

## Indoor LED Power Supply



Dali & CCT



### Features:

- . European AC input 220-240 VAC.
- . DALI-2.0 DT6/DT8 Dimming,CCT
- . Built-in push dimming.
- . Dimming range 1-100%.
- . Protections: Short circuit / Over temperature/ Over voltage.
- . Adopt plastic case and internal glue potting.
- . Built in lightning protection device can meet the requirements 1kV.
- . Efficiency > 93%.
- . 5 years warranty.

### Description:

SDL100 series is an indoor constant voltage LED DALI power supply, Its input voltage range of 198-264 VAC, with the high efficiency up to 93%, fan-less design, working in the temperature range of -20°C to +45°C under free air convection. It has ultra-high power factor, ultra-low total harmonic distortion, low standby power consumption, with all-round protection functions, which not only greatly improves the reliability of the product, but also ensures the life cycle of product. This series is designed for LED lighting and applied to indoor lighting. It is suitable for almost kinds of application where LED lamps can be installed. Comply to DALI 2.0 standard (IEC 62386-101, 102, 207, 209 ), innovative thermal management technology, intelligent protection of power supply' s life.

### Model:

Model	Rated output voltage	Rated output current	Max. output power	Output voltage tolerance	Total harmonic distortion (Typ.)	Power factor (Typ.)	Efficiency (Typ.)
SDL100-12VF6	12V	0-8.33A	100W	±5%	5%	0.97	92%
SDL100-24VF6/8	24V	0-4.16A	100W	±5%	5%	0.97	93%
SDL100-48VF6	48V	0-2.08	100W	±5%	5%	0.97	93%

**Remark:** All the parameters are measured at 230VAC input, full load and 25 °C of ambient temperature if not specially mentioned.

PUSH Dimming/**Chang Color Temperature**

Dimming: Long press

Switch: Short press

Dimming Memory: When the light is switched on after turn off, return to the previous adjusted brightness level.

Brightness and color temperature are adjusted in opposite directions with each long press.

Long press for more than 15s is the synchronization function, and all devices are adjusted to 50% level. Long press again to lower the brightness (**color temperature will be unified to 4500K, and long press again to lower the color temperature**)

## Indoor LED Power Supply

### Input:

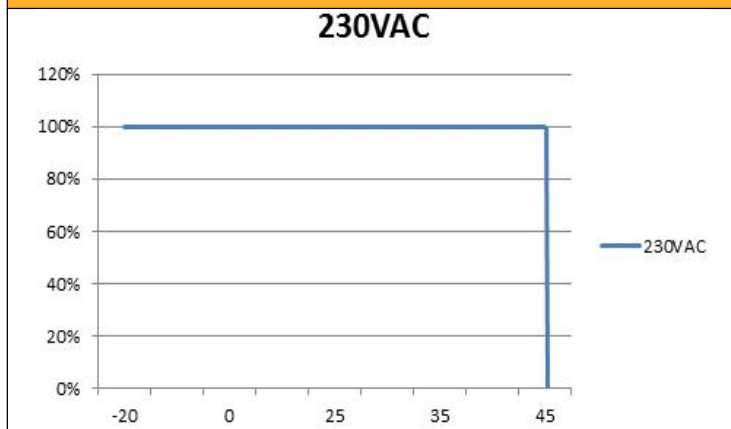
Parameter	Min. value	Typical value	Max. value	Note
Rated input voltage	220Vac		240Vac	The derating curve is shown in the figure.
Input voltage	198 Vac		264Vac	
Input frequency	47Hz		63Hz	
Max. Input current			0.9A	
Input inrush current			75A	230Vac/50Hz , Cold Start
Power factor	0.95	0.97		230Vac , Full Load
Total harmonic input		6%	8%	230Vac , Full Load
Leakage current			0.7mA	230Vac/50Hz , Full Load
Stand-by power consumption		0.45W	0.5W	230Vac/50Hz , No Load

