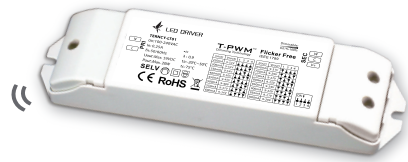
Terncy Light Controller

TERNCY-LT01

- Wireless protocol: ZigBee
- Dimming range: 0~100%, LED start at 0.01% possible.
- 0-100% flicker-free, in accordance with IEEE 1789 standard.
- Innovative thermal management technology, intelligent power life protection.
- Over temp. / Over voltage / Over load / Short circuit protection, recover automatically.
- Suitable for internal lights application for I/II/III.
- 5 years warranty.

2.25~20W 250~1000mA 9~54Vdc

Flicker-free
IEEE 1789



Dimmable:
0.01-100%

5 years warranty

SELV

CT adjustment

CE RoHS Class 2

RF Push DIM

T-PWM Superdepth dimming technobgy

Flicker-free IEEE 1789

Short Circuit Protection

Over Load Protection

Over Temp. Protection

Main characteristics

Wireless protocol:	ZigBee
Input voltage:	100-240Vac (120-300Vdc)
Frequency:	50/60Hz
Input current:	115Vac≤0.25A, 230Vac≤0.13A
Output current:	250-1000mA
Output power:	Max. 20W
Power factor:	PF>0.95/115Vac , PF>0.90/230Vac, at full load
THD:	230Vac@THD≤9%, at full load
Efficiency:	83%
Anti surge: L-N:	2kV
Leakage current:	<0.24mA/230Vac
Output voltage:	9-54Vdc
Inrush current(typ.):	Cold start 10A at 230Vac (twidth=40μs measured at 50% Ipeak)
Max. output voltage:	59Vdc
Strobe level:	Almost flicker-free (High frequency exemption assessment level).
Dimming range:	0~100%, 0.01% dimming depth (depend on the wireless master control).
LF Current Ripple(<120Hz):	<2%
Current accuracy:	±5%
Ripple & Noise:	≤2V
PWM dimming frequency:	≤3600Hz
Operating temperature:	ta:-20~50°C tc:75°C
Operating humidity:	20 ~ 95%RH, non-condensing
Storage temp&humidity:	-40~80°C,10~95%RH
Temp-coefficient:	±0.03%/°C(0-50°C)
Vibration:	10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes.

LED current selection

DIP switch for 8 optional currents' quick selection (see the table below).

* Please choose the current value when the driver is power off.

Choose current via DIP switch

TERNCY-LT01	DIP switch									ON / OFF
	Outputcurrent	250mA	300mA	350mA	400mA	450mA	500mA	550mA	600mA	
	Outputvoltage	9-54V	9-54V	9-54V	9-50V	9-45V	9-40V	9-37V	9-34V	
	Outputpower	2.25-13.5W	2.7-16.2W	3.15-18.9W	3.6-20W	4.05-20.25W	4.5-20W	4.95-20.35W	5.4-20.4W	
	DIP switch									
	Outputcurrent	650mA	700mA	750mA	800mA	850mA	900mA	950mA	1000mA	
	Outputvoltage	9-31V	9-29V	9-27V	9-25V	9-24V	9-22V	9-21V	9-20V	
	Outputpower	5.85-20.15W	6.3-20.3W	6.75-20.25W	7.2-20W	7.65-20.4W	8.1-19.8W	8.55-19.95W	9-20W	

Protection

Over temp. protection:	Intelligently interupt the output current if the PCB temperature ≥110°C, auto recovers.
Over load protection:	Interupt the output current when current load≥102%, auto recovers.
Short circuit protection:	Shut down automatically if short circuit occurs, auto recovers.
Over voltage protection:	Output current declined when over non-load voltage, auto recovers.

