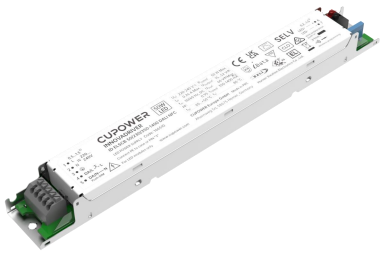
# CUPOWER

## ID ELSCB 42/230/300-1050 DALI NFC

Art.166527

### Product features

- Built-in isolated adjustable power LED driver
- Supports DALI-2, push DIM
- Current adjustment via NFC
- Supports i-Data function (DALI part 251, 252, 253)
- Output current 300…1050 mA
- Max. output power 42 W
- DC emergency
- Flicker-free, dimming range 1%...100% (amplitude dimming)
- Constant lumen output (CLO)
- For luminaires with protection class I
- 5 years warranty



## Product specifications

**166527 ID ELSCB 42/230/300-1050 DALI NFC**

| Output current | Input voltage | Output voltage | Efficiency @ full load | Current accuracy | Power factor | Dimension L x W x H (mm) |
|---|---|---|---|---|---|---|
| 300...1050 mA | 220…240 Vac<br>220…240 Vdc | 15…52 Vdc | 89% | ± 5% | 0.9<br>(Output Power > 18 W) | 238 x 30 x 21 |

## 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 | 0.22 A @ 230 Vac & 0.22 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 s; I/p-DA: 1.5 kVac, < 5 mA 60 s<br>I/p-O/p: 3.75 kVac, < 5 mA 60 s, O/p-DA: 1.5 kVac, < 5 mA 60 s<br>O/p-FG: 1.5 kVac, < 5 mA 60 s, DA-FG: 1.5 kVac, < 5 mA 60 s |
| Mains surge immunity | L-N 1 kV, L/N-FG 2 kV per IEC 61000-4-5 |



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| **Total harmonic distortion (THD)** | |
|---|---|
| At rated input voltage range @ full load | ≤ 10% |

| **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 |
| DC emergency level | Current output decreased to 15% (programmable range: 1%...100%) |

| **Protection functions output side** | |
|---|---|
| Overvoltage protection | The output voltage is less than or equal to 60 V |
| Overpower protection | The output power is less than or equal to 46 W |
| Short circuit protection | 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** | |
|---|---|
| Dimming mode | DALI-2, push dimming |
| Dimming method | Amplitude dimming |
| Dimming current range | 1%...100% （3...1050 mA) |
| Standby power consumption | < 0.3 W |

| **Connection terminals** | |
|---|---|
| Connection terminal type | 45° push in terminal |
| Wire cross section | Input wire: 0.5…1.5 mm²; output wire: 0.2…1.5 mm² |
| Wire stripping length | 8…9 mm |

| **Degree of protection** | |
|---|---|
| Protection rating | IP20 |

| **Operating data** | |
|---|---|
| Output current range | NFC control adjusts the current: 300…1050 mA |
| Default current | 300 mA |
| Output voltage range | 15…52 Vdc |
| Noise level | < 20 dB, at full load @ 100 cm distance |

**Circuit breaker/Inrush current**

| | | | | | |
|---|---|---|---|---|---|
| MCB loading quantity | Inrush current Ipeak: 24.3 A | | | Inrush current Twidth:175 μs | |
| | MCB type | B10 | C10 | B16 | C16 |
| | Units | 24 | 41 | 39 | 66 |



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## 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.

## Environmental specifications

| | |
|---|---|
| Operating temperature | -20…+50°C |
| Storage temperature | -25…+85°C |
| Working humidity | 10%…90% |
| Store humidity | 5%…95% |
| Lifetime | at Tc 75°C: 50,000 hrs; at Tc 65°C: 100,000 hrs @ 230 Vac |
| Maximum Tc temperature | 80°C |

