

Product features

- Built-in isolated adjustable power LED driver
- Supports DALI-2 D4i DALI parts 150, 250, 251, 252, 253
- Current adjustment via NFC
- Flicker free LED driver
- Output current 100...550 mA
- Max. output power 14 W
- Constant lumen output (CLO)
- DC emergency: Current output decreased to 15% (other values can be programmed)
- Current output default value 100 mA
- For luminaires with protection class I, II
- Auxiliary 24 V, 3 W power supply
- 5 years warranty
- Season Control, supports scheduled brightness control for lower energy consumption at midnight.



Product specifications

163458 ID ECSCB 14/230/100-550 D4i NFC OUT

Output current	Input voltage	Output voltage	Efficiency @ full load	Current accuracy	Power factor	Dimension L x W x H (mm)
100...550 mA	220...240 Vac 220...240 Vdc	12...42 Vdc	87% (@ 42V 333 mA)	± 5%	0.9 (Output Power >6 W @ 230 Vac 50 Hz)	122.8 x 76.3 x 31.0

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
Max. input current	0.098 A @ 230 Vac

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-O/p: 3 kVac, < 5 mA 60 sec, I/p-Da: 1.5 kVac, < 5 mA 60 sec, O/p-Da: 1.5 kVac, < 5 mA 60 sec
Mains surge immunity	L-N 6 kV, L-FG 10 kV, N-FG 10 kV

Total harmonic distortion (THD)

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

Output current tolerance	± 5% at rated input voltage range
No load output voltage	60 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

Protection functions output side

Overvoltage protection	The output voltage is less than or equal to 48 V
Overpower protection	The output power is less than or equal to 17 W
Short circuit protection	Hiccup mode. Protection device will trigger when short circuit and will auto recover after the fault mode is removed.

Dimming operation and interface

Standby power consumption	< 0.3 W (@ DALI BUS OFF)
Dimming mode	DALI-2, Push Diming
Dimming method	Amplitude dimming
Dimming current range	1%...100% (min. 10 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 Vdc

AUX power supply

Typical output voltage	24 Vdc (voltage accuracy ± 5%)
Output current	Nor 125 mA , Peak 250 mA

Connection terminals

Connection terminal type	45° push in terminal
Wire cross section	Input wire: 0.5...1.5 mm ² ; Output wire: 0.2...1.5 mm ² (0.2...0.5 mm ² For NTC)
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: 100...550 mA
Default current	100 mA
Output voltage range	12...42 Vdc
Noise level	< 24 dBA, at full load @ 100 cm distance

Circuit breaker / Inrush current

MCB loading quantity	Inrush current I _{peak} : 22 A		Inrush current T _{width} : 267 us		
	MCB type	B10	C10	B16	C16
	Units	17	29	28	47

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.
- For the push DIM function, please follow our instructions, which can be downloaded from www.cupower.com.
- External NTC are supported for temperature protection of the LED module or luminaire.
- Mind the polarity of the DALI lines. DA+ to DA+, DA- to DA- only.
- The luminaire manufacturer must ensure that condensation water cannot be created within the fixture.
- 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.

Environmental specifications

Operating temperature	-40...+60°C
Storage temperature	-40...+85°C
Working humidity	5%...85%
Store humidity	5%...95%
Lifetime	at T _c 80°C: 50,000 hrs; at T _c 70°C: 100,000 hrs @ 230 Vac
Maximum T _c temperature	80°C

Safety & EMC compliance

ENEC+CE	CCC	SAA
EN 300 330 V2.1.1:2017	/	/
EN 62479:2010	/	/
EN 50663:2017	/	/
EN 301 489-1 V2.2.3:2019	/	/
EN 301 489-3 V2.3.2:2023	/	/
EN IEC 55015:2019/A11:2020	/	/
EN IEC 61547:2023		
EN IEC 61000-3-2:2019/A2:2024		
EN 61000-3-3:2013/A2:2021		
EN 61347-1:2015/A1:2021		
EN 61347-2-13:2014/A1:2017		
EN IEC 62384:2020		

