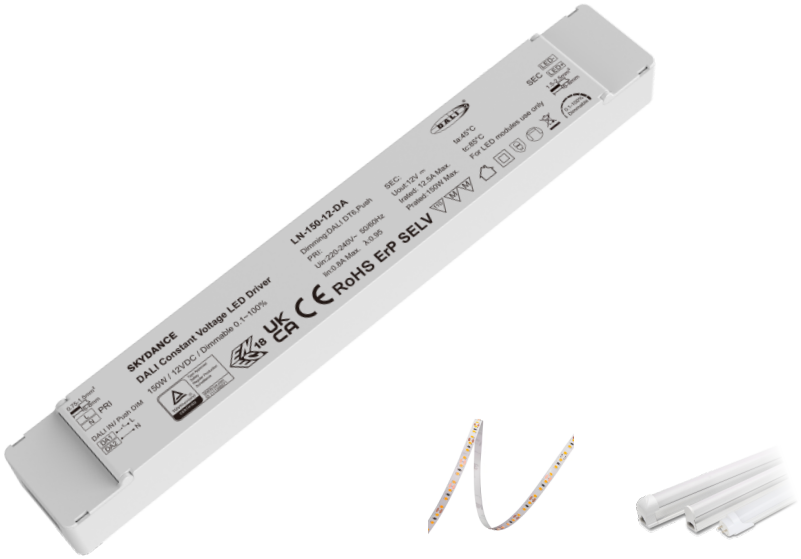
IEC 62386-102/207

Product Features

- High power factor: PF>0.95
- Low harmonic distortion: THD<10%
- Efficiency: 93%
- No load/Standby power⩽0.5W
- Anti-surge voltage: differential mode1kV (L-N)
- Designed for CE-ErP compliance
- Over-heat /Over-load / Short circuit protection
- Class II, suitable for Class II fixtures



Advantages of the LN-150-XX-DA Series Products

- **Compatibility with intelligent and traditional dimming:** DALI protocol, two-way communication; controlled by AC push switch, ready for use upon installation
- **Centralized lighting management:** All devices are uniformly managed by the central control unit in the DALI system
- **Deep dimming no flicker:** The dimming range is 0.1 - 100%
- **Ultra-low energy consumption:** Active PFC design with PF > 0.95
- **Safety protection:** Class II insulation design and multiple protection functions

Product Description

- 150W, 12V
- Constant voltage output, 1CH dimmable LED driver
- 2 in1Dimming interface: DALI(DT6) or AC Push switch
- Compliant with DALI standard protocol: IEC 62386-101/207
- Dimming range: 0.1-100%
- 5 years warranty

Housing Features

- Housing material: Polycarbonate, white color
- Input wiring: Press-type terminal
- Output wiring: Screw terminal
- Ingress protection: IP20, for indoor use

Product Applications

- LED strips for indoor lighting
- Wall Washer for Hotel/Retail Lighting
- Panel lights for office/commercial lighting

Model List

Model	Input voltage ~	Input voltage ⎓	Output power	Power factor	Efficiency	Dimming range	Certification
LN-150-12-DA	220-240V	12V	150W	>0.95	93%	0.1-100%	DALI-2, ENEC, TUV, CB, CE, RoHS, UKCA, ERP
LN-150-24-DA	220-240V	24V	150W	>0.95	94%	0.1-100%	DALI-2, ENEC, TUV, CB, CE, RoHS, UKCA, ERP

Model Naming Rule

L N - 1 5 0 - 1 2 - D A

- LN: Case series: LN = Long line type
- 150: Output power: 150 =150W
- 12: Output voltage: 12 =12V
- DA: Dimming type: DA = DALI

Technical Parameters

Output Parameter			
Item	Value	Unit	Note
Output Voltage	12 ±4%	VDC	
Output Current	Max. 12.5	A	-
Output Power	Max. 150	W	-
Dimming Range	0~100	%	down to 0.1%
Ripple & Noise	150	mV	
PWM Frequency	4000	Hz	

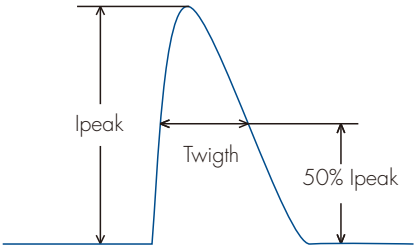
Input Parameter			
Item	Value	Unit	Note
Input Voltage Range	220~240	VAC	-
Frequency Range	50/60	Hz	-
Efficiency	93	%	230VAC
Alternating Current	0.8 Max.	A	-
Power Factor	>0.95	-	For 90-150W load refer to the "Char.Curve Figure3"
THD	<10	%	Full load, refer to the "Char.Curve Figure4"
Inrush Current	35	A	Cold start at 230VAC
Anti Surge	1	KV	diff. mode: L-N Acc. to IEC61000-4-5.1.2/50us,8/20us
Leakage Current	≤0.5	mA	-
No Load/Standby Power	≤0.5	W	-

