# Constant Current LED Power Supply
## SDS60-1400IL

## Product description

SDS60-1400IL is an indoor DALI constant current LED driver that can provide 700/750/800/850/900/950/1000/1050/1100/1150/1200/1250/1300/1350/1400mA 15 levels of current , the output current can be easily set through DIP Switch, and complies with the DALI IEC62386. Use the DALI main control/Touch DIM (Push DIM) switch to dim the light, with smooth curves and no flicker. Its input voltage range is 220-240Vac, with a conversion efficiency of up to 88%. It works in the natural cooling case temperature range of -20°C~+45°C, and has ultra-high power factor and ultra-low total harmonics. 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.

## 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

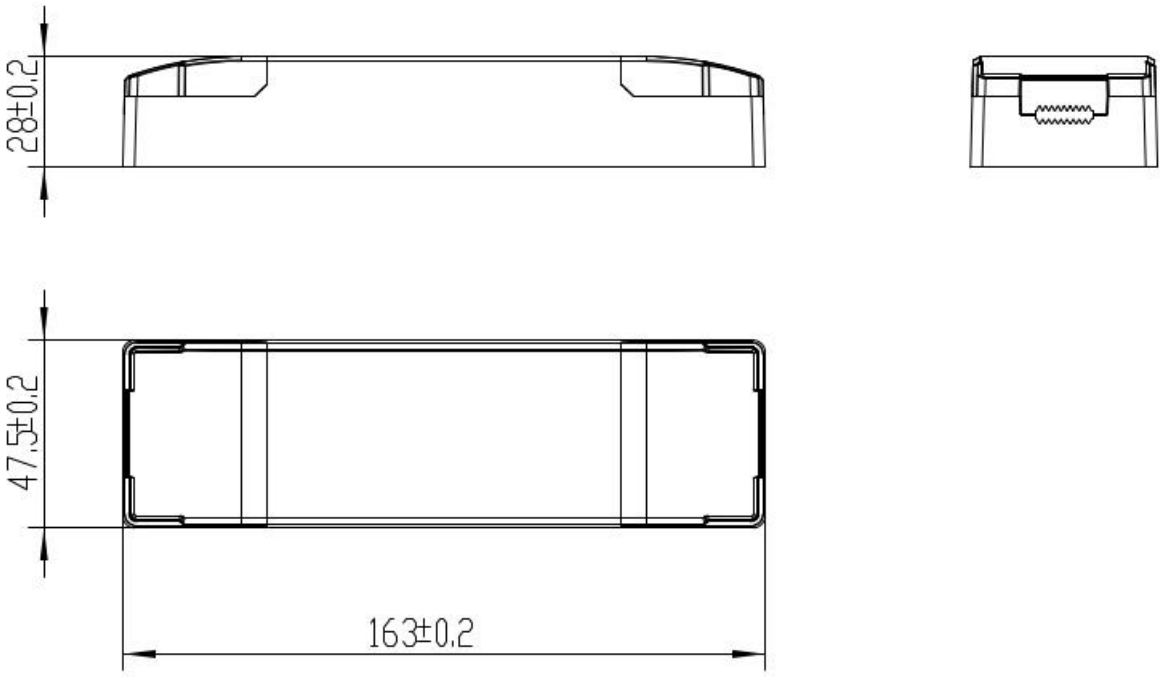
- 15 levels of current
- With active PFC function
- IP20
- Suitable for LED indoor lighting, such as panel lights
- 1-100% full dimming without visible flicker, 4K high frequency PWM dimming exempt from assessment level
- Comply with DALI IEC62386

# Specifications

| Model | | SDS60-1400IL |
|---|---|---|
| Output | turn on time(S) | ＜0.7 |
| | output power(W) | 60 |
| | output voltage(V) | 20-50 |
| | output voltage tolerance | ±8% |
| | ripple voltage | 5% |
| | Line Regulation | ±5% |
| | Load Regulation | ±5% |
| | working current range(A) | 0.7-1.4 |
| | 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) | 0.32 |
| | efficiency | ≥88%@full load |
| | average efficiency 3 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)<br>（Ipk） | 46A |
| | Leakage current | 5mA |
| | short circuit protection | hiccup mode, restart automatically after fault correction. |
| | over load protection | exceed maximum rated load times 1.1 |

