

PRODUCT NUMBER:

LW-DL2-100~277VAC-24V-96W-2C-IP67-JBX

PROJECT: _____

TYPE: _____

QTY: _____

Features



- Constant Voltage output (NFC Regulation)
- UL, cUL listed, Class2 unit, Type HL rated, FCC, ENEC approved
- Universal AC input: 100-277VAC
- Built-in active power factor correction (PFC)
- $\leq 0.5W$ standby power consumption
- Up to 89% efficiency
- 10-100% load capacity
- Protected from Short Circuits, Overload and Overheat
- Logarithmic (Default) and Linear dimming curves
- DALI Protocol IEC62386 dimming
- No PWM influence on colour index
- IP67 protection for dry, damp and wet locations
- NFC function
- Flicker-free, 4KHz stroboscopic exemption
- 0 to 100% dimming range, 0.1% LED start available
- Suitable for LED lighting
- Cooling by free air convection



Class2 ClassP

Specifications

OUTPUT		INPUT		
DC Voltage	24V	Voltage Range	100-277VAC	
Rated Current	4A	Frequency Range	47-63Hz	
Rated Power	96W	Power Factor (Typ.) @Full Load	≥ 0.98 @120VAC	≥ 0.95 @230VAC / ≥ 0.95 @277VAC
Voltage Tolerance	$\pm 0.2V$	THD (Typ.) @Full Load	$\leq 10\%$ @120VAC	$\leq 10\%$ @230VAC / $\leq 15\%$ @277VAC
Load Regulation	$\pm 1\%$	Efficiency (Typ.) @Full Load	86% @120VAC	89% @230VAC/277VAC
		AC Current (Max.)	1.3A	
		Inrush Current (Typ.)	23.2A, 50%, 360 μ s @120VAC	80A, 50%, 104 μ s @230VAC / 54A, 50%, 280 μ s @277VAC
		Leakage Current	<math>< 0.50mA</math>	
		Standby Power Consumption	0.25W @120V	0.42W @230W / 0.47W @277V

PROTECTION

Short Circuit	Hiccup mode. After faulty condition is corrected, driver recovers automatically
Overload	@ $\leq 120\%$: Hiccup mode. After faulty condition is corrected, driver recovers automatically
Overheat	@ $55^{\circ}C \pm 10^{\circ}C$ / @ $131^{\circ}F \pm 18^{\circ}F$: Output Voltage shutdown. Once cooled down, driver recovers automatically

ENVIRONMENT

Working Temperature	$-40^{\circ}C \sim +70^{\circ}C$ / $-40^{\circ}F \sim 158^{\circ}F$ (See Derating Curve below)	
Working Humidity	20% ~ 95% Relative Humidity, Non-Condensing	
Storage Temperature & Humidity	$-40^{\circ}C \sim +80^{\circ}C$ / $-40^{\circ}F \sim 176^{\circ}F$	10% ~ 95% Relative Humidity
Temperature Coefficient	$\pm 0.03\%/^{\circ}C$ ($0^{\circ}C \sim 50^{\circ}C$) / $\pm 0.054\%/^{\circ}F$ ($32^{\circ}F \sim 122^{\circ}F$)	
Vibrations	10 ~ 500Hz, 2G 10min. / 1 cycle, 60 min. period each. / Along X, Y and Z axis	

SAFETY & ELECTROMAGNETIC COMPATIBILITY (EMC)

Safety Standards	EN61347-1, UL8750 (US) & EN61347-2-13 (EU)		
Withstand Voltage	Input to Output: 1.80KVAC	Input to Frame Ground: 1.5KVAC	Output to Frame Ground: 0.5KVAC
Isolation Resistance	Input to Output: 100M Ω / 500VDC / 25 $^{\circ}C$ (77 $^{\circ}F$) / 70% Relative Humidity		
EMC Emission	EN55015, EN6100-3-2, EN61000-3-3 $\geq 50\%$ load & FCC Part 15, Subpart B		
EMC Immunity	EN61000-4-2,3,4,5,6,11 & EN61547		

OTHERS

Net Weight	1.62Kg	
Dimensions (L x W x H)	241 x 125 x 40mm	9.49 x 4.92 x 1.57in

(i) Unless mentioned otherwise, all specifications are measured at 230VAC input, rated load and 25 $^{\circ}C$ (77 $^{\circ}F$) ambient temperature. Reduce input voltage load to extend the driver's life.

