LTECH

Triac/ELV
Push DIM

LED Intelligent Driver

- Dimming interface: Triac/ELV, Push.
- Apply to leading edge / trailing edge Triac dimmers and dimming system.
- Built-in singlechip, 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:

Max. 0.1%-100%

Flicker-free

0~100% any brightness achieve the exemption assessment level.

SELV RoHS

Triac ELV | Push DIM | PWM Digital Dimming | Flicker-free Exemption Assessment | Multiple Current | Over-heat Protection | Short Circuit Protection | Over Load Protection

Specification

Model		TD-15-150-700-EFP1	TD-20-200-700-EFP1	TD-25-200-900-EFP1	TD-30-300-900-EFP1
OUTPUT	Output Voltage	10-42Vdc			
	Max Output Voltage	45Vdc			
	Output Current	150-700mA	200-700mA	200-900mA	300-900mA
	Output Power Range	1.5W~15W	2W~20W	2W~25W	3W~30W
	Fluctuation Depth	Exemption assessment level.			
	Dimming Range:	0~100%, dimming depth: Max. 0.1%			
	LF current ripple(<120Hz)	<2%			
	Current Accuracy	±5%			
	Ripple & Noise	⩽2V			
	PWM Frequency	⩽4KHz, high frequency / low frequency can be selected via DIP switch.			
INPUT	Dimming Interface	Triac/ELV, Push			
	Input Voltage Range	200-240Vac			
	Frequency	50/60Hz			
	Input Current	0.11A@230Vac	0.13A@230Vac	0.16A@230Vac	0.18A@230Vac
	Power Factor	PF>0.9/230Vac (full load)			
	THD	<35% at 230Vac (full load)		<30% at 230Vac (full load)	
	Efficiency	>80%	>82%	>83%	>85%
	Inrush Current(typ.)	Cold start 5A at 230Vac (twidth=76μs measured at 50% Ipeak)			
	Control surge capability	L-N: 1kV			
	Leakage Current	<0.5mA/230Vac		<0.25mA/230Vac	
ENVIRONMENT	Working Temperature	ta: -20°C ~ 50°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-heat Protection	PCB temp.: >110°C, shut down; 100°C~110°C, output power reduces to 50% of current power; <90°C, normal.			
	Over Load Protection	Power limit when rated power⩾102%~125%, auto recovers when the load is reduced.			
	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	175×44×30mm(L×W×H)			
	Packing	178×48×33mm(L×W×H)			
	Weight(G.W.)	140g±10g	145g±10g	150g±10g	

LED Current Selection

DIP switch for 8 optional currents' quick selection

DIP switch		1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	ON OFF
TD-15-150-700-EFP1	Output Current	150mA	200mA	300mA	350mA	500mA	550mA	650mA	700mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-30V	10-27V	10-23V	10-21.5V	
	Output Power	1.5-6.3W	2-8.4W	3-12.6W	3.5-14.7W	5-15W	5.5-14.85W	6.5-14.95W	7-15.05W	
TD-20-200-700-EFP1	Output Current	200mA	250mA	300mA	350mA	550mA	600mA	650mA	700mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-36V	10-33V	10-31V	10-29V	
	Output Power	2-8.4W	2.5-10.5W	3-12.6W	3.5-14.7W	5.5-19.8W	6-19.8W	6.5-20.15W	7-20.3W	
TD-25-200-900-EFP1	Output Current	200mA	300mA	400mA	500mA	600mA	700mA	800mA	900mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-42V	10-36V	10-31V	10-28V	
	Output Power	2W-8.4W	3W-12.6W	4W-16.8W	5W-21W	6W-25.2W	7W-25.2W	8W-24.8W	9W-25.2W	
TD-30-300-900-EFP1	Output Current	300mA	350mA	450mA	500mA	700mA	750mA	850mA	900mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-42V	10-40V	10-35V	10-33V	
	Output Power	3W-12.6W	3.5W-14.7W	4.5W-18.9W	5W-21W	7W-29.4W	7.5W-30W	8.5W-29.75W	9W-29.7W	

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

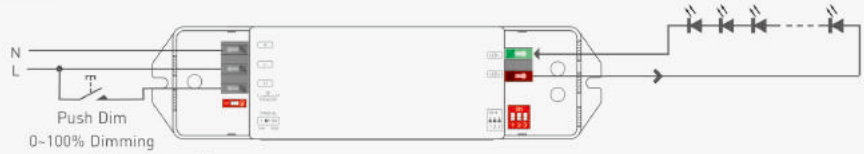
✻ E.g. LED 3.2V/pcs: 10-42V can power 3-13pcs LEDs in series, 10-21.5V can power 3-6pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

Connections

Triac Connection

Triac Dimmer
0~100% Dimming

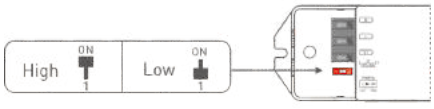
Push Dim Connection



Push Dim
0~100% Dimming
Short press to on/off, long press to dim.

The dimming interface priority: First Triac, next Push Dim.

Dimming Frequency Setting



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

Push Dimming

Reset Switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the light level goes to the opposite direction.

Dimensions

Unit : mm