

### Product features

- Built-in non isolated adjustable power LED driver
- Supports DALI-2, push DIM
- Flicker-free LED driver
- Supports i-Data function (DALI part 251, 252, 253)
- Output current adjustable from 50 to 550 mA via external DIP switch
- The default output current is 50 mA
- Max. output power 80 W
- DC emergency
- For luminaires with protection class I
- 5 years warranty



### Product specifications

#### 167944 ID ELNCB 80/230/050-550 DALI EDIP H21

| 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<br>220...240 Vdc | 50...220 Vdc   | 94%                    | ± 5%             | 0.95         | 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             | 0.42 A @ 230 Vac & 0.42 A @ 230 Vdc     |

#### Battery operation

|                       |                                         |
|-----------------------|-----------------------------------------|
| DC voltage range      | 220...240 Vdc; performance range        |
| Max. DC voltage range | 176...280 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;<br>DA-FG: 1.5 kVac, < 5 mA 60 sec |
| Mains surge immunity             | L-N: 1 kV, L/N-FG: 2 kV per IEC 61000-4-5                                                           |
| Control interface surge immunity | DA-DA: 1 kV, DA-FG: 2 kV per IEC 61000-4-5                                                          |

#### Total harmonic distortion (THD)

|                                          |       |
|------------------------------------------|-------|
| At rated input voltage range @ full load | ≤ 10% |
|------------------------------------------|-------|

### Output data

|                          |                                                                 |
|--------------------------|-----------------------------------------------------------------|
| Output current tolerance | 100...550 mA $\pm$ 5% at rated input voltage range              |
| Output current tolerance | 50...99 $\pm$ 8% at rated input voltage range                   |
| No load output voltage   | $\leq$ 250 Vdc                                                  |
| Ripple output current    | 5% (ripple = peak/average total 100 Hz)                         |
| Output PstLM             | $\leq$ 1 at full load @ rated input voltage                     |
| Output SVM               | $\leq$ 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 250 Vdc                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Overpower protection                               | The output power is less than or equal to 84 W                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Short circuit protection & Over voltage protection | <p>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:</p> <ul style="list-style-type: none"> <li>• After receiving DALI instruction off, turn on the light by dimming instruction.</li> <li>• Restart the driver: Power on the driver five seconds after the power failure.</li> </ul> |

### Dimming operation and interface

|                           |                        |
|---------------------------|------------------------|
| Dimming mode              | DALI-2, push dimming   |
| Dimming method            | Amplitude dimming      |
| Dimming current range     | 1%~100% (0.5...550 mA) |
| Standby power consumption | $\leq$ 0.3 W           |

### Connection terminals

|                          |                                                                                |
|--------------------------|--------------------------------------------------------------------------------|
| Connection terminal type | 45° push in terminal                                                           |
| Wire cross section       | Input wire: 0.5...1.5 mm <sup>2</sup> ; output wire: 0.2...1.5 mm <sup>2</sup> |
| Wire stripping length    | 8...9 mm                                                                       |

### Degree of protection

|                   |      |
|-------------------|------|
| Protection rating | IP20 |
|-------------------|------|

### Operating data

|                      |                                         |
|----------------------|-----------------------------------------|
| Output current range | 50...550 mA                             |
| Default current      | 50 mA                                   |
| Output voltage range | 50...220 Vdc                            |
| Noise level          | < 20 dB, at full load @ 100 cm distance |

### Circuit breaker / Inrush current

|                      |                                           |     |                                            |     |     |
|----------------------|-------------------------------------------|-----|--------------------------------------------|-----|-----|
| MCB loading quantity | Inrush current I <sub>peak</sub> : 29.0 A |     | Inrush current T <sub>width</sub> : 236 μs |     |     |
|                      | MCB type                                  | B10 | C10                                        | B16 | C16 |
|                      | Units                                     | 15  | 20                                         | 24  | 33  |



