Constant Voltage LED Power Supply
SDL150 Series

Product description

SDL150 series is a constant voltage LED POWER SUPPLY with DALI for indoor and outdoor, its input voltage range of 198-264Vac, with a maximum conversion efficiency of up to 93%, 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 the reliability of the product and ensure the life cycle. Not only greatly improve the reliability of the product, and ensure the product life cycle. This series of products for LED lighting design, designed for indoor and outdoor lighting. Suitable for almost all the indoor and outdoor places where LED lamps can be installed in a variety of application environments. Compliant with DALI2.0 standard (IEC 62386-101, 102, 207, 209), innovative thermal management technology, intelligent protection of power supply life.

Standards

EN61347-1
EN61347-2-13
EN61547
EN55015
EN61000-3-2
EN61000-3-3
EN62384
EN62493
IEC 62386-101、102、207、209

Characteristics

- European AC input range（198-264VAC）
- With active PFC function
- Waterproof IP20
- DALI-2.0 DT6/DT8 Dimming Driver
- Built-in press dimming and color adjustment function
- Dimming range: see specific models
- Suitable for dry indoor environments
- Protection: Short circuit / Over temperature / Over -voltage protection
- Conforms to world lighting safety regulations
- Warranty 5 years

SNAPPY
KNOW HOW. NO LIMITS.

Specifications

Model		SDL150-12VF6	SDL150-24VF6	SDL150-48VF6	SDL150-24VF-2CH	SDL150-24VF6（0.1-100%）	SDL150-24VF8
Output	turn on time(S)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	output power(W)	≤132W	≤150W	≤150W	CH1+CH2≤150	≤150W	≤150W
	output voltage(V)	12	24	48	24	24	24
	output voltage tolerance	≤±5%	≤±5%	≤±5%	≤±5%	≤±5%	≤±5%
	ripple voltage(mV)	150	240	480	240	240	240
	Line Regulation	1%	1%	1%	1%	1%	1%
	Load Regulation	1.5%	1%	1%	1%	1%	1%
	working current range(A)	1.1-11	0.625-6.25	0.31-3.125	0.625-6.25	0.625-6.25	0.625-6.25
	SVM	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	Pst	<1	<1	<1	<1	<1	<1
	Device type	DT6	DT6	DT6	双通道DT6	DT6	DT8
	dimming type	YES	YES	YES	YES	YES	YES
	dimming range	1-100%	1-100%	1-100%	1-100%	0. 1-100%	1-100%
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)	0.9					
	efficiency (TYPE)	92.5%@full load	93.5%@full load	93.5%@full load	93.5%@full load	93.5%@full load	93.5%@full load
	average efficiency(TYPE) 3	91.5%	92.5%	92.5%	92.5%	92.5%	92.5%
	no load power consumption(W)	≤0.5W					
	power factor	0.95@full load					
	Displacement factor	0.95					
	THD(typ.)	4%					
	inrush current(Ipk)	80A/260uS					
	Leakage current (mA)	0.7@240Vac 60Hz					
Protection	short circuit protection	hiccup mode, restart automatically after fault correction.					
	over load protection	exceed maximum rated load times 1.6					
	Over voltage protection	Yes(latch off)					
	Over temperature protection	Yes(latch off)					
	surge capacity	L-N: 1KV					

	Withstand voltage	Input-Output：3000V/5mA/1min
Ambient and Life	Ta(C)	-20…45(See derating curve)
	Tc max.(C)	max.85
	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)	336.6mm*30mm*18.2mm
	weight(g)	310g
	casing material	Plastics
	housing colour	White
	type of protection	IP20
	protection class	class Ⅱ
	certificate	

