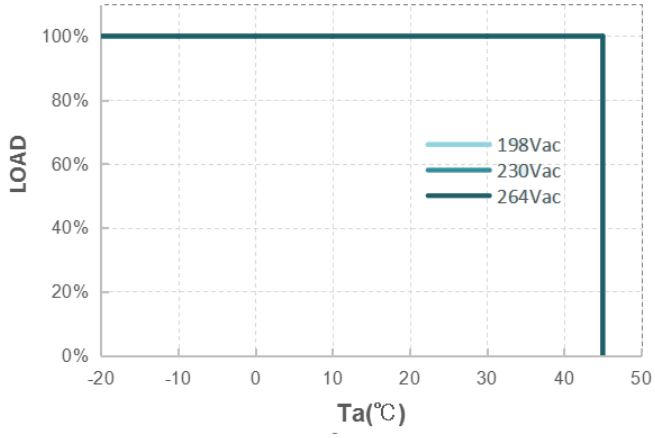


Fig. 2 Static characteristic curve
2

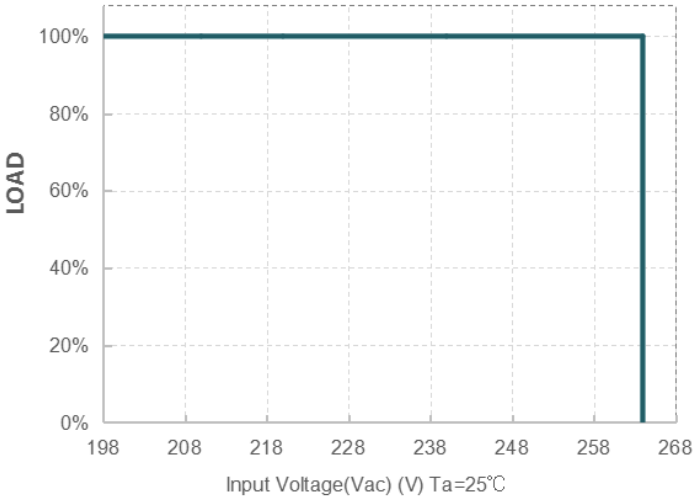


Fig. 3 I-V curve
3 I-V

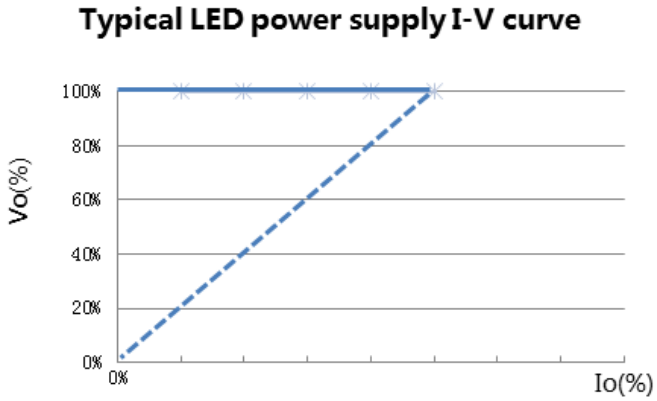


Fig. 4 Power factor characteristic curve
4

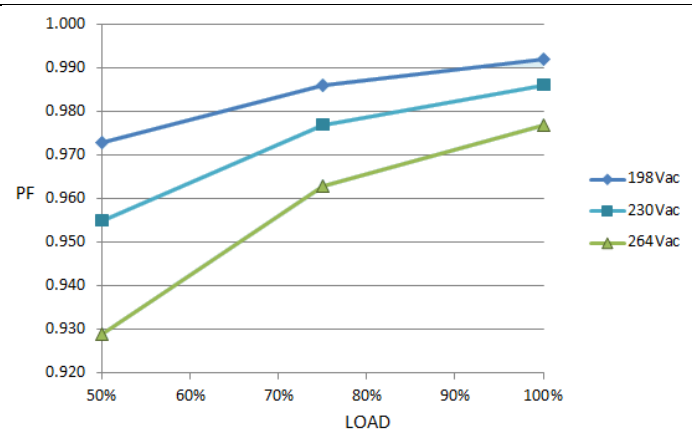


Fig.5 Total harmonic distortion curve（THD）