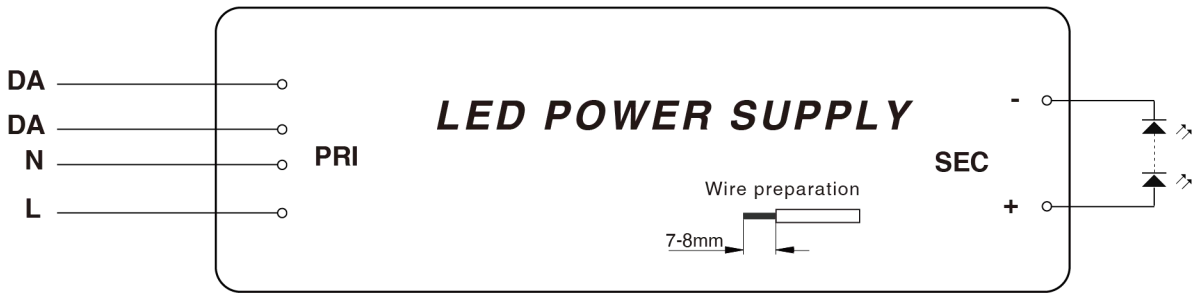
| | | |
|---|---|---|
| **Protection** | Over voltage protection | - |
| | Over temperature protection | - |
| | surge capacity | L-N: 1KV |
| | Withstand voltage | Input-Output：3750V/5mA/1min |
| **Ambient and Life** | Ta(C) | -20…45 |
| | Tc max.(C) | max.85 |
| | Storage Temperature(C) | -40...85 |
| | ambient humidity range | 10%...90%RH,<br>Not condensing |
| | nominal life-time(hrs) | 50'000@Ta |
| **Other** | dimensions (L×W×H)(mm) | 163*47.5*28 |
| | weight(g) | 275g |
| | 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.<br>2.Tested at full load,230Vac.Refer to"Power Factor" and "EFFICIENT"curve graphs.<br>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.<br>4.All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 of ambient temperature.<br>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)

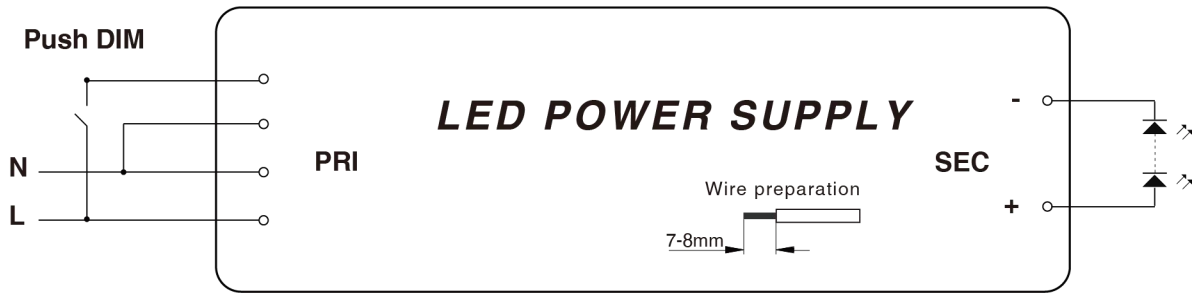



## Wiring Diagram

DALI




Push DIM




| | |
|---|---|
| AC | GY350,4P, 2*0.75—1.5mm2 |
| DALI | GY350,4P, 2*1.5mm2 |
| DC | GY350 2P 2*0.75mm2 |

SNAPPY
KNOW HOW. NO LIMITS.

Push 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: Press the reset button quickly and then let go. The button will automatically return to the disconnected state. The duration of pressing the button is 40~500ms;
Long press: Press the reset button quickly without letting go, the duration is >500ms;

| Serie | Function | Operation | Description |
|---|---|---|---|
| 1 | Memory | Power on | In Push mode, after the LED driver is powered on, it will remember the state before shutting down;<br>If it was in standby state before shutting down, it will still be in standby state after power on. After short pressing the switch next time, the default will be maximum brightness. |
| 2 | ON/OFF | Short press | If the light is on, short press to turn off the light; if the light is off, short press to turn on the light, and the brightness will be the same as before the last time you turned off the light. |
| 3 | Dimming | Long press | When the reset switch is long pressed, it enters the dimming state and starts to change after long pressing for 500ms;<br>If it was brightened the previous time, it will be dimmed next time. After releasing the reset button, the dimming will stop and the current brightness will be maintained;<br>The fade time from 1% to 100% is 3 seconds;<br>If you press and hold in the light-off state, the brightness will gradually increase from the minimum brightness; |
| 4 | Synchronization | Long press >10s | When the long press time reaches 10 seconds, it will jump to 100% output for multi-light synchronization. |

