

# Smart LED Driver

Design and Quality EASEIC of USA

## LND118 AL Smart E-Dim DALI DRIVER

SPEC SHEET



18W 3-62V 180-700mA DALI Dim  
LND118 AL  
633118



**SELV RoHS**

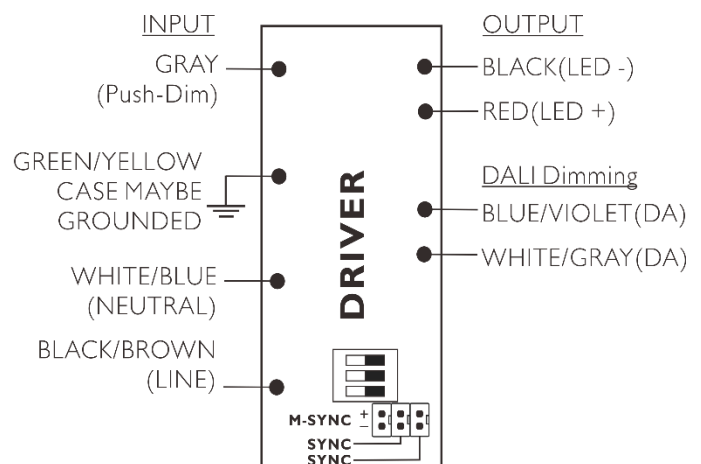
### Features

- Multilevel current output, Constant current output 180-700mA
- Multi-power driver supplied with dip-switch for the selection of the output current
- DALI digital dimming control interface, compatible with standard (IEC 62386) DALI interfaces.
- Memory function for sets or light groups. Recall of stored functions.
- Dimming range from 0 -100%.
- SYNC Dim, On/off Dim and PUSH-Dim, dimming and switching via push-button with memory function.
- Universal AC input (90~265Vac)
- Designed for LED lighting applications
- UL Class 2 output, Class 2 protection against electric shock for direct or indirect contact
- Compact form factor, Fully isolated metal case.
- Can be switched on and off on secondary circuit for power LED.
- Protections: Short circuit , Over voltage, Over Current
- 5 year warranty

### Benefits

- Enables design of low profile and compact fixtures
- Helps to maximize energy savings and allows application specific light levels
- Supports majority of available dimming solutions

### Wire Diagram



#### Note:

Install in accordance with National and Local Electrical Codes.

Use 16-24 AWG solid copper wire rated  $\geq 300V/85^{\circ}C$ .

Strip wire 3/8".

Please pay special attention to wiring installation guidelines, Wrong wiring will cause damage to the LED driver.

Before connection the power, make sure you have access to the LED load.

# LND118 AL

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#### Electrical Specifications

Ordering Information			
Type	LND118 AL		
Order Code	633118		
Full product name	Smart 18W 3-62V 180-700mA DALI Dim		
Input Information			
Line Voltage	100-240Vac_rms		
Line Current	0.22A@100VAC	0.18A@120VAC	0.10A@230VAC
Line Frequency	50/60Hz		
Min, Mains Voltage operational	90[min]		
Max, Mains Voltage operational	265[max]		
THD(total)	<20%		
Power Factor(PF)	>0.92		
Input Power (Max.)	21.8W		
Efficiency @Max Load and 70°C case	87%@100VAC	87%@120VAC	87%@230VAC
Inrush Current(Typ.)	Cold Start 55A(twidth=270us measured at 50% Ipeak) at 230VAC		
Leakage Current(Typ.)	<0.5mA/230VAC		
Output Information			
Output Power	18W(See Output current settings table)		
Output voltage	3V to 62V		
Output Constant Current	180-700mA ±5%(See Output current settings table)		
Maximum open circuit voltage	<60V		
Output Current Ripple (ripple=peak to peak)	2% of nominal output voltage (whichever is greater), measured at 20Mhz bandwidth with 0.1uf ceramic capacitor in parallel with 10uf electrolytic capacitor connected at the end of the output connector.		
Protections	Over Current, Over Voltage, Short Circuit and Open Circuit Protection for LED+ and LED-		
Ambient Temp Range	-20°C to +50°C, 20-95% RH non-condensing		
Max Case Temperature(Tc)	75°C for Life & 85°C for UL Safety		
Dimming Features			
Dimming Interface	DALI(IEC62386), Push-Dim, On/off Dim,SYNC		
DALI Dimming Specifications	Sink Current <2mA		
Dimming range	0-100%		
Environment & Approbation			
Environmental Protection Rating	UL damp and dry		
Agency Approbations	UL8750,UL1310, CSA-C22.2 No.250.0-08,ENEC EN61347-1,EN61347-2-13 independent, EN62384,TUV EN60950-1		
Electromagnetic Compliance	FCC Title 47 Part 15 Class A Compliance to EN55015,EN61000-3-2 Class C(@100% Load);en6100-3-3 Compliance to EN61000-4-2,3,4,5,6,8,11;EN61547,EN55024, light industry level(surge 2KV), criteria A		
Audible noise	<24dB Class A		
Other information			
Dimension	280x30x26mm (LxWxH)		
Packing	0.23Kg(0.51lbs); 40Pcs/10.1kg(22.2Lbs)		

All the specifications are typical and at 25 °C Tcase unless specified otherwise

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#### Output Current Settings

LND118 AL, Constant Current output 180-700mA.