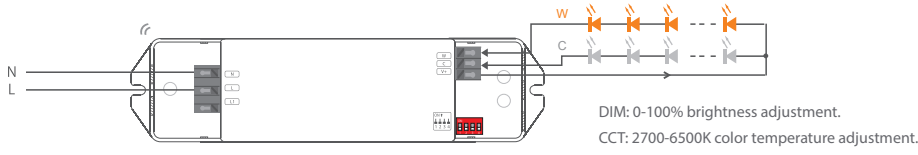
Safety & EMC

Withstand voltage:	I/P-O/P: 3750Vac
Isolation resistance:	I/P-O/P: 100MΩ/500VDC/25°C/70%RH
Safety standards:	IEC/EN61347-1, IEC/EN61347-2-13
EMC:	EN55015, EN61000-3-2 Class C, IEC61000-3-3
EMI:	EN61000-4-2,3,4,5,6,8,11, EN61547
Strobe test standard:	IEEE 1789

Others

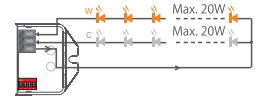
Dimensions:	167×41×32mm(L×W×H)
Box dimensions:	168×43×35mm(L×W×H)
Weight(G.W.):	160g±10g

Wiring diagram



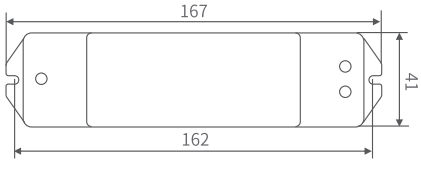
DIM: 0-100% brightness adjustment.
CCT: 2700-6500K color temperature adjustment.

* Traditional controller designs have difficulty maintain the brightness of the lights when changing the colour temperature. With our innovative constant power delivery technology, the controller is able to maintain the brightness when changing the colour temperature. Our controller allows you to connect twice the power load. For a 20W power supply, 20W x 2Ch load can be connected and both channels will be maintained at a total power rating of 20W.



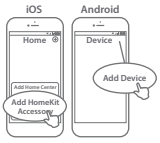
Dimensions

Units: mm



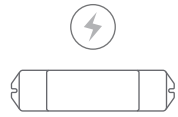
Setting Up The Accessory for The First Time

1



Launch the Terncy app and select "Add Device" in the Devices Tab.

2



Power on the controller. The connected light will flash 3 times indicating that the controller is ready to pair.

3

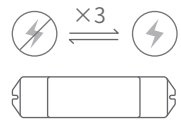
The pairing process will take about 5 seconds. The connected light will flash 3 times indicating that pairing is successful.

Reset the Controller

1

Launch the Trency app and select "Add Device" in the Devices Tab.

2



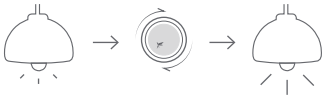
1. Power off the light controller.
2. When the lights connected to the controller are **fully off**, wait for 4 seconds.
3. Power on the light controller.
4. When the lights connected to the controller are **fully on**, wait for about 4 seconds.
5. Repeat steps 1-4 twice more. The lights will flash 3 times, indicating that the controller is ready to pair again.

3

The pairing process will take about 5 seconds. The connected light will flash 3 times indicating that pairing is successful.

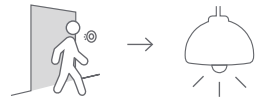
Application Scenarios

1



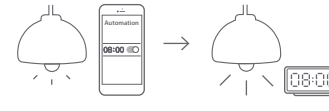
Control the brightness and colour temperature of your lights.

2



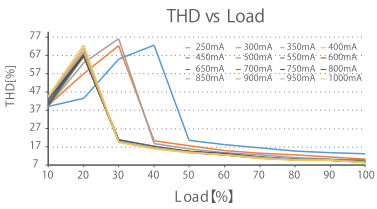
Turn your lights on when motion is detected.

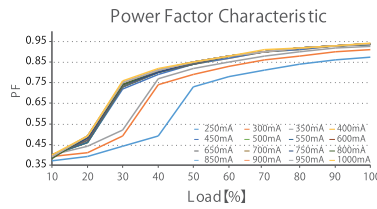
3

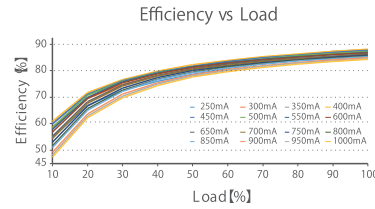


Turn your lights on and off on a schedule.

Relationship diagrams







Notes 1

1. Avoid exposure to liquid.
2. Keep the controller away from fire, high temperature or other extreme environments.

Notes 2

Home Center is required to enable Terncy Light Controller to work with HomeKit technology. See https://www.terncy.com for more details.

Contact Us

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