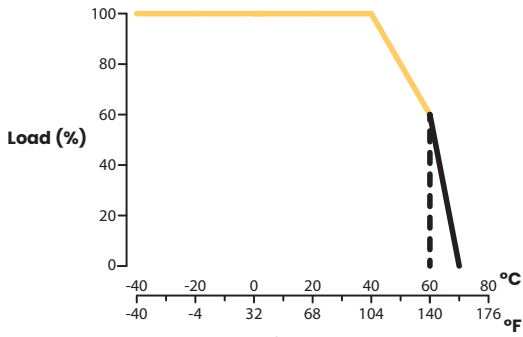


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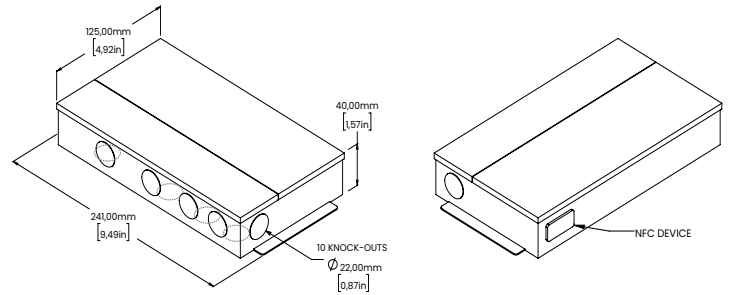
LAST UPDATE
3/12/2024

Derating Curve



To extend Driver's life, derate according to the ambient temperature.

Dimensions

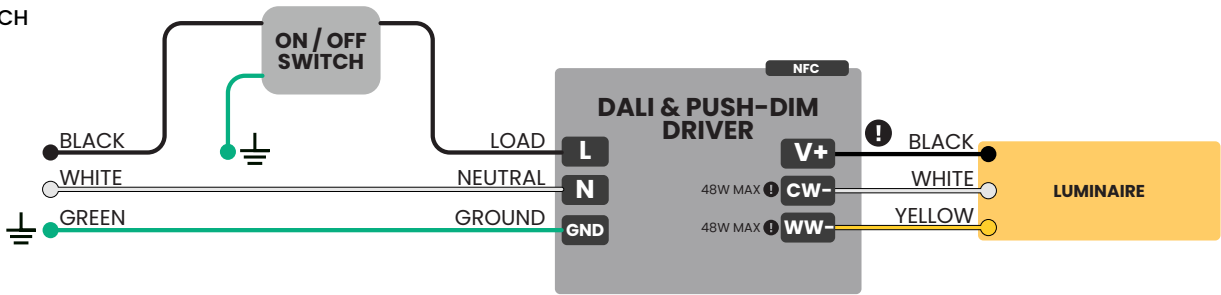


241 x 125 x 40mm
 9.49 x 4.92 x 1.57"

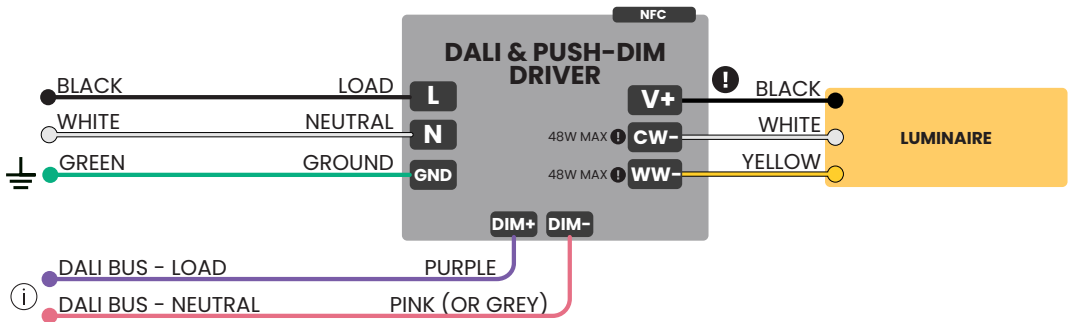
Connection Diagrams

1. This Driver should be installed by a qualified professional.
2. Make sure the Driver is installed with adequate ventilation to allow heat dissipation.
3. Make sure the wiring is correct before testing to avoid damaging Luminaire and Power Supply.
4. **DO NOT ATTEMPT TO REPAIR THE DRIVER.**

