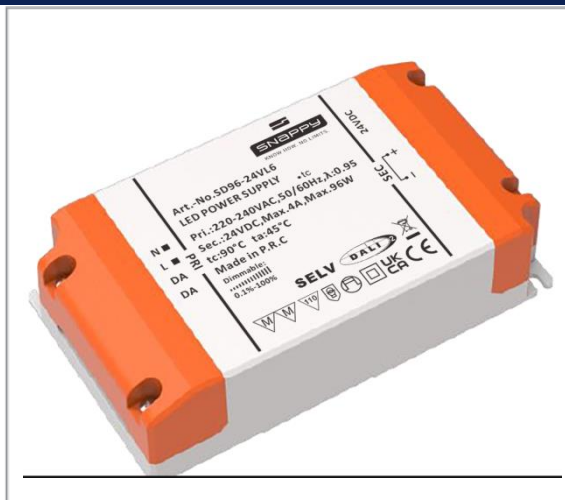


# Constant Voltage LED Power Supply

## SD96-24VL6



### Product description

SD96 series is a constant voltage DALI2.0 driver for indoor use. Its input voltage range is 198-264Vac, with a conversion efficiency of up to 95%. It adopts a fanless design and works in a natural cooling case temperature range of -20°C~+45°C. It also has ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, and all-round protection functions, which not only greatly improves the reliability of the product, but also guarantees the product life cycle. This series of products is designed for LED lighting and is used for indoor and outdoor lighting. It is suitable for various application environments in almost all indoor and outdoor places where LED lamps can be installed. It complies with the DALI2.0 standard (IEC 62386-101, 102, 207), innovative thermal management technology, and 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

### Characteristics

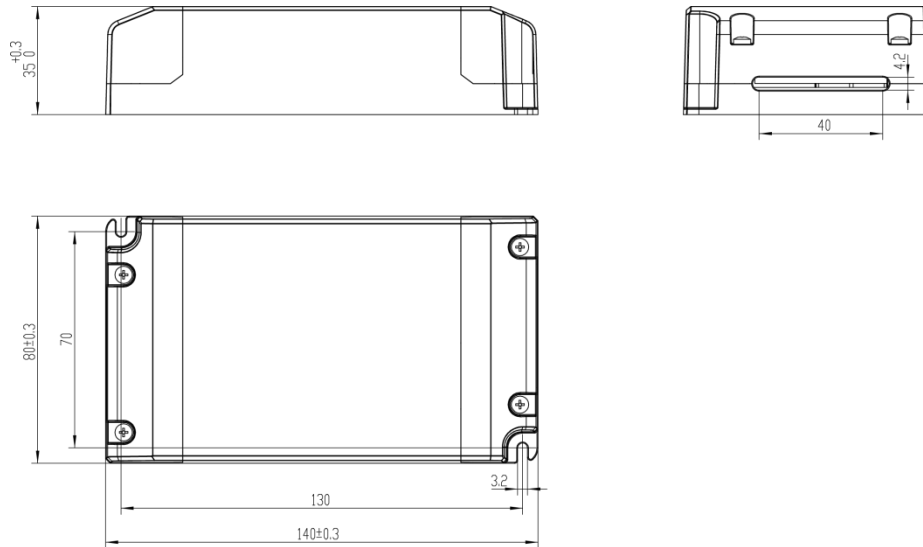
- AC input range (220-240VAC)
- With active PFC function
- IP20
- DALI-2.0 DT6
- Built-in push-to-dim function
- Dimming range: see specific model
- Suitable for dry indoor environment
- Protection type: short circuit/over temperature/overvoltage protection
- Complies with world lighting equipment safety regulations
- Warranty 5 years

