Smart
LED Driver
Design and Quality EASEIC of USA

LNA136
Smart E-Dim 0/1-10V
DRIVER

SPEC SHEET

36W 3-66V 200-1050mA 0/1-10V Dim
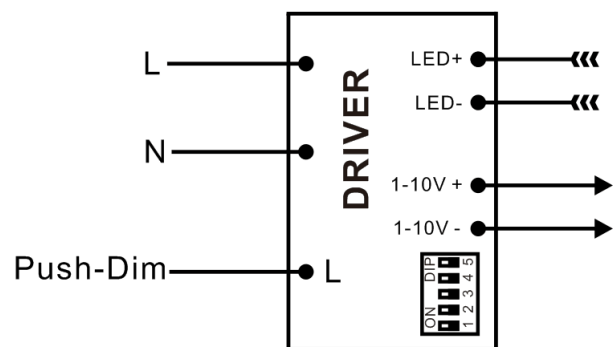### LNA136
612136

SELV RoHS

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
- 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.
- 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.

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Electrical Specifications

Ordering Information

Type	LNA136
Order Code	612136
Full product name	Smart 36W 3-66V 200-1050mA 0/1-10V Dim

Input Information

Line Voltage	100-240Vac_rms		
Line Current	0.44A@100VAC	0.36A@120VAC	0.19A@230VAC
Line Frequency	50/60Hz		
Min, Mains Voltage operational	90[min]		
Max, Mains Voltage operational	277[max]		
THD(total)	<10%		
Power Factor(PF)	>0.95		
Input Power (Max.)	41.5W		
Efficiency @Max Load and 70℃ case	87%@100VAC	87%@120VAC	88%@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	36W(See Output current settings table)
Output voltage	3V to 66V
Output Constant Current	200-1050mA ±5%(See Output current settings table)
Maximum open circuit voltage	<75V
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℃ to +50℃, 20-95% RH non-condensing
Max Case Temperature(Tc)	75℃ for Life & 85℃ for UL Safety

Dimming Features

Dimming Interface	0/1-10V, Push-Dim,10K PWM, Resistance,
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 ℃Tcase unless specified otherwise

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Output Current Settings

LNA136, Constant Current output 200-1050mA.
Multi-power driver supplied with dip-switch for the selection of the output current.
Factory default setting is 200mA.

LNA136			DIP-Switch Settings				
Pout Max.	Vout DC	Iout DC	1	2	3	4	5
13W	3-66V	200mA	--	--	--	--	--
16W	3-66V	250mA	ON	--	--	--	--
20W	3-66V	300mA	--	ON	--	--	--
23W	3-66V	350mA	ON	ON	--	--	--
26W	3-66V	400mA	--	--	ON	--	--
30W	3-66V	450mA	ON	--	ON --	--	--
33W	3-66V	500mA	--	ON	ON	--	--
36W	3-66V	550mA	ON	ON	ON	--	--
36W	3-60V	600mA	ON	ON	--	ON	--
36W	3-55V	650mA	--	--	ON	ON	--
36W	3-52V	700mA	ON	--	ON	ON	--
36W	3-48V	750mA	--	ON	ON	ON	--
36W	3-45V	800mA	ON	ON	ON	ON	--
36W	3-43V	850mA	ON	ON	--	ON	ON
36W	3-40V	900mA	--	--	ON	ON	ON
36W	3-38V	950mA	ON	--	ON	ON	ON
36W	3-36V	1000mA	--	ON	ON	ON	ON
36W	3-34V	1050mA	ON	ON	ON	ON	ON

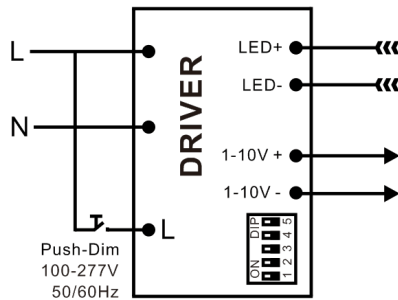**EASEIC**

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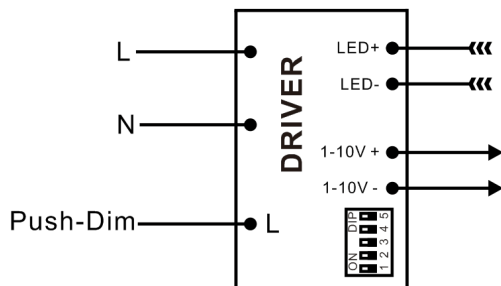
⚠ Note: Only use self-reset push button without indicator light. Risk of short circuit. The self-reset button can only be linked between the Push-dim and the L(AC).

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

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➢ **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 + and -.

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

Dim-control Value	0V	1V	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%

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 :1KHz - 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%

1-10V Interface Lighting Controller

EID110EA

DRF02E

DRF01E

DBC410A

DRF02U

DRF CCTU

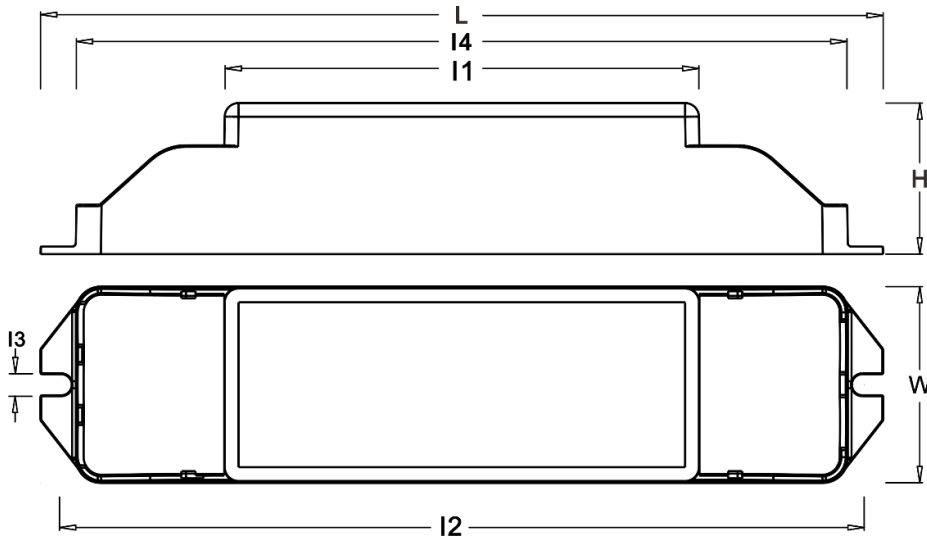## More 0/1-10V Lighting control modules and details , please browse www.easeic.com

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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(l1)	3.8	95
Mounting Holes(l2)	6.3	160
Mounting Holes(l3)	0.18	4.5
Mounting Holes(l4)	6.0	154
Overall Length	6.6	167

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

MCB	B10	B16	C10	C16
LNA136	10	16	17	28

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