

# SE-20-250-1000-W2D2

## LED Intelligent CT Driver

- Dimming interface: DALI DT8, Push DIM
- T-PWM™ digital dimming, present a perfect visual experience.
- Dimming range: 0~100%, LED start at 0.1% possible.
- DALI DT8 CT adjustment driver.
- 0-100% flicker-free, High frequency exemption level.
- Innovative thermal management technology, intelligent power life protection.
- Over temp. / Over voltage / Over load / Short circuit protection, recover automatically.
- In line with the EU energy efficiency ERP directive, standby power consumption < 0.5W.
- DALI bus standard: IEC62386-101,102, 209.
- Suitable for internal lights application for I / II / III.
- Up to 50000-hour life time.
- 5 years warranty (Rubycon capacitor).

# LTECH

**DALI DT8  
Push DIM**

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

### T-PWM™

Super depth dimming technology

### Flicker-free

IEEE 1789

Dimmable:



0.1%-100%



**SELV Class 2  
RoHS**



The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product.



### Main characteristics

Dimming interface:	DALI DT8, Push DIM
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%
Standby power loss:	< 0.5W
Inrush current(typ.):	Cold start 10A at 230Vac (twidth=40μs measured at 50% Ipeak)
Anti surge:	L-N: 2kV
Leakage current:	<0.24mA/230Vac

Output voltage:	9-54Vdc
Max output voltage:	59Vdc
Strobe level:	No video flicker / High frequency exemption assessment level.
Dimming range:	0-100%, 0.1% dimming depth.
LF current ripple(<120Hz):	<1%
Current accuracy:	±5%
Ripple & Noise:	≤2V
PWM dimming frequency:	≤3600Hz
Working temperature:	ta: -20 ~ 50°C tc: 75°C
Working 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 16 optional currents' quick selection(see the table below).

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

Choose current via DIP switch



SE-20-250-1000-W2D2	DIP switch	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	ON OFF
	Output current	250mA	300mA	350mA	400mA	450mA	500mA	550mA	600mA	
Output voltage	9-54V	9-54V	9-54V	9-50V	9-45V	9-40V	9-37V	9-34V		
Output power	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	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑	↑↑↑↑		
Output current	650mA	700mA	750mA	800mA	850mA	900mA	950mA	1000mA		
Output voltage	9-31V	9-29V	9-27V	9-25V	9-24V	9-22V	9-21V	9-20V		
Output power	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 adjusting or turning off the output current if the PCB temperature ≥ 110°C, auto recovers.
- Over load protection: Shut down the output 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.

### Others

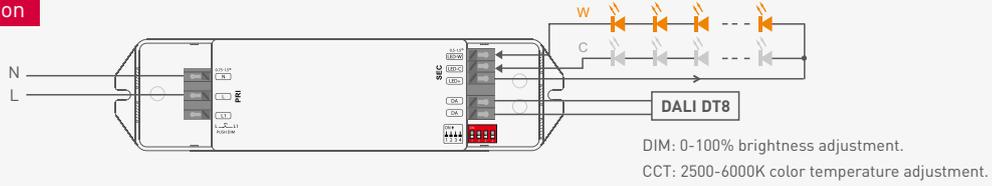
Dimension:	167×41×32mm(L×W×H)
Packing:	168×43×35mm(L×W×H)
Weight(G.W.):	160g±10g

### Safety & EMC

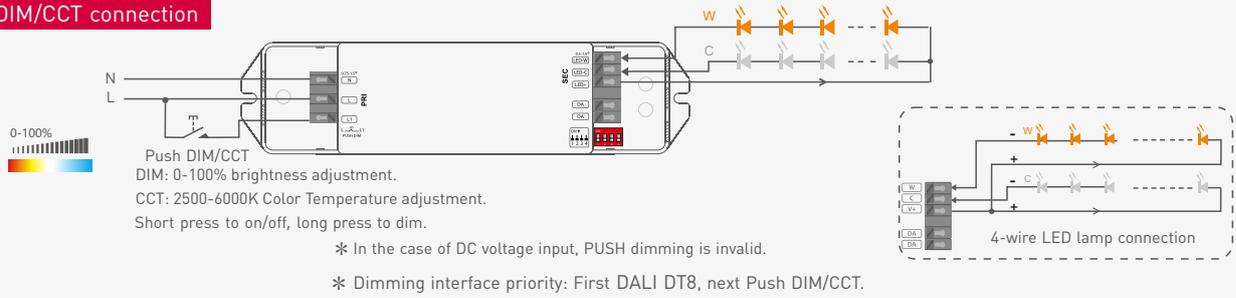
- Withstand voltage: I/P-O/P: 3750Vac
- Isolation resistance: I/P-O/P: 100MΩ/500VDC/25°C/70%RH
- Safety standards: IEC/EN61347-1, IEC/EN61347-2-13
- EMC emission: EN55015, EN61000-3-2 Class C, IEC61000-3-3
- EMC immunity: EN61000-4-2,3,4,5,6,8,11, EN61547
- Strobe test standard: IEEE 1789

## Wiring diagram

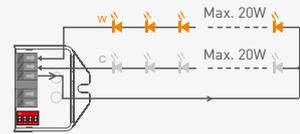
### DALI DT8 connection



### Push DIM/CCT connection



\* Adopting constant power program design, it keeps the same brightness in color temperature dimming, twice the rated power load can be connected.  
20W driver, 20W × 2CH load can be connected, the total power of the 2 channels will be kept in 20W.



