

# Constant Current LED Power Supply

## SDS8-700IL



### Product description

SDS 8-700 IL is an indoor DALI constant current LED driver which can provide 8 current of 350 / 400 / 450 / 500 / 550 / 600 / 650 / 700mA . Its output current can be easily set through DIP dialing, and complies with DALI standard protocol IEC62386. Dimming with DALI master / Touch DIM (Push DIM) switch, the curve is smooth and no strobe. Its input voltage range is 220-240 Vac, with the maximum conversion efficiency of 82%, working in the temperature range of -20°C ~ +50°C natural cooling radiator shell, and has ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, all-round protection function, not only greatly improve the reliability of the product, and ensure the product life cycle.

### Standards

EN61347-1:2015  
EN 61347-2-13:2014+A1  
AS/NZS61347.2.13  
EN 61347-2-13:2014 +A1  
EN61347-1:2015  
IEC62386

### Characteristics

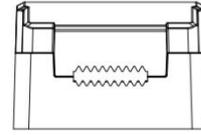
- 8 current
- Built-in active PFC function
- IP20
- Suitable for LED indoor lamps such as down lights / spotlights
- Comply with DALI standard protocol IEC62386

## Specifications

Model		SDS8-700IL
Output	turn on time(S)	<0.7
	output power(W)	8
	output voltage(V)	5-21
	output voltage tolerance	≤±5%
	ripple voltage(mA)	<3%
	Line Regulation	3%
	Load Regulation	3%
	working current range(A)	0.35-0.7
	SVM	≤0.4
	Pst	≤1
	dimming type	DALI2.0
	dimming range	1-100%
	Input	rated DC supply voltage(Vdc)
rated supply voltage(Vac)		220-240
voltage range(Vac)		198-264
line frequency(Hz)		50/60
input current(A)		0.07
efficiency		≥81%@full load
average efficiency 3		≥80%
no load power consumption(W)		≤0.5W
power factor		0.9@full load
Displacement factor		0.9
THD(typ.) THD		10
inrush current(Ipk)		25A
Leakage current		5mA
short circuit protection	hiccup mode, restart automatically after fault correction.	

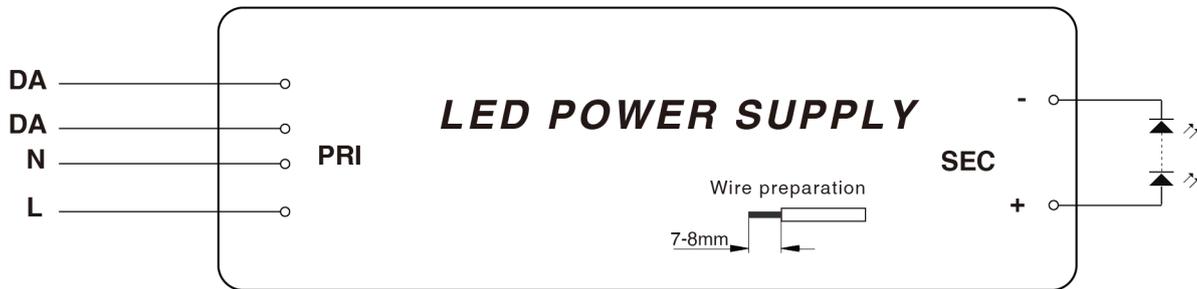
<b>Protection</b>	over load protection	exceed maximum rated load times 1.1
	Over voltage protection	-
	Over temperature protection	
	surge capacity	L-N: 0.5KV
	Withstand voltage	Input-Output: 3750V/5mA/1min
<b>Ambient and Life</b>	Ta(C)	-20...50
	Tc max.(C)	max.80
	Storage Temperature(C)	-40...85
	ambient humidity range	10%...90%RH, Not condensing
	nominal life-time(hrs)	50'000@Tc
<b>Other</b>	dimensions (L×W×H)(mm)	130*38*25
	weight(g)	80g
	casing material	Plastic
	housing colour	White
	type of protection	IP20
	protection class	class II
	certificate	
<b>Note</b>	<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 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.</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)

