

24v Constant Voltage DALI-2 Driver



#### **Features**

- Support DALI-2 dimming

- Soft dimming and flicker-free at any brightness
- Dimming range 1~100%, support multiple lights dimming
- Standby power input<0.5W, meets the requirements of ErP certification
- High PF, high efficiency, low THD
- SELV and Class I design, suitable for use inside of the light
- IP20 protection grade, indoor use
- Nominal life-time up to 100,000 h

# Interfaces

- DALI-2(DALI-2 DT6)

#### Functions

- Support central emergency application (dimming normal in DC input)
- Support self-contained emergency application
- Protective features (short-circuit, overload,no-load protection)

# Suitable for lights

- Suitable for CV strip lights, CV linear lights, floor lights, three-proof lights, etc

## **Typical applications**

- LED indoor lighting
- LED office lighting
- LED commercial lighting

Model	Input voltage	Output power	Output voltage	Output current	Dimension
T1A1240024V-150E	200-240VAC	144.0W	24VDC	6A	L355*36*23mm





**SPECIFICATIONS** 



- DALI 2.0 DT6 Constant Voltage LED Driver
- Output Wattage : 144W Max
- Flicker Free: O/P Ripple current < 10%
- Output voltage 24Vdc .
  - Linear CRCA Cabinet
- Suitable For Dry Locations
- Application: • - Suitable for CV Strips, Linear Lights
  - Floor lights, three profile lights etc.

# **General Specifications**

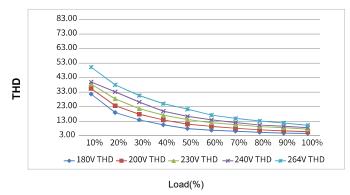
Rated Input Voltage	200-240Vac,50/60Hz			
Operating Input Voltage Range	180-264Vac,50/60Hz			
Input Current	<1.0A @ 230Vac			
Input Power	166W			
Power Factor	>0.95 @ 230Vac/Full Load			
THD	<10% @ 230Vac/Full Load			
Efficiency (Typical)	90%			
Driver Type	Constant Voltage DALI 2.0			
Output Current	6A			
Output Voltage	24Vdc +/- 5%			
Output Power (Max)	144W			
Number of Output Channels	1 Channel			
Output Type	Class I			
Dimming Controller Type	DALI 2.0			
Ambient Operating Temperature Range	-10°C to 50°C			
Max. Case Temperature	90°C			
Input Surge Protection	2KV			
Protections	Input Over Current	: Non Resettable (Fuse)		
	Output Short Circuit	: Auto Recovery (HICCUP Mode)		
	Output Open Circuit	: Auto Recovery (HICCUP Mode)		
	Output Overload	: YES		
	Over Temperature	: NA		
Complies to Standards	EN61347-1, EN61347-2-13, En62384, En55015, EN61000-3-2, EN61000-3-3			
	EN61000-4-2,3,4,5,6,8,11, EN61547			
Dali Standards	IEC62386-101, IEC62386-102, IEC62386-207			
Withstand Voltage	I/P-O/P:3750Vac, I/P-FG:1750Vac, O/P-FG:500Vac			
Leakage Current	<0.7mA @ 240Vac			
Isolation resistance	I/P-O/P:100MΩ / 500Vdc / 25°C / 70% RH			
Life	50,000 Hours @ Tc 75°C			
Approvals / Class	SELV Equivalent			
Warranty	3 Years			
Weight	0.415 Kg			
Note :				
Suitable for indoor application only				
Hot plug-in is not supported.				
Max. torque at the clamping screw: 0.5 Nm / M4				

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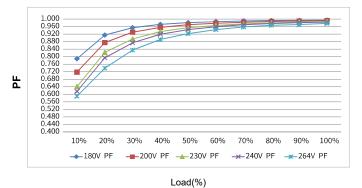


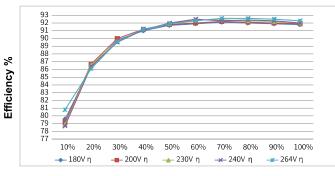


## Total harmonic distortion vs Load characteristic curve



# Power Factor vs LOAD Characteristic curve

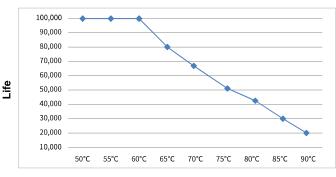




Efficiency vs Load characteristic curve

Load(%)





Тс

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#### **DALI dimming application**

Wiring diagram



# Activating DALI control mode

- After installation according to the wiring diagram of DALI control application, the driver will automatically switch to the DALI control mode after receiving any DALI command.

#### **Remarks:**

- Standard DALI control line voltage range:9.5V to 22.5V ,type 16V.

