

Constant Voltage LED Power Supply

SCL100-12VF/SCL100-24VF

SCL100-48VF



Product description

The SCL100 series is a constant voltage LED driver for indoor .Its input voltage range is 198-264Vac, with a conversion efficiency of up to 93%. It adopts a fanless design and works at -20°C~+45°C. Naturally cooled chassis temperature range, ultra-high power factor, ultra-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. This series of products is designed for LED lighting design and is used in indoor and outdoor lighting. Suitable for various application environments in almost all indoor places where LED lamps can be installed. Comply with CASAMBI dimming standard. Innovative thermal management technology intelligently protects power supply life.

Standards

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

Characteristics

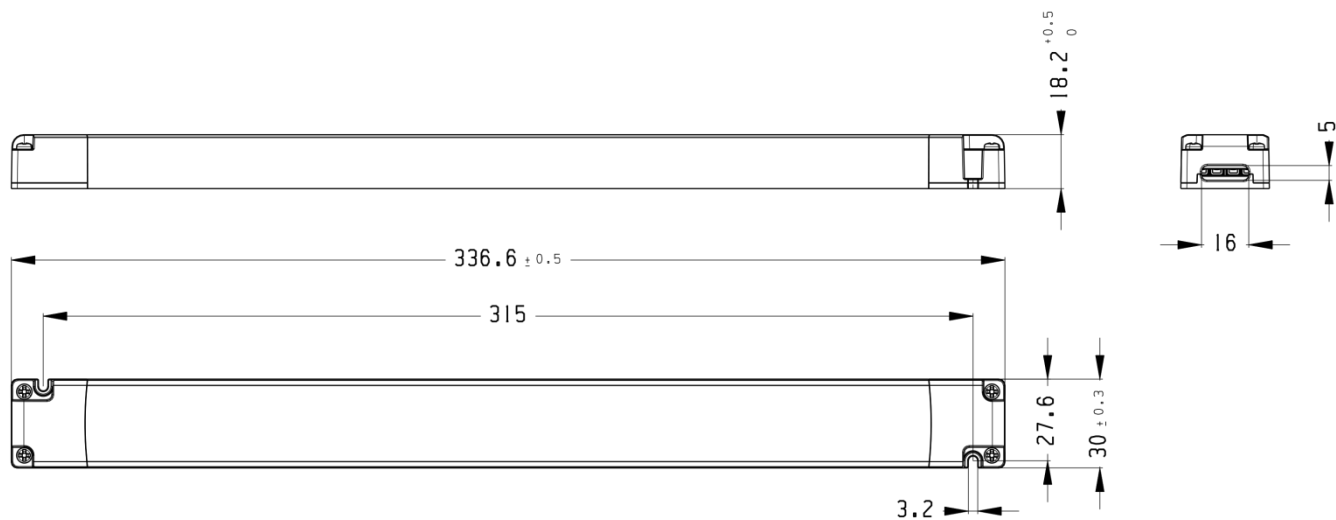
- European AC input range (220-240VAC)
- With active PFC function
- Waterproof rating IP20
- CASAMBI dimming driver
- Built-in press dimming function
- Dimming range 1-100%
- Suitable for dry indoor environments
- Protection type: short circuit/over temperature/over voltage protection
- Plastic case
- Comply with world lighting equipment safety regulations
- 5 years warranty

Specifications

Model		SCL100-12VF	SCL100-24VF	SCL100-48VF
Output	turn on time(S)	<0.5	<0.5	<0.5
	output power(W)	100	100	100
	output voltage(V)	12	24	48
	output voltage tolerance	≤±5%	≤±5%	≤±5%
	ripple voltage(mV)	150mV	240mV	400mV
	Line Regulation	1%	1%	1%
	Load Regulation	2%	1%	1%
	working current range(A)	0-8.33	0-4.16	0-2.08
	SVM	0.1		
	Pst	0.1		
	dimming type	YES		
	dimming range	1-100%		
	rated DC supply voltage(Vdc)	NA		
	rated supply voltage(Vac)	220-240		
Input	voltage range(Vac)	198-264		
	line frequency(Hz)	50/60		
	input current(A)	0.7		
	efficiency (TYPE)	92.5%@full load	93.5%@full load	93.5%@full load
	average efficiency(TYPE) 3	91.5%	92 %	92 %
	no load power consumption(W)	≤0.5W		
	power factor	0.95@full load		
	Displacement factor	0.95		
	THD(typ.) THD (Type)	5.5%		
	inrush current(Ipk) (Ipk)	80A/260uS		
	Leakage current (mA)	0.7@240Vac 60Hz		
	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)		
Protection	Over temperature protection	Yes(latch off)		
	surge capacity	L-N: 1KV		
	Withstand voltage	Input-Output: 3000V/5mA/1min		
	Ta(C)	-20...45		
	Tc max.(C)	max.85		