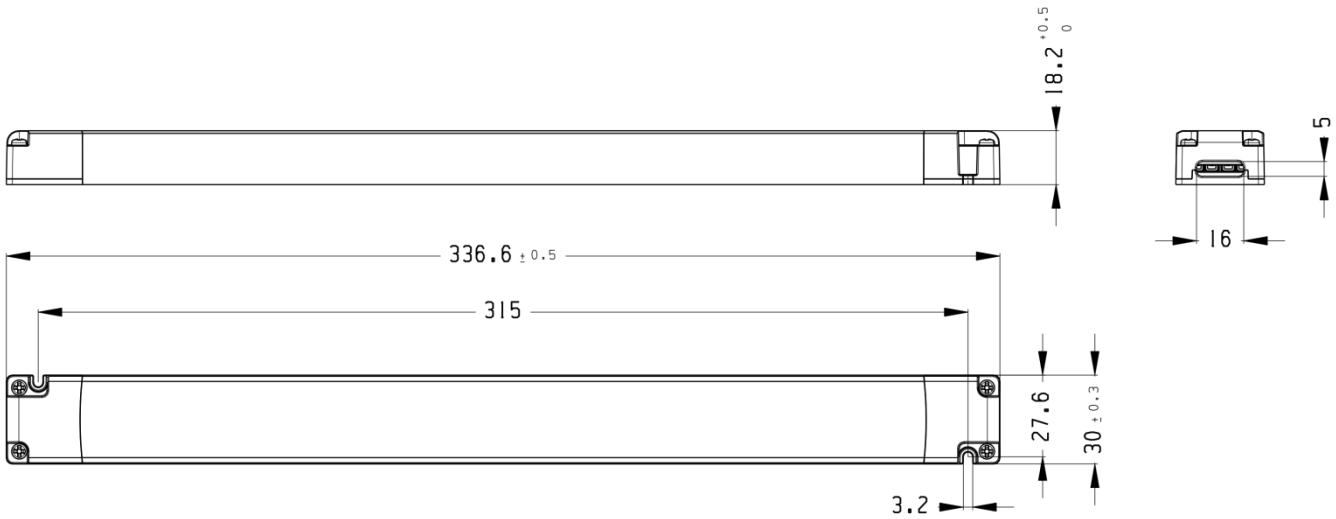
Note

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.

PUSH and PRESS function	DT6 dimming or DT8 dimming	DT8 Adjusting Color Temperature
Press<0.05s	No change in status	
Press0.1-1s	ON/OFF	color temperature cycling2700-3000-4000-6500
Long press1.5-10s	Dimming to brighten or darken	Adjust the color temperature by yourself
Long press >1s in power off state	Dimming from darkest	--
Long press for more than 15s	All devices are dimmed to 50%	Set all devices color temperature to 4500

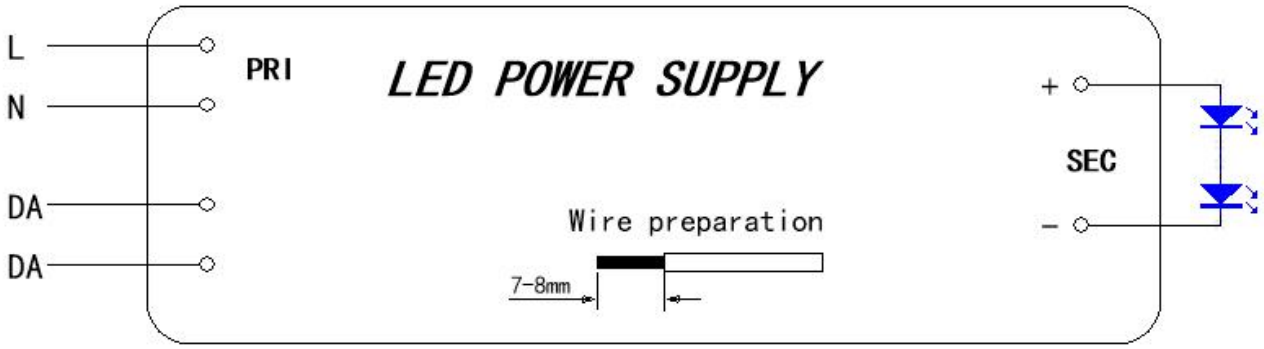
PUSH Press dimming/color temperature.
Wiring mode: (Refer to the wiring diagram for details)
DT6 wiring: The live line is connected to the PUSH switch to the DA/L port, and the neutral line is directly connected to another DA/N port
DT8 wiring: The live line is connected to the PUSH switch to the DA/L port, the neutral line is directly connected to another DA/N port, and the PUSH function is dimming
After the live line is connected to a diode greater than 400V, the PUSH switch is connected to the DA/L port, and the neutral line is directly connected to another DA/N port, and the PUSH function is to adjust color
Dimming: Press and hold.
Switch: Short press.
Dimming memory: When the light is turned off and switched on again, the light will return to the previously adjusted brightness level. Each long press changes the brightness in the opposite direction.
Long press for more than 15S is the synchronization function, all devices are uniformly adjusted to 50%, long press again to lower the dimming brightness (DT8 color temperature will be unified to 4500K, long press again to lower the color temperature)