### Output:

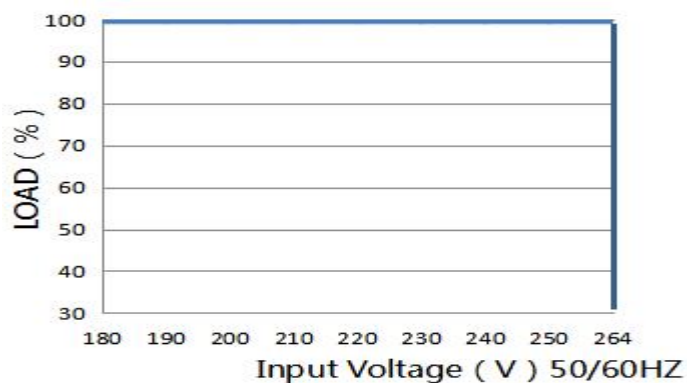
Parameter	SDL100-12VF6	SDL100-24VF6/8	SDL100-48VF6	Note
Output voltage	12.0VDC	24.0VDC	48.0VDC	
Rated output current	8.33A	4.16A	2.08A	
Output current	0.833-8.33A	0.416-4.16A	0.208-2.08A	
Rated output power	100W	100W	100W	
Rated output efficiency	92%	93%	93%	230Vac
Output voltage tolerance	±5%			
Output voltage ripple (PK-PK)	±3%			Full load (Test under 20M bandwidth)
Output current ripple (PK-PK)	---			Full load (Test under 20M bandwidth) 230Vac
Rise time	100mS			
Startup time	500mS			230Vac
Line regulation	±1%			Full load
Load regulation	±1%			

### Characteristic curve:

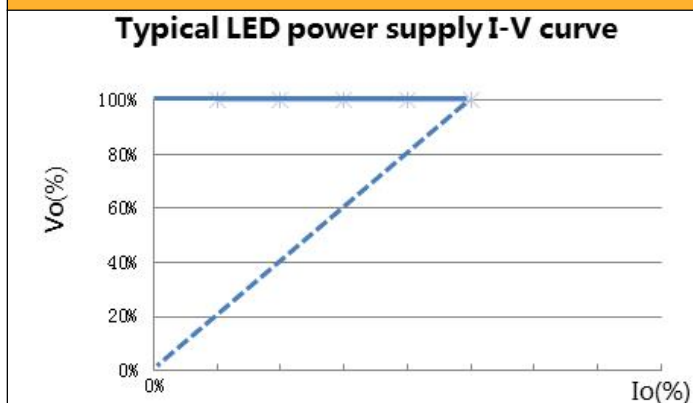
**Fig. 1 Output load-Temperature curve**