### Dimensions

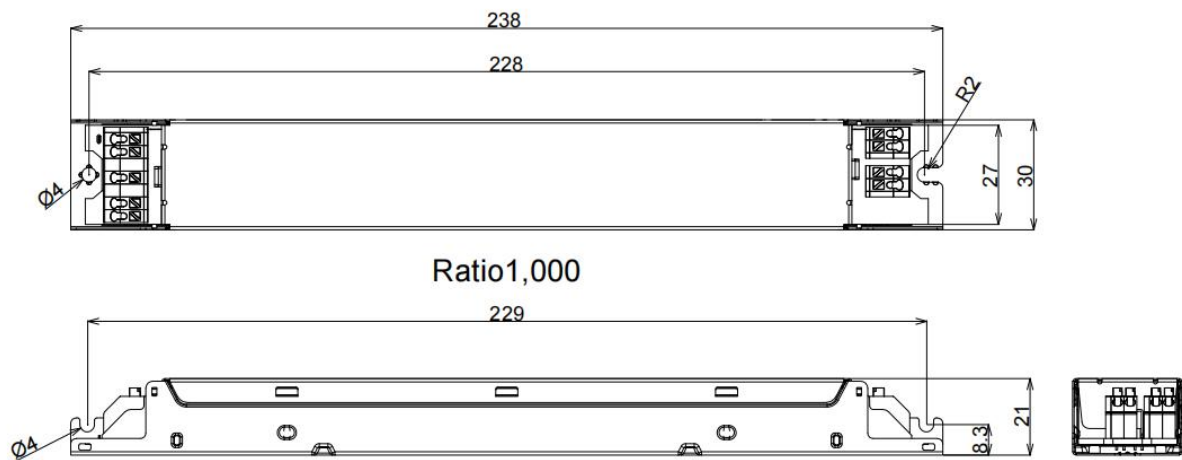
#### Housing dimensions

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

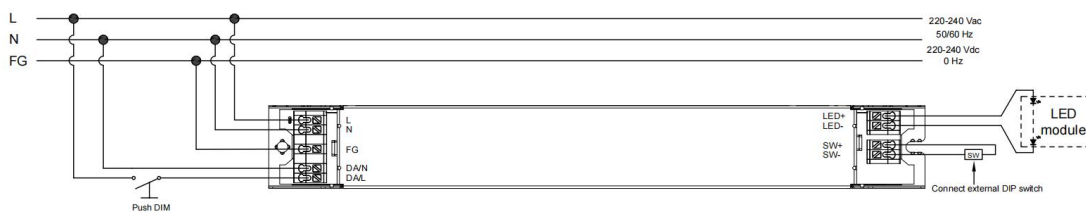
For all dimensions: values in mm; tolerances:  $\pm 0.5$  mm

#### Packaging details

|                |                    |
|----------------|--------------------|
| Packing units  | 60 pcs             |
| Carton size    | 317 x 248 x 160 mm |
| Carton weight  | 10.8 kg            |
| Product weight | 0.170 kg           |