Multi-power driver supplied with dip-switch for the selection of the output current.

Factory default setting is 180mA.

LND118 AL		DIP-Switch Settings			
Pout Max.	Vout DC	Iout DC	1	2	3
11W	3-62V	180mA	--	--	--
15W	3-62V	250mA	ON	--	--
18W	3-52V	350mA	--	ON	--
18W	3-43V	420mA	--	--	ON
18W	3-40V	450mA	ON	ON	--
18W	3-36V	520mA	ON	--	ON
18W	3-30V	620mA	--	ON	ON
18W	3-26V	700mA	ON	ON	ON

#### Suggested max. number of the LNX units that can be connected to a MCB@230VAC

MCB	B10	B16	C10	C16
LND118 AL	18	26	28	38

*Note: These calculated values are based on MCB S201 series manufactured by ABB*

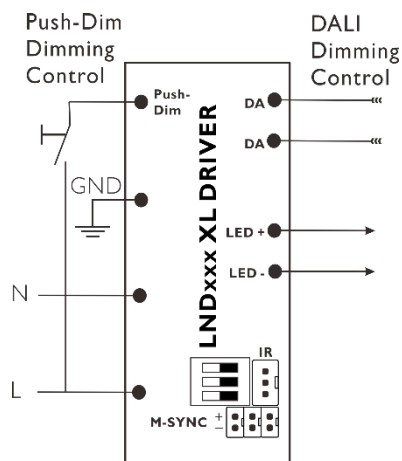
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## Smart E-Dim DALI DRIVER

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#### Dimming Control Wiring Diagrams

##### ➤ Push-dim 0-100% dimming control



By pressing the push button for less than one second the LEDs turn on or off.  
By pressing the push button for more than one second the light intensity of the LEDs is dimmed according to the following modalities:

- ✧ If the light intensity is not at maximum, by pressing the key there will be an increase of this to maximum or to the corresponding level at the moment the key is released;
- ✧ A further pressure on the key inverts the dimming direction to the minimum value or to the corresponding level at the moment the key is released;
- ✧ If light intensity is at maximum by pressing the key there will be a decrease to the minimum value or to the corresponding level at the moment the key is released.

Total length of PUSH cables <20m. Factory dimming setting at 100%.

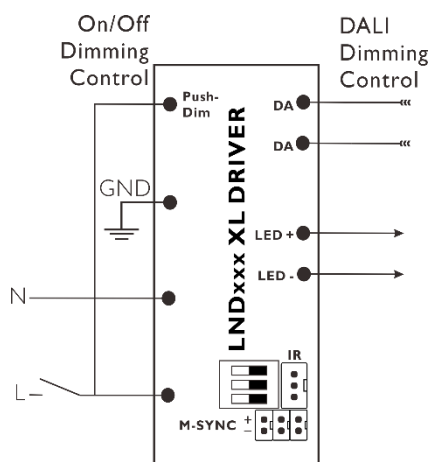


Note: Only use self-reset push button without indicator light.

Risk of short circuit. The self-reset button can only be linked between the Push-dim and the L(AC).

Do Not connect the self-reset button to the N(AC)

##### ➤ On/Off sectional dimming control



By pressing the push button for less than one second the LEDs turn on or off.  
By pressing the push button for more than one second the light intensity of the LEDs is dimmed according to the following modalities:

- ✧ If the light intensity is not at maximum, by pressing the key there will be an increase of this to maximum or to the corresponding level at the moment the key is released;
- ✧ A further pressure on the key inverts the dimming direction to the minimum value or to the corresponding level at the moment the key is released;
- ✧ If light intensity is at maximum by pressing the key there will be a decrease to the minimum value or to the corresponding level at the moment the key is released.

Total length of PUSH cables <20m. Factory dimming setting at 100%.



Note: Only use self-reset push button without indicator light.

Risk of short circuit. The self-reset button can only be linked between the Push-dim and the L(AC).

