# **Smart** LED Driver



Design and Quality EASEIC of USA

SPEC SHEET 27W 3-66V 200-1050mA 0/I-10V Dim LNAI27AL 632127



















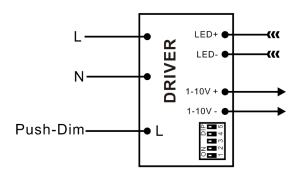
#### **Features**

- Multilevel current output, Constant current output 200-1050mA
- Multi-power driver supplied with dip-switch for the selection of the output current
- Built-in 3 in 1 dimming function(0/1-10V,PWM or Resistance)
- Dimming range from 0 -100%.
- Analogue flicker-free dimming
- PUSH-Dim, dimming and switching via push-button.
- Universal AC input (100~277Vac)
- Designed for LED lighting applications
- 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	LNA127AL	LNA127AL					
Order Code	632127	632127					
Full product name	Smart 27W 3-66V 200-1050mA (	Smart 27W 3-66V 200-1050mA 0/I-10V Dim					
Input Information							
Line Voltage	100-240Vac rms						
Line Current	0.36A@100VAC						
Line Frequency	50/60Hz						
Min, Mains Voltage operational	90[min]						
Max, Mains Voltage operational	277[max]						
THD(total)	<10%						
Power Factor(PF)	> <u>0.95@230V</u> full load						
Input Power (Max.)	31W						
Efficiency @Max Load and 70°C case	87%@100VAC 87%@	120VAC	88%@230VAC				
Inrush Current(Typ.)	Cold Start 39A(twidth=270us me	easured at 50%	lpeak) at 230VAC				
Leakage Current(Typ.)	<0.5mA/230VAC						
Output Information							
Output Power	27W(See Output current settings	s table)					
Output voltage	3V to 66V						
Output Constant Current	200-1050mA ±5%(See Output cu	200-1050mA ±5%(See Output current settings table)					
Maximum open circuit voltage	<77V						
Output Current Ripple	2% of nominal output voltage (whichever is greater), measured at 20Mhz						
(ripple=peak to peak)	bandwidth with 0.1uf ceramic capacitor in parallel with 10uf electrolyticapacitor connected at the end of the output connector.						
Protections	Over Current, Over Voltage,						
Trocccions	Short Circuit and Open Circuit P	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, 10K PWM, Re	esistance,					
0/1-10V Dimming Specifications	Sink Current < 0.5mA	Sink Current < 0.5mA					
Dimming range	0-100%						
Environment & Approbation							
Environmental Protection Rating	UL damp and dry	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  $\,^o\!CT$  case unless specified otherwise





## **Output Current Settings**

LNA127AL, Constant Current output 200-1050mA.

Multi-power driver supplied with dip-switch for the selection of the output current. Factory default setting is 200mA.

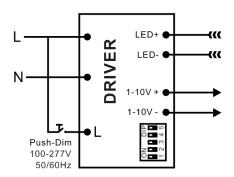
LNA127AL		DIP-Switch Settings					
Pout Max.	Vout DC	lout DC	I	2	3	4	5
I3W	3-66V	200mA					
16W	3-66V	250mA	ON				
20W	3-66V	300mA		ON			
23W	3-66V	350mA	ON	ON			
26W	3-65V	400mA			ON		
27W	3-60V	450mA	ON		ON		
27W	3-54V	500mA		ON	ON		
27W	3-49V	550mA	ON	ON	ON		
27W	3-45V	600mA	ON	ON		ON	
27W	3-41V	650mA			ON	ON	
27W	3-38V	700mA	ON		ON	ON	
27W	3-36V	750mA		ON	ON	ON	
27W	3-33V	800mA	ON	ON	ON	ON	
27W	3-31V	850mA	ON	ON		ON	ON
27W	3-30V	900mA			ON	ON	ON
27W	3-28V	950mA	ON		ON	ON	ON
27W	3-27V	I000mA		ON	ON	ON	ON
27W	3-25V	1050mA	ON	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%.



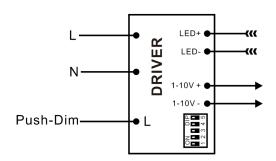
Note: Only use self-reset push button without indicator light. Risk of short circuit. The self-reset button can only be linked between the Push-dim and the L(AC).

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





## 0/I-10V interface dimming control



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

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

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

0

 $\,$  0/  $\,$  1-10V LED dimming drivers will consume 0.5mA control terminal of the current.

10V PWM signal for output current adjustment (Typical): Frequency range: IKHz - 3KHz

Λ	Duty Value	0%	10%	20%	30%	40%	50%
/	Output Current	0%	10%	20%	30%	40%	50%
	Duty Value	60%	70%	80%	90%	100%	100%
- 1.	Output Current	60%	70%	80%	90%	100%	100%

## I-10V Interface Lighting Controller







DRF02E



DRF01E



DBC410A



DRF02U



DRF CCTU

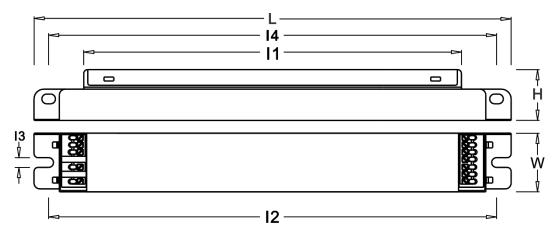
More 0/1-10V Lighting control modules and details , please browse www.easeic.com





#### **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(II)	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

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

MCB	B10	B16	C10	C16
LNA127AL	10	16	17	28

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



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