Dimensions(mm)

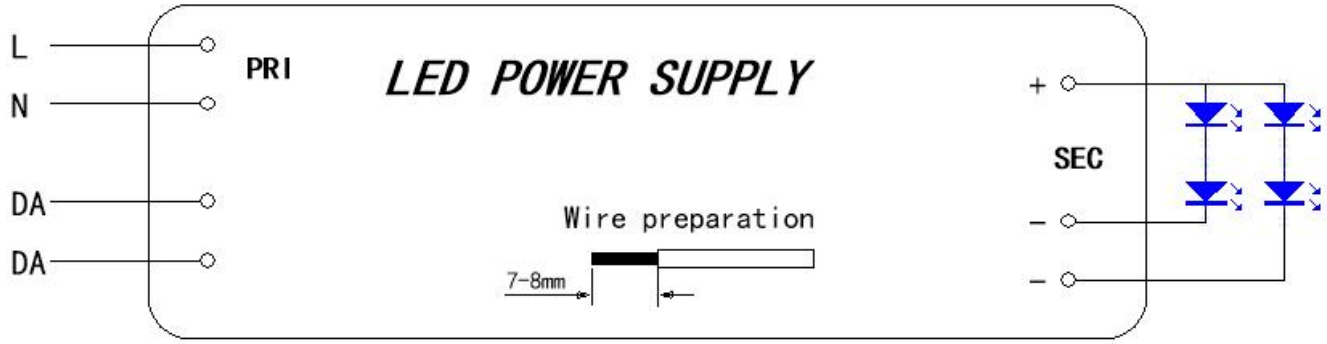


Wiring Diagram

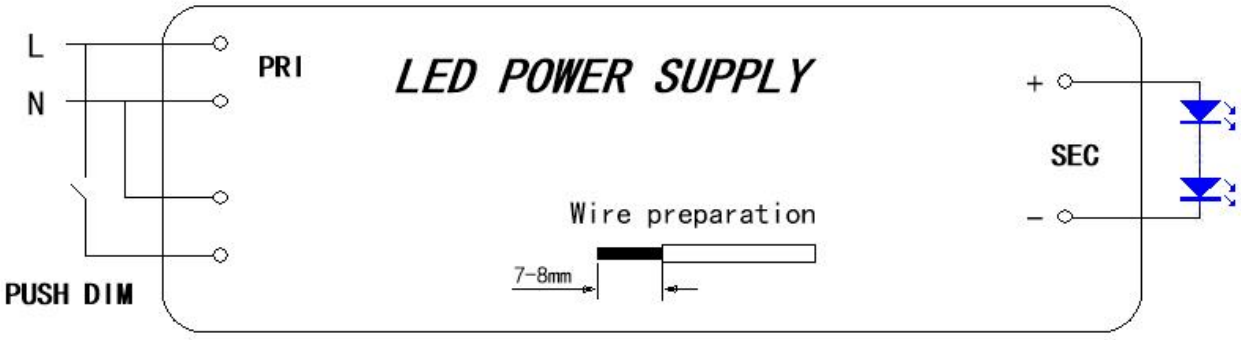
DALI DT6 Single channel connection diagram