Do Not connect the self-reset button to the N(AC)

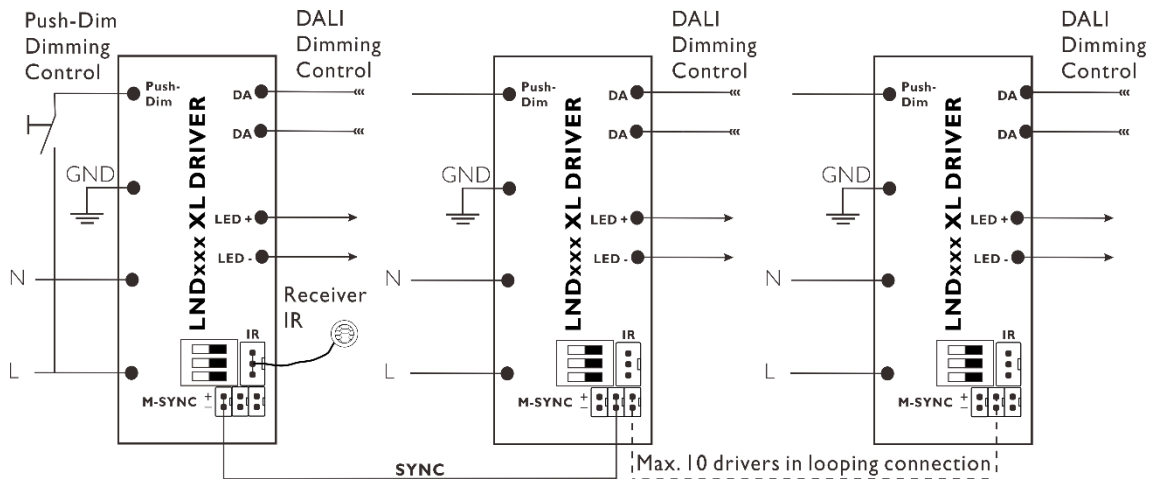
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## Smart E-Dim DALI DRIVER

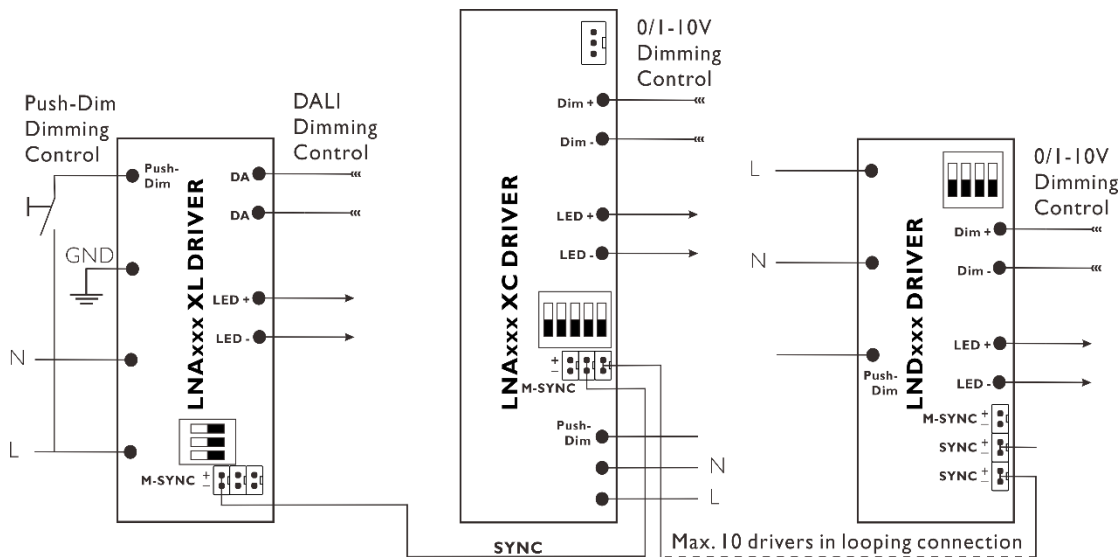
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#### ➤ Synchronization dimming control

##### W1:



##### W2:



The lights driver by LNX units(slaves) can be dimmed synchronously through a LNX unit(master) directly controlled via IR remote control, 0/1 - 10V, 10V PWM, DALI, Push-dim, On/Off sectional dimming control function.

