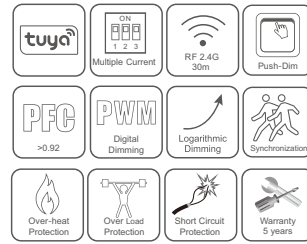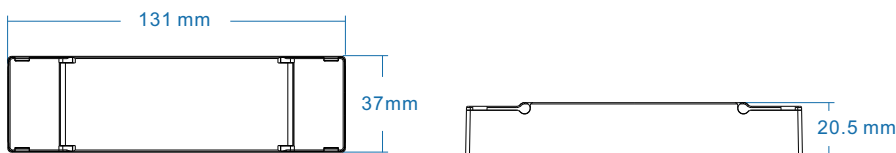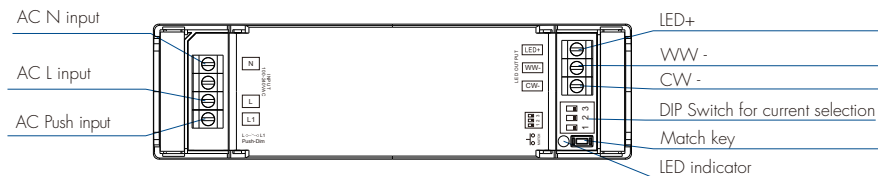# WiFi & RF Constant Current LED CCT Driver

Model No.: PT-12A-2(WT)

Features

- Dimming interface: RF Wireless, AC Push-Dim
- Tuya APP cloud control, support on/off, color temperature and brightness adjust, delay turn on/off light,timer run, scene edit and music play function
- Voice control, support amazon ECHO and TmallGenie smart speaker
- Match with RF 2.4G color temperature remote control, one RF LED driver accepts up to 10 remote controls
- Universal AC input / Full range
- Flicker-free
- 2 channel constant current output, configurable current via DIP switch
- Built-in active PFC function: 0.92 Typ
- Fade in and out effect selectable
- 3 levels color temperature (WW, NW and CW) selectable by continuous power off and on operation
- 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

AC N input
AC L input
AC Push input

LED+
WW -
CW -
DIP Switch for current selection
Match key
LED indicator

131 mm

37mm

20.5 mm

Technical Parameters

Output	Output Voltage	10~45VDC	
	Output Current	2x (150~500) mA	
	Output Power	Max. 12W	
	Max Output Voltage	48VDC	
	Dimming Range	0~100%	
	PWM Frequency	8000Hz	
	Current Accuracy	±5%	
	Ripple&Noise	< 120mV	
Input	Input Voltage Range	100~240VAC	
	Frequency Range	50/60Hz	
	Efficiency	>77%	
	Alternating Current	0.166A Max.	
	Anti Surge	L-N:1.2KV	
	Startup time	1S/230VAC	
	Power Factor	>0.97/110VAC, >0.92/230VAC	
	THD	<8%	
	Inrush Current	Cold start 7.4A at 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℃	
	T-case Max	80℃	
	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, IEC61000-3-3	
	EMC Immunity	EN61000-4-2.3.4.5.6.8.11, EN61547	
	Certications	CE, EMC	

LED Current Selection:

ON ↑ / OFF ↓								
Uout	10-42V	10-42V	10-42V	10-40V	10-34V	10-30V	10-27V	10-24V
Iout	150mA	200mA	250mA	300mA	350mA	400mA	450mA	500mA

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.

System wiring

1. WiFi & RF Connection

3G/4G/5G
WiFi

Tuya Cloud

Mobile Phone

15m

15m

WiFi router

Amazon ECHO

30m

RF Remote(Optional)

30m

Panel RF Remote(Optional)

WW LED light

CW LED light

AC Power
50/60Hz

Note:
1. The above distance is measured in spacious (no obstacle) environment,
   Please refer to the actual test distance before installation.
2. Please check if the WiFi router net in 2.4G band, the 5G band is not available,
   and do not hide your router network.
3. Please keep the distance between LED driver and router close, and check the WiFi signals.
4. Continuously switch off and on the power supply two times rapidly, It will change 3 levels
   color temperature (WW, NW and CW) in sequence.

Tuya APP network connection

Press and hold Match key for 2s, or push twice Match key fastly:
Clear previous network connection, enter Smart config mode, the LED indicator flash fastly,
the output LED will flash 10 times.

Press and hold Match key for 5s:
Clear previous network connection, enter AP config mode, the LED indicator flash slowly.
If smart config failed, please try AP config.

Repeat power on and off for 5 consecutive times, also clear previous network connection,
enter Smart config mode, the output LED will flash 10 times.

If Tuya APP network connection succeed, the LED indicator will stop flash,
and in Tuya APP, you can find the CCT device.

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 10s 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.

2. AC Push-Dim connection

AC 100-240V

N

L

Push Switch

WW LED light

CW LED light

WW LED light

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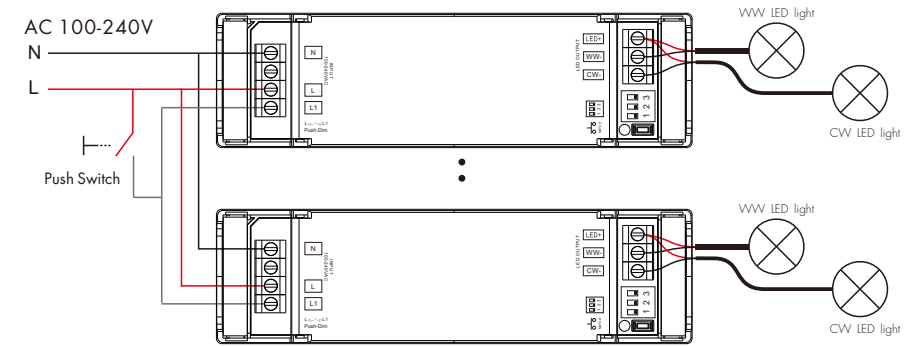
The provided AC Push-Dim interface allows for a simple dimming method using commercially available non-latching
(momentary) wall switchs.

● 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 50 meters.

Fade in and Fade out Setting

Switch off the power, then switch on power, repeat again.
Immediately short press match key 3 times, the light on/off time will change between 3s and 0.5s.

Dimming Curve