

Constant current Independent dimmable DALI-2



#### **Features**

- Support DALI-2 dimming mode
- Support advanced functions such as CLO
- The output current of the driver can be programming through the DALI interface
- High PF, high efficiency, low THD
- Dimming range 1%~100%, output current accuracy 1%
- Soft dimming and flicker-free at any brightness, meets the new requirements of ErP certification
- Using HPC patented technology, at any dimming level, the brightness of the lights is the same
- Low smoke halogen-free flame retardant wires are optional for input and output
- Suitable for working at -30-60  $^{\circ}\mathrm{C}$
- Aluminum metal housing design
- Power input on stand-by < 0.5 W, compatible with ERP.
- LED hot-plug in protection function.
- Compliance with CE, DALI-2, EL certifications.
- Nominal life-time up to 50,000 h

# Interfaces

- DALI-2(DALI-2 DT6)

#### **Functions**

- Support central emergency application (dimming normal in DC input )
- Support self-contained emergency application
- Constant light output function (CLO)
- Programming via DALI wires
- Protective features (short-circuit, overload,no-load, hot plug-in protection)

#### **Typical applications**

- LED Industrial lighting
- LED rail-transit lighting
- LED Subway station lighting





SPECIFICATIONS

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Application:

- LED Industrial Lighting.

- LED rail-transit Lighting.

- Subway station Lighting.

**Output Wattage : 42W Max** 

Suitable For wet Locations

Aluminum Extruson

.



- DALI-2 Constant Current LED Driver
- Output Voltage: 12-42V
- Output Current: 500 1100mA
- Flicker Free: O/P Ripple current < 5% (LF)</li>

# **General Specifications**

Rated Input Voltage	200-240Vac,50/60Hz
Operating Input Voltage Range	180-264Vac,50/60Hz
Input Current	<0.3 @ 230Vac
Input Power	42W (Max)
Power Factor	>0.95 @ 230Vac/Full Load
THD	<10% @ 230Vac/Full Load
Efficiency (Typical)	86%
Driver Type	Constant Current DALI-2
Output Current	Programable 500-1100mA ±3%
Output Voltage Range	12-42Vdc
Output Power	49W
Number of Output Channels	1 Channel
Output Type	Class I
Dimming Controller Type	DALI-2
Ambient Operating Temperature Range	-20°C to 60°C
Max. Case Temperature	90°C
Input Surge Protection	4KV/6KV
Protections	Input Over Current : Non Resettable (Fuse)
	Output Short Circuit : Auto Recovery (HICCUP Mode)
	Output Open Circuit : Auto Recovery (HICCUP Mode)
	Output Overload : Auto Recovery (HICCUP Mode)
	Over Temperature : Auto Recovery (HICCUP Mode)
Safety Standards	EN61347-1/2-13, GB19510.1/14, EN62384, IEEE1789
Dali Standards	IEC62386-101, 102, 207
Withstand Voltage	I/P-O/P:3750Vac, I/P-FG:1750Vac, O/P-FG:500Vac, I/P-DALI:1500Vac, O/P-DALI:1500Vac
Leakage Current	<0.7mA @ 240Vac
Isolation resistance	I/P-O/P:100MΩ / 500Vdc / 25°C / 70% RH
Life	50,000 Hours @ 80°C
Approvals / Class	SELV Equivalent
IP Rating	IP 67
Warranty	5 Years
Weight	0.480Kg

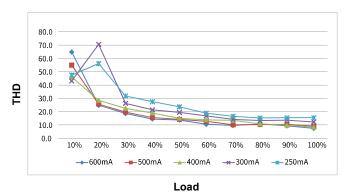
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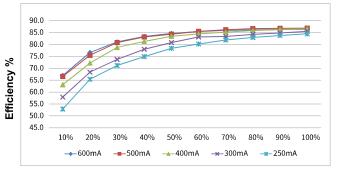


