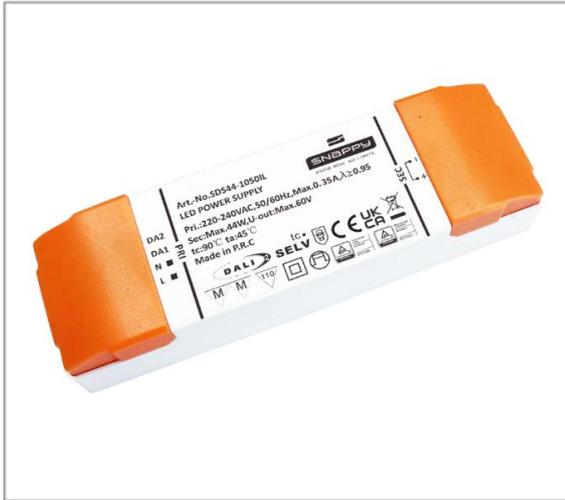# Constant Voltage LED Power Supply
SDS44-1050IL

Product description

SDS44-1050 IL is an indoor DALI constant current LED drive dimming power supply which can provide 8 gear current of 700 / 750 / 800 / 850 / 900 / 950 / 1000 / 1050mA . 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 88%, working in the temperature range of -20℃ ~ + 45℃ 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
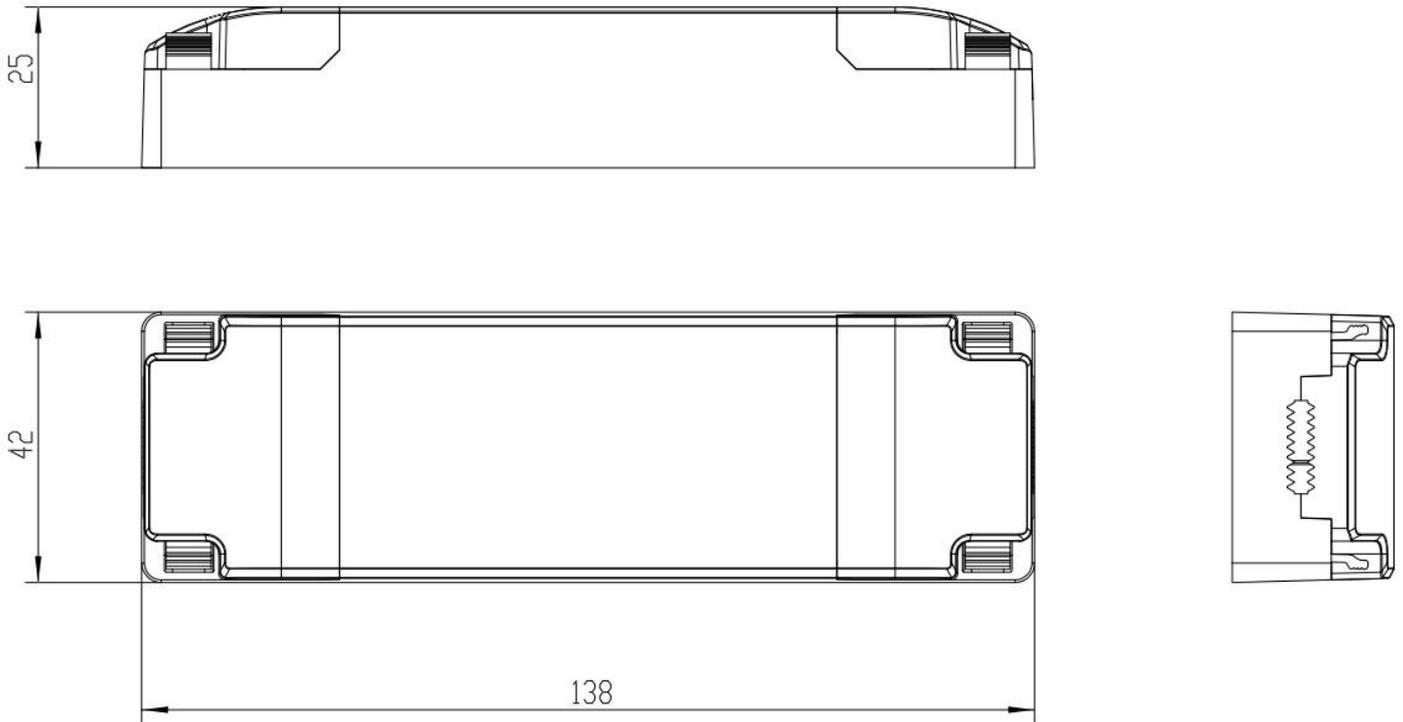EN 61347-2-13:2014 +A1
EN61347-1:2015
IEC62386

