EMERGENCY Downlighter

Product information
The Emergency Downlighter consists of an LED lamphead with integrated battery, status indicator LED and an emergency lighting unit to operate the single LED in maintained and non-maintained mode. The optically efficient lenses ensure optimum performance for corridor or open area applications. The safety-compliant downlight emergency lighting is for recessed mounting and ensures emergency escape route lighting in buildings. The integrated selftest function corresponds the European standard.

Features
• Low and High lumen output version (110/165lm), energy efficient
• No pollution for the environment, RoHS compliant, Mercury free, no IR or UV radiation
• The downlight has two lens variants (see photometry below):
  • Open Area Lens version evenly distributes the light in all directions.
  • Corridor Lens distributes the light in only two directions.
• Ambient temperature 5°C – 50°C
• Normal operating voltage min. 12 V / max. 55 V
• Switchover time mains – emergency <0,5s
• Available non-maintained / self test and maintained DALI versions
• Non-maintained mode / Maintained mode in combination with an LED-driver
• 3 h operating time
• Battery charging time 24 h
• Selftest as per IEC 62034
• Status display LED
• Easy 3-pole terminal connector (L,N,PE)
• Different lenses for emergency escape route lighting (elliptical)
• Simple recessed mounting of preinstalled luminaire and driver (ceiling min 5mm, max 20mm)
• Strain relief

Benefits
• Constant power output in emergency mode
• Ground connection for LED-driver and LED module on mains terminal
• Long lifetime, 5yrs warranty on fixture and 3yrs warranty on battery
• Deep discharge protection
• Premium Lithium batteries (LiFePO4) - compared to lead acid batteries - offer significant advantages:
  • Safety and stability: In case of hazardous events, such as collision or short-circuiting, this type of batteries doesn't explode or catch fire, significantly reducing any chance of harm. It can reach 350°C to 500°C
  • Environmental Impact: The batteries are non-toxic, non-contaminating and contain no rare earth metals, making them an environmentally conscious choice. Lead acid and nickel oxide lithium batteries, by comparison, carry significant environmental risk.
  • Light weight: The size of a battery of the same size is a 2/3 of the size of a lead acid battery, and a third of the weight of a lead acid battery.
  • Performance: The batteries perform well in several areas, especially life span. Service life usually at five to six years. Energy density is typically lower than certain counterparts, such as cobalt and nickel oxide. Battery charging time is also considerably reduced, another convenient performance perk.
  • Improved discharge efficiency: Ability to deep cycle while maintaining performance. The minimal maintenance and infrequent replacement makes lithium a worthwhile investment and smart long-term solution
Batteries

- High-temperature cells 5° C – 50°C
- LiFePO4-batteries 3.2V-4.5Ah,
  Normal lumen output: 3.2V-1.5Ah, 1x1865-cell
  High lumen output: 3.2V-3Ah, 2x1865-cells
- Weight:
  Normal lumen output: 45g
  High lumen output battery: 90g
- Charging time 24 h
- >6 years expected life duration
- 3 years warranty
- Battery regeneration for capacity optimisation

