

Product features



- Built-in non isolated adjustable power LED driver
- Supports DALI-2 D4i, push DIM control
- Current adjustment via NFC
- Constant lumen output (CLO)
- Supports i-Data function (DALI part 250, 251, 252, 253)
- Output current 50 ... 550 mA
- Max. output power 75 W
- DC emergency
- Flicker-free, dimming range 1 ... 100 % (amplitude dimming)
- Current output default value 50 mA
- For luminaires with protection class I
- Anti-glow
- Packing unit programming: configure a large number of drivers in parallel via NFC



Product specifications

166466 ID ELNCB 75/230/050-550 D4i NFC

Output current	Input voltage	Output voltage	Efficiency @ full load	Current accuracy	Power factor	Dimension L x W x H (mm)
50 ... 550 mA	220 ... 240 Vac 220 ... 240 Vdc	50 ... 250 Vdc	93 % (@ 250 V 300 mA)	± 5 %	0.9 (Output Power > 20 W)	278.0 x 29.5 x 16.0

Electrical specifications

Mains voltage supply

Rated input voltage range	220 ... 240 Vac; performance range
Max. input voltage range	198 ... 264 Vac; operational safety range
Rated frequency range	0/50/60 Hz
Performance / Operational safety	47 ... 63 Hz
Max. input current	0.4 A @ 230 Vac & 0.4 A @ 230 Vdc

Battery operation

DC voltage range	220 ... 240 Vdc; performance range
Max. DC voltage range	176 ... 276 Vdc; operational safety range

Protection against voltage peaks

Withstand voltage	I/p-FG:1.5 kVac, < 5 mA 60 sec, I/p-DA:1.5 kVac, < 5 mA 60 sec,
Mains surge immunity	L-N 1 kV, L-FG 2 kV, N-FG 2 kV per IEC 61000-4-5
Control interface surge immunity	DA - DA 1 kV per IEC 61000-4-5

Total harmonic distortion (THD)

At rated input voltage range @ full load	< 10 %
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Output data

Output current tolerance	$\pm 5\%$ at rated input voltage range
No load output voltage	≤ 300 Vdc
Ripple output current	5 % (ripple = peak/average total 100 Hz)
Output PstLM	≤ 1 at full load @ rated input voltage
Output SVM	≤ 0.4 at full load @ rated input voltage
DC emergency level	DALI current output decreased to 15 % (programmable)

Protection functions output side

Overvoltage protection	The output voltage is less than or equal to 300 V
Overpower protection	The output power is less than or equal to 82 W
Short circuit protection	Short circuit protection and Overvoltage protection are designed to turn off the output and cannot be automatically restored. After removing the short circuit, the output can be restored by one of the following two operations: • After receiving DALI instruction Off, turn on the light by dimming instruction. • Restart the driver: Power on the driver five seconds after the power failure.
No load output voltage	Open circuit protection is designed to turn off the output and cannot be automatically restored. After removing the open circuit, the output can be restored by one of the following two operations: • After receiving DALI instruction Off, turn on the light by dimming instruction. • Restart the driver: Power on the driver five seconds after the power failure.

Dimming operation and interface

Standby power consumption	< 0.30 W (@ DALI BUS OFF)
Dimming mode	DALI-2, push dimming
Dimming method	Amplitude dimming
Dimming current range	1 ... 100 % (1.2 ... 550 mA)

Integrated DALI bus power supply

Maximum allowed DALI bus supply current:	Max 250 mA (@All D4i DALI bus current combine)
Typical output current	55 mA
Output voltage	13.6 ... 18.4 V

Connection terminals

Connection terminal type	0° push in terminal
Wire cross section	Input 0.5 ... 1.5 mm ² output wire: 0.2 ... 1.5 mm ²
Wire stripping length	8 ... 9 mm

Degree of protection

Protection rating	IP20
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Operating data

Output current range	NFC control adjusts the current: 50 ... 550 mA
Default current	50 mA
Output voltage range	50 ... 250 Vdc
Noise level	< 24 dBA, at full load @ 100 cm distance

Circuit breaker / Inrush current

MCB loading quantity	Inrush current I _{peak} : 44.4 A		Inrush current T _{width} : 145.5 µs		
	MCB type	B10	C10	B16	C16
	Units	16	22	26	35

Environmental specifications

Operating temperature	-20... +55°C
Storage temperature	-40... +80°C
Working humidity	10%...90%
Store humidity	5%...95%
Lifetime	at T _c 80°C:50,000 hrs @ 230 Vac; at T _c 70°C:100,000 hrs @ 230 Vac (0.2% / 1,000 h failure rate)
Maximum T _c temperature	85°C