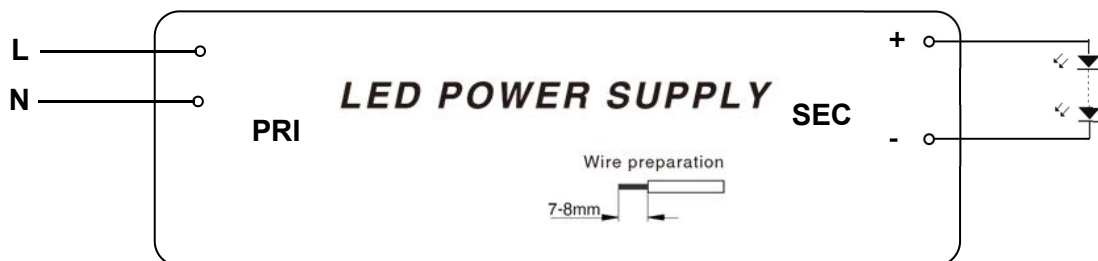
Ambient and Life	Storage Temperature(C)	-30...80		
	ambient humidity range	5%...85%RH, Not condensing		
	nominal life-time(hrs)	50'000@Ta		
Other	dimensions (L×W×H)(mm)	336.6mm*30mm*18.2mm		
	weight(g)	220	190	190
	casing material	Plastics		
	housing colour	white		
	type of protection	IP20		
	protection class	class II		
	certificate			
Note	1. Tolerance: including setting tolerance, linear adjustment rate and load adjustment rate. 2. Tested under full load and 230Vac. Refer to the "Power Factor" and "Efficiency" graphs. 3. To calculate the average efficiency of the product, test the voltage at 100%, 75%, 50%, and 25% of the rated current, and then obtain the average of the four values through the arithmetic mean method. 4. All parameters not specifically mentioned are measured at rated voltage input, rated load and 25°C ambient temperature. 5. A power supply is a component used in conjunction with the final device. Since EMC performance will be affected by the complete installation, the final equipment manufacturer must reconfirm that the equipment after complete installation complies with the EMC directive. PUSH push-type dimming (PUSH dimming only requires a single connection, and when multiple units are dimmed collaboratively, only APP settings are required). Dimming: long press (dimming). Switch: short press (ON/OFF). The frequency range is approximately 2402-2483 MHz, and the frequency is optional when establishing a network on the APP; The transmitter power is 4dBm-8dBm, which is set at the factory and defaults to 8dBm. The official recommendation is maximum; Encrypted information is not available. Casambi focuses on professional lighting control and security.			

Dimensions(mm)

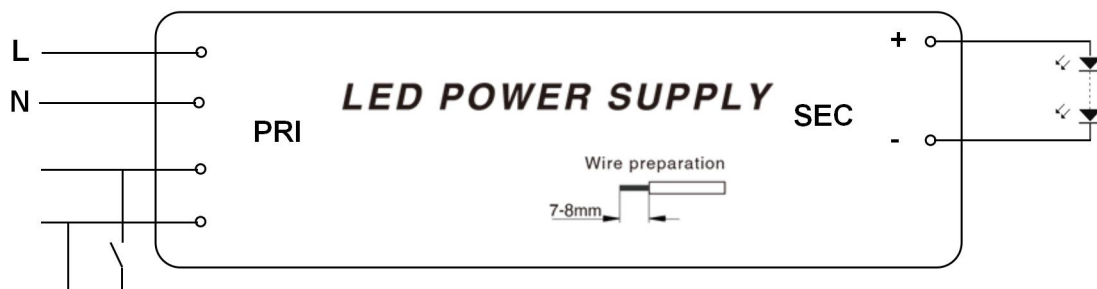


Wiring Diagram

CASAMBI



PUSH



PUSH DIM

AC	H03VVH2-F 2*0.75mm ²
DC	H03VVH2-F 2*0.75mm ² (24/48V) H05VVH2-F 2*1.0mm ² (12V)