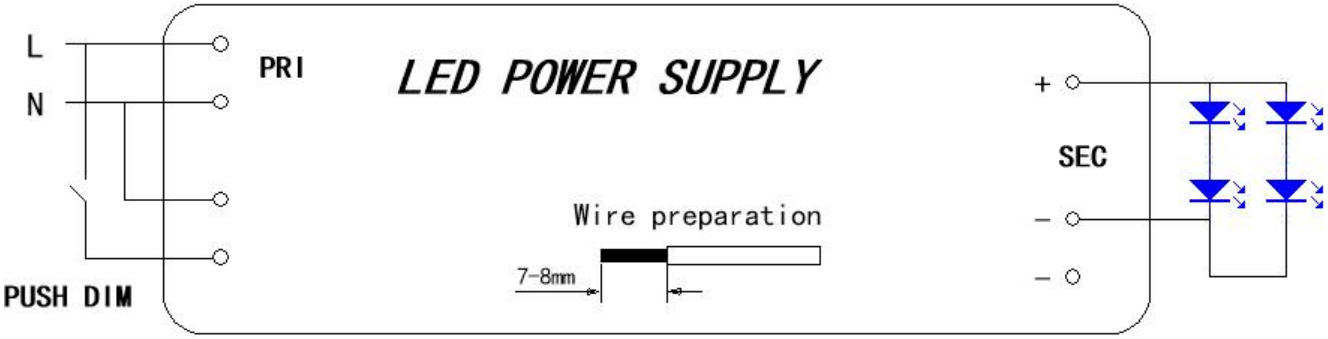
DALI DT8和DT6 Dual channel connection diagram



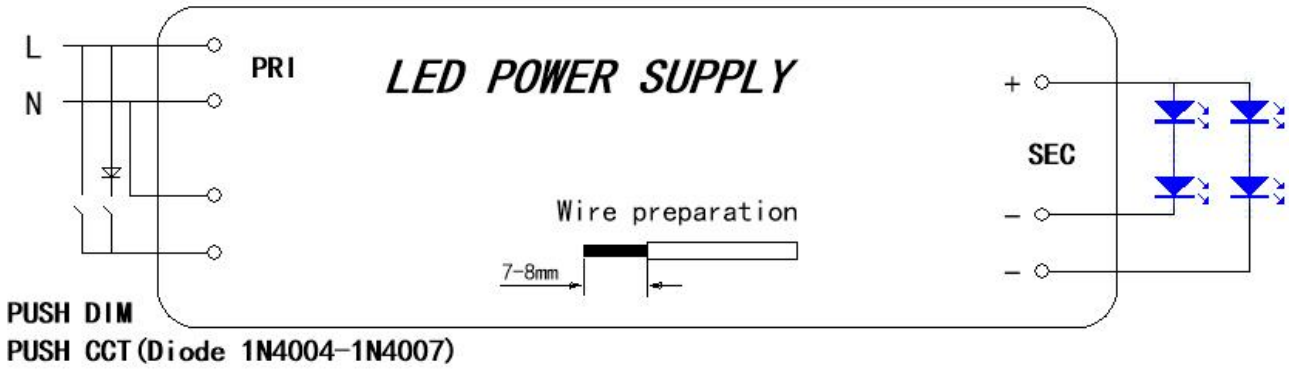
PUSH DT6 dimming scheme connection diagram



PUSH DT6 Dual Channel Dimming Solution Connection Diagram



PUSH DT8 Program Connection Diagram



AC	H03VVH2-F 2*0.75mm^2
dali	H03VVH2-F 2*0.75mm^2
DC	H03VVH2-F 2*0.75mm^2*2(12V),H03VVH2-F 2*0.75mm^2(24V 48V)

Electrical curves

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

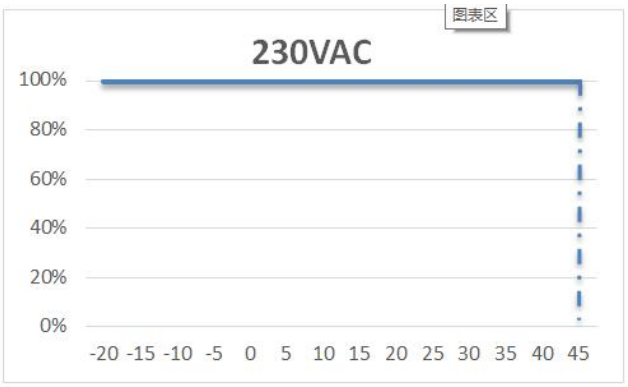
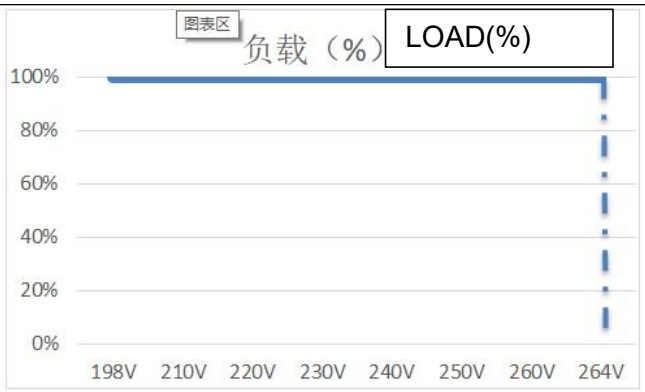