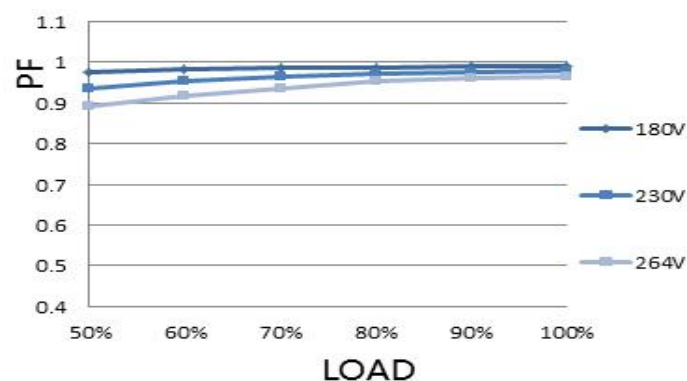
**Fig. 2 Static characteristic curve**



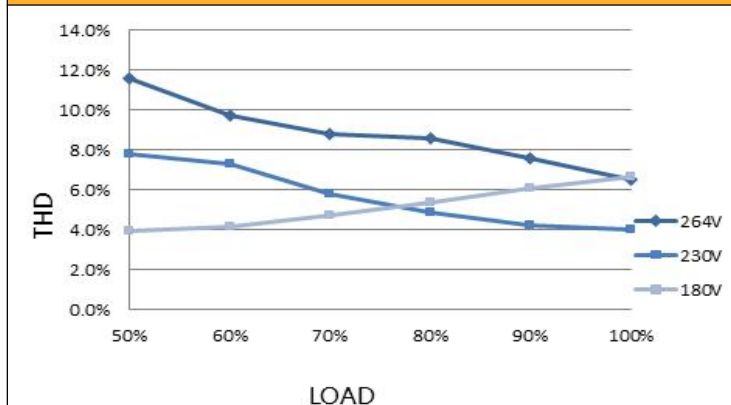
**Fig. 3 I-V curve**



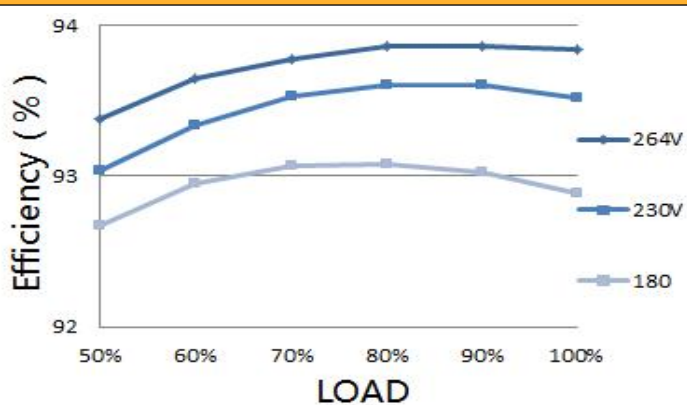
**Fig. 4 Power factor characteristic curve**



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



**Fig.6 Efficiency-Load curve**



### Protection :

Parameter		Conditions	Note
Protection	Over load	1.1 ~ 1.6 times rated load	Auto-recovery after overload removed.
	Short circuit	Short circuit power $\leq 0.5W$	Hiccup mode, auto-recovery after short circuit removed
	Over voltage	1.5 times of rated output voltage	Turn off the input voltage and recover after restart.
	Over temperature	110°C	Turn off the input voltage, the temperature can be restored after return to normal.

### Environment Requirement:

Parameter	Min.	Typ.	Max.	Note
Working temp.	-20°C	25°C	+45°C	See Fig.2
Storage temp.	-40°C	25°C	+85°C	
Working humidity	10%RH		90%RH	
Storage humidity	5%RH		95%RH	
IP grade			IP20	
Cooling mode	Natural cooling			

### Safety&EMC standard:

Certificate	Safety standards	Certification	Note
UL/CUL	---		
TUV	EN61347-1:2015 EN 61347-2-13:2014+A1 EN62493:2015	√	
SAA	AS/NZS 61347.2.13	√	
CCC	---		
CE	EN 61347-2-13:2014 +A1 EN61347-1:2015	√	

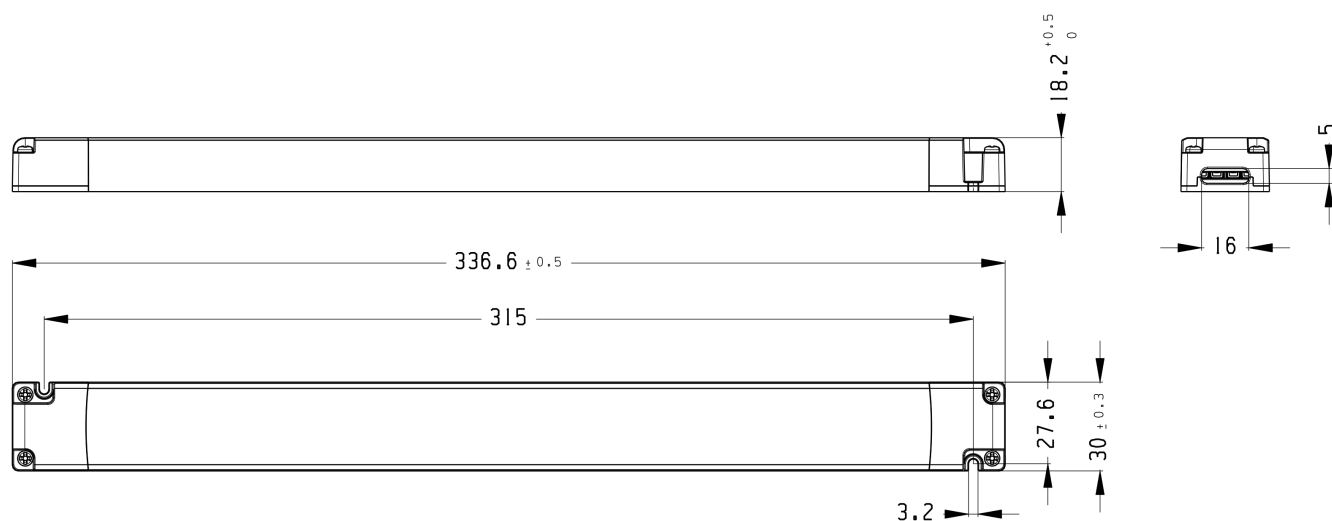
Safety test		Technical indexes	Note
Dielectric strength	Input-Output	3750Vac/5mA Max/60s	Reinforced insulation, no breakdown, no flashover
	Primary-Ground	---	Basic insulation, no breakdown, no flashover
	Secondary - Ground	---	Functional insulation, no breakdown, no flashover
Insulation resistance	Input-Output	$\geq 10M\Omega$	Test voltage : 500Vdc
Ground resistance		---	25A/1min
Leakage current		$\leq 0.75mA$	264Vac
EMI/EMS item		Standards	Basis
Conduction CE		EN55015	
Radiation RE		EN55015	
Harmonics		EN IEC 61000-3-2	Class C