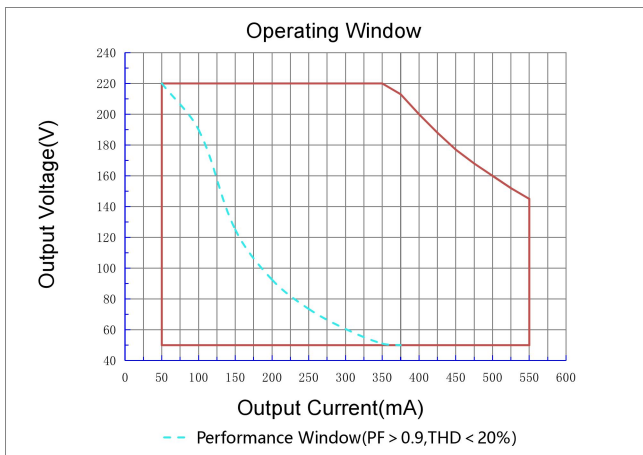
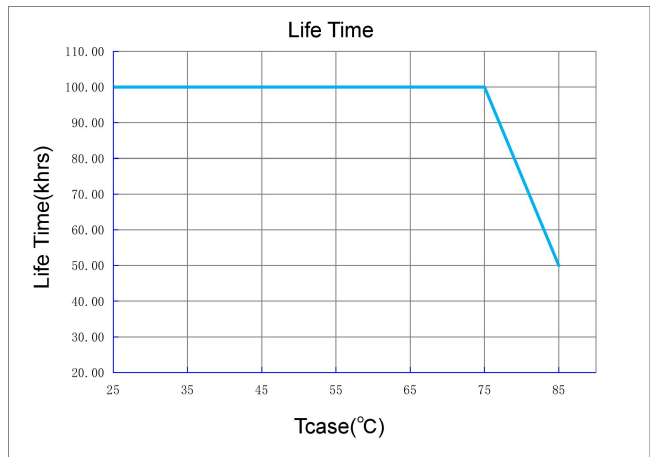
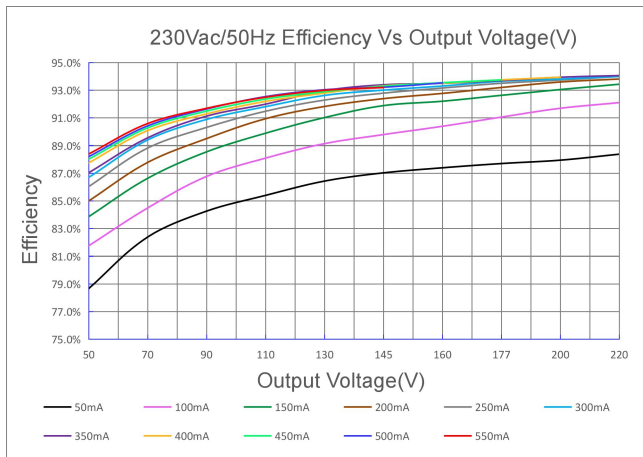
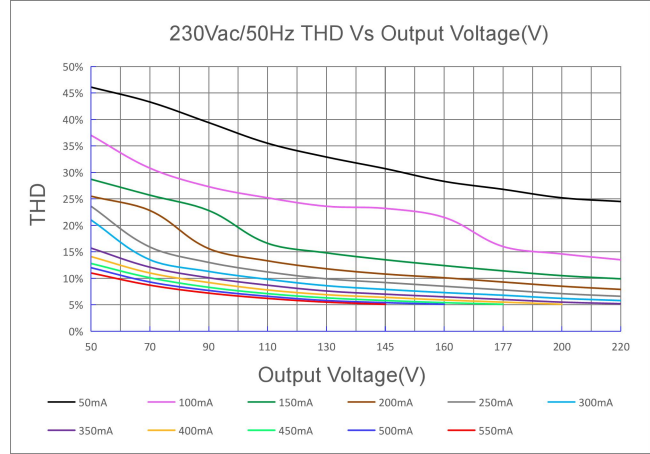
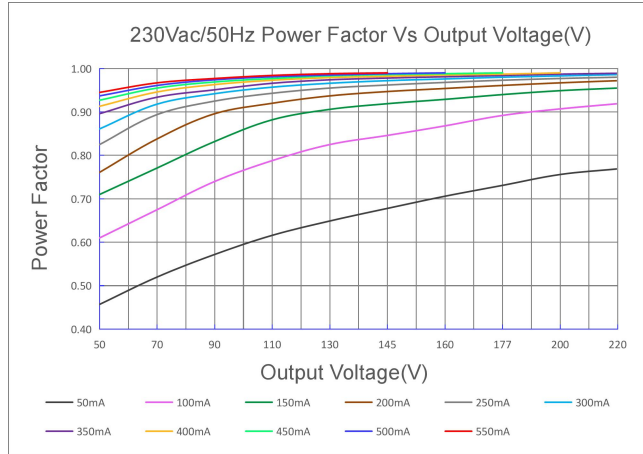


### Wiring diagram



- 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.
- The outputs of drivers cannot be in paralleled.

### Technical information



It's important to set the output current according to the LED voltage and make sure the power is within 80 W + 5%.

### Connect external DIP switch (example)

| Output current | External resistor |
|----------------|-------------------|
| 50 mA          | 330 K $\Omega$    |
| 75 mA          | 160 K $\Omega$    |
| 100 mA         | 100 K $\Omega$    |
| 125 mA         | 75 K $\Omega$     |
| 150 mA         | 56 K $\Omega$     |
| 175 mA         | 47 K $\Omega$     |
| 200 mA         | 39 K $\Omega$     |
| 225 mA         | 33 K $\Omega$     |
| 250 mA         | 27 K $\Omega$     |
| 275 mA         | 22 K $\Omega$     |
| 300 mA         | 18 K $\Omega$     |
| 325 mA         | 15 K $\Omega$     |
| 350 mA         | 13.5 K $\Omega$   |
| 375 mA         | 12 K $\Omega$     |
| 400 mA         | 11 K $\Omega$     |
| 425 mA         | 9.1 K $\Omega$    |
| 450 mA         | 8.2 K $\Omega$    |
| 475 mA         | 7.5 K $\Omega$    |
| 500 mA         | 6.8 K $\Omega$    |
| 525 mA         | 5.6 K $\Omega$    |
| 550 mA         | 5.1 K $\Omega$    |