Operation Environment			
Item	Value	Unit	Note
Woking Temperature	-20~45	°C	-
T-case Max	85	°C	-
Working Humidity	20~90	%	non-condensing
Storage Humidity	10~95	%	-
Storage Temperature	-40~80	°C	-
Temperature Coefficient	±0.03	%/°C	0-50%
Vibration Resistance	10-500	Hz	Hz, 2G, 6min/cycle, X,Y,Z axes/2min
IP Rating	IP20	-	-
Lifetime	50000	Hrs	@Tc 85°C, refer to the"Char.Curve Figure5"

Safety & EMC			
Item	Value	Unit	Note
Withstand Voltage	3750	VAC	I/P-O/P
Insulation Resistance	100/500/25/70	MΩ/VDC/°C/%	I/P-O/P
EMC Emission	EN55015, EN61547 EN61000-3-2,EN61000-3-32	-	-
EMC Immunity	EN61000-4-2.3.4.5.6.8.11 EN61547	-	-
Certications	DALI-2, ENEC, TUV, CB, CE, RoHS, UKCA, ERP	-	-

Certification Standards:
EN61347-1, EN61347-2-13, EN62493, EN62384,EN61547, EN55015, EN61000-3-2, EN61000-3-3, IEC62386-101, IEC62386-207

Inrush Current & MCB						
Item	Value				Unit	Note
Inrush current	35				A	-
Twigth	1.52				ms	-
MCB type	B10	B16	C10	C16	pcs	-
	2	3	4	5		



- The calculation is based on the parameters of the ABB S200 series of miniature circuit breakers.
- For miniature circuit breakers of different brands and models, the number of power supplies that can be connected varies.
- When the installation environment temperature of the MCB exceeds 30°C, or parallel connection installed, the number of connectable power supplies will also decrease, need recalculation.
- Type B MCB are suitable for household lighting, Type C MCB are suitable for commercial lighting.

Insulation Betwwen Circuits					
Insulation	Input	Output	Case	DALI	PUSH
Input	-	SELV	SELV	Basic	-
Output	SELV	-	SELV	SELV	SELV
Case	SELV	SELV	SELV	SELV	SELV

Basic insulation: The minimum insulation required for the normal operation of the equipment, used to isolate energized parts from accessible parts (e.g., shells, parts that may be touched by the human body) and to prevent direct contact with electric shocks.

Double insulation: It is composed of basic insulation and additional insulation, forming two independent layers of insulation protection, even if one layer fails, the other layer can still prevent electric shock.

Dimming interface

DALI dimming: Voltage range 9.5-22.5V, typical 16V, interface current consumption1.8mA.
Push DIM dimming: Voltage range 100~240VAC 50/60Hz.
Dimming range: 0.1-100%.

Protection function

Over Load: When the load ≥110%~140%, hiccup protection.
Over Temperature: Current decrease when PCB temp >100°C, recovers automatically after fault condition is removed.
Short Circuit: Shut down the output Voltage, recovers automatically after fault condition is removed.

Test note

If not specified, the above parameters are the result of testing at ambient temperature of 25°C, humidity of 50%, full load conditions.
The startup time is measured during a cold start. Frequent powering on and off may lead to an increase in the startup time.
The ripple voltage and standby power consumption are measured under full load conditions.