### Others :

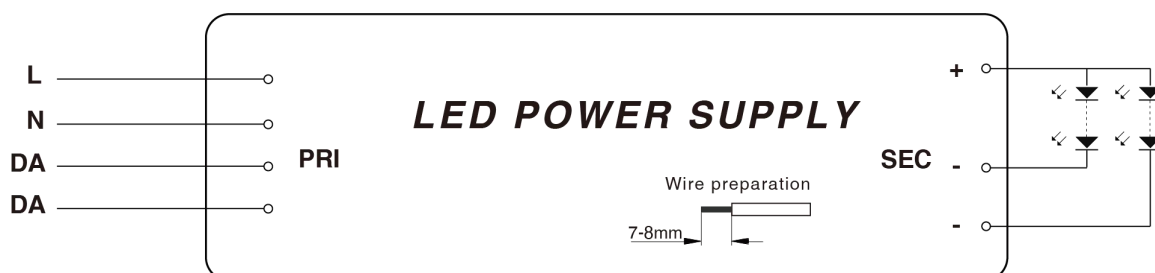
Parameters	Condition	Note
Lifetime	30,000 hours	230Vac , full load, TC. 75°C
MTBF	200,000 hours	230Vac, full load, TA. 25°C (MIL-HDBK-217F)
TC	85°C	
Warranty	5 years	
Weight	190g	
Dimensions	336.6mm * 30mm * 18.2mm	L x W x H

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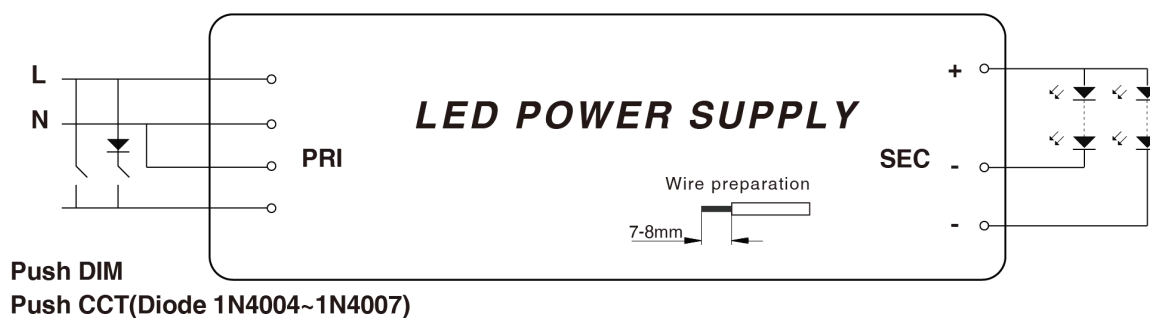
### Mechanical Specification ( Unit : mm )



The DALI Wiring Diagram



The PUSH Dimming Wiring Diagram



#### Remark :

AC input cable	Terminal block , H05VVH2-F 2×0.75mm <sup>2</sup>
DC output cable	Terminal block, H03VVH2-F 2×1.0mm <sup>2</sup>