ON / OFF SWITCH SINGLE DRIVER



DALI DIMMING SINGLE DRIVER



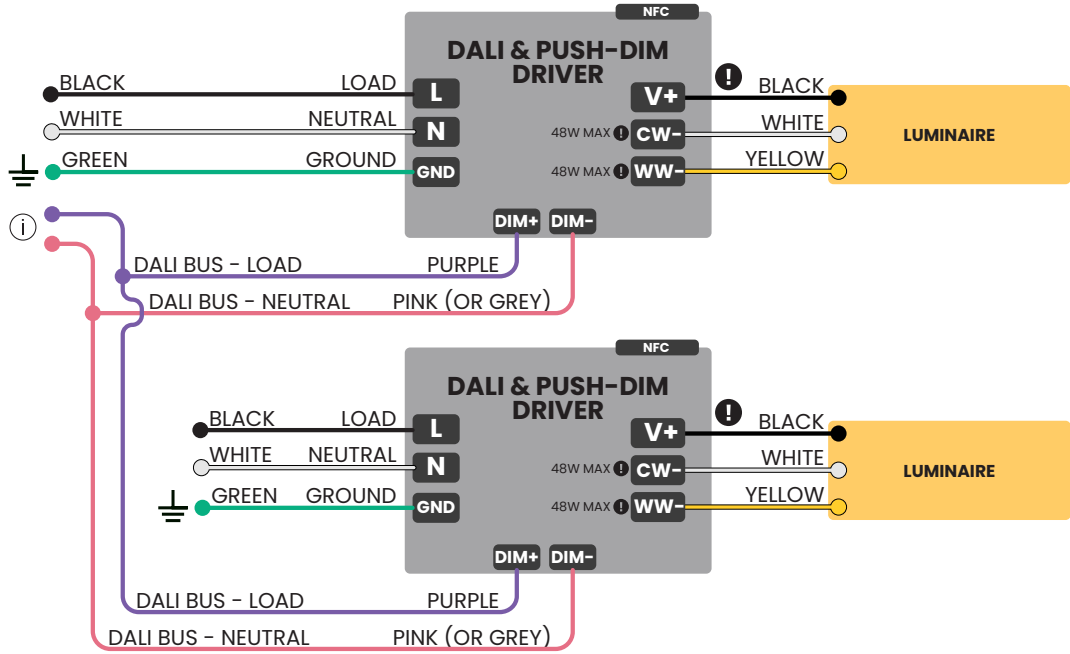
! Lumen Warm recommends **NOT TO EXCEED 80%** of the Driver's load capacity for longer durability.

i Lumen Warm recommends matching wire colours to corresponding LED terminals to prevent programming issues.

i Only one DALI power is needed into the DALI bus. No extra DALI power is needed if Master or Dimmer already provides power to DALI bus.

Connection Diagrams (Cont.)

DALI DIMMING (CONT.) MULTIPLE DRIVERS



(i) Lumen Warm recommends matching wire colours to corresponding LED terminals to prevent programming issues.

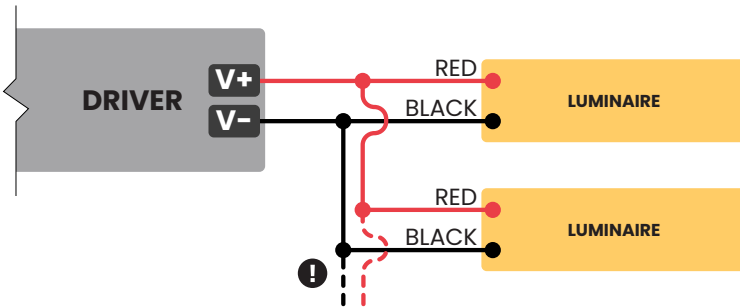
(i) Only one DALI power is needed into the DALI bus. No extra DALI power is needed if Master or Dimmer already provides power to DALI bus.

Multiple Luminaires Wiring Methods

IN PARALLEL, DAISY CHAIN METHOD



IN PARALLEL, PARALLEL STANDARD METHOD

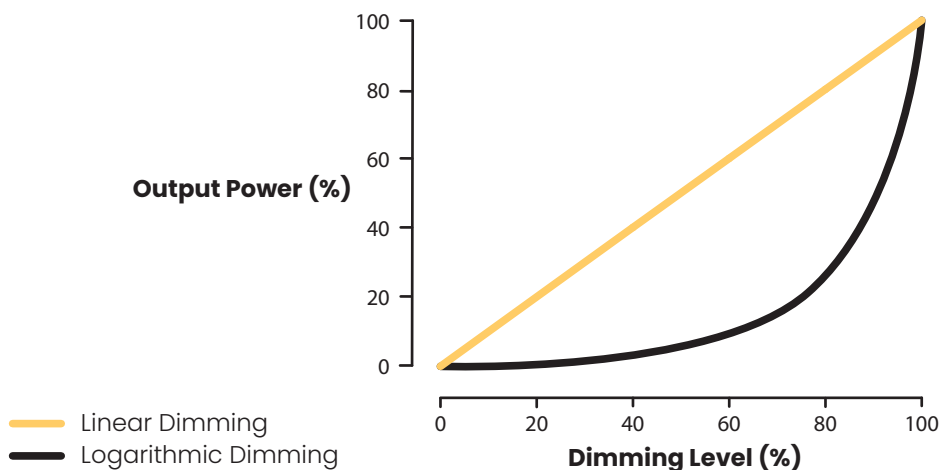


(i) Lumen Warm recommends **NOT TO EXCEED 80%** of the Driver's load capacity for longer durability.