Characteristic Curve

Figure 1

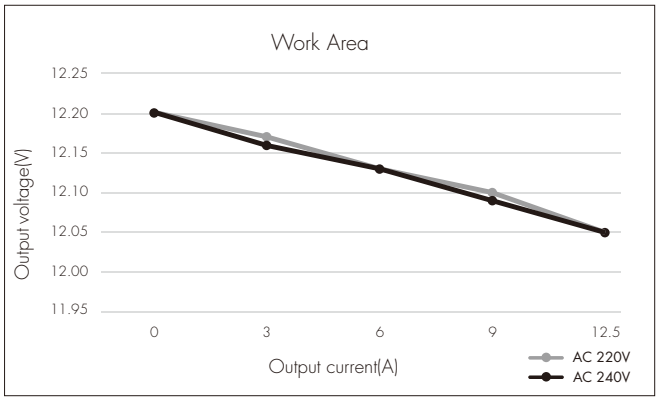


Figure 2

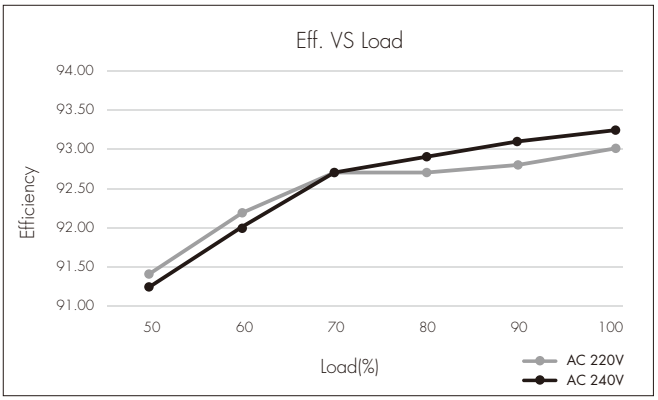


Figure 3

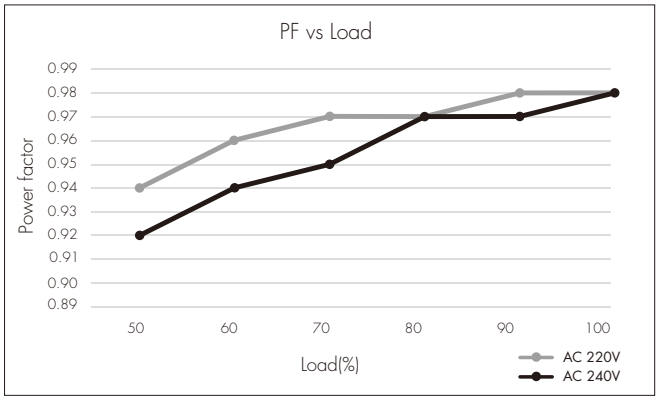


Figure 4

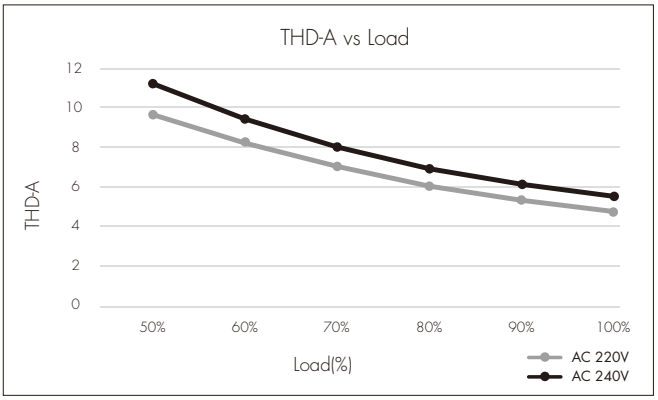
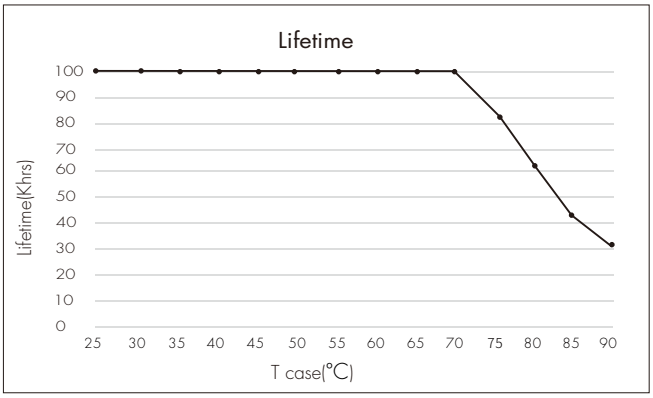
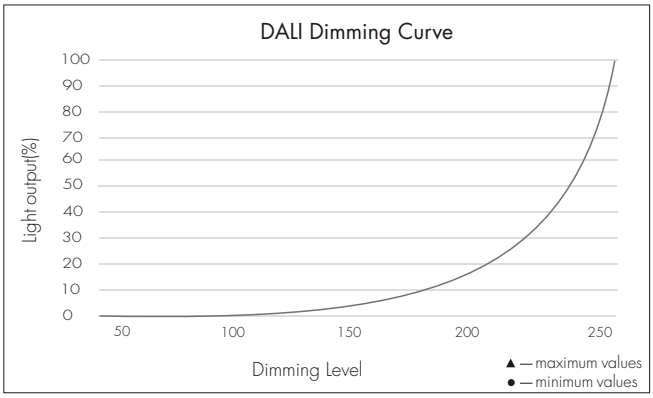


Figure 5



The relationship of the Tc temperature also depends on the lighting fixture setting.