## Specifications

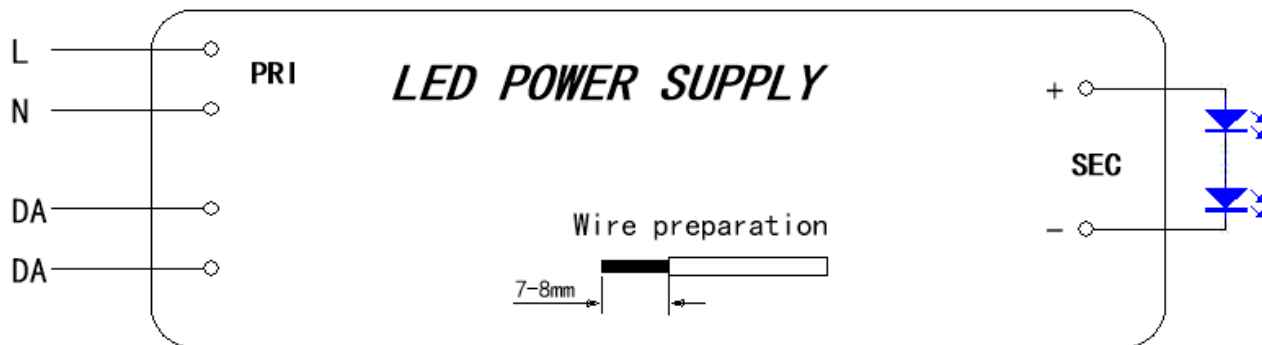
Model		SD96-24VL6
Output	turn on time(S)	0.64
	output power(W)	96W
	output voltage(V)	24
	output voltage tolerance	5%
	ripple voltage(mV)	240
	Line Regulation	1%
	Load Regulation	1.0%
	working current range(A)	0.4-4.0
	SVM	0.4
	Pst	1
	Device type	DT6
	dimming type	YES
	dimming range	0.1-100%
Input	rated DC supply voltage(Vdc)	NA
	rated supply voltage(Vac)	220-240
	voltage range(Vac)	198-264
	line frequency(Hz)	50/60
	input current(A)	0.46A@230VAC
	efciency (TYPE)	94%@full load
	average efciency(TYPE) 3 (TYPE)3	92.5%
	no load power consumption(W)	0.5W
	power factor	0.95@full load
	Displacementfactor	0.95
	THD(typ.) THD	5%
	inrush current(Ipk) Ipk	65A/280uS
	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-Output3000V/5mA/1min											
Ambient and Life	Ta(C)	-2045											
	Tc max.(C)	max.90											
	Storage Temperature(C)	-30...80											
	ambient humidity range	5%...85%RH, Not condensing											
	nominal life-time(hrs)	50'000@Ta											
Other	dimensions (LWH)(mm)	140mm*80mm*35mm											
	weight(g)	380g											
	casing material	Plastics											
	housing colour	White											
	type of protection	IP20											
	protection class	class											
	certificate	CE											
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 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. 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.												
	<table><tr><td>PUSH</td><td>DT6</td></tr><tr><td>Press&lt;0.05s</td><td>No change</td></tr><tr><td>Press 0.1-1s</td><td>ON/OFF</td></tr><tr><td>Long press 1.5-10s</td><td>dimming down or up</td></tr><tr><td>Long press in off state&gt;1s</td><td>dimming from the darkest</td></tr><tr><td>Long press more than 15s</td><td>dimming all devices to 50%</td></tr></table> <p>PUSH dimming.</p> <p>Wiring method: (Refer to the wiring diagram for detailed wiring method) DT6 wiring: Live wire connects PUSH switch to DA/L port, and neutral wire is directly connected to another DA/N port Dimming: long press. Switch: short press. Dimming memory: When the light is turned off and then turned on and off again, the light will return to the previously adjusted brightness level. Each long press will adjust the brightness in the opposite direction. Long press for more than 15S is a synchronization function, all devices are uniformly adjusted to 50%, long press again to adjust the dimming brightness downward,</p>		PUSH	DT6	Press<0.05s	No change	Press 0.1-1s	ON/OFF	Long press 1.5-10s	dimming down or up	Long press in off state>1s	dimming from the darkest	Long press more than 15s
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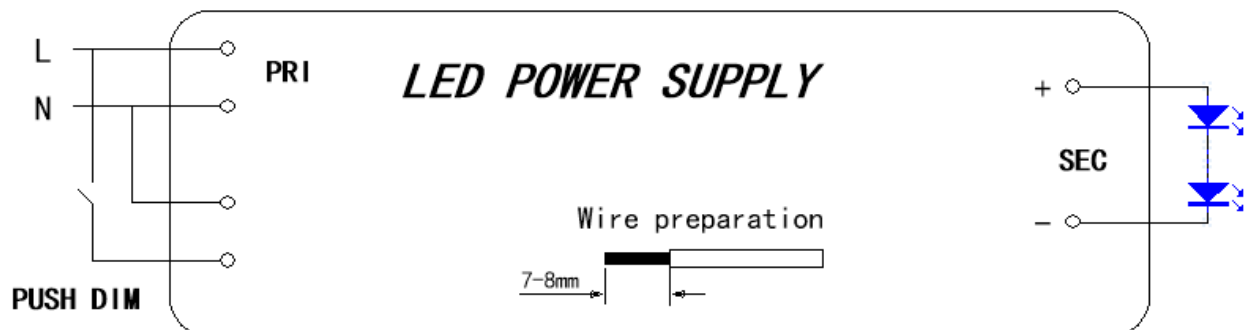
## Dimensions(mm)