Characteristics

• 8-gear dial current
• Built-in active PFC function
• IP20
• Suitable for LED indoor lamps such as down lights / spotlights
•1-100% full dimming is no visible flash, 4K high frequency PWM dimming is exempt from the assessment level
• Comply with DALI standard protocol IEC62386

SNAPPY
KNOW HOW. NO LIMITS.

Specifications

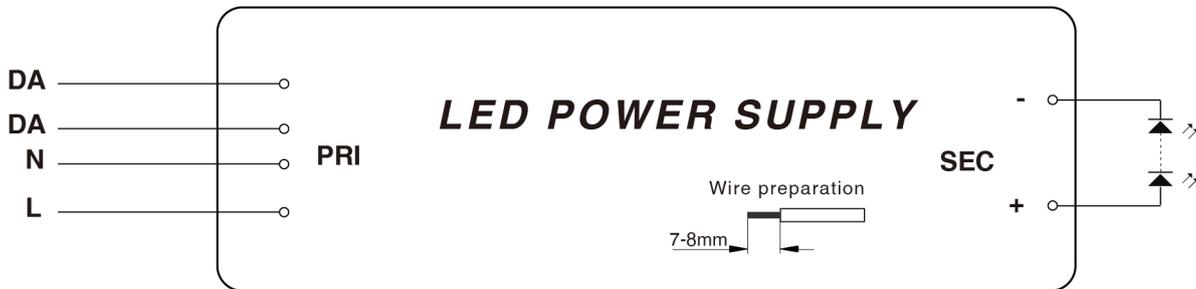| Model		SDS44-1050IL
Output	turn on time(S)	<0.7
	output power(W)	44
	output voltage(V)	20-50
	output voltage tolerance	±8%
	ripple voltage(mA)	5%
	Line Regulation	±5%
	Load Regulation	±5%
	working current range(A)	0.7-1.05
	SVM	≤0.4
	Pst	≤1
	dimming type	DALI2.0
	dimming range	1-100%
Input	rated DC supply voltage(Vdc)	-
	rated supply voltage(Vac)	220-240
	voltage range(Vac)	198-264
	line frequency(Hz)	50/60
	input current(A)	0.25
	efficiency	88%@full load
	average efficiency 3	87%
	no load power consumption(W)	≤0.5W
	power factor	0.95@full load
	Displacement factor	0.95
	THD(typ.) THD	10
	inrush current(Ipk)	25A
	Leakage current	5mA
	short circuit protection	hiccup mode, restart automatically after fault correction.

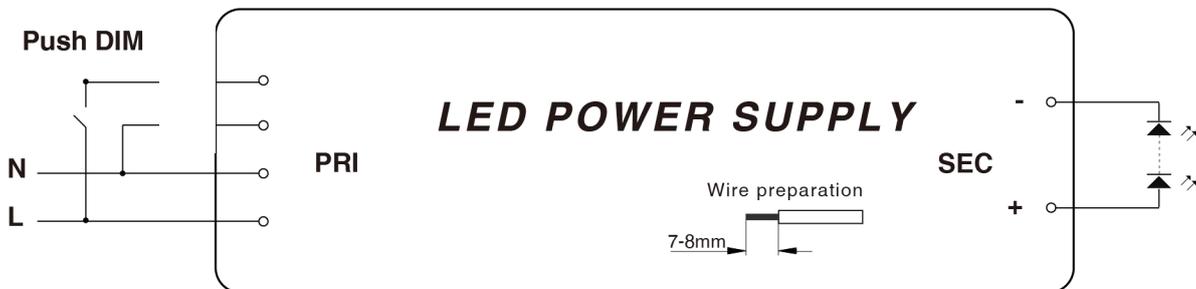|			
Protection	over load protection	exceed maximum rated load times 1.1
	Over voltage protection	-
	Over temperature protection	
	surge capacity	L-N: 1KV
	Withstand voltage	Input-Output：3750V/5mA/1min
Ambient and Life	Ta(C)	-20…45
	Tc max.(C)	max.85
	Storage Temperature(C)	-40...85
	ambient humidity range	10%...90%RH, Not condensing
	nominal life-time(hrs)	50'000@Tc
Other	dimensions (L×W×H)(mm)	138*42*25
	weight(g)	175g
	casing material	Plastic
	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.		