Safety & EMC compliance

ENEC+CE	CCC	SAA
EN 61347-1: 2015/A1:2021	/	AS/ 61347.2.13: 2018
EN 61347-2-13: 2014/A1: 2017	/	AS/NZS 61347.1: 2016+ A1 Lamp Control Gear- Part 2-13
EN 62384: 2020	/	
EN 300 330 V2.11: 2017	/	
EN 62479: 2010	/	
EN 50663: 2017	/	
EN 301 489-1 V2.2.3:2019	/	
EN 301 489-3V2.3.2: 2023	/	
EN 55015:2019/A11: 2020	/	
EN 61547: 2009	/	
EN 61000-3-2:2019/A1: 2021	/	
EN 61000-3-3:2013/A2: 2021	/	
		DALI-2 Acc. to EN 62386
		Acc. to IEC 62386-101:Ed2
		Acc. to IEC 62386-102:Ed2
		Acc. to IEC 62386-207:Ed1
		Acc. to IEC 62386-250:Ed1
		Acc. to IEC 62386-251:Ed2
		Acc. to IEC 62386-252:Ed2
		Acc. to IEC 62386-253:Ed2

Dimensions

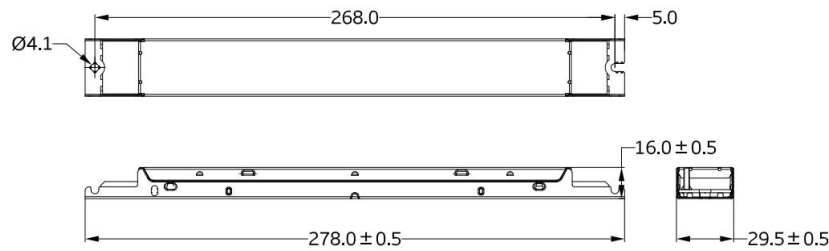
Housing dimensions

Length (L)	278.0 mm
Width (W)	29.5 mm
Height (H)	16.0 mm

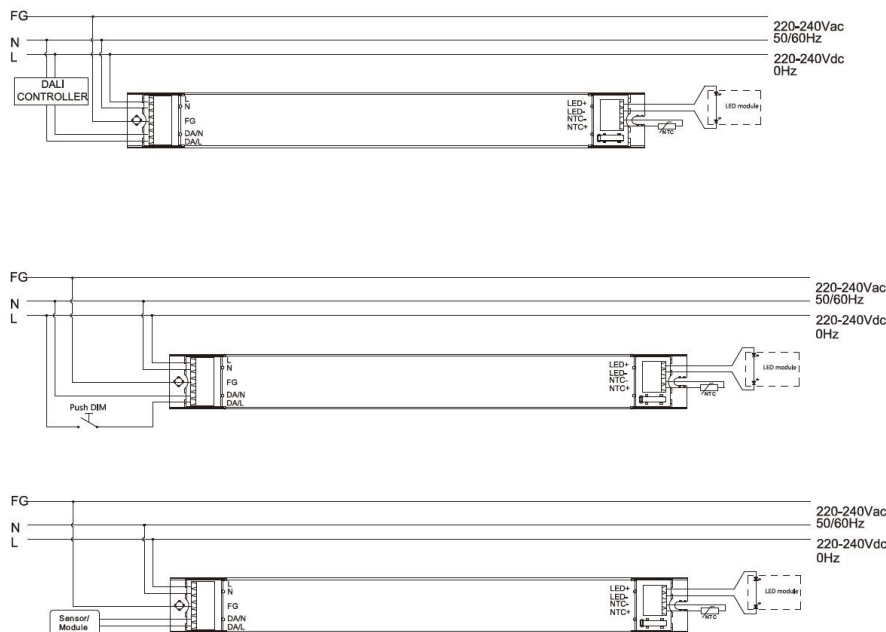
For all dimensions: values in mm; tolerances: ± 0.5 mm

Packaging details

Packing units	20 pcs.
Carton size	299 x 128 x 103 mm
Carton weight	4.1 kg
Product Weight	0.18 kg