## Push DIM/CCT

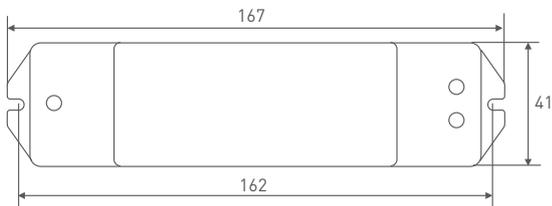


Reset switch

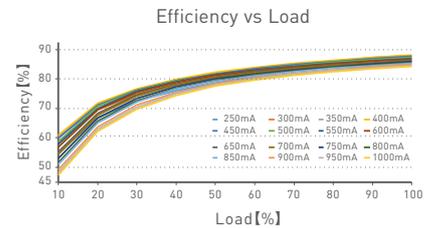
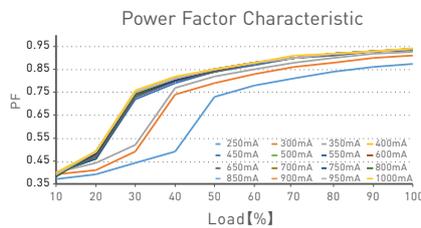
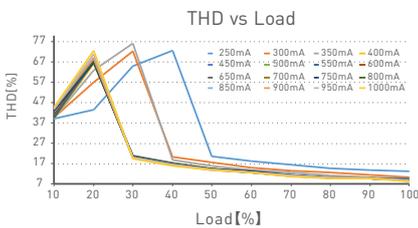
- On/off control: Short press.
- Stepless DIM/CT: Long press.
- With every other long press, the light level goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning off and on again.

## Dimensions

Unit: mm



## Relationship diagrams



## Flicker Test Form

IEEE 1789

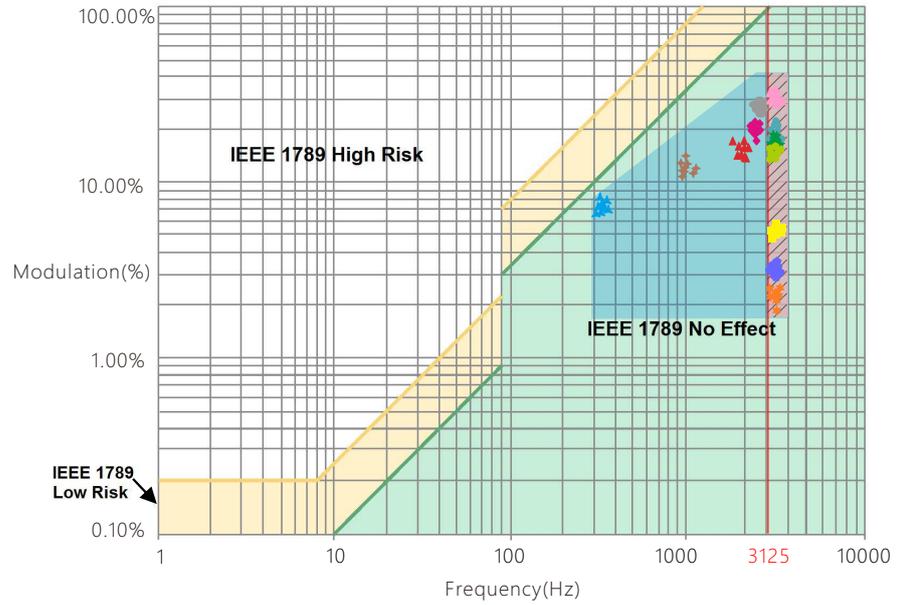
Limit of Modulation in low risk area	
Waveform frequency of Optical output	limit (%)
$f \leq 8\text{Hz}$	0.2
$8\text{Hz} < f \leq 90\text{Hz}$	$0.025 \times f$
$90\text{Hz} < f \leq 1250\text{Hz}$	$0.08 \times f$
$f > 1250\text{Hz}$	Exemption assessment
Limit of Modulation in no effect area	
Waveform 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%

Modulation Area Diagram

High Frequency Exemption Area Diagram



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.