Dimensions(mm)

25

42

138

Wiring Diagram

DALI application wiring diagram

DA

DA

N   PRI

L

LED POWER SUPPLY

Wire preparation

7-8mm

-

SEC

+

Push DIM wiring diagram

Push DIM

N   PRI

L

LED POWER SUPPLY

Wire preparation

7-8mm

-

SEC

+

AC	H03VVH2-F 2*0.75—1.5mm2
DALI	H03VVH2-F 2*1.5mm2
DC	H03VVH2-F 2*0.75mm2

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			Iout	Vout
1	2	3	mA	V
OFF	OFF	OFF	700	20-50
ON	OFF	OFF	750	20-50
OFF	ON	OFF	800	20-50
ON	ON	OFF	850	20-50
OFF	OFF	ON	900	20-48
ON	OFF	ON	950	20-46
OFF	ON	ON	1000	20-40
ON	ON	ON	1050	20-38

SNAPPY
KNOW HOW. NO LIMITS.

Electrical curves
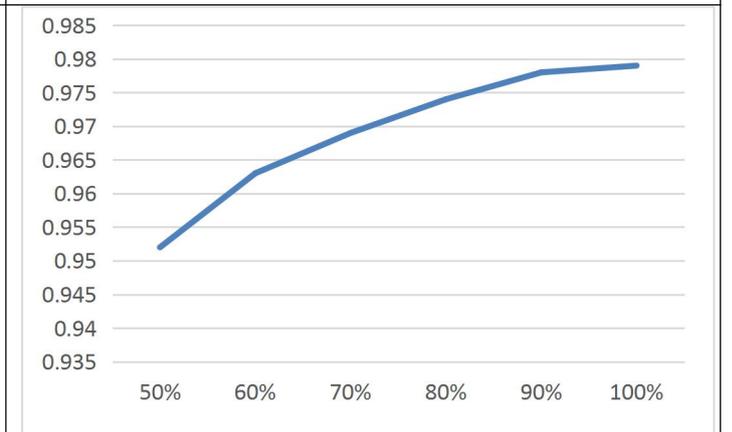
Fig. 1 Output load-Temperature curve

