# Smart LED Driver

Design and Quality EASEIC of USA

LNA 127
Smart E-Dim 0/1-10V DRIVER

SPEC SHEET

27W 3-62V 180-900mA 0/1-10V Dim LNA127

612127







**SELV RoHS** 

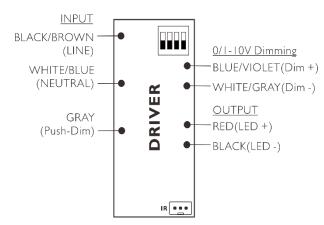
#### **Features**

- Multilevel current output, Constant current output 180-900mA
- Multi-power driver supplied with dip-switch for the selection of the output current
- Built-in infrared remote control dimming control.
- Built-in 3 in 1 dimming function(0/1-10V,PWM or Resistance)
- Dimming range from 0 -100%.
- On/off Dim, 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.
- Driver can be secured with slot for screws.
- 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**

Ordering Information						
Туре	LNA127					
Order Code	612127					
Full product name	Smart 27W 3-62V 180-900mA 0/1-10V Dim					
Input Information						
Line Voltage	100-240Vac_rms					
Line Current	0.32A@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.)	32.2W					
Efficiency @Max Load and 70°C case	87%@100VAC 87%@120VAC 87%@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	27W(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 20Mhz bandwidth with 0.1 of ceramic capacitor in parallel with 10 of 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	0/1-10V, Push-Dim, On/off Dim, 10K PWM, Resistance, IR					
0/1-10V Dimming Specifications	Sink Current <0.5mA					
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	167x39x30mm (LxWxH)					
Packing	0.15Kg(0.37lbs); 42Pcs/7.1kg(15.2Lbs)					

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





#### **Output Current Settings**

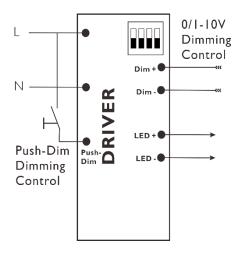
LNA127, Constant Current output 180-900mA.

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

Factory defau	ılt setting is 180	)mA.							
LNA127			DIP-Switch Settings						
Pout Max.	Vout DC	lout DC		2	3	4			
IIW	3-62V	180mA							
15W	3-62V	250mA	ON						
22W	3-62V	350mA		ON					
25W	3-62V	400mA			ON				
27W	3-60V	450mA				ON			
27W	3-52V	520mA	ON			ON			
27W	3-49V	550mA		ON	ON				
27W	3-45V	600mA		ON		ON			
27W	3-42V	650mA			ON	ON			
27W	3-39V	700mA	ON	ON		ON			
27W	3-33V	820mA		ON	ON	ON			
27W	3-30V	900mA	ON	ON	ON	ON			

## **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%.



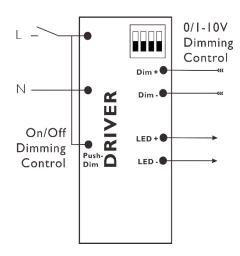
Note: Only use self-reset push button without indicator light. Risk of short circuit. The self-reset button can only be linked between the Push-dim and the L(AC).

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.

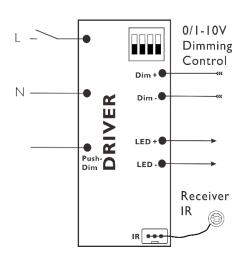
Total length of PUSH cables <20m. Factory dimming setting at 100%.



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)

#### > IR 0-100% Scenes dimming control



LNA series drive with an external infrared receiver, 6 scenes can be easily set up and call a quick scene, but also to be completed by 0-100% stepless infrared wireless dimming control.

#### **Remote Accessories**

Name	Model	Article number
Remote Control	DLR613S	530613
Receiver	IR01	530614



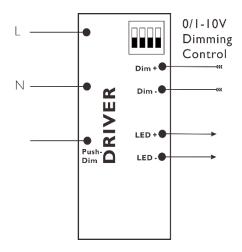
Remote Control
DLR613S

Receiver IR01





#### > 0/1-10V interface dimming control



DC 0/1-10V interface dimming function, output constant current level can be adjusted through output terminal by DC 0/1-10V or 10V PWM signal between dimming control interface  $\pm$  and  $\pm$ 

♦ 0/1-10V dimming function for output current adjustment (Typical)

Dim-control Value	OV	IV	2V	3V	4V	5V
Output Current	0%	10%	20%	30%	40%	50%
Dim-control Value	6V	7V	8V	9V	10V	Open
Output Current	60%	70%	80%	90%	100%	100%

- Each 0 / I-10V LED dimming drivers will consume 0.5mA control terminal of the current.
- ♦ 10V PWM signal for output current adjustment (Typical): Frequency range: IKHz - 3KHz

Duty Value	0%	10%	20%	30%	40%	50%
Output Current	0%	10%	20%	30%	40%	50%
Duty Value	60%	70%	80%	90%	100%	100%
Output Current	60%	70%	80%	90%	100%	100%

#### 0/I-I0V Interface Lighting Controller



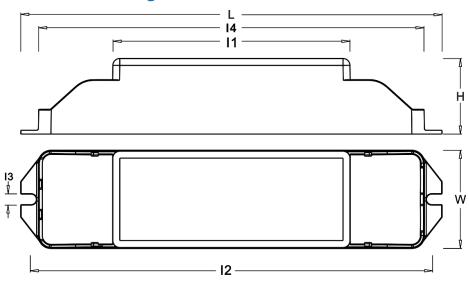
More 0/I-10V Lighting control modules and details, please browse www.easeic.com





#### **Mechanical Specifications**

#### **Mechanical Drawing:**



#### **Dimensions**

	In.	mm
Case Length(L)	6.6	167
Case Width(W)	1.5	39
Case Height(H)	1.2	30
Mounting Holes(II)	3.8	95
Mounting Holes(I2)	6.3	160
Mounting Holes(I3)	0.18	4.5
Mounting Holes(I4)	6.0	154
Overall Length	6.6	167

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

MCB	BIO	B16	CI0	CI6
LNA127	13	20	22	32

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



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