# Smart LED Driver

Design and Quality EASEIC of USA

LND 136 AC

Smart E-Dim DALI DRIVER

SPEC SHEET

SPEC SMEET



36W 3-62V 180-900mA DALI Dim LND136 AC 623136





**SELV RoHS** 

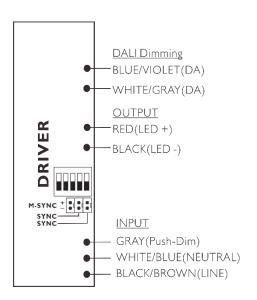
#### **Features**

- Multilevel current output, Constant current output 180-900mA
- 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, On/Off, 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
- Supplied with terminal cover and cable retainer.
- 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 >=300V/85°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.





# **Electrical Specifications**

Туре	LND136 AC				
Order Code					
Full product name	623136 Smart 36W 3-62V 180-900mA DALI Dim				
Input Information	SHIRIT SOVY S-02Y TOO-700HIN DI LE DIIII				
<del>-</del>	100 0 4014				
Line Voltage	100-240Vac_rms				
Line Current	0.44A@100VAC				
Line Frequency	50/60Hz				
Min, Mains Voltage operational	90[min]				
Max, Mains Voltage operational	265[max]				
THD(total)	<20%				
Power Factor(PF)	>0.95				
Input Power (Max.)	43.7W				
Efficiency @Max Load and 70°C case	87%@100VAC 87%@120VAC 88%@230VAC				
Inrush Current(Typ.)	Cold Start 55A(twidth=270us measured at 50% lpeak) at 230VAC				
Leakage Current(Typ.)	<0.5mA/230VAC				
Output Information					
Output Power	36W(See Output current settings table)				
Output voltage	3V to 62V				
Output Constant Current	180-900mA ±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 20Mh; bandwidth with 0.1 uf 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	118x67x30mm (LxWxH)				
Packing	0.17Kg(0.37lbs); 30Pcs/5.1kg(11.2Lbs)				

All the specifications are typical and at 25  $^{\circ}\!C$  Tcase unless specified otherwise





### **Output Current Settings**

LND136 AC, Constant Current output 180-900mA. Multi-power driver supplied with dip-switch for the selection of the output current. Factory default setting is 180mA.

LND136 AC		DIP-Switch Settings				
Pout Max.	Vout DC	lout DC	I	2	3	4
IIW	3-62V	180mA				
15W	3-62V	250mA	ON			
22W	3-62V	350mA		ON		
25W	3-62V	400mA			ON	
28W	3-62V	450mA				ON
3IW	3-62V	520mA	ON			ON
34W	3-62V	550mA		ON	ON	
36W	3-60V	600mA		ON		ON
36W	3-56V	650mA			ON	ON
36W	3-52V	700mA	ON	ON		ON
36W	3-44V	820mA		ON	ON	ON
36W	3-40V	900mA	ON	ON	ON	ON

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

MCB	BIO	BI6	C10	C16
LND136 AC	10	16	17	28

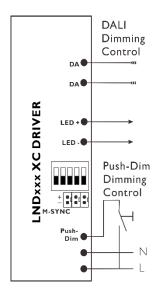
Note: These calculated values are based on MCB S201 series manufactured by ABB





#### **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.

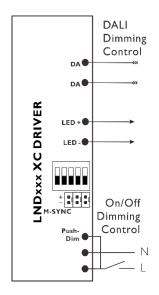
Total length of PUSH cables <20m. Factory dimming setting at 100%.



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).

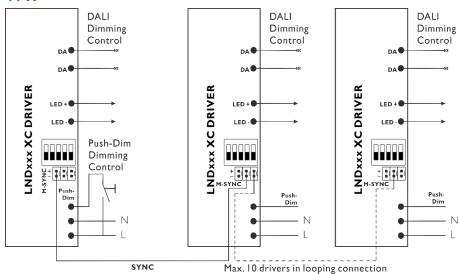
Do Not connect the self-reset button to the N(AC)



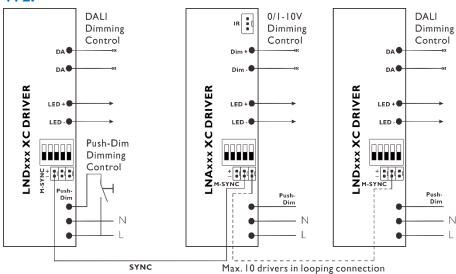


# > Synchronization dimming control

#### WI:



#### **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.

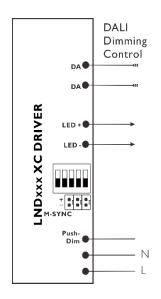
Wiring diagram as shown on the right, note the following:

- According SYNC instructions on wiring housing wiring distinguish SYNC + and -;
- ♦ Max. number of the LNX units, IO(I master + 9 Slaves);
- ♦ Max. cable length between each units,20m(based on a cable with cross-section of 0.15mm2 0.3mm2);
- ♦ Don not connect dimming circuit to slaves.
- Please make sure all units are set to 100% dimming setting (factory default) before synchronizing.





#### > 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).

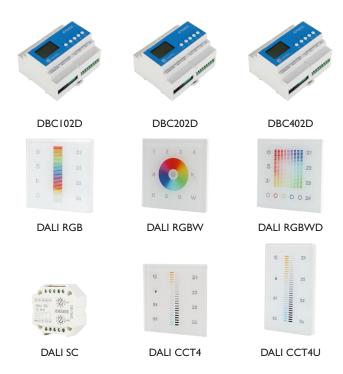
Each DALI LED dimming drivers will consume 2mA control terminal of the current.

DALI connections of up to 300 m can be made with any 2 wire 0.5 - 1.5 mm2 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**



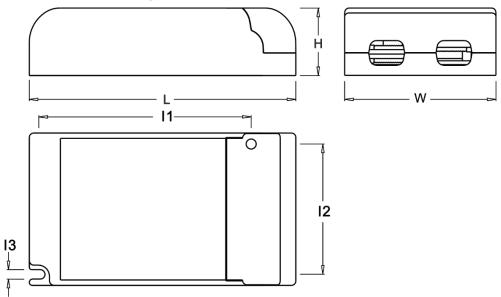
More DALI Lighting control modules and details, please browse <a href="https://www.easeic.com">www.easeic.com</a>





# **Mechanical Specifications**

# **Mechanical Drawing:**



#### **Dimensions**

	In.	mm
Case Length(L)	4.6	118
Case Width(W)	2.6	67
Case Height(H)	1.2	30
Mounting Holes(II)	3.7	94
Mounting Holes(I2)	2.3	58
Mounting Holes(I3)	0.19	4.8
Overall Length	4.6	118