Wiring diagram as shown on the right note the following:

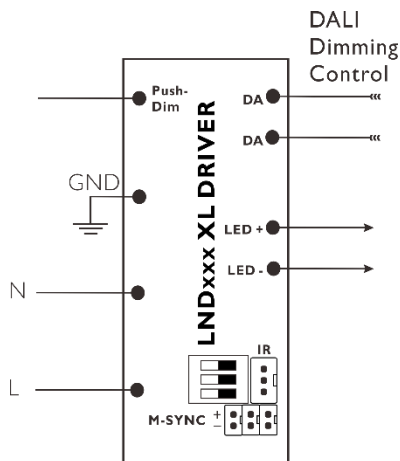
- ✧ According SYNC instructions on wiring housing wiring distinguish SYNC + and -;
- ✧ Max. number of the LNX units, 10 (1 master + 9 Slaves);
- ✧ Max. cable length between each units, 20m (based on a cable with cross-section of 0.15mm<sup>2</sup> - 0.3mm<sup>2</sup>);
- ✧ Don not connect dimming circuit to slaves.
- ✧ Please make sure all units are set to 100% dimming setting (factory default) before synchronizing.

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#### ✧ DALI interface dimming control



LND series of LED dimming driver; in line with DALI protocol specification IEC62386, acceptable compliance with ON / OFF, scenes and dimming DALI controller instruction norms issued.

Each DALI subnets can only have a maximum of 64 DALI slave devices (DALI LED dimming drivers).

Each DALI LED dimming drivers will consume 2mA control terminal of the current.

DALI connections of up to 300 m can be made with any 2 wire 0.5 - 1.5 mm<sup>2</sup> mains rated cable.

DALI cable must be mains-rated and the maximum voltage drop along the length of the cable must not exceed 2V.

In rare instances where the environment may be electrically noisy, due to adjacent circuits carrying high switching currents, we recommend a 2 wire twisted pair screened and sheathed cable.

#### DALI Interface Lighting Controller



DBC102D



DALI RGB



DBC202D



DALI RGBW



DBC402D



DALI RGBWD



DALI SC



DALI CCT4



DALI CCT4U

**More DALI Lighting control modules and details , please browse [www.easeic.com](http://www.easeic.com)**

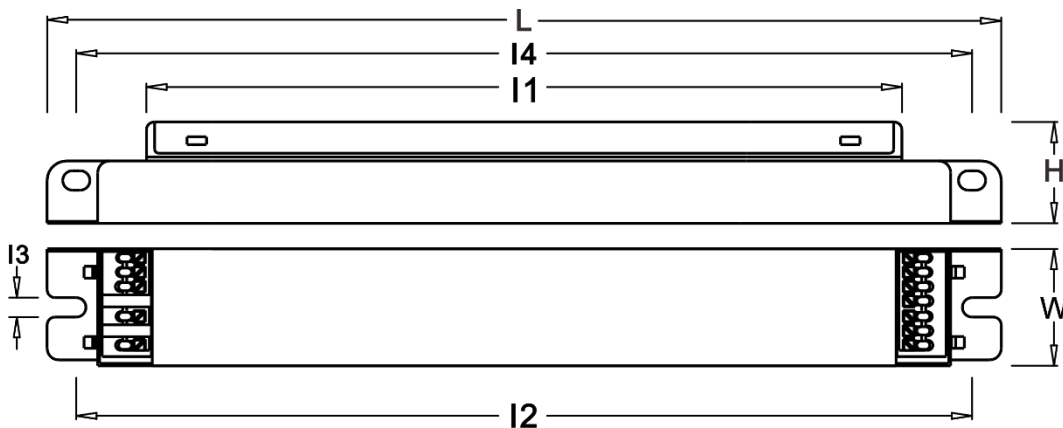
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## Smart E-Dim DALI DRIVER

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#### Mechanical Specifications

#### Mechanical Drawing:



#### Dimensions

	In.	mm
Case Length(L)	11.0	280
Case Width(W)	1.2	30
Case Height(H)	1.0	26
Mounting Holes(I1)	8.7	222
Mounting Holes(I2)	10.6	270
Mounting Holes(I3)	0.2	5
Mounting Holes(I4)	10.6	270
Overall Length	11.0	280

**EASEIC**

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[www.easeic.com](http://www.easeic.com)

#### Easeic Inc.

27 Hall Street, Brooklyn, NY 11205  
Tel.: 1-718-243-9388  
Fax: 1-718-243-9403  
Customer Support  
Customer Care: 1-646-4029788  
E-Mail: [ny@easeic.com](mailto:ny@easeic.com)

#### Easeic Asia Limited.

Rm. 19C, Lockhart Ctr., 301- 307  
Lockhart Rd., Wan Chai, Hong Kong  
Tel.: 852-6955-8075  
Fax: 852-6915-3639  
E-Mail: [info@easeic.com](mailto:info@easeic.com)

#### Easeic Sci-tech Co., Ltd.

Building 6, Huangzhou Industrial  
Zone, Chebei Road, Tianhe  
District, Guangzhou, China, 510660  
Tel.: 86-20-8230-9676  
Fax: 86-20-8230-9677  
E-Mail: [sales@easeic.com](mailto:sales@easeic.com)