(i) Both connection methods can be combined if applicable.

(i) This is a simplified diagram. Use for reference only.

Dimming Curves



Output Voltage Setup

- When installing a Driver remotely, a voltage drop may occur due to the wire length between the Luminaire and the Driver.
- VOLTAGE LEVEL AT LUMINAIRE'S ENTRY MUST NOT EXCEED 24V, OR LUMINAIRE MAY GET PREMATURELY DAMAGED.**
- Check Voltage Level at the end of output wiring just before the Luminaire. Ensure it reads 24V.

SETUP INSTRUCTIONS WITH NFC DEVICE

- Driver's voltage output can be read and adjusted by using the ProNFC app or a NFC handheld device by holding it close to the Driver's NFC tag.
- Voltage range is divided in 10 levels. Each level is 0.2V. Default voltage output is Level 1.

OUTPUT VOLTAGE LEVELS

Rated Voltage	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
24V	24V	24.22V	24.44V	24.66V	24.88V	25.10V	25.32V	25.54V	25.66V	26V

Driver Address Setup

- Driver's default DALI Address is set to 255.
- Address can be changed with any of these devices:



- NFC device:**
Use a NFC handheld device or hold handheld device close to driver's NFC device.

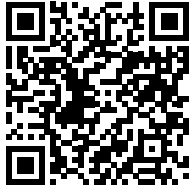


- ProNFC app on smartphone:**
Hold smartphone close to driver's NFC tag.

Driver Address Setup (Cont.)

SETUP INSTRUCTIONS WITH ProNFC APP

1 Install the ProNFC app using the QR codes below.

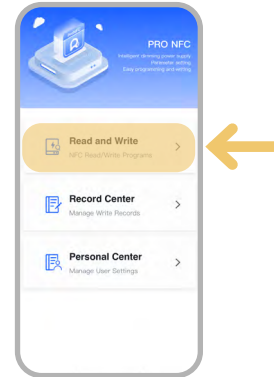


iOS

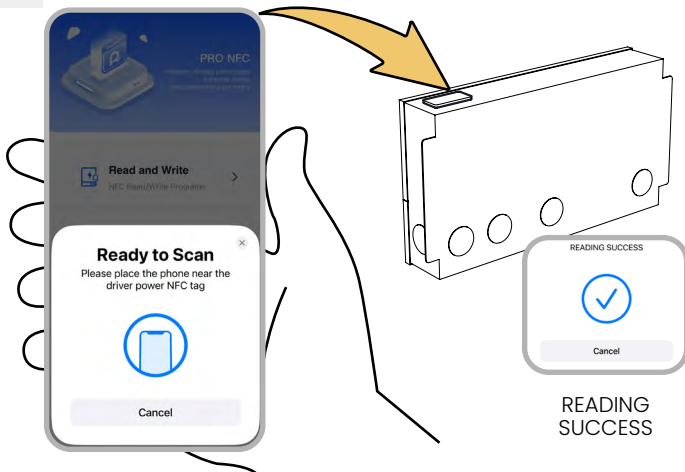


Android

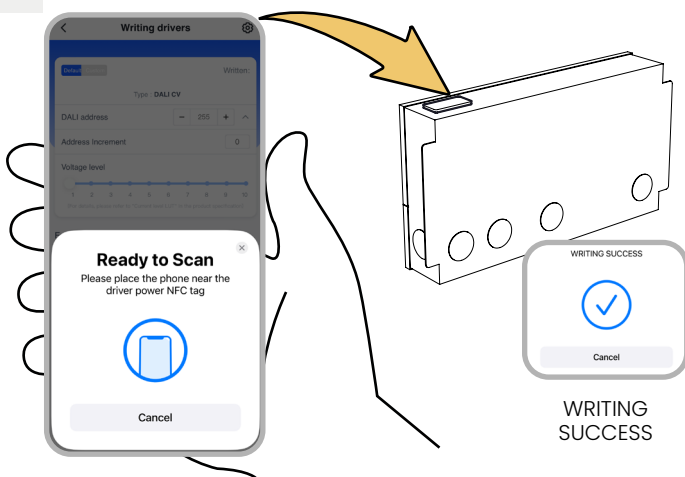
2 Keep the phone away from Driver. Select *Read and Write*.



3 Hold the phone close to Driver's NFC tag.



5 Hold the phone close to Driver's NFC tag.



4 Set parameters as desired.