## Safety & EMC compliance

| **ENEC+CE** |
|---|
| EN 61347-1:2015/A1:2021 |
| EN 61347-2-13:2014/A1:2017 |
| EN IEC 62384:2020 |
| 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 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 |
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| **CCC** |
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| **SAA** |
|---|
| AS 61347.2.13 |
| AS/NZS 61347.1:2016+A1 |
| |
| |

| **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 62386-251:Ed2 |
| Acc. to IEC 62386-252:Ed2 |
| Acc. to IEC 62386-253:Ed2 |
| |
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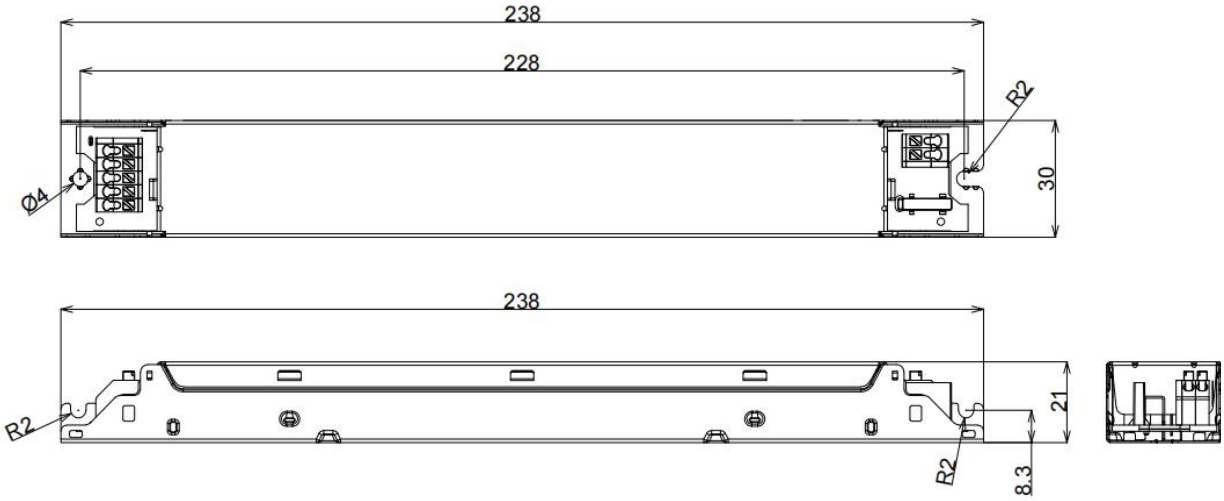
## Dimensions

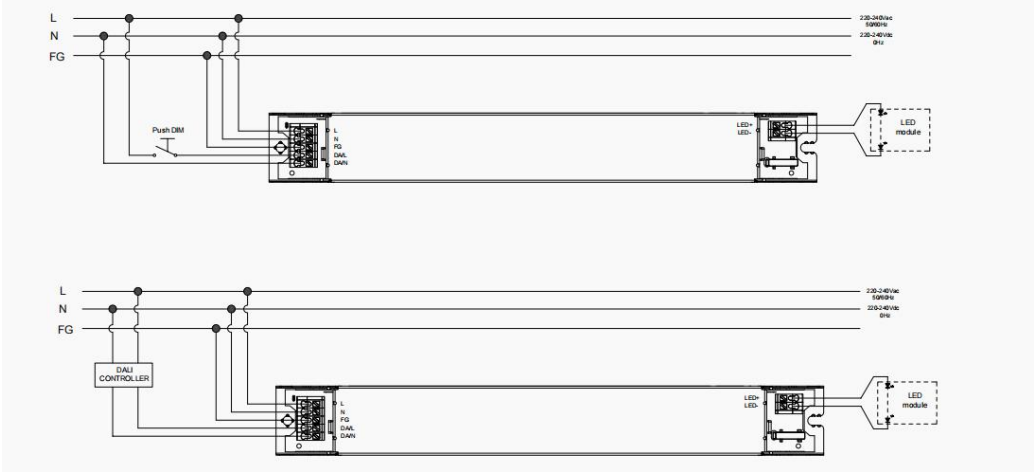
| Housing dimensions | |
|---|---|
| Length (L) | 238 mm |
| Width (W) | 30 mm |
| Height (H) | 21 mm |

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

| Packaging details | |
|---|---|
| Packing units | 20 pcs |
| Carton size | 255 mm × 126 mm × 133 mm |
| Weight | 3.5 kg |
| Product weight | 0.16 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.



