



General

Product Type	Constant Current Driver
Length (mm)	175
Width (mm)	44
Height (mm)	30
Housing Color	White
Housing Material	Plastic
Mounting	Surface mounted
Weight (g)	145

Electronics

Input Domain	AC
Input Voltage	200 ~ 240V AC
Output Voltage	10 ~ 42V DC
Output Current (mA) max/output	200~700
Output Power Range (W)	2~20
Power Factor at Full Load	+0.90 @ 230VAC
Power Supply	Internal
LED Outputs	1
Anti Surge	L-N: 1kV
Efficiency	82%
Leakage current max. (mA)	0.5
Input Frequency	50 ~ 60Hz
Inrush Current	5A @ 230VAC

Lighting

Color Range	Single Color
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Control

Output Signal	PWM-CC
Control	TRIAC
Dimming Range	0~100%
Number of Channels	1

Protection

Protection Class	II
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Environmental

Operating Temperature	-20 ~ +50 °C
Ingress Protection	IP20

CE IP20

Disclaimer

Due to the technical evolution and improvement of our products, the data provided in this document may be updated on a regular basis, and as such, confirmation of this information is strongly recommended prior to the order process. OneEightyOne is not responsible for any discrepancies in this document following changes in our products. We reserve the right to make technical changes to our products and to change information, at its sole discretion, without notice.

LED Intelligent Driver

- Support Leading edge (Triac), Trailing edge (ELV) and Push Dimmer.
- With soft-on and fade in function, visual more comfortable.
- T-PWM™ digital dimming, present a perfect visual experience.
- Dimming range: 0~100%, dimming depth: Max. 0.01%.
- 0-100% flicker free, High frequency exemption level.
- Innovative thermal management technology, intelligent power life protection.
- Multi-current & wide voltage, suitable for different power LED.
- Over load / Over-heat / Short circuit protection, recover automatically.
- Class 2 power supply. Full protective plastic housing.
- Compliant with Safety Extra Low Voltage standard.
- Suitable for internal lights application for I / II/III.
- Up to 30000-hour life time.

T-PWM™
Super depth dimming technology

Flicker-free
IEEE 1789

Dimmable:
Max. 0.01-100%

SELV



RoHS

Model: CC-25W
IS15885
(Part2/Sec13)
R-41129631

Triac
ELV

Push
DIM

T-PWM
Super depth
dimming
technology

Flicker-free
IEEE 1789

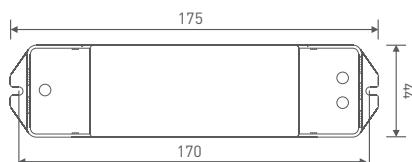


Specification

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
	Output Power Range	1.5W-15W	2W-20W	2W-25W
	Fluctuation Level	High frequency exemption level		
	Dimming Range:	0~100%, dimming depth: Max. 0.01%		
	LF current ripple(<120Hz)	<1%		
	Current Accuracy	±5%		
	Ripple & Noise	≤2V		
	PWM Frequency	3600Hz		
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
	Power Factor	PF>0.9/230Vac (full load)		
	Efficiency(typ.)	80%	82%	83%
	Inrush Current(typ.)	Cold start 5A at 230Vac (twid=76μs measured at 50% Ipeak)		
	Anti Surge	L-N: 1kV		
	Leakage Current	<0.5mA/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 Load Protection	Power limit when rated power ≥ 102%, auto recovers.		
	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥ 110°C, auto recovers.		
	Short Circuit Protection	Shut down automatically if short circuit occurs, 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		
	Strobe Test Standard	IEEE 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

Dimensions

Unit: mm



LED Current Selection

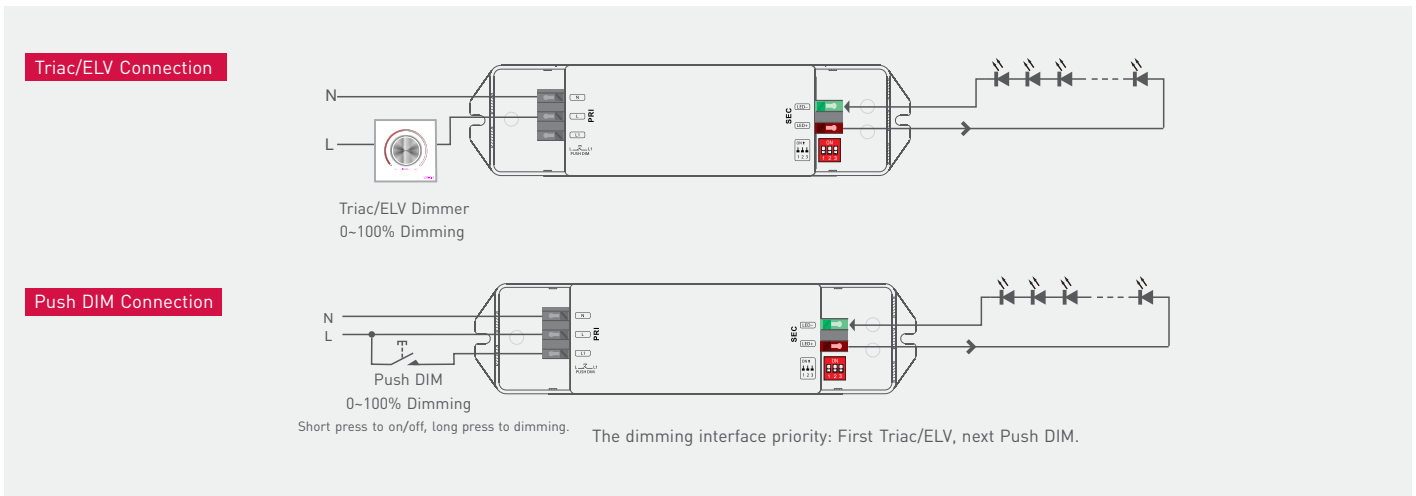
DIP switch for 8 optional currents' quick selection