## DIP switch settings

| PIN | | | | Iout | Vout |
|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **mA** | **V** |
| **ON** | OFF | OFF | OFF | 700 | 35-50 |
| OFF | **ON** | OFF | OFF | 750 | 35-50 |
| **ON** | **ON** | OFF | OFF | 800 | 30-50 |
| OFF | OFF | **ON** | OFF | 850 | 30-50 |
| **ON** | OFF | **ON** | OFF | 900 | 30-50 |
| OFF | **ON** | **ON** | OFF | 950 | 25-50 |
| **ON** | **ON** | **ON** | OFF | 1000 | 25-50 |
| OFF | OFF | OFF | **ON** | 1050 | 20-50 |
| **ON** | OFF | OFF | **ON** | 1100 | 20-50 |
| OFF | **ON** | OFF | **ON** | 1150 | 20-50 |
| **ON** | **ON** | OFF | **ON** | 1200 | 20-50 |
| OFF | OFF | **ON** | **ON** | 1250 | 20-46 |
| **ON** | OFF | **ON** | **ON** | 1300 | 20-44 |
| OFF | **ON** | **ON** | **ON** | 1350 | 20-40 |
| **ON** | **ON** | **ON** | **ON** | 1400 | 20-38 |

# Electrical curves

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

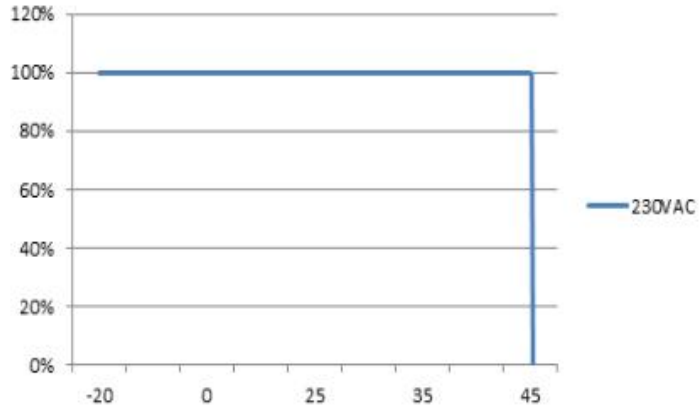



