RF Constant Voltage LED Driver

Model No.: PB-40-12 / PB-40-24

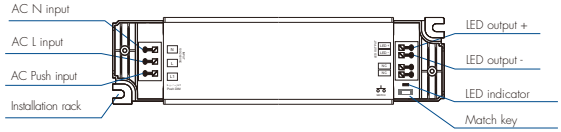
PB-40-12

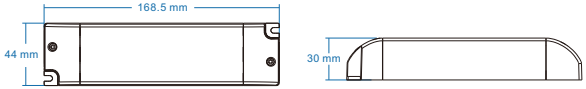
PB-40-24

Features

- Dimming interface: RF Wireless, AC Push-Dim
- Match with RF 2.4G 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 40W
- Auto-transmitting function: LED driver automatically transmit signal to another LED driver with 30m control distance
- Synchronize on multiple number of LED drivers
- Light on/off fade time 3s selectable
- 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

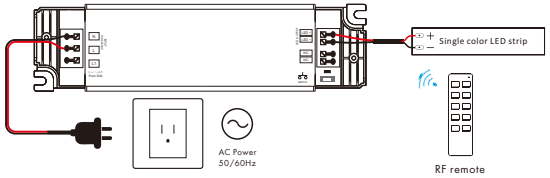
Model		PB-40-12	PB-40-24
Output	Output Voltage	12VDC	24VDC
	Output Current	Max. 3.34A	Max. 1.65A
	Output Power	Max. 40W	
	Dimming Range	0～100%	
	Ripple & Noise	<=200mV/230VAC	<=280mV/230VAC
	PWM Frequency	2000Hz	
Input	Input Voltage Range	100～240VAC	
	Frequency Range	50/60Hz	
	Efficiency	81%/230VAC	86%/230VAC
	Alternating Current	0.70A/115VAC, 0.41A/230VAC	0.67A/115VAC, 0.40A/230VAC
	Inrush Current	Cold start 27.5A at 230VAC	
	Leakage Current	<.5mA	
	No Load Power	0.8W/115VAC, 1.2W/230VAC	1.6W/115VAC, 2.1W/230VAC
Protection	Over Load Power	Shut down the output when current load >= 120%～150%, auto recovers.	
	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 Temperature/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, IEC61000-3-3	
	EMC Immunity	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 (like 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:
Press and hold match key for 5s to delete all match, The light blinks 5 times means all matched remotes were deleted.

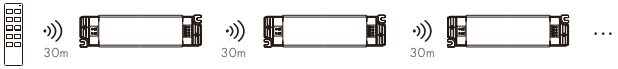
Use Power Restart

Match:
Switch off the power, then switch on power, repeat 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, repeat 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.



RF remote

Auto-transmitting: One driver can transmit the signals from the remote to another driver within 30m, as long as there is a driver within 30m, the remote control distance can be limitless.

Auto-synchronization: Multiple drivers within 30m distance can work synchronously when they are controlled by the same remote.

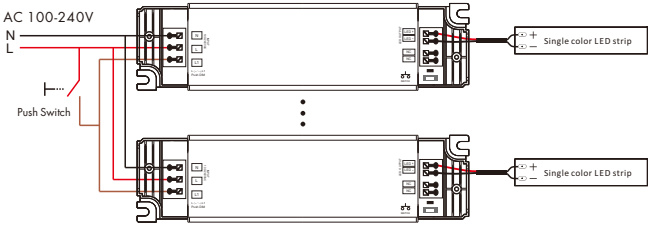
Driver placement may offer up to 30m communication distance. Metals and other metal materials will reduce the range.

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 than15m.

2. Each driver(one or more) in a different zone, like zone 1, 2, 3 or 4.

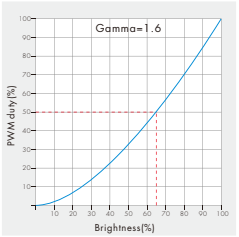
2. AC Push-Dim connection



The provided AC Push-Dim interface allows for a simple dimming method using commercially available non-latching (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



Light on/off fade time

Long press match key 5s, then short press match key 3 times, the light on/off time will be set to 3s, the indicator light blink 3 times.

Long press match key 10s, restore factory default parameter, the light on/off time also restore to 0.5s.