

IP20 LED Power Supply

Features:



Dimming&CCT



- European AC input (220-240VAC)
- DALI-2.0 DT6/DT8 Dimming and CCT
- Built in push dimming
- Dimming range 1-100%
- protection: short circuit/over temperature/over voltage
- Adopt plastic case and internal glue potting
- Built-in lightning protection device,it can satisfy DM 1KV
- Efficiency > 94%
- 5 years warranty



Description :

SDL240 series is an indoor constant voltage LED DALI power supply, Its input voltage range of 198-264 VAC, with the high efficiency up to 94%, 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.)
SDN240-24VL6/8	24V	1-10A	240W	±5%	5%	0.98	93%
SDN240-48VL6	48V	0.5-5A	240W	±5%	5%	0.98	94%

Remark :

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

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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**)

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Input:

Parameter	Min.value	Typical value	Max.value	Note
Rated input voltage	220Vac		240Vac	Derating curve is shown in figure
Input voltage	198 Vac		264Vac	
Input frequency	47Hz		63Hz	
Max. Input current			1.4A	
Input inrush current			60A	230Vac/50Hz , cold start
Power factor	0.95	0.98		230Vac , Full Load
Total harmonic input		5%	8%	230Vac , Full Load
Leakage current			0.7mA	230Vac/50Hz , Full Load
Stand-by power consumption		0.4W	0.5W	230Vac/50Hz , No Load

Output:

Parameter	SDN240-24VL6/8	SDN240-48VL6	Note
Output voltage	24.0VDC	48.0VDC	
Rated output current	10A	5A	
Output current	1-10A	0.5-5A	
Rated output power	240W	240W	
Rated output efficiency	93%	94%	230Vac
Output voltage tolerance	±5%		
Output voltage ripple (PK-PK)	±3%		Full load (Test under 20M bandwidth)
Output current ripple (PK-PK)	---		
Rise time	100mS		Full load (Test under 20M bandwidth) 230Vac
Startup time	300mS		
Line regulation	±1%		Full load
Load regulation	±1%		

