

LED Intelligent Driver

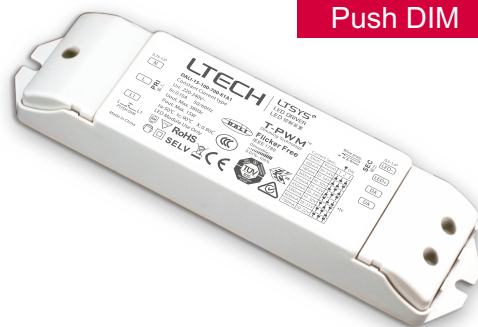
- Dimming interface: DALI, Push DIM
- T-PWM™ digital dimming.
- Dimming range: 0~100%, LED start at 0.01% possible.
- 0-100% flicker-free, High frequency exemption level.
- Innovative thermal management technology, intelligent power life protection.
- DALI dimming curve can be either linear or logarithmic.
- Multi-current & wide voltage, suitable for different power LED.
- Non-load output voltage 0V to prevent damages to LED caused by poor contact.
- Short circuit / Over-heat / Over load / Non-load protection, recover automatically.
- DALI bus standard: IEC62386-101, 102, 207.
- Suitable for internal lights application for I / II / III.
- Up to 50000-hour life time.
- 5 years warranty (Rubycon capacitor).

T-PWM™
Super depth dimming technology

Flicker-free
IEEE 1789



TUV Certificate No. B 17 06 01119 001
 RCM Equipment registration No: E2017013627 Ref: ESV170365
 ENEC Certificate No. U6 17 07 01119 004
 CE EMC Certificate No. BST1702498520001Y-1EC-1
 LVD Certificate No. BST1709992470001Y-1SC-2



Dimmable:

 0.01-100%

5 years
warranty



RoHS

SELV



Class 2

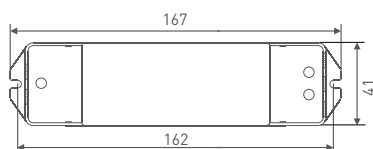


Specification

Model	DALI-15-100-700-E1A1	DALI-25-150-900-E1A1	DALI-36-200-1200-E1A1	
OUTPUT	Output Voltage	10-54Vdc		
	Max Output Voltage	58Vdc		
	Non-load Output Voltage	0Vdc		
	Output Current	100-700mA	150-900mA	200-1200mA
	Output Power	1-15W	1.5-25W	2-36W
	Strobe Level	Almost flicker-free / High frequency exemption level.		
	Dimming Range	0-100%, LED start at 0.01% possible.		
	PWM Dimming Frequency	≤3600Hz (frequency conversion dimming)		
	Current Accuracy	±5%		
Ripple & Noise	≤2V (no dim)			
INPUT	Dimming Interface	DALI, Push DIM		
	Input Voltage Range	220-240Vac ±10%		
	Frequency	50/60Hz		
	Input Current	<0.15A	<0.2A	<0.3A
	Power Factor	PF>0.90/230Vac, at full load	PF>0.93/230Vac, at full load	PF>0.95/230Vac, at full load
	THD	≤20% at 230Vac, at full load		
	Efficiency(typ.)	83%	84%	87%
	Inrush Current(typ.)	Cold start 2.53A at 230Vac (twidth=25.1µs measured at 50% Ipeak)	Cold start 3.01A at 230Vac (twidth=35µs measured at 50% Ipeak)	Cold start 6.31A at 230Vac (twidth=58.4µs measured at 50% Ipeak)
	Anti Surge	L-N: 1kV		
Leakage Current	<0.5mA/230Vac			
ENVIRONMENT	Working Temperature	ta: 50°C tc: 90°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	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, , auto recovers.		
	Over Load Protection	Shut down the output when rated power ≥ 102%, auto recovers.		
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers.		
	Non-load Protection	Shut down the output if no load, auto recovers when load back to normal.		
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			
OTHERS	Dimension	167×41×32mm(L×W×H)		
	Packing	168×43×35mm(L×W×H)		
	Weight(G.W.)	165g±10g		

Dimensions

Unit: mm



LED Current Selection

DIP switch for 8 optional currents' quick selection[see the table below].

DALI-15-100-700-E1A1	DIP Switch	⬇⬇⬇	⬇⬇⬆	⬇⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	ON OFF
	Output Current	100mA	180mA	300mA	350mA	450mA	500mA	600mA	700mA	
	Output Voltage	10-54V	10-54V	10-50V	10-43V	10-34V	10-30V	10-25V	10-22V	
	Output Power	1W-5.4W	1.8W-9.72W	3W-15W	3.5W-15.05W	4.5W-15.3W	5W-15W	6W-15W	7W-15.4W	