Electrical curves

Fig. 1 Output load-Temperature curve

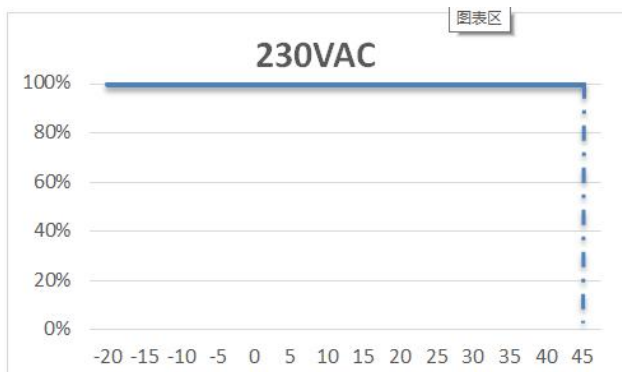


Fig. 2 Static characteristic curve

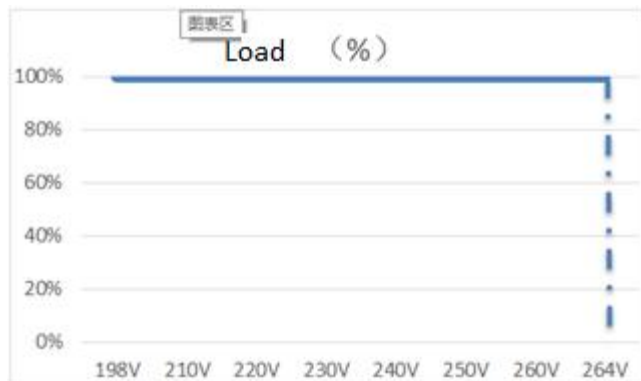


Fig. 3 I-V curve

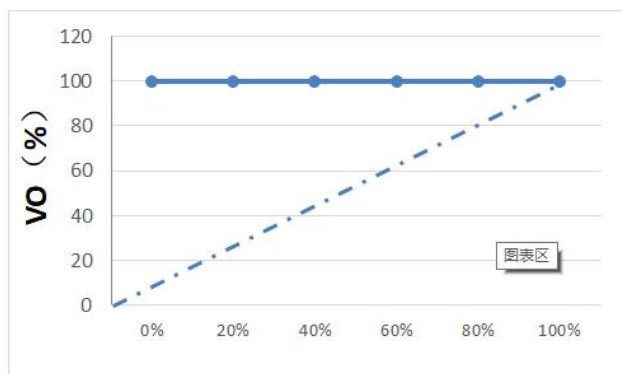


Fig. 4 Power factor characteristic curve

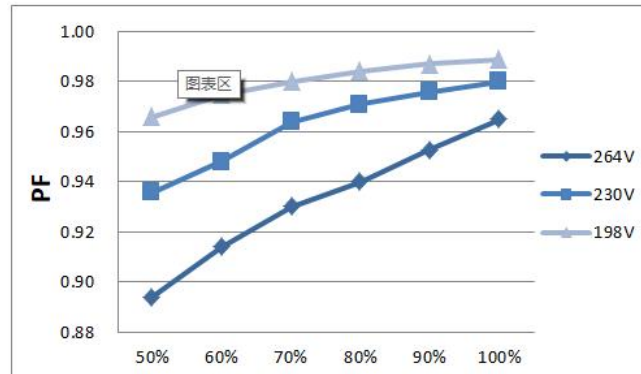


Fig.5 Total harmonic distortion curve (THD)

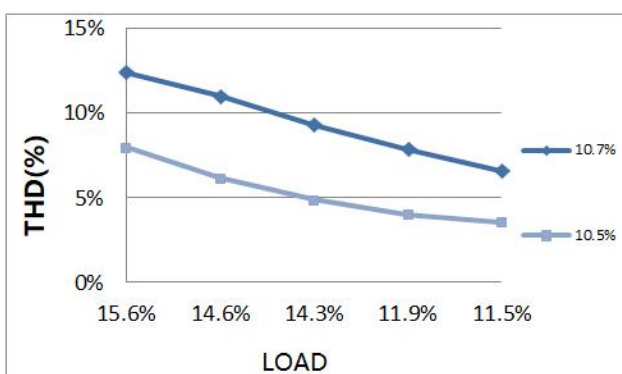
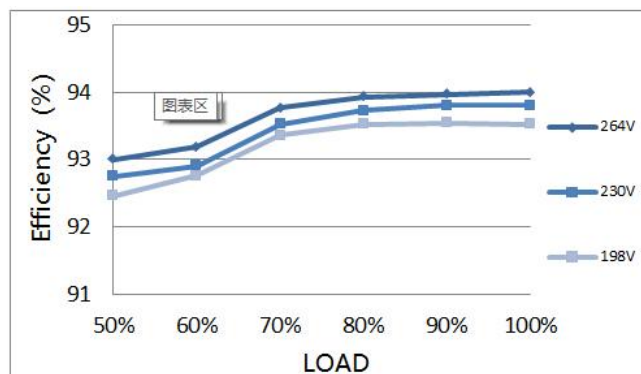


Fig.6 Efficiency-Load curve



MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SCL100-12/24/48VF	6	7	9	11	7	9	11	14

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SCL150-12/24/48VF			

Revision history

Date	Rev.	Remark
2023.9.7	A0	