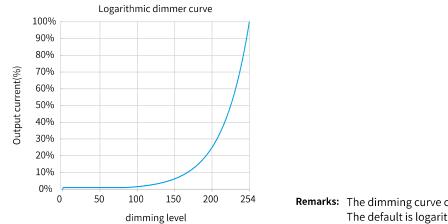
- The two DALI control lines polarity-reversible.

- Max. 64 DALI drivers per DALI control line.
- The maximum distance length of the DALI control line is 300m at  $2 \times 1.5$  mm<sup>2</sup>.
- DALI bus can be wired together with any mains voltage cables, but separate wiring is recommended.

#### Wiring distance vs cable size

Cable size	Distance		
2×0.50mm <sup>2</sup>	max.100m		
2×0.75mm <sup>2</sup>	max.150m		
2×1.00mm <sup>2</sup>	max.200m		
≥2×1.50mm <sup>2</sup>	max.300m		

# **Dimming curve**



**Remarks:** The dimming curve can be selected by DALI configuration. The default is logarithmic dimming curve.

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# **PUSH dimming application**

Wiring diagram



#### Activating PUSH control mode

- After installation according to the wiring diagram of PUSH dimming application, short press the PUSH switch 3 times within 3 seconds, the driver will automatically switch to PUSH dimming mode.

#### Remarks:

Max.50driversperPUSHcontrolline.

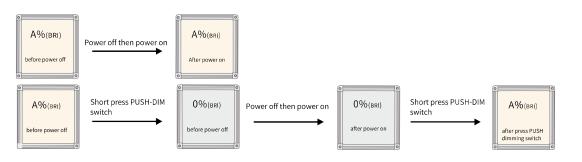
Turn on or turn off: short press push switch for 0.2-1s.

Dimming: long press push switch for 1-5s.

# Power on status:

- After power on, the light state will be the same as the last dimming level.

- If the light is on before the power is turned on, after turning the power back on, the brightness will be the same as the last time.
- If the light is off before the power is turned off, the light will be turned off after the power is turned back on. You need to press the PUSH-DIM dimming switch for a short time to turn on the light. The brightness after lighting will be the same as the last time.



#### Multiple lights synchronize control operation

method 1: Step 1:long press the PUSH-DIM switch, confirm each light is on.

- Step 2:short press the PUSH-DIM switch,confirm each light is off.
  - Step 3:long press the PUSH-DIM switch, confirm each light is from darkest to brightest and all the lights are synchronous.
- method 2: Long press the PUSH-DIM dimming switch for more than 15s, all drivers will output 100% brightness.

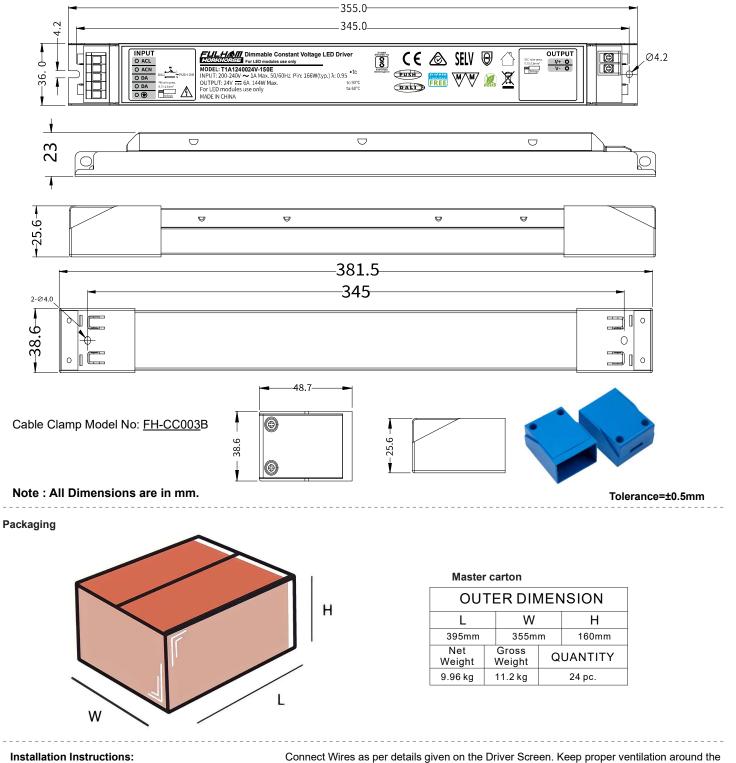
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Mechanical Data :



Connect Wires as per details given on the Driver Screen. Keep proper ventilation around the LED Driver and do not stack any object on it. Also a 10-15 cm clearance must be kept when the adjacent device is a heat source. Do not exceed the declared Hot spot temperature(Tc max) under any circumstances.

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