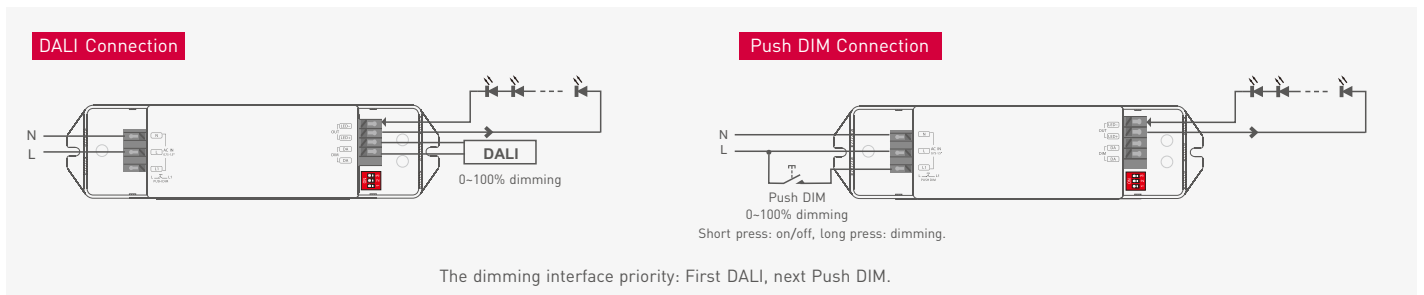
DALI-25-150-900-E1A1	DIP Switch	⬇⬇⬇	⬇⬇⬆	⬇⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	ON OFF
	Output Current	150mA	250mA	300mA	350mA	500mA	600mA	700mA	900mA	
	Output Voltage	10-54V	10-54V	10-54V	10-54V	10-50V	10-42V	10-36V	10-28V	
	Output Power	1.5W-8.1W	2.5W-13.5W	3W-16.2W	3.5W-18.9W	5W-25W	6W-25.2W	7W-25.2W	9W-25.2W	

DALI-36-200-1200-E1A1	DIP Switch	⬇⬇⬇	⬇⬇⬆	⬇⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	⬆⬆⬆	ON OFF
	Output Current	200mA	350mA	500mA	600mA	700mA	900mA	1050mA	1200mA	
	Output Voltage	10-54V	10-54V	10-54V	10-54V	10-52V	10-40V	10-35V	10-30V	
	Output Power	2W-10.8W	3.5W-18.9W	5W-27W	6W-32.4W	7W-36.4W	9W-36W	10.5W-36.75W	12W-36W	

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

* E.g. LED 3.2V/pcs: 10-54V can power 3-16pcs LEDs in series, 10-22V can power 3-6pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.

Wiring Diagram



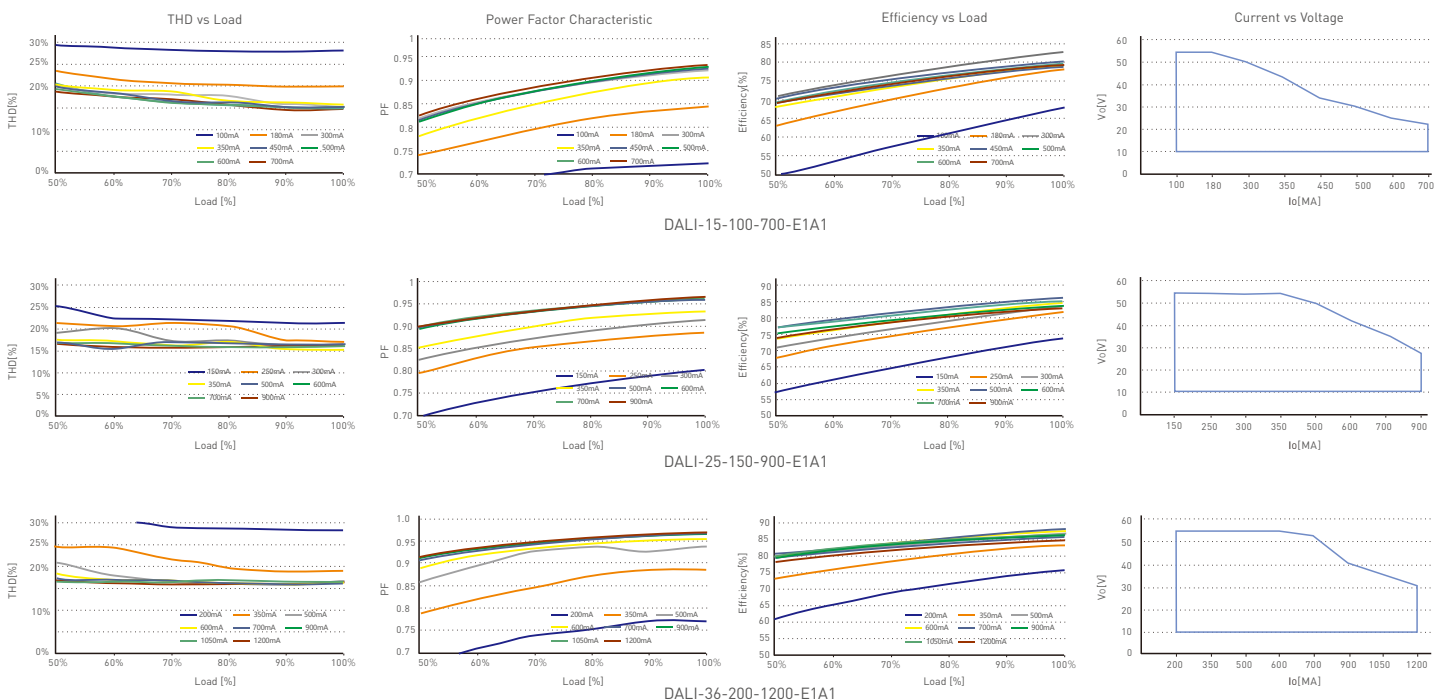
Push Dimming



Reset Switch

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

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%

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.