TD-15-150-700-EFP1	DIP switch									
	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	DIP switch									
	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	DIP switch									
	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	DIP switch									
	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 3-14pcs LEDs in series, 10-21.5V can power 3-7pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

Connections



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.
- Dimming memory: The lights will return to its previous brightness value when short press on PUSH DIM button.
Power on again after power cut, the output brightness is subjected to the input voltage of drivers.

Flicker Test Form

IEEE 1789

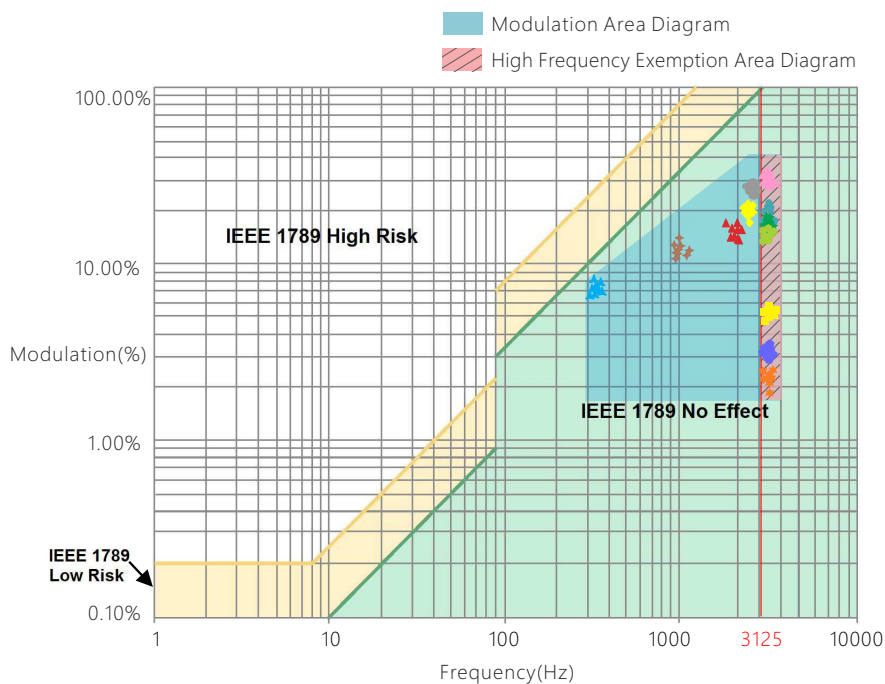
Limit of Modulation in low risk area	
Waveform frequency of Optical output	limit (%)
$f' \leq 8\text{Hz}$	0.2
$8\text{Hz} < f' \leq 90\text{Hz}$	$0.025 \times f'$
$90\text{Hz} < f' \leq 1250\text{Hz}$	$0.08 \times f'$
$f' > 1250\text{Hz}$	Exemption assessment
Limit of Modulation in no effect area	
Waveform frequency of Optical output	limit (%)
$f' \leq 10\text{Hz}$	0.1
$10\text{Hz} < f' \leq 90\text{Hz}$	$0.01 \times f'$
$90\text{Hz} < f' \leq 3125\text{Hz}$	$[0.08/2.5] \times f'$
$f' > 3125\text{Hz}$	Exemption assessment [High frequency exemption]

Brightness

- ▲ 0.1%
- ◆ 1%
- ▲ 5%
- ◆ 10%
- 20%
- ▲ 30%
- 40%
- ★ 50%
- 60%
- 70%
- 80%
- ★ 90%
- ◆ 100%

Marks in the right chart were tested results of different current ranges.

The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.



* No further notice if any changes in the manual.
Product function depends on the goods.
Please feel free to contact our official distributor if any question.