0/1-10V Constant Current LED Driver

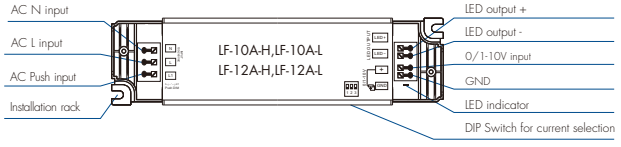
Model No.: LF-10A-H,LF-10A-L,LF-12A-H,LF-12A-L

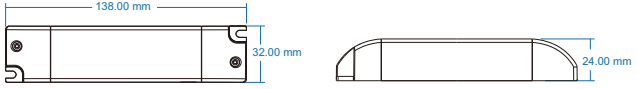
LF-10A-H LF-10A-L LF-12A-H LF-12A-L

Features

- Dimming interface: 0-10V, 1-10V, 10V PWM, Resistor, AC Push-Dim
- Universal AC input / Full range
- Flicker - Free
- 1 channel constant current output, configurable current via DIP switch
- Built-in active PFC function: 0.95 Typ
- Synchronize on multiple number of LED drivers
- Over-heat / Over-load / Short circuit protection, recover automatically
- Full protective plastic case
- Suitable for indoor LED lighting application
- 5 Year, 50,000hr warranty

Mechanical Structures and Installations





Technical Parameters

Model		LF-10A-H	LF-10A-L	LF-12A-H	LF-12A-L
Output	Output Voltage	3-24VDC	9-42VDC	3-24VDC	9-42VDC
	Output Current	350-700mA	100-450mA	350-700mA	100-450mA
	Output Power	Max. 10W	Max. 10W	Max. 12W	Max. 12W
	Max Output Voltage	33VDC	48VDC	33VDC	48VDC
	Dimming Range	0~100%, dimming depth:0.1%			
	PWM Frequency	8000Hz			
	Current Accuracy	±5%			
	Ripple & Noise	<=100mV			
Input	Input Voltage Range	100~240VAC			
	Frequency Range	50/60Hz			
	Efficiency	>78%			
	Alternating Current	0.3A/115VAC, 0.15A/230VAC			
	Power Factor	>0.99/115VAC, >0.95/230VAC			
	THD	< 6%/230VAC; full load			
	Anti Surge	L-N:1KV			
	Inrush Current	Cold start 2.2A/230VAC			
	Leakage Current	< 0.5mA/230VAC			
	No Load Power	< 2W			
Protection	Over Load Power	When O/P voltage exceed its range, O/P current declines, auto recovers when the load is reduced.			
	Short Circuit	Shut down automatically if short circuit occurs, auto recovers.			
	Over Temperature	Intelligently adjust or turn off the output current if the PCB temp > 100℃, auto recovers.			
Environment	Woking Temperature	-30℃~50℃			
	Tcase Max	70℃			
	Working Humidity	20%~90%RH, non-condensing			
	Storage Temp/Humidity	-40℃~80℃, 10%~95%RH			
	Temperature Coefficient	±0.03%/℃ (0-50%)			
	Vibration Resistance	10-500Hz, 2G, 6min/cycle, X,Y,Z axes/2min			
	IP Rating	IP20			
Safety&EMC	Security Specifications	IEC/EN61347-1, IEC/EN61347-2-13			
	Withstand Voltage	I/P-O/P: 3750VAC			
	Insulation Resistance	I/P-O/P: 100MΩ/500VDC/25℃/70%RH			
	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-2			
	EMC Immunity	EN61000-4-2.3.4.5.6.8.11, EN61347			
	Certications	CE, EMC			

LED Current Selection:

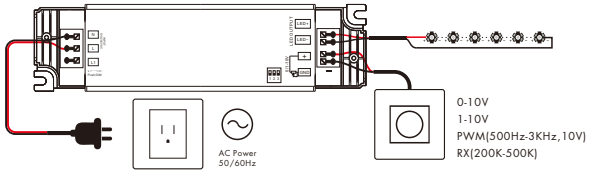
Model										
LF-10A-H	Uout	3-24V	3-24V	3-22V	3-20V	3-18V	3-16V	3-15V	3-14V	
	Iout	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
LF-10A-L	Uout	9-42V	9-42V	9-42V	9-40V	9-33V	9-28V	9-25V	9-22V	
	Iout	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA	
LF-12A-H	Uout	3-24V	3-24V	3-24V	3-24V	3-22V	3-20V	3-18V	3-17V	
	Iout	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
LF-12A-L	Uout	9-42V	9-42V	9-42V	9-42V	9-40V	9-34V	9-30V	9-26V	
	Iout	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA	

Applications

- Suitable for downlight, spotlight and decorative applications.
- Office / Commercial / Domestic Lighting, Hotels, Classrooms, Warehouse, Health care, Retail and Display.
- Use for retrofit upgrades & new luminaire designs.

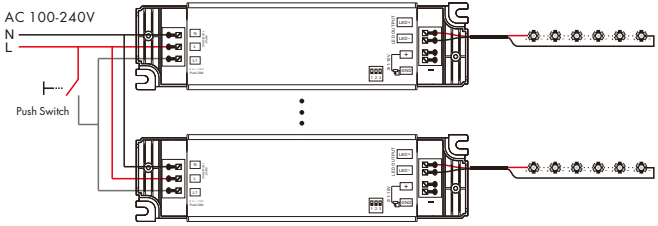
Wiring Diagram

1. 0/1-10V Connection



- The 0/1-10V input is operable via commercially available simple rotary wall switchs designed for 0/1-10V dimming equipment or from decicated system central dimming controllers.
- Compliant with 0-10V, 1-10V, 10V PWM, RX(4 in 1).
- We recommend the number of LED drivers connected to 0/1-10V dimmer does not exceed 50 pieces, The maximum length of the wires from dimmer to LED driver should be no more than 50 meters.
- If the LED driver be used with Push-Dim interface prior to using the 0/1-10V interface, the 0/1-10 V signal should change over 10% to return 0/1-10 V control.

2. AC Push-Dim connection

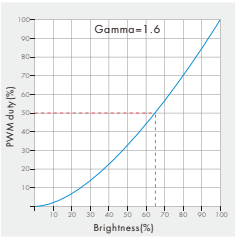


The provided AC Push-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switchs.

- Short press:
  Turn on or off light.
- Long press (1-6s):
  Press and hold to step-less dimming,
  With every other long press, the light level goes to the opposite direction.
- Dimming memory:
  Light returns to the previous dimming level when switched off and on again, even at power failure.
- Synchronization:
  If more than one LED driver are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%.
  This means there is no need for any additional synchrony wire in larger installations.
  We recommend the number of LED drivers connected to a push switch does not exceed 25 pieces,
  The maximum length of the wires from push to LED driver should be no more than 20 meters.

Dimming Curve

Push dimming



0/1-10V dimming