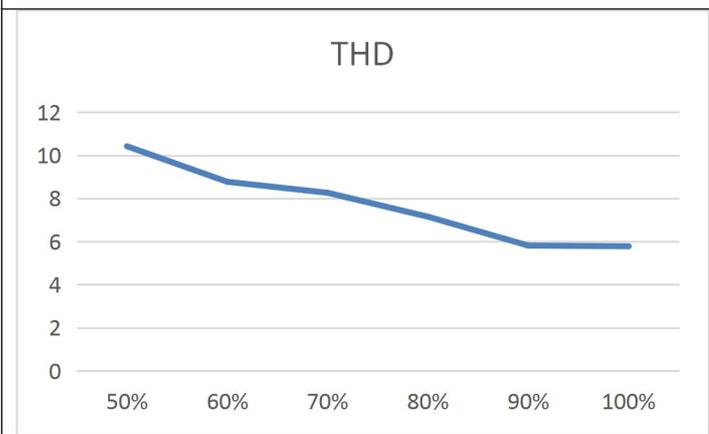### 230VAC
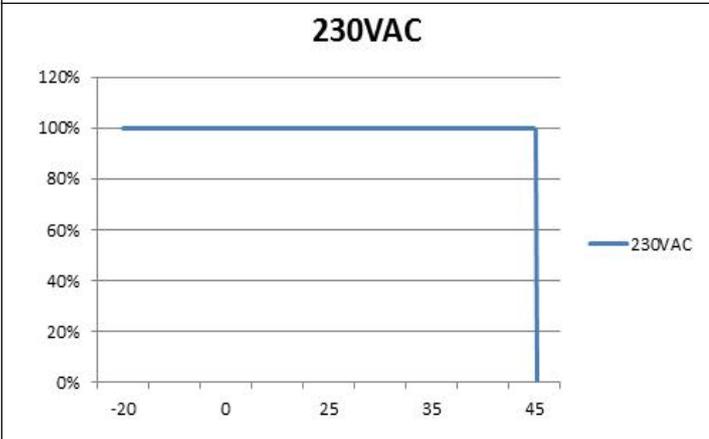
Fig. 2 Static characteristic curve
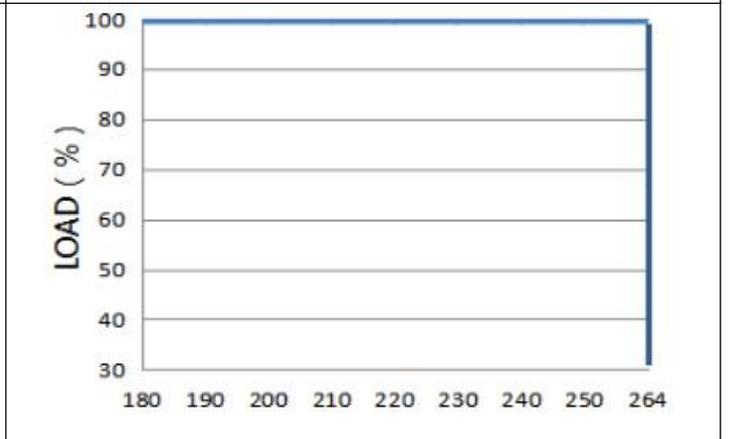
Fig. 3 curve
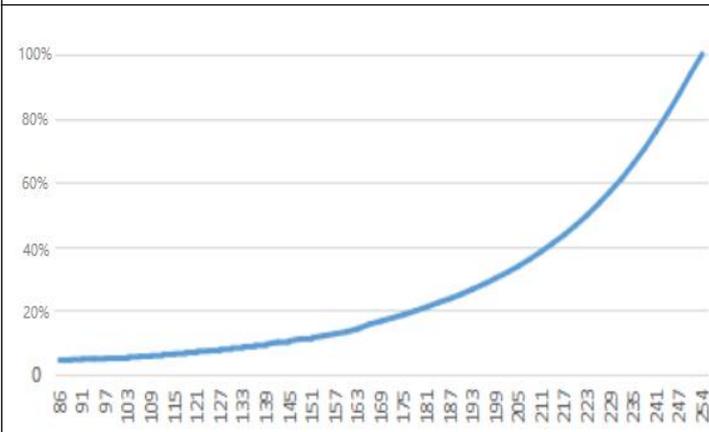
Fig. 4 Power factor characteristic curve

Fig.5 Total harmonic distortion curve（THD）

THD

Fig.6 Efficiency-Load curve

SNAPPY
KNOW HOW. NO LIMITS.
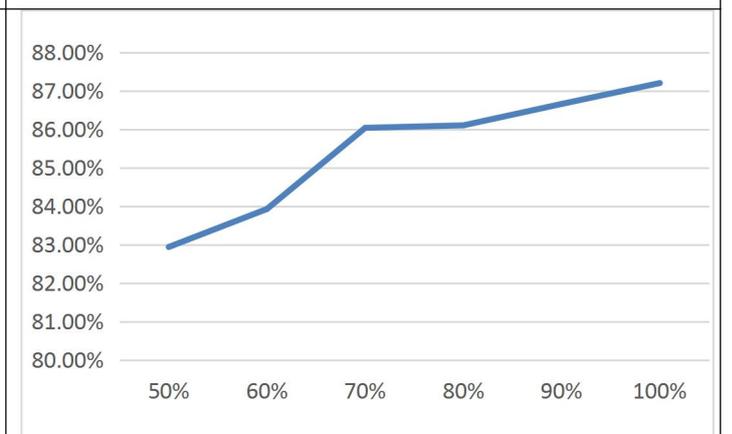
MCBS

MCBS Model	B10	B13	B16	B20	C10	C13	C16	C20
SDS44-1050IL	18	25	30	39	32	42	52	64

Package

Model	Carton quantity(pcs)	Carton dimension(mm)	G.W./CTN(kg)
SDS44-1050IL			

Revision history

Date	Rev.	Remark
2023.3.22	V0.01	Initial release.
2023.6.15	V0.02	Officially released
2023.10.25	V0.03	Change dimming range from 0-100% to1-100%