Characteristic curve

Fig.1 Output load-Temperature curve

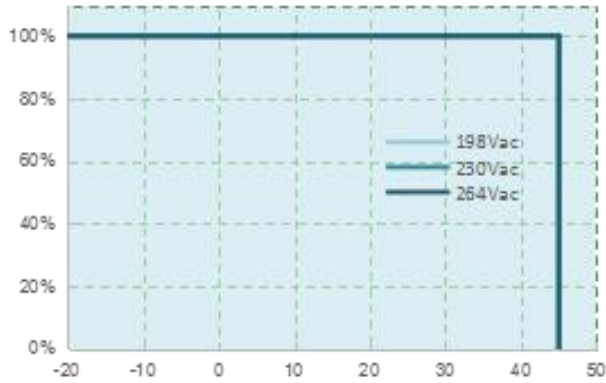


Fig.2 Static characteristic curve

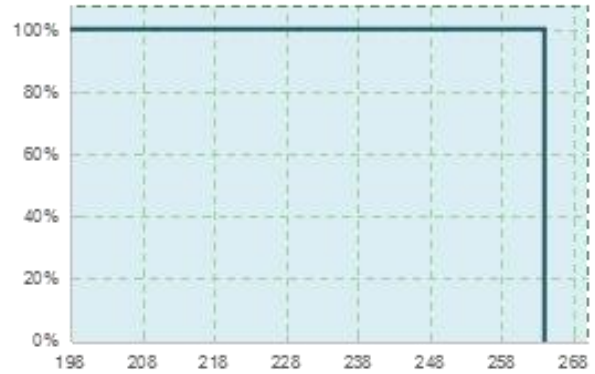


Fig.3 I-V curve

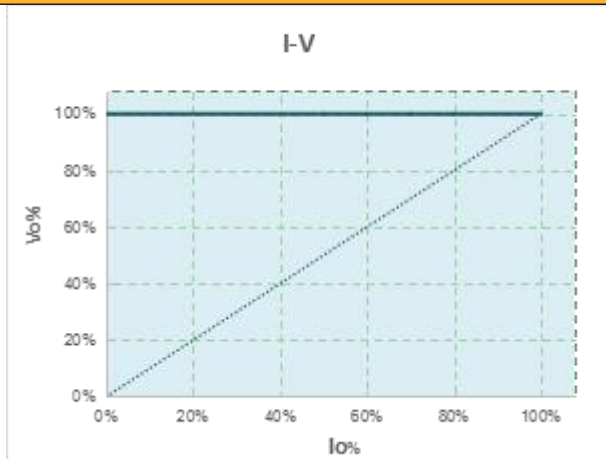


Fig.4 Power factor characteristic curve

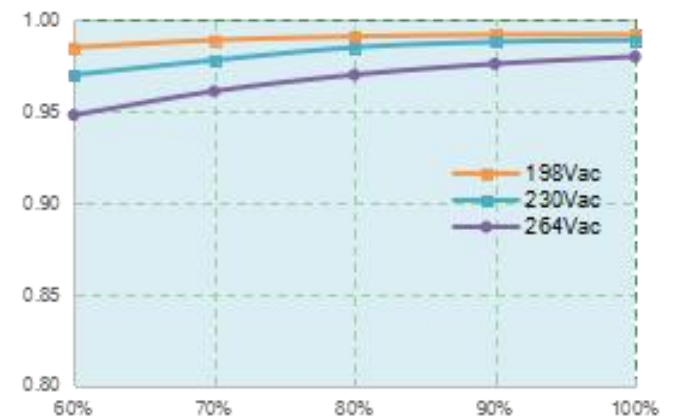


Fig.5 Total harmonic distortion curve (THD)

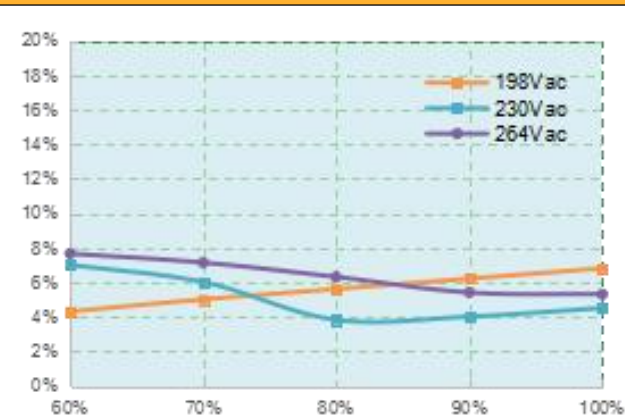
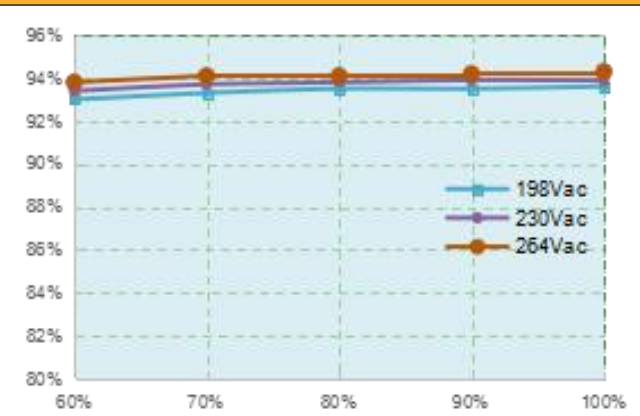


Fig.6 Efficiency-Load curve



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Protection:

Parameter		Conditions	Note
Protection	Over load	1.1~1.6 times rated load	Auto-recovery after overload removed
	Short circuit	Short circuit power≤0.5W	Hiccup mode,auto-recovery after short circuit removed(the dimming value needs to be reset by the host)
	Over voltage	1.5 times of rated output voltage	Turn off the input voltage and can recover after restart
	Over temperature	110℃	Turn off the input voltage and can recover after temperature returns to normal value

Environment Requirement:

Parameter	Min.	Typ.	Max.	Note
Working temp.	-20℃	25℃	+45℃	See Fig.2
Storage temp.	-40℃	25℃	+85℃	
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	√	

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Safety test		Qualification	Note
Dielectric compressive strength	Input to output	3750Vac/5mA Max/60s	Strengthen insulation,no breakdown,no arc
	Primary to ground	---	Basic insulation,no breakdown,no arc
	Secondary to ground	---	Functional insulation,no breakdown,no arc
Insulation resistance	Input to output	≥10MΩ	Test Voltage : 500Vdc
Grounding resistance		---	25A/1min
Leakage current		≤0.75mA	264Vac
EMI/EMS item		Standard/Level	Data
Conduction CE		EN55015	
Radiation RE		EN55015	
Harmonics		EN IEC 61000-3-2	Class C