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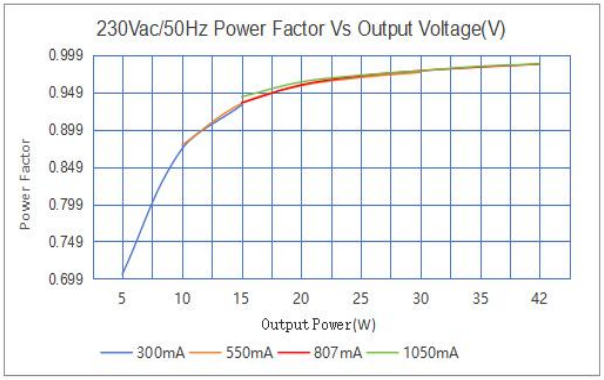
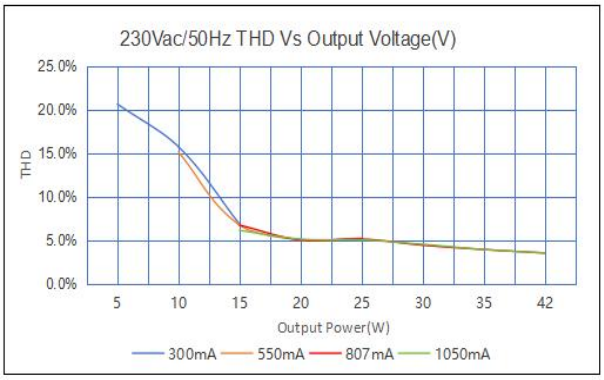
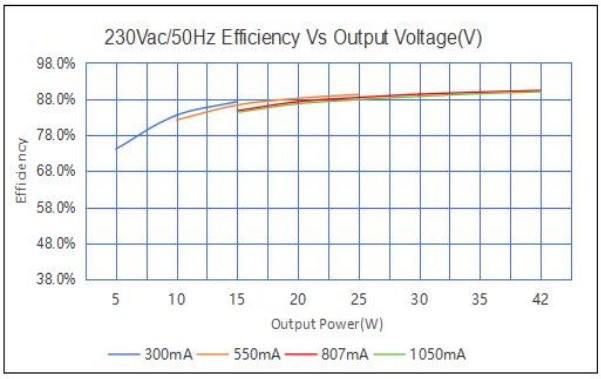
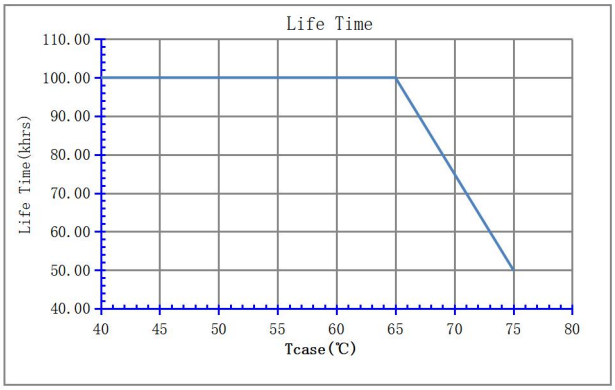
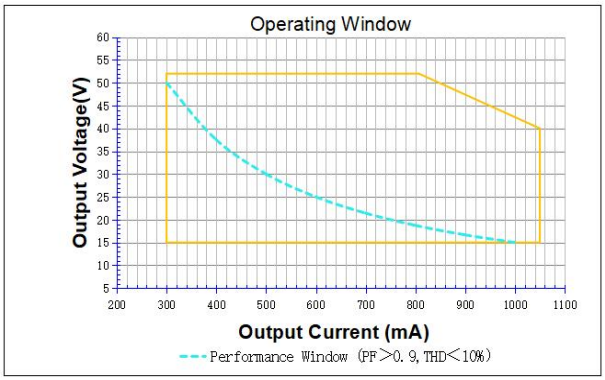
## Technical information




It's important to set the output current (AOC value) according to the LED voltage and make sure the power is within 42 W + 5%.

**Example of AOC settings**

| V LED (Vdc) | AOC max | Pout (W) |
|---|---|---|
| 52 | 300 mA | 15.6 |
| 52 | 550 mA | 28.6 |
| 52 | 807 mA | 42 |
| 40 | 1050 mA | 42 |



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