Figure 6



The default is a logarithmic dimming curve, if you need a linear dimming curve, you can change it through the DALI configuration tool.

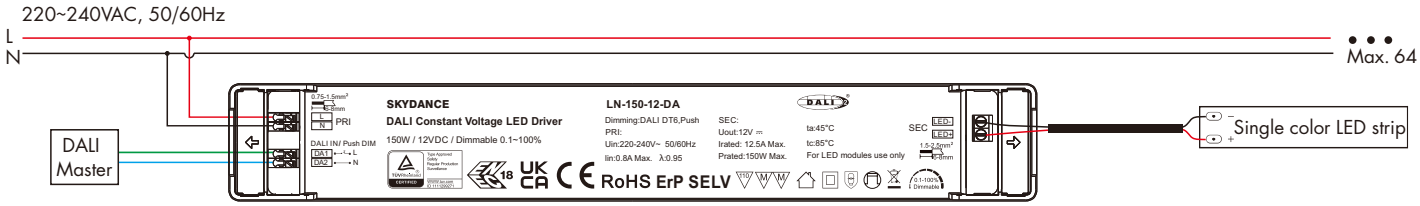
Wiring Diagram

- Wiring Instructions

Input/Output Wiring	Port Definition	Wire Diameter and Stripping Length
Input Wiring(PRI)	AC-L, AC-N DALI or AC Push switch input	Wire Diameter: 0.75-1.5mm² (20-16AWG) Stripping Length: 6-8mm 
Output Wiring(SEC)	LED+, LED-	Wire Diameter:0.15-2.5mm² (14-12AWG) Stripping Length:6-8mm 

Note: DALI dimming and AC push switch dimming cannot be used at the same time, otherwise, the dimming device will be damaged.

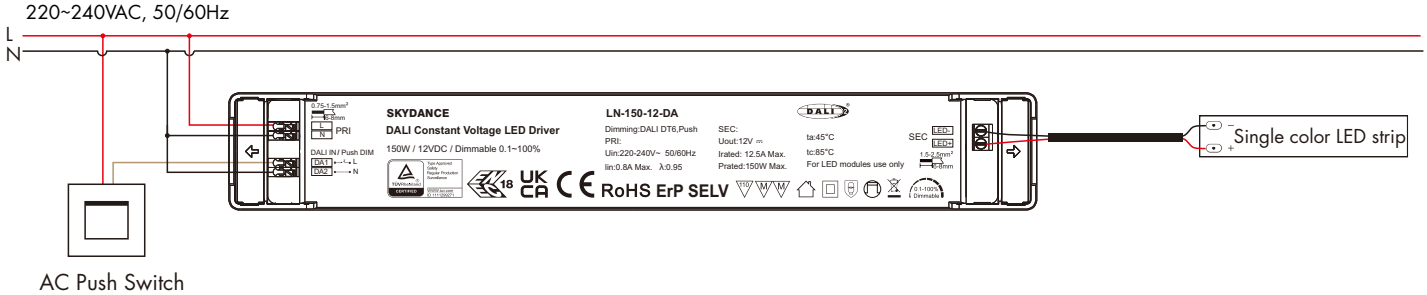
- DALI dimming



Remarks:
1. Standard DALI control line voltage range: 9.5V to 22.5V.
2. The two DALI control lines polarity-reversible.
3. Max. 64 DALI LED drivers per DALI control line.
4. The maximum distance length of the DALI control line is 300m at 2×1.5mm². (Or the pressure drop cannot exceed 2V)

DALI dimming parameter setting:
The configuration parameters of the LED driver can be set during installation through the DALI master controller or DALI application controller.
Please refer to the DALI configuration tool user manual, for example:
Maximum dimming level, default minimum 0.1%, dimming range: 0.1%≤Min≤100%,
Maximum dimming level, default maximum100%, dimming range: 0.1%≤Max≤100%.
16 group addresses and 64 unicast addresses.

- AC Push dimming



AC push switch function:
Short press: Turn on/off the light.
Long press(1-6s): press and hold to step-less dimming, with every other long press, the light level goes to the opposite direction.
Dimming memory: Light returns to the previous dimming level when switched off and on again, even at power failure.
Synchronization: If more than one controller are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%.