# THD vs Load

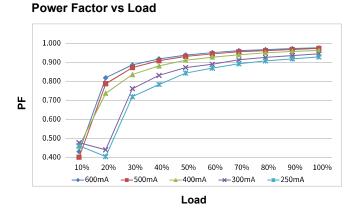


# Efficiency vs Load

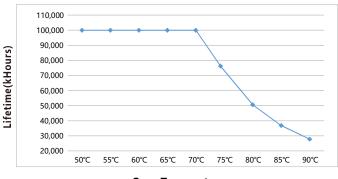
**Operating Window** 



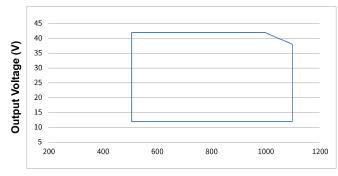




# Life Time vs Case Temperature



Case Temperature



Output Current (mA)

- Output voltage x output current = output power

- The minimum current step is 1mA, the minimum voltage step is 1V, the voltage range is 12-42V, the current range is 500-1100mA, and the voltage and current can be set arbitrarily under the premise that the output power does not exceed 42W.

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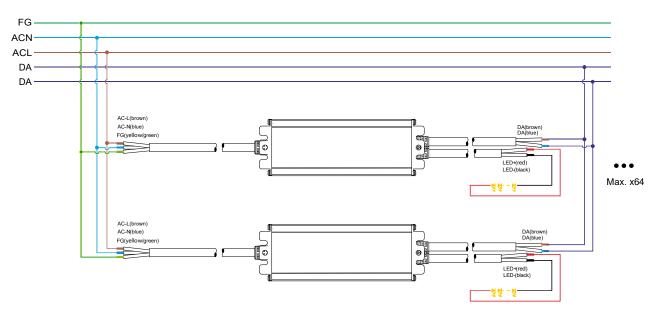


SPECIFICATIONS



# 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.

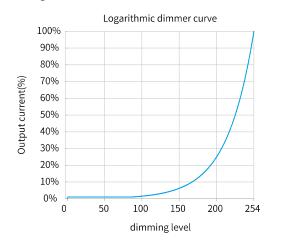
#### **Remarks:**

- 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.

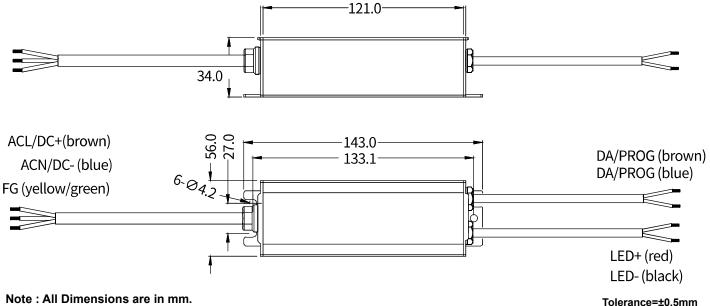
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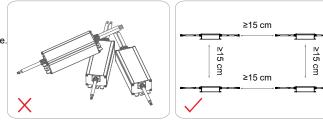
#### **Mechanical Data :**



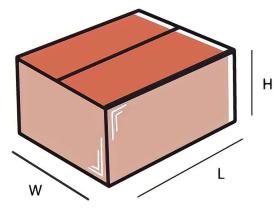
# Note : All Dimensions are in mm.

#### Installation Instruction

- The driver should be installed in a dry, acid-free, oil-free, fat-free environment.
- The installation ambient temperature of the drive shall not exceed the value of Ta at any time.
- The temperature of the mounting surface of the driver should be lower than 40°C
- The driver should keep a certain distance from the heating stuff (such as the lamp radiator).



#### Packaging



Master	r carton				
OUTER DIMENSION					
L	W		Н		
500mm	310m	m	230mm		
Net Weight	Gross Weight	QUANTITY			
8.64kg	10.2 kg	18 pc.			

Installation Instructions:

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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