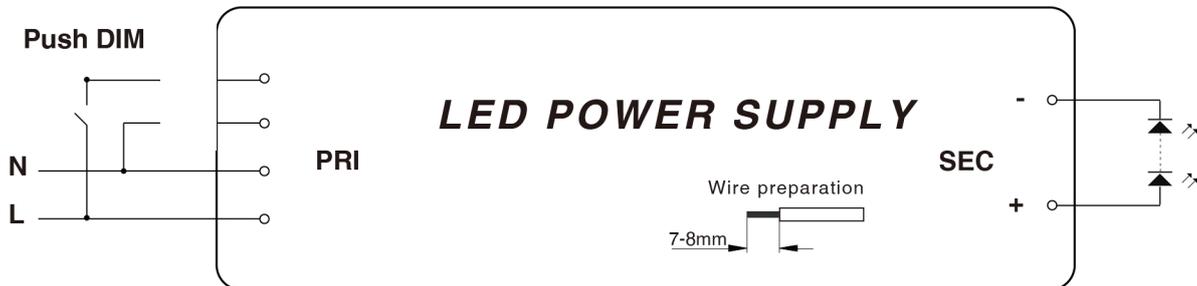


## Wiring Diagram

DALI application wiring diagram



Push DIM wiring diagram



AC	H03VVH2-F 2*0.75—1.5mm <sup>2</sup>
DC	H03VVH2-F 2*0.75mm <sup>2</sup>

Compatible with the Push dimming mode, the Push dimming operation method is as follows:

Wiring: connect the DALI interface to 50 / 60Hz AC100~300V, and connect the L and N terminals of the power supply to the DALI interface through a reset switch;

Short press: quickly press the reset button and let go, the button will automatically restore the disconnected state, press the button duration of 40~500ms;

Long press: quickly press the reset button and don't let go, duration > 500ms;

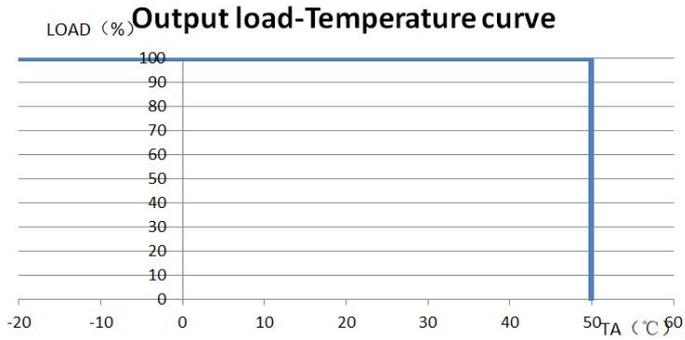
NO.	Function	Operation	Instruction
1	memory	power on	In Push mode, after the LED driver is powered on, it will remember the state before power-off; If it is on standby before power-off, it is still on standby after power-on, and after the next short press of switch, the default is the maximum brightness.
2	Turn on / off the lights	Short press	If the light is on, the light off after short press; if the light is off, the light on after short press, the brightness is the same as before the last light was turned off.
3	Dimming	Long press	Long press reset button into dimming state, long press after 500ms began to change; If the previous time is dimming brighter, the next time is dimming darker. After releasing the reset button, the dimming stops to maintain the current brightness; 1%~100% gradient time is 3 seconds; If it is in the state of turning off the light long press, the brightness gradually increases from the minimum brightness.
4	Synchronization	Long press for more than 10 seconds	When the long press time reaches 10 seconds, jump to 100% output for multi-lamp synchronization.

## DIP switch settings

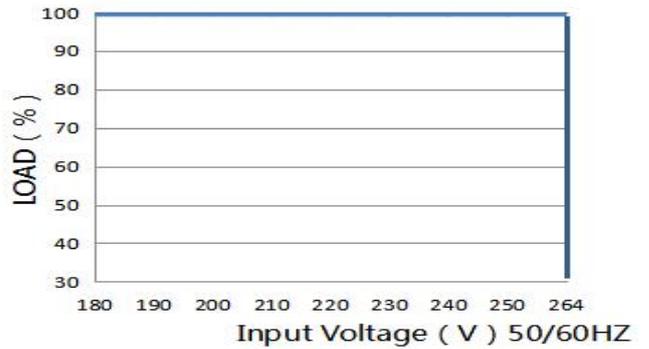
PIN			I <sub>out</sub>	V <sub>out</sub>
1	2	3	mA	V
OFF	OFF	OFF	350	5-21
<b>ON</b>	OFF	OFF	400	5-20
OFF	<b>ON</b>	OFF	450	5-17
<b>ON</b>	<b>ON</b>	OFF	500	5-16
OFF	OFF	<b>ON</b>	550	5-14
<b>ON</b>	OFF	<b>ON</b>	600	5-13
OFF	<b>ON</b>	<b>ON</b>	650	5-12
<b>ON</b>	<b>ON</b>	<b>ON</b>	700	5-11