Dimensions

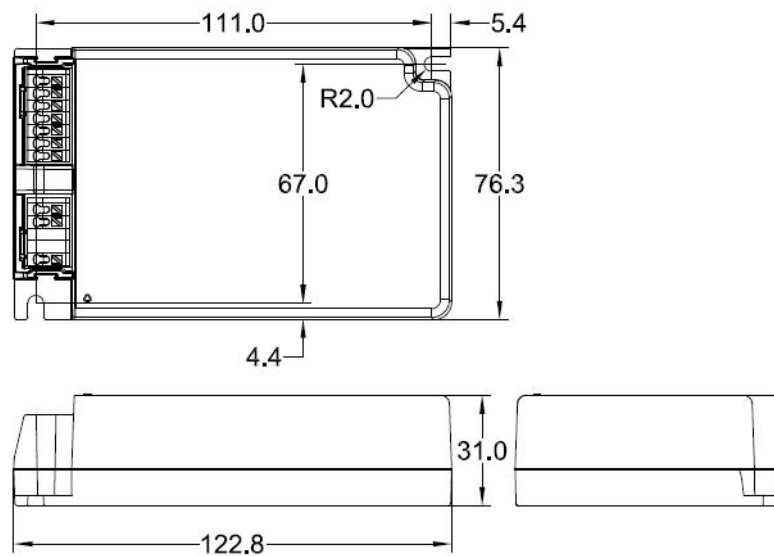
Housing dimensions

Length (L)	122.8 mm
Width (W)	76.3 mm
Height (H)	31.0 mm

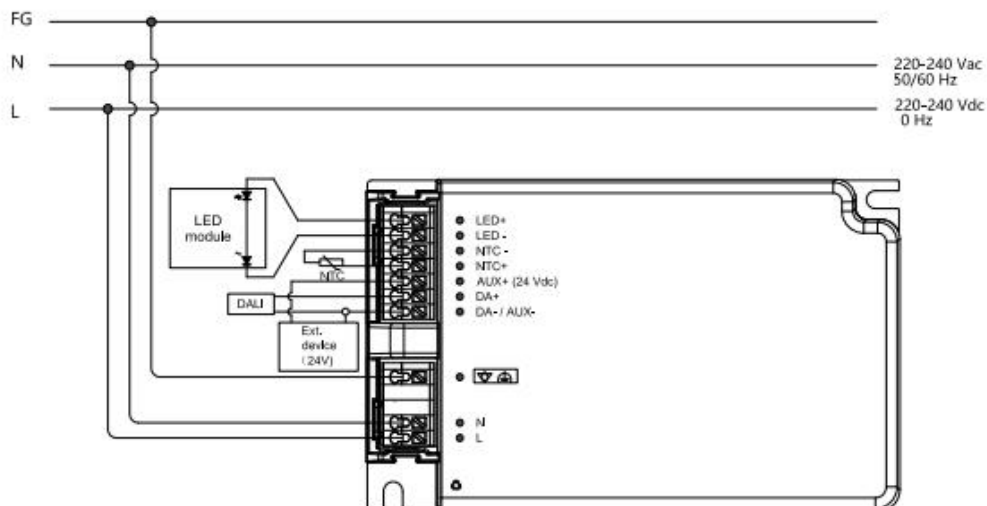
For all dimensions: values in mm; tolerances: ± 0.5 mm

Packaging details

Packing units	24 pcs
Carton size	L318 X W256 X H120 mm
Carton weight	4.8 kg
Product weight	0.175 kg