Installation Precautions

1. Hot plug-in

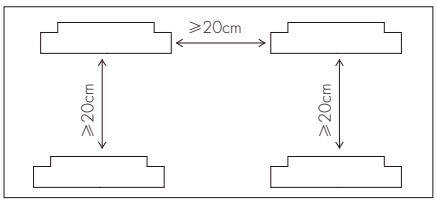
- Hot plug-in is not supported due to residual output voltage of > 0V.
- If a load is connected, the device needs has to be restarted.
- The restart can be achieved by reset or dimming interface (DALI, Push DIM).

2. Wiring guidenlines

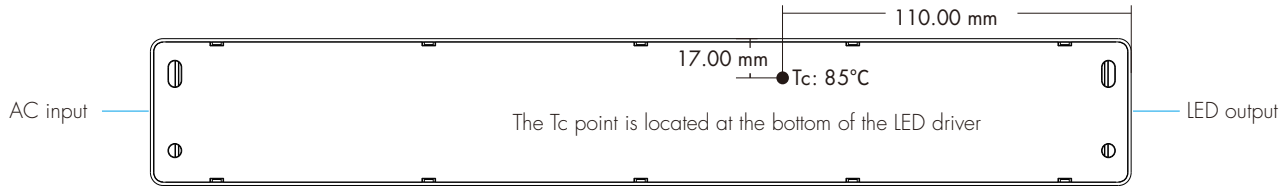
- This product must be installed and adjusted by a qualified professional.
- Before you power on the product, please make sure all the wiring is correct in case of incorrect connection.
- PC covers, housings and plug light kits for power supplies assembled within the fixture are required to meet UL94-V0 and above fire ratings.
- The power supply is used as part of the luminaire system in conjunction with the end device (luminaire), and since the EMC performance is affected by the LEDs and the alignment. The end device manufacturer needs to re-verify the EMC of the complete unit.
- If a fault occurs, please do not attempt to x the product by yourself; If you have any questions, please contact us in time.

3. Installation environment

- This product is non-waterproof. When installed outdoors, please ensure it is mounted in a water proof enclosure.
- This product should be installed in a dry, acid-free, oil-free environment.
- Please use the product within the operating temperature range of -20°C~45°C to ensure stable performance.
- LED driver should keep a certain distance from the heating stuff (such as the luminaries radiator). The installation interval between the product and the product is recommended to be 20cm, so as not to affect the service life due to poor heat dissipation(show in Figure).

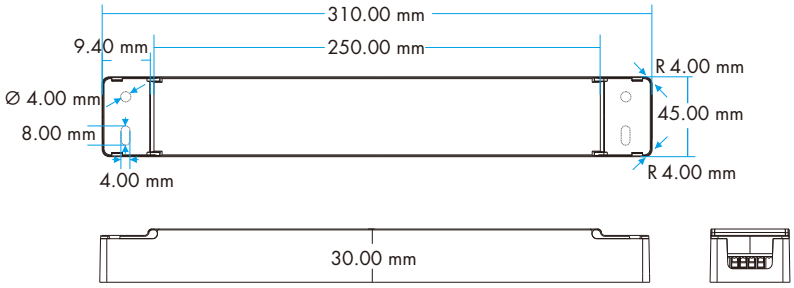


Tc Point Location

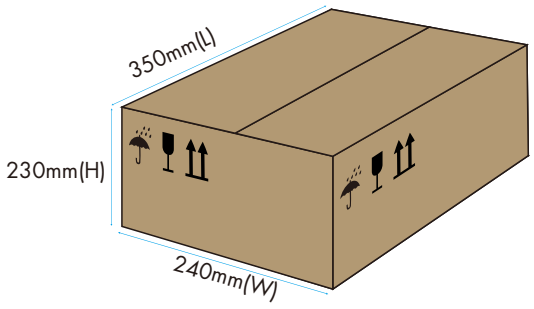


Product Size and Packaging Information

Product size:



Carton size:



Model	Product size (mm)	White box size(mm)	N.W(pcs)	Carton size(mm)	Qty/carton	N.W/carton	G.W/carton
LN-150-12-DA	310*45*30(L*W*H)	325*47*38(L*W*H)	410g	350*240*230(L*W*H)	25pcs	10.9kg (±0.02kg)	11.3kg (±0.02kg)

Version Log

Version	Update time	Update Content
1.0.0	2025.4.11	First edition