# Electrical curves

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

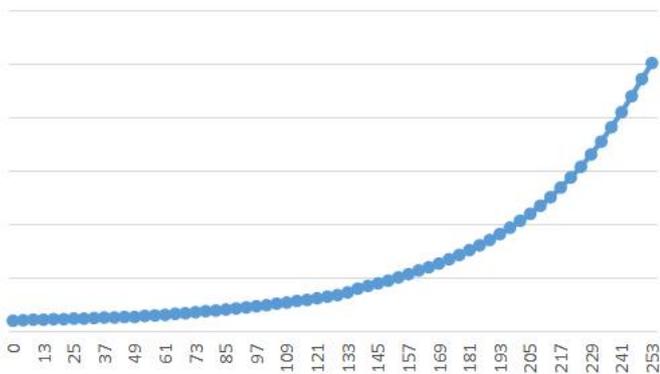


**Fig. 2 Static characteristic curve**

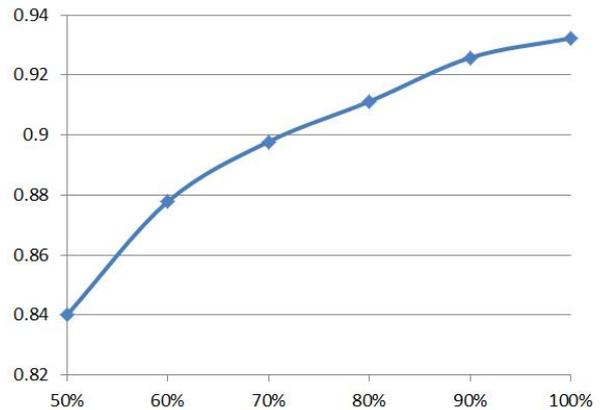


**Fig. 3 curve**

**DAI dimming curve**

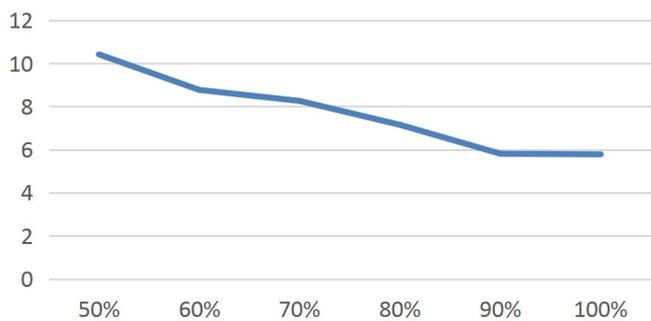


**Fig. 4 Power factor characteristic curve**

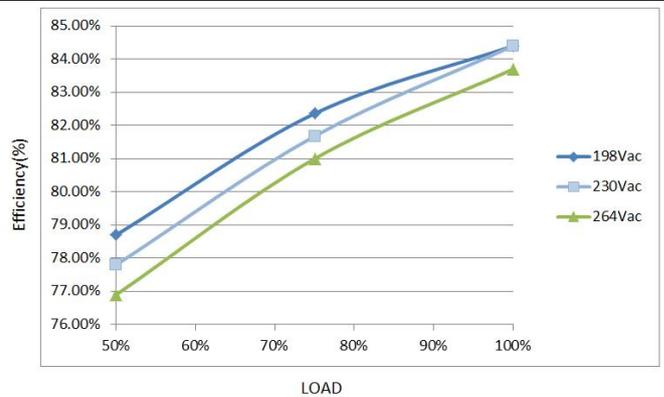


**Fig.5 Total harmonic distortion curve (THD)**

**THD**



**Fig.6 Efficiency-Load curve**



## MCBS

Model \ MCBS	B10	B13	B16	B20	C10	C13	C16	C20
SDS8-700IL	16	21	26	33	28	36	45	56

## Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SDS8-700IL			

## Revision history

Date	Rev.	Remark
2023.3.22	V0.01	Initial release.