5 （THD）

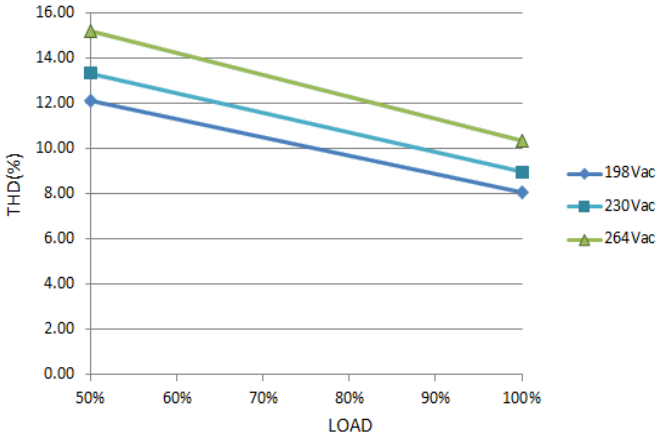
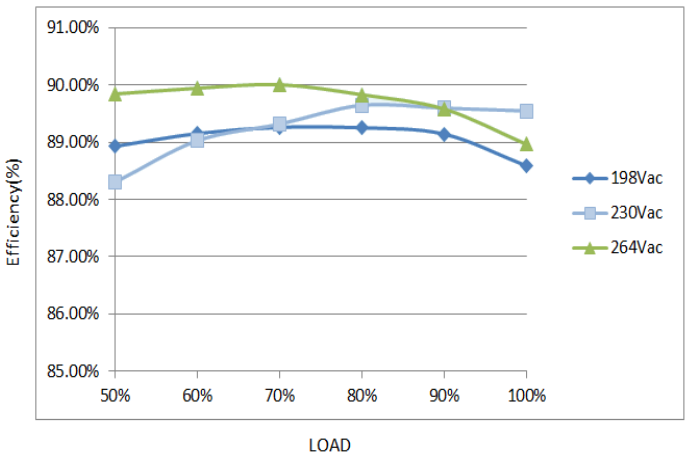


Fig.6 Efficiency-Load curve
6 -



Electrical curves

SEA120-48VL

Fig. 1 Output load-Temperature curve 1 -	Fig. 2 Static characteristic curve 2

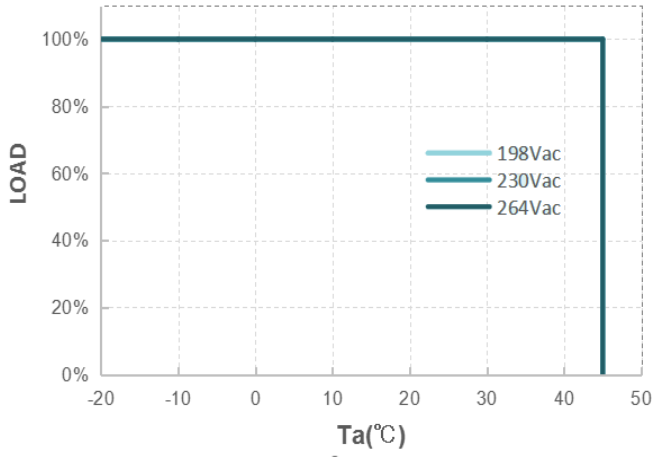
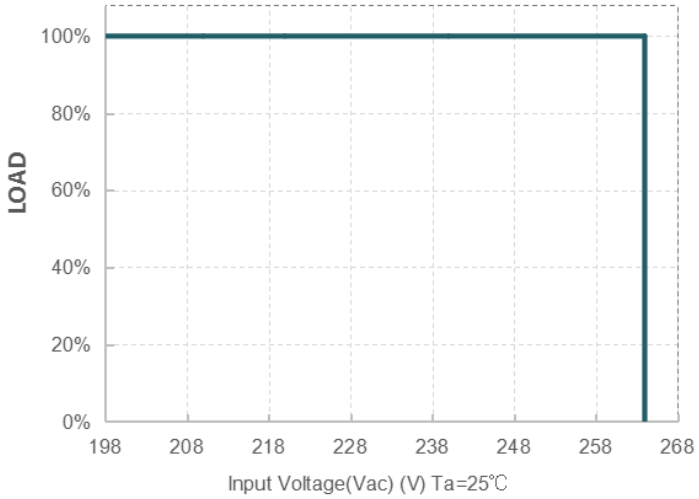