	

Fig. 3 I-V curve	**Fig. 4 Power factor characteristic curve**

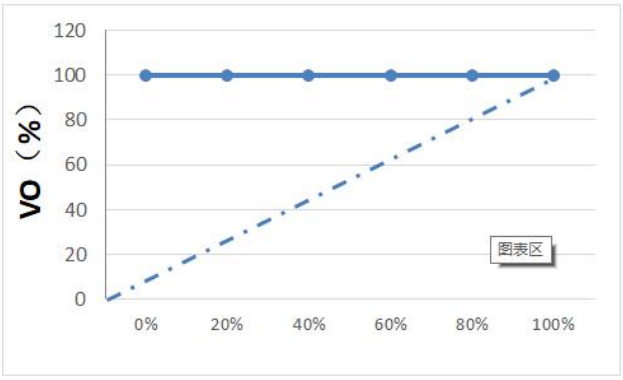
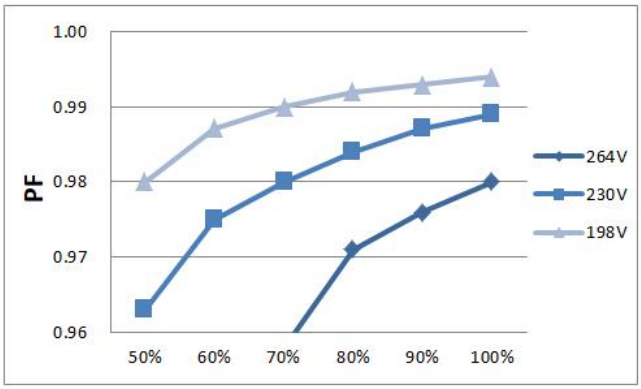
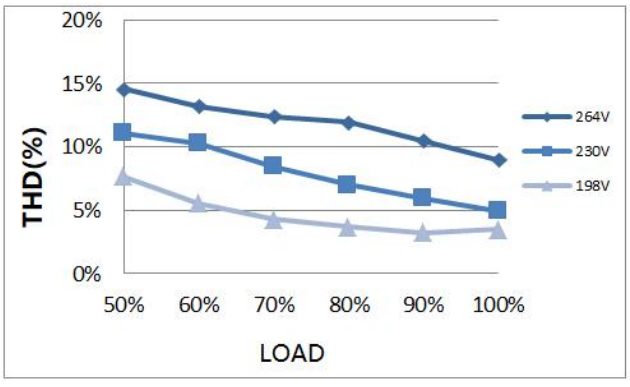
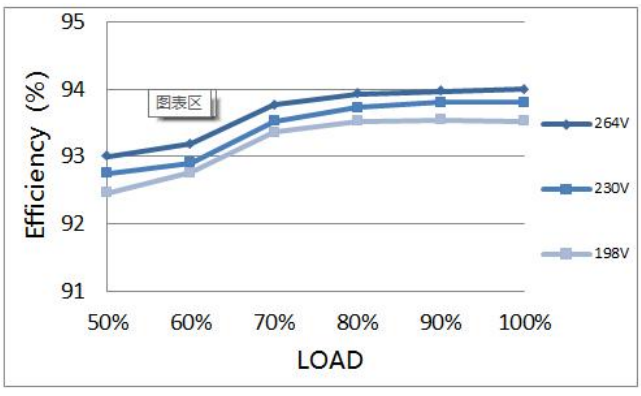

	

Fig.5 Total harmonic distortion curve（THD）	**Fig.6 Efficiency-Load curve**
	

MCBS / Model	B10	B13	B16	B20	C10	C13	C16	C20
SDL150	6	7	9	11	7	9	11	13

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SDL150 series			

Revision history

Date	Rev.	Remark
2023.7.31	A1	official release
2024.1.17	A2	Consolidation of specifications
2024.5.6	A3	Updated product images and dual-channel DT6 wiring diagrams
2024.7.4	A4	Life under labeled Ta