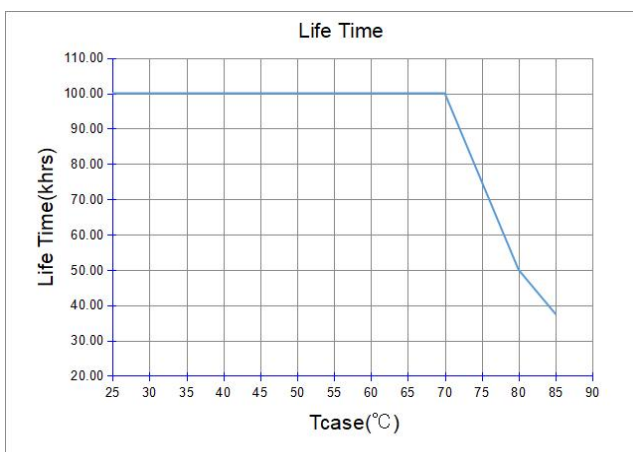
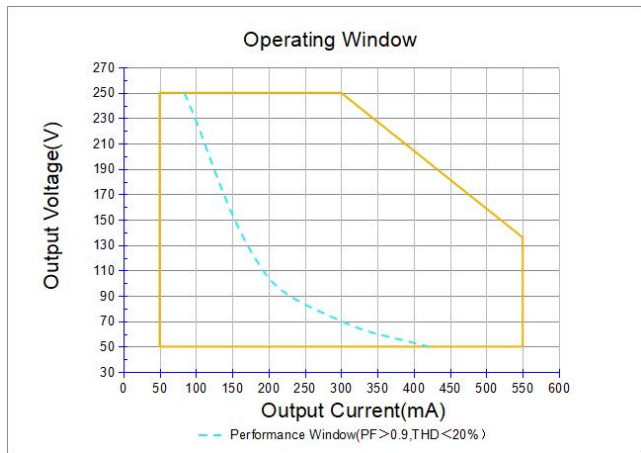
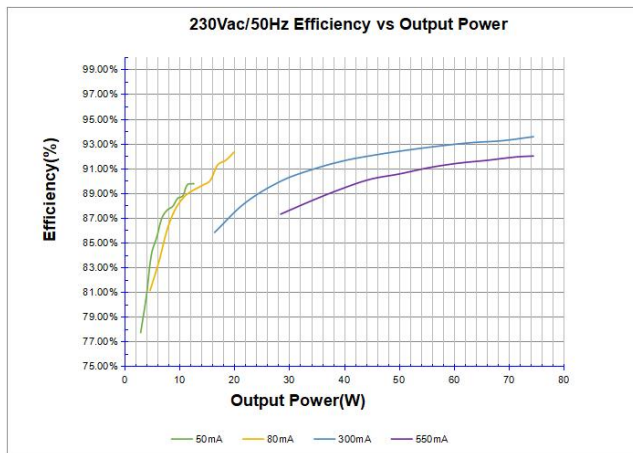
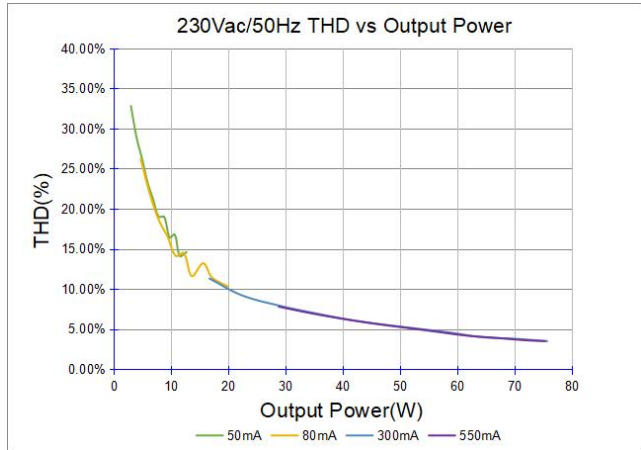
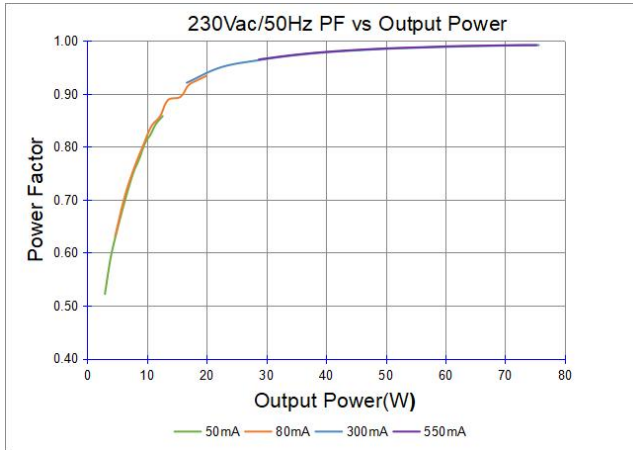
Wiring diagram



Supplementary instructions

- The luminaire manufacturer is responsible for measuring and verifying the EMI compliance of the complete luminaire, as the level of radio interference will vary depending on the luminaire construction. Especially primary and secondary cable lengths and their routing may have a significant effect on radio interference. All connections must be as short as possible to ensure good EMI performance.
- The luminaire wire should keep a certain distance from the LED power supply and other wires (5 ... 10 cm is preferred).
- No secondary switches are allowed.
- Incorrect wiring can damage the LED.
- The wire must be well protected against short circuits.
- The recommended NFC communication distance: 5 ... 20 mm.
- Mind the polarity of the DALI lines. DA+ to DA+, DA- to DA- only.
- If you operate several operating devices in a luminaire/installation on the DALI bus, make sure that the permissible DALI bus current is not exceeded, as this can lead to functional problems and possibly damage to the bus devices.
- Optional function: NTC(LEDset), External NTC are supported for temperature protection of the LED module or luminaire.
- LEDset and NTC functionality share the same connection terminal; both features are not simultaneously available.
- LEDset functionalities are limited only to the current setting, via codified resistor.
- For the PUSH DIM instruction manual, please refer to the link: [CUPOWER PUSH DIM Manual](#)
- For the Corridor Function instruction manual, please refer to the link: [CUPOWER Corridor Function Manual](#)

Technical information



at Tc 80 °C (0.2 % / 1,000 h failure rate)

It's important to set the output current (AOC value) according to the LED voltage and make sure the power is within 75 W + 5 %.

Example of AOC settings

V LED (Vdc)	AOC max	Pout (W)
250	300 mA	75
200	375 mA	75
150	500 mA	75
136	550 mA	75