Others

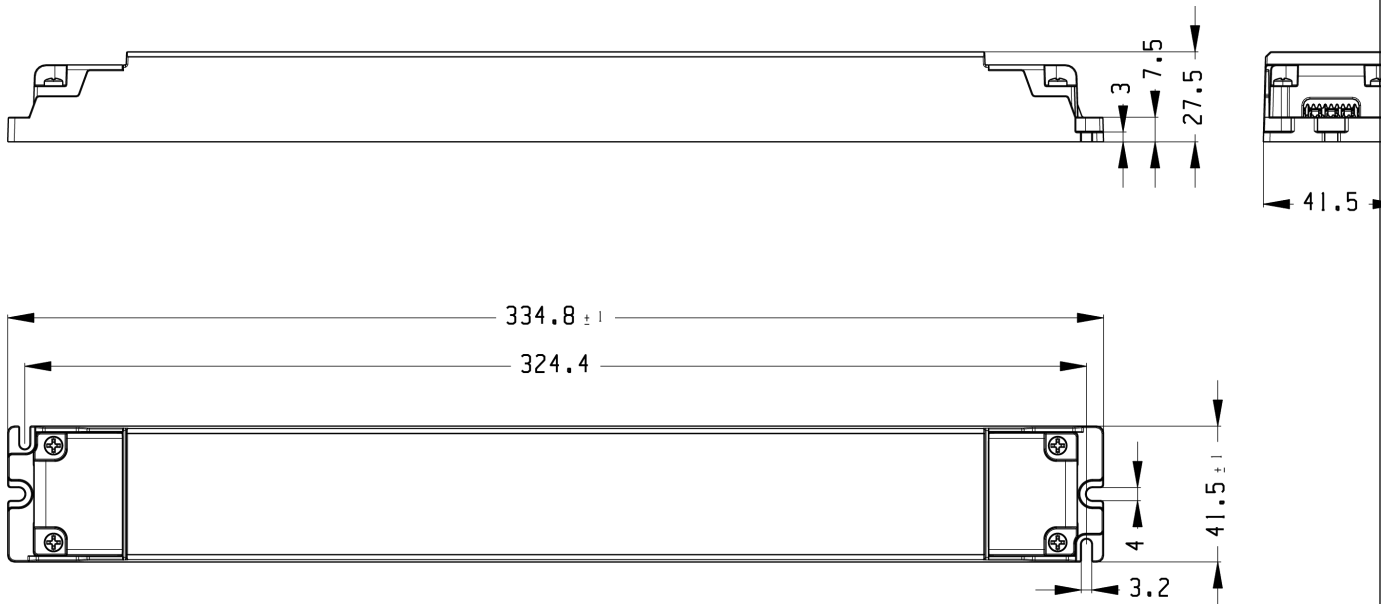
Parameters	Condition	Note
Lifetime	30,000 hours	230Vac , full load , Max Case Temp. 75°C
MTBF	200,000 hours	230Vac,full load,25°C temperature (MIL-HDBK-217F)
TC	90°C	
Warranty	5 Years	---
Weight	550g	
Dimensions	334.8mm * 41.5mm * 27.5mm	L x W x H

Pin function description

Functions	Description
CCT	Push color temperature adjustment (DT6 not applicable)
DA	DA Signal/AC Live Wire (PUSH Dimming)
DA	DA Signal/Connect it between AC Null Wire and push switch (PUSH Dimming)
AC/N	AC Null Wire
AC/L	AC Live Wire
LED+	Positive polarity
LED-(C)	Cool color negative polarity (DT8)
LED-(W)	Negative polarity(DT6)/Warm color negative polarity(DT8)

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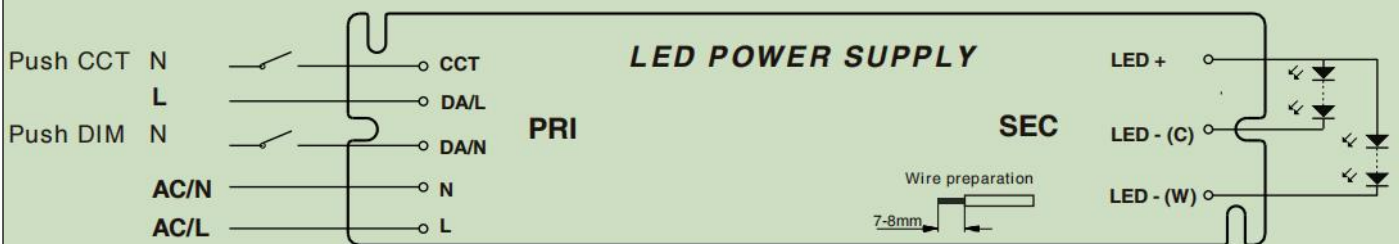
Mechanical Specification (unit : mm)



The DALI wiring diagram (DT8) Remark : When DT6 is connected,LED-(C) is not connected.



The PUSH dimming wiring diagram (DT8) Remark : When DT6 is connected LED-(C) and Push CCT is not connected.



Remark :

AC Input cable	Terminal+ H05VVH2-F 2*1.0mm ²
DC Output cable	Terminal + H05VVH2-F 2*1.0mm ²