LTECH

LED Intelligent Driver

- Dimming interface: Triac/ELV
- Apply to leading edge / trailing edge Triac dimmers and dimming system.
- Built-in SCM, dimming curve and smoothing time can be customized.
- PWM digital dimming, no alter LED color rendering index.
- Dimming range: 0~100%, dimming depth: Max. 0.1%.
- 0~100% flicker-free, achieve the level of exemption assessment.
- Multi-current & wide voltage, suitable for different power LED.
- Over load / Over-heat / Short circuit protection.
- Class 2 power supply. Full protective plastic housing.
- Compliant with Safety Extra Low Voltage standard.
- Suitable for internal lights application for Ⅰ/Ⅱ/Ⅲ.

Dimmable:
0.1%-100%

Flicker-free
Achieve the exemption assessment level.

IS15885 (Part2/Sec13) R-41072265

BIS Certificate No. R-41072265

SELV

Triac ELV

PWM Digital Dimming

Flicker-free Exemption Assessment

多电流

Short Circuit Protection

Over Load Protection

Over-heat Protection

Specification

Model		TD-10-100-400-E1P1	TD-10-350-700-E1P1
OUTPUT	Output Voltage	10-45Vdc	3-24Vdc
	Max Output Voltage	48Vdc	28Vdc
	Output Current	100-400mA	350-700mA
	Output Power	Max. 10W	
	Strobe Level	Exemption assessment level.	
	Dimming Range:	0~100%, LED start at 0.1% possible.	
	LF current ripple(<120Hz)	<1.5%	
	Current Accuracy	±5%	
	Ripple & Noise	≤200mV	≤100mV
	PWM Frequency	3600Hz	
INPUT	Dimming Interface	Triac/ELV	
	Input Voltage Range	200-240Vac	
	Frequency	50/60Hz	
	Input Current	0.15A@230Vac	
	Efficiency	>82%	>79%
	Inrush Current(typ.)	Cold start 20A at 230Vac	
	Control surge capability	L-N: 1kV	
	Leakage Current	<0.5mA/230Vac	
ENVIRONMENT	Working Temperature	ta: -30°C ~ 55°C tc: 80°C	
	Working Humidity	20 ~ 95%RH, non-condensing	
	Storage Temp., Humidity	-40°C ~ 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.	
PROTECTION	Over Load Protection	When O/P voltage exceed its range, O/P current declines, auto recovers when the load is reduced.	
	Over-heat Protection	Shut down the output when PCB temp.≥110°C, auto recovers when temp. back to normal.	
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers after faulty condition is removed.	
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 Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-3	
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547	
	Strobe Test Standard	IEEE-PAR 1789	
OTHERS	Dimension	135×30×320mm(L×W×H)	
	Packing	140×34×23mm(L×W×H)	
	Weight(G.W.)	80g±10g	

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LED Current Selection

The current can be easily configured by choosing the correct combination of the DIP switches

DIP switch		⬇⬇⬇	⬇⬇⬆	⬇⬆⬇	⬇⬆⬆	⬆⬇⬇	⬆⬇⬆	⬆⬆⬇	⬆⬆⬆	
TD-10-100-400-E1P1	Output Current		100mA	150mA	200mA	250mA	300mA	350mA	400mA	⬆ ⬇ ON OFF
	Output Voltage		10-45V	10-45V	10-45V	10-40V	10-33V	10-28V	10-25V	
	Output Power		1-4.5W	1.5-6.75W	2-9W	2.5-10W	3-9.9W	3.5-9.8W	4-10W	
TD-10-350-700-E1P1	Output Current	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
	Output Voltage	3-24V	3-24V	3-22V	3-20V	3-18V	3-16V	3-15V	3-14V	
	Output Power	1.05-8.4W	1.2-9.6W	1.35-9.9W	1.5-10W	1.65-9.9W	1.8-9.6W	1.95-9.75W	2.1-9.8W	

＊ After current setting by DIP switch, power off and then power on to make the new current effective.

＊ E.g. LED 3.2V/pcs:

  3-24V can power 1-7pcs LEDs in series, 3-14V can power 1-4pcs LEDs in series, the maximum quantity of LEDs in series will be subject to the actual voltage of LED.

Selecting between ordinary dimmer and dimming system

Ordinary dimmer and dimming system have different dimming precision, precision of dimming system is higher. To meet customers' requirements on perfect dimming effects, LTECH have designed two programme options.
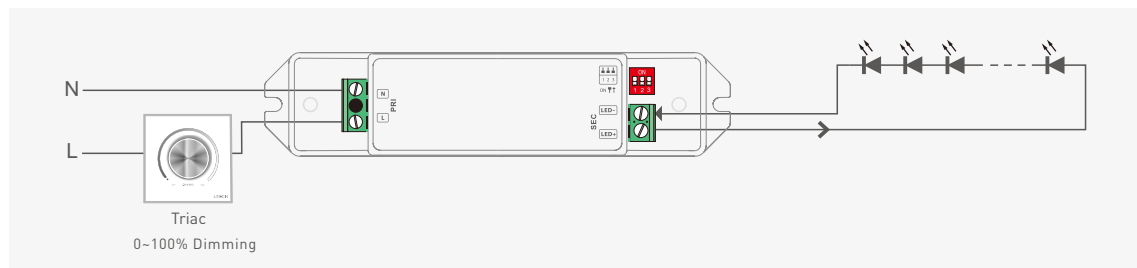

Ordinary dimmer

Method: Turn off the power and then remove the housing of the LED driver to find right component on the PCB. Shift system by selecting different contact pin (For installation professionals use only). Factory default as 1-2 (For ordinary dimmer).

Dimming system

Wiring Diagram

Triac
0~100% Dimming

Dimensions

Unit：mm

135
30
128
20