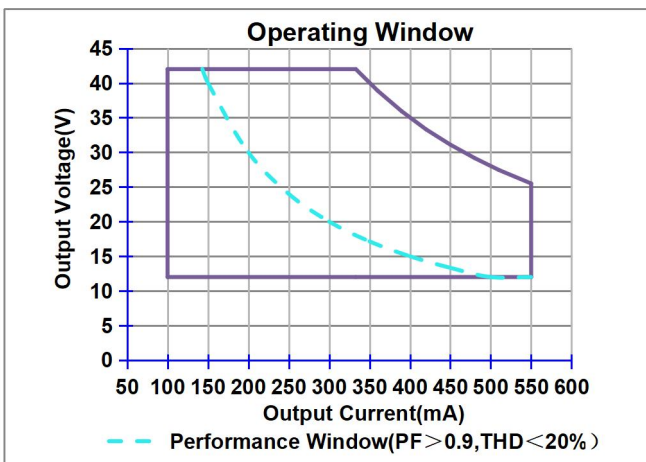
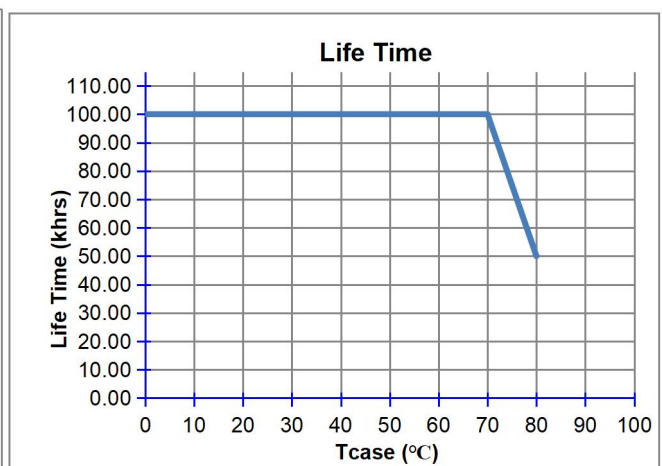
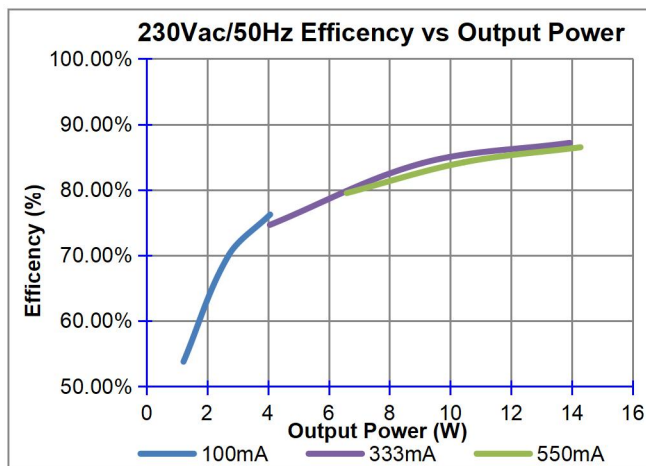
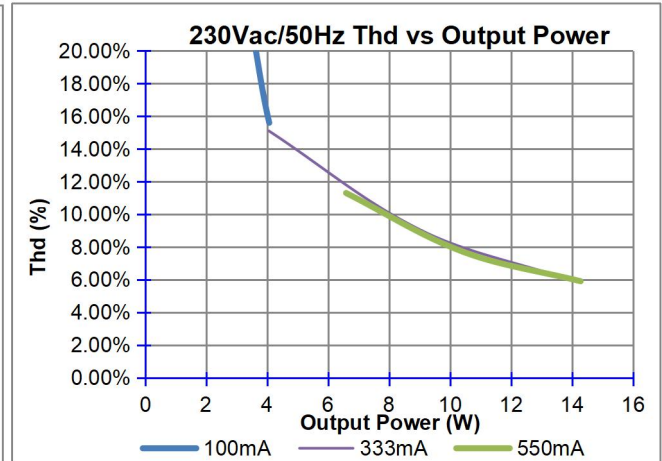
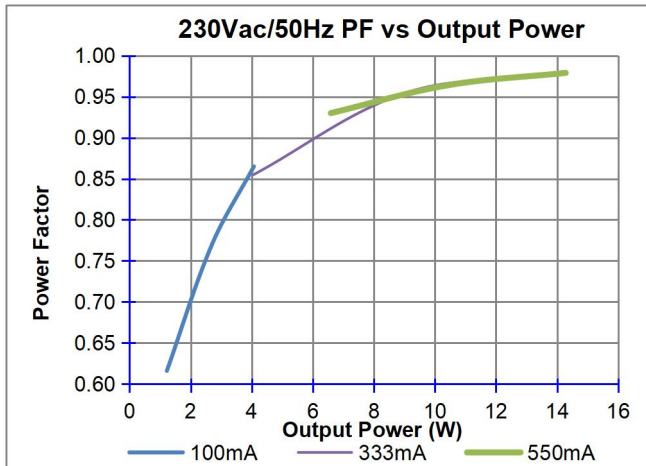


Wiring diagram



- 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 circuit.

Technical information (DALI bus power supply deactivated. No-load on AUX power supply.)



It's important to set the output current (AOC value) according to the LED voltage and make sure the power is within 14 W + 5%.

Example of AOC settings

V LED (Vdc)	AOC max	Pout (W)
42	100 mA	4.2
42	333 mA	14
35	400 mA	14
25.5	550 mA	14