	

Fig. 3 I-V curve **3 I-V**	**Fig. 4 Power factor characteristic curve** **4**

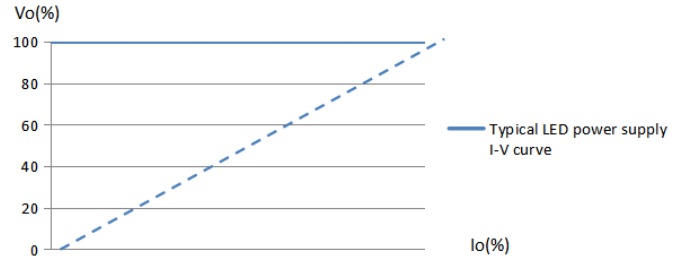
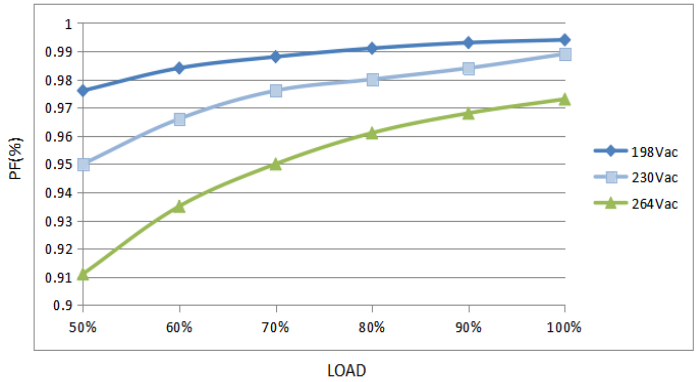
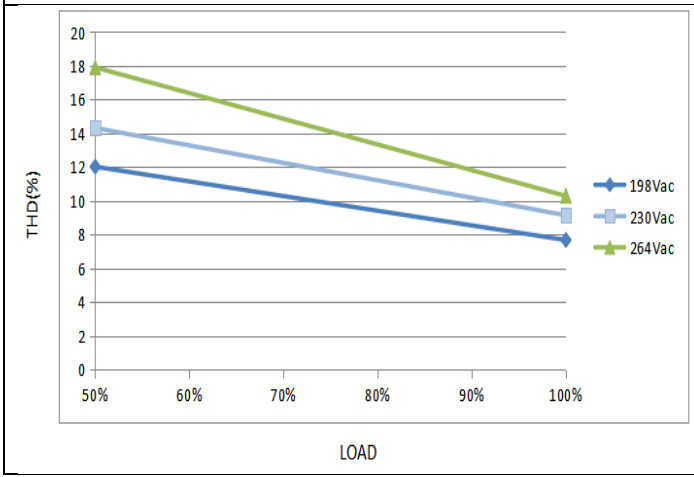
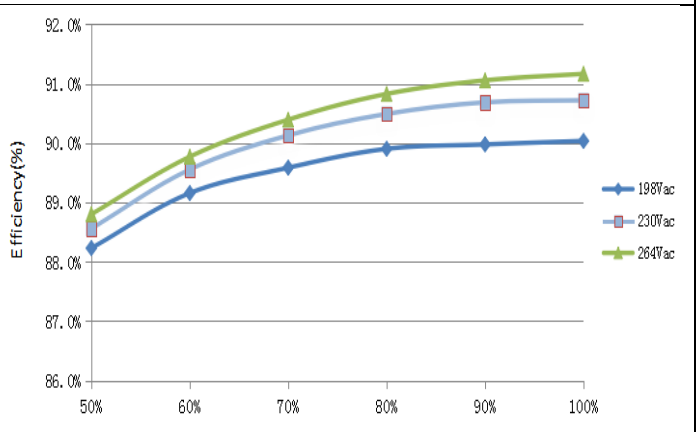

	

Fig.5 Total harmonic distortion curve（THD） **5 （THD）**	**Fig.6 Efficiency-Load curve** **6 -**
	

MCBS

MCBS / Model	B10	B13	B16	B20	C10	C13	C16	C20
SEA120-24VL	4	6	7	9	7	10	12	15
SEA120-48VL	4	6	7	9	7	10	12	15

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SEA120-24VL			
SEA120-48VL			

Revision history

Date	Rev.	Remark
2023.8.11	A0	SEA120-48VL added
2023.8.11	A1	Format update