# LTECH

#### DALI Push DIM/<u>CCT</u>

## Intelligent Tunable White LED Driver

- Dimming interface: DALI-2 DT6/DT8.
- T-PWM™dimming technology allows continuous and flicker-free images under high-speed photography.
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- Dimming from 0~100%, down to 0.1%.
- Adopt constant power design that can adjust different color temperature while brightness remains the same.
- Comply with the EU's ErP Directive, standby power consumption < 0.5W.</li>
  DALI bus standard IEC62386-101, 102, 209.
- DALI DUS Standard IEC62386-101, 102, 209.
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, over voltage , overload, short circuit protection and automatic recovery.
- + Suitable for Class | / || / ||| indoor light fixtures.
- Up to 50,000-hour life time.
- 5 years warranty (Rubycon capacitor).



## Main characteristics

Dimming interface:	DALI-2 DT6/DT8	Output voltage:	9-54Vdc
Input voltage:		Max output voltage:	59Vdc
Frequency:	50/60Hz	Strobe level:	No video flicker / High frequency exemption assessment level.
Input current:	115Vac<0.25A, 230Vac<0.13A	Dimming range:	0~100%, 0.1% dimming depth.
Output current:	250-1000mA	LF current ripple(<120Hz):	<1%
Output power:	Max. 20W	Current accuracy:	±5%
Power factor:	PF>0.95/115Vac , PF>0.90/230Vac, at full load	Ripple & Noise:	≤2V
THD	230Vac@THD≤9%, at full load	PWM dimming frequency:	≼3600Hz
Efficiency:	83%	Working temperature:	ta: -20 ~ 50°C tc: 75°C
Standby power loss:	<0.5W	Working humidity:	20 ~ 95%RH, non-condensing
Inrush current(typ.):	Cold start 10A at 230Vac (twidth=40 $\mu s$ measured at 50% [peak]	Storage temp_humidity:	-40 ~ 80°C 10~95%RH
Anti surge:	L-N: 2kV	Temp coefficient:	+0.03%/°C(0_50°C)
Leakage current:	<0.24mA/230Vac	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.

	DIP switch	****	T		「「「「」」	1711	1717	1771	1 T T T T	
	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	T
CE 20.250.1000 W2D2	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	UN
SE-20-250-1000-W2D2	DIP switch	Tiii	TLLT	****	TATT	TTLL	TTAT	TTTA	TTTT	
	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	UFF
	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 ${\geqslant}102\%$ , 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.):	160q±10q

## Safety & EMC

Withstand voltage:	I/P-0/P: 3750Vac
solation resistance:	I/P-0/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



#### Dimensions

Unit: mm





## Wiring diagram



## Push DIM/CCT



- 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.

Reset switch



#### DALI Push DIM/CCT

## **Installation Precautions**



Please do not stack the products. The distance between two products should be≽15cm so as not to affect heat dissipation and the lifespan of the products.

≥15cm

#### Relationship diagrams







Please not place the products on LED drivers. The distance between the product and the driver should be >15cm so as not to affect heat dissipation and shorten the lifespan of the products.

Power Factor Characteristic



Modulation Area Diagram



	IEEE 1789		
Limit of Modulation in low risk area			
Waveform frequency of Optical output			
<i>f</i> ≤ 8Hz	0.2		
8Hz < <i>f</i> ≤ 90Hz	0.025 × f		
90Hz < <i>f</i> ≤ 1250Hz	0.08 × f		
f > 1250Hz	Exemption assessment		
Limit of Modulation in no effect area			
<i>f</i> ≤ 10Hz	0.1		
10Hz < f ≤ 90Hz	0.01 × f		
90Hz < <i>f</i> ≼ 3125Hz	(0.08/2.5)× f		
f > 3125Hz	Exemption assessment (High frequency exemption)		

۲ 80% × 90% 100%

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70% 1.00%

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

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







#### **Attentions**

- Products shall be installed by qualified professionals.
- LTECH products are non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mountedin a water proof enclosure.
- Good heat dissipation will extend the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

\* This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

#### Warranty Agreement

- Warranty periods from the date of delivery 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

#### Warranty exclusions below:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- · Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by LTECH.

1.Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law. 2.LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.

#### Update Log

Version	Updated Time	Update Content	Updated by
A1	2020.06.01	Remove the constant current stroboscopic test table (when the brightness exceeds 30%,)	Liu Weili
A2	2021.04.30	Change the TUV certification icon, add precautions and warranty agreement	Liu Weili
A3	2021.12.10	Change the product silk screen, delete TUV/RCM and other certification icons	Liu Weili