## Wiring Diagram



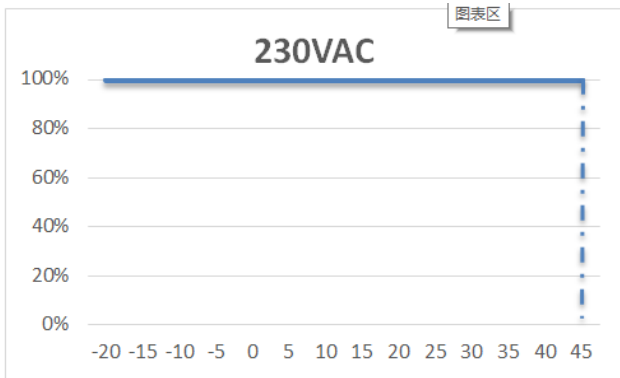
PUSH DT6



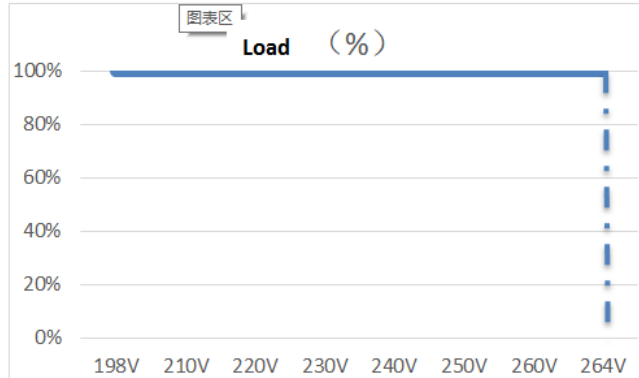
AC	H03VVH2-F 2*0.75mm <sup>2</sup>
dali	H03VVH2-F 2*0.75mm <sup>2</sup>
DC	H05VVH2-F 2*1.0mm <sup>2</sup> 1.0mm <sup>2</sup>

## Electrical curves

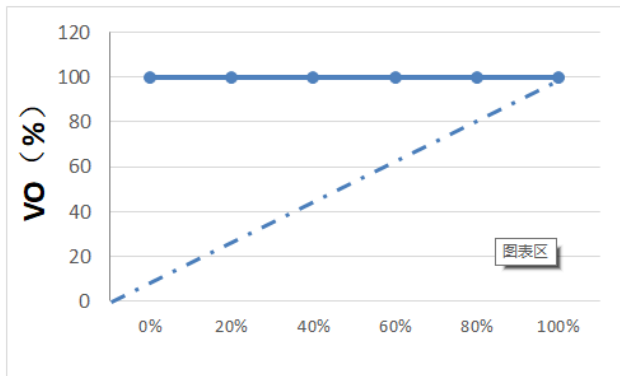
**Fig. 1 Output load-Temperature curve**



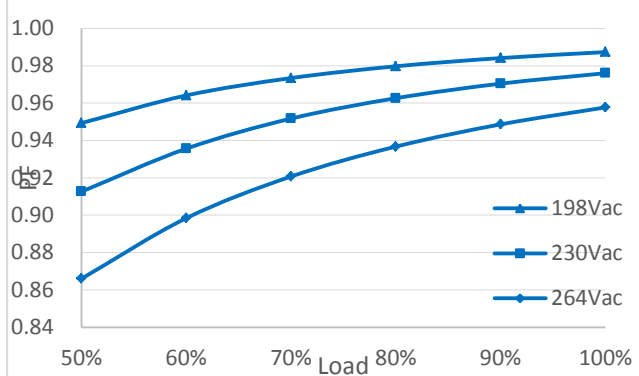
**Fig. 2 Static characteristic curve**



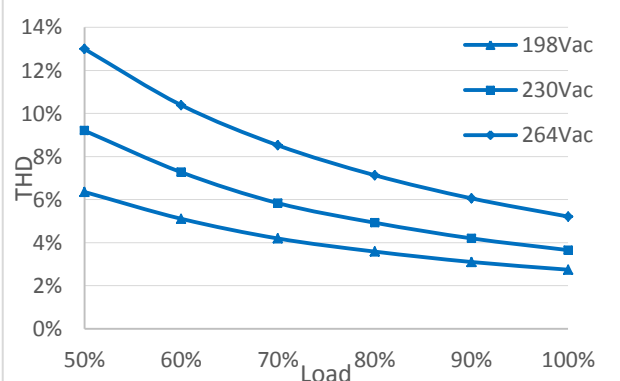
**Fig. 3 I-V curve**



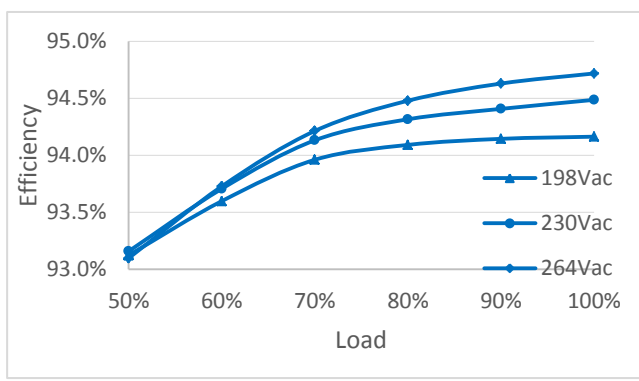
**Fig. 4 Power factor characteristic curve**



**Fig.5 Total harmonic distortion curve**



**Fig.6 Efficiency-Load curve**



## MCBS

Model \ MCBS	B10	B13	B16	B20	C10	C13	C16	C20
SD96	8	11	14	17	10	14	17	21

## Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SD96			

## Revision history

Date	Rev.	Remark
2024.9.25	A0	Initial release
2024.12.03	A1	Official release