## RF Constant Voltage LED Driver

Model No.: PB-12-12


## Features

- Dimming interface: RF Wireless, AC Push-Dim
- Match with Skydance's 2.4 G single color remote control, one RF LED driver accepts up to 10 remote controls
- Universal AC input / Full range
- 1 channel constant voltage output, Max. total output power 12 W
- Auto-transmitting function: LED driver automatically transmit signal to another LED driver with 30 m control distance
- Synchronize on multiple number of LED drivers
- Overheat / Over-load / Short circuit protection, recover automatically
- Full protective plastic case
- Suitable for indoor LED lighting application
- 5 Year, $50,000 \mathrm{hr}$ warranty

Mechanical Structures and Installations


## Technical Parameters

| Output | Output Voltage | 12 VDC |
| :---: | :---: | :---: |
|  | Output Current | Max. 1A |
|  | Output Power | Max. 12W |
|  | Dimming Range | 0~100\% |
|  | Ripple \& Noise | < $=200 \mathrm{mV}$ |
|  | PWM Frequency | 500 Hz |
|  | Rise Time | $650 \mathrm{~ms} / 115 \mathrm{VAC}, 650 \mathrm{~ms} / 230 \mathrm{VAC}$ |
|  | Hold Time | $1.6 \mathrm{~ms} / 115 \mathrm{VAC}, 1 \mathrm{~ms} / 230 \mathrm{VAC}$ |
| Input | Input Voltage Range | 100VAC~240VAC |
|  | Frequency Range | $50 / 60 \mathrm{~Hz}$ |
|  | Efficiency | 81\%/230VAC |
|  | Alernating Current | $0.26 \mathrm{~A} / 115 \mathrm{VAC}, 0.13 \mathrm{~A} / 230 \mathrm{VAC}$ |
|  | Inrush Current | $5 \mathrm{~A} / 230 \mathrm{VAC}$ |
|  | Leakage Current | $<0.5 \mathrm{~mA} / 230 \mathrm{VAC}$ |
|  | No Load Power | 0.8W/115VAC, 1.2W/230VAC |
| Protection | Over Load Power | Shut down the output when current load $>=120 \% \sim 150 \%$, auto recovers. |
|  | Short Circuit | Shut down automatically if short circuit occurs, auto recovers. |
|  | Over Temperature | Intelligently adiust or tum off the output current if the PCB remp $>100^{\circ} \mathrm{C}$, auto recovers. |
| Environment | Woking Temperature | $-30^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$ |
|  | Tcase Max | $70^{\circ} \mathrm{C}$ |
|  | Working Humidily | 20\% $90 \%$ RH, non-condensing |
|  | Storage Temperature/Humidity | $-40^{\circ} \mathrm{C} \sim 80^{\circ} \mathrm{C}, 10 \% \sim 95 \% \mathrm{RH}$ |
|  | Temperature Coefficient | $\pm 0.03 \% /{ }^{\circ} \mathrm{C},(0-50 \%)$ |
|  | Vibration Resistance | $10-500 \mathrm{~Hz}$, 2G, $6 \mathrm{~min} / \mathrm{cycle}, \mathrm{X}, \mathrm{Y}, \mathrm{Z}$ axes/ $/ 2 \mathrm{~min}$ |
|  | IP Rating | 1 P 20 |
| Safety\&EMC | Security Specifications | IEC/EN61 347-1, IEC/EN61 347-2-13 |
|  | Withstand Voltage | 1/P.O/P: 3750VAC |
|  | Insulation Resistance | 1/P-O/P: 100 M Q/500VDC/ $25^{\circ} \mathrm{C} / 70 \% \mathrm{RH}$ |
|  | EMC Emission | EN5501 15, EN61000-3-2 Class C, IEC61 000-3-3 |
|  | EMC Immunily | EN61000-4-2.3.4.5.6.8.11, EN61547 |
|  | Certications | CE, EMC |

## Applications

- Suitable for LED related fixture or appliance which use LED light bar and LED tape llike LED Decoration or Advertisement devices).
- Office / Commercial / Domestic Lighting, Hotels, Retail and Display.
- Use for retrofit upgrades \& new luminaire designs.

Wiring Diagram
1．RF Connection


Match Remote Control（two match ways）
End user can choose the suitable match／delete ways．Two options are offered for selection：

## Use Match key

Match：
Short press match key，immediately press on／off key（single zone remote）or zone key（multiple zone remote）of the remote．

## Delete：

Deleess and hold match key for 5 s to delete all match，
Pres The light blinks 5 times means all matched remotes were deleted．

## Use Power Restart

Match：
Switch off the power，then switch on power again， immediately short press on／off key（single zone remote） or zone key（multiple zone remote） 3 times on the remote． The light blinks 3 times means match is successful． Delete：
Switch off the power，then switch on power again， immediately short press on／off key（single zone remote） or zone key（multiple zone remote） 5 times on the remote The light blinks 5 times means all matched remotes were deleted．

When use multiple RF drivers，two application method：

## 1．All the drivers in the same zone．

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## RF remote

Auto－transmitting：One driver can transmit the signals from the remote to another driver within 30 m
as long as there is a driver within 30 m ，the remote control distance can be limitless
Auto－synchronization：Multiple drivers within 30 m distance can work synchronously when they are controlled
by the same remote．
Driver placement may offer up to 30 m communication distance．Metals and other metal materials will reduce the range Strong signal sources such as WiFi routers and microwave ovens will affect the range．
We recommend for indoor applications that driver placements should be no further apart than 15 m ．
2．Each driver（one or more）in a different zone，like zone 1，2， 3 or 4.


## 2．AC Push－Dim connection



The provided AC Push－Dim interface allows for a simple dimming method using commercially available non－latching Imomentaryl wall switchs．
－Short press
Turn on or off light．
－Long press（ $1-6 s$ ）：
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 10 s 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