**Fig. 2 Static characteristic curve**
**2**

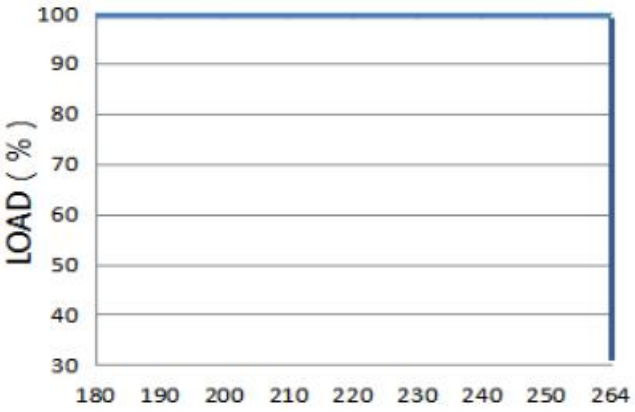



**Fig. 3 curve**

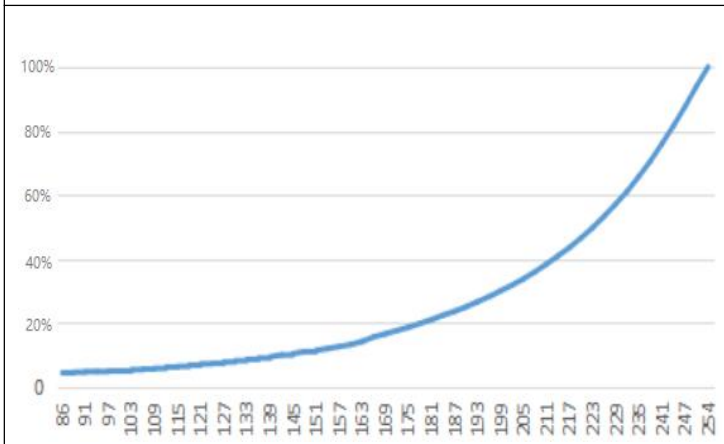



**Fig. 4 Power factor characteristic curve**
**4**

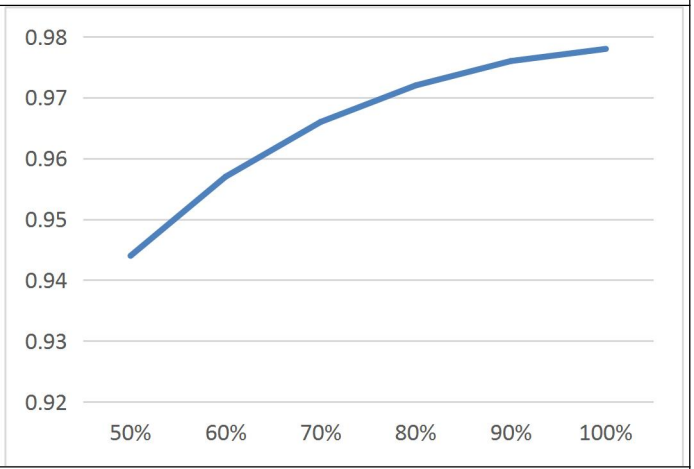



**Fig.5 Total harmonic distortion curve（THD）**
**5 （THD）**

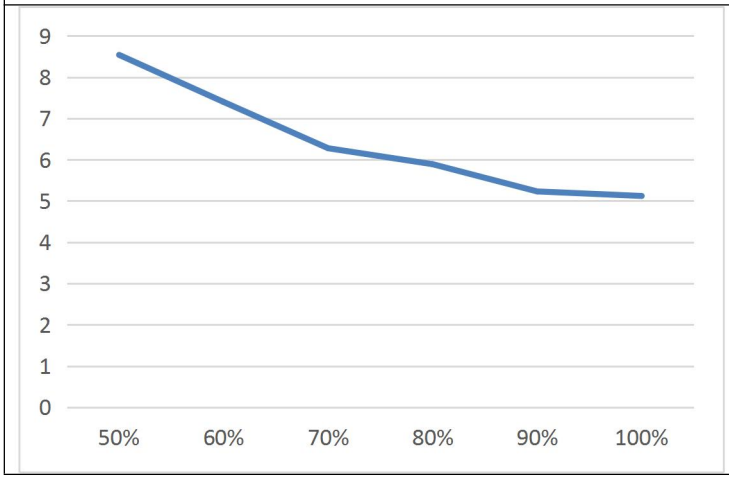
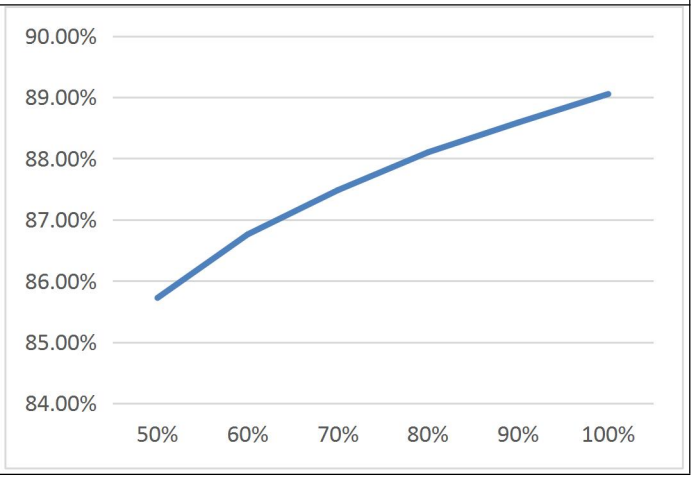



**Fig.6 Efficiency-Load curve**
**6 -**



## MCBS

| MCBS / Model | B10 | B13 | B16 | B20 | C10 | C13 | C16 | C20 |
|---|---|---|---|---|---|---|---|---|
| **SDS60-1400IL** | 11 | 15 | 18 | 23 | 19 | 25 | 31 | 38 |

## Package

| Model | Carton quantity(pcs) | Carton dimension(mm) | G.W./CTN(kg) |
|---|---|---|---|
| **SDS60-1400IL** | | | |

## Revision history

| Date | Rev. | Remark |
|---|---|---|
| 2023.6.25 | V0.01 | Initial release. |
| 2023.8.25 | V1 | Officially released |
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