Structures and materials

Polycarbonate white color case, white color head

Application areas

- General lighting
- Office
- Education
- Healthcare
- Retail

Specification summary

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Product Description</th>
<th>Wattage (W) - emergency mode*</th>
<th>Lumen (lm)</th>
<th>Efficiency (lm/W)</th>
<th>CCT (K)</th>
<th>IP rating</th>
<th>Beam angle</th>
<th>Control</th>
<th>Operating Voltage</th>
<th>Ambient Temperature</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>93100233</td>
<td>Emergency Downlight G1 TU 3 HL C Li D</td>
<td>3</td>
<td>165</td>
<td>55</td>
<td>6000</td>
<td>IP20</td>
<td>110°</td>
<td>Dali</td>
<td>220-240V</td>
<td>+5°C to +50°C</td>
<td>0.233</td>
</tr>
<tr>
<td>93100229</td>
<td>Emergency Downlight G1 TU 3 HL C Li N</td>
<td>3</td>
<td>165</td>
<td>55</td>
<td>6000</td>
<td>IP20</td>
<td>110°</td>
<td>static</td>
<td>220-240V</td>
<td>+5°C to +50°C</td>
<td>0.233</td>
</tr>
<tr>
<td>93100231</td>
<td>Emergency Downlight G1 TU 3 HL C Li S</td>
<td>3</td>
<td>165</td>
<td>55</td>
<td>6000</td>
<td>IP20</td>
<td>110°</td>
<td>static</td>
<td>220-240V</td>
<td>+5°C to +50°C</td>
<td>0.233</td>
</tr>
<tr>
<td>93100232</td>
<td>Emergency Downlight G1 TU 3 HL O Li D</td>
<td>3</td>
<td>165</td>
<td>55</td>
<td>6000</td>
<td>IP20</td>
<td>100°</td>
<td>Dali</td>
<td>220-240V</td>
<td>+5°C to +50°C</td>
<td>0.233</td>
</tr>
<tr>
<td>93100228</td>
<td>Emergency Downlight G1 TU 3 HL O Li N</td>
<td>3</td>
<td>165</td>
<td>55</td>
<td>6000</td>
<td>IP20</td>
<td>100°</td>
<td>static</td>
<td>220-240V</td>
<td>+5°C to +50°C</td>
<td>0.233</td>
</tr>
<tr>
<td>93100230</td>
<td>Emergency Downlight G1 TU 3 HL O Li S</td>
<td>3</td>
<td>165</td>
<td>55</td>
<td>6000</td>
<td>IP20</td>
<td>100°</td>
<td>static</td>
<td>220-240V</td>
<td>+5°C to +50°C</td>
<td>0.233</td>
</tr>
</tbody>
</table>

* Standard power consumption max.:2.4W

Order logic

<table>
<thead>
<tr>
<th>Internal Code</th>
<th>Generation</th>
<th>Brand</th>
<th>Operation Hours</th>
<th>Output options</th>
<th>Lens type</th>
<th>Battery type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Downlight</td>
<td>G1 - Generation 1</td>
<td>Tungsram</td>
<td>3 - 3h Operation</td>
<td>HL - High Lumen Output</td>
<td>O - Open Area</td>
<td>Li - LiFePO4</td>
<td>N - Normal S - Selftest D - Dali</td>
</tr>
<tr>
<td>Emergency Downlight</td>
<td>G1 - Generation 1</td>
<td>Tungsram</td>
<td>3 - 3h Operation</td>
<td>NL - Normal Lumen Output</td>
<td>C - Corridor</td>
<td>Li - LiFePO4</td>
<td>N - Normal S - Selftest D - Dali</td>
</tr>
</tbody>
</table>

Example: Emergency Downlight G1 TU 3 HL C Li S
Emergency Downlight with 3 hours LiFePO4 battery, high (165lm) lumen output, corridor lens and selftest function
**Dimensions (mm)**

Y-case: L205 x W37 x H21.75 mm  
Lamphead: Ø60 x 83 mm with 48 mm cut out

**Mounting (recessed)**

**Regulatory and standards**

*Regulatory mark:* CE  
*Harmonised standards:* EN 60598, EN 62493, EN 61547, EN55015, EN 61000, refer to CE Declaration of Conformity and Technical File for details  
*not on DOC*

**Selftest mode**

- Selftest as per IEC 62034  
- Two-coloured status display LED  
- Status of battery  
- Status of LED module
Visual status indication

Permanent green = no fault
Intermittently flashing green = test phase
Continuously flashing red = faulty battery
Intermittently flashing red = faulty lamp
Dark = faulty unit

**LED green:** no fault / normal state
**LED intermittently flashing green:** The unit is in the test phase. The unit will carry out several full discharge cycles during the first 8 days.
**LED continuously flashing red:** battery fault by either insufficient battery capacity or interrupted connection. The alarm is reset once the fault is cleared.
**LED intermittently flashing red:** lamp fault. Please note that the fault is not indicated (or reset) immediately when it occurs (or is cleared), but after the next selftest.
**LED dark (LED off):** if the LED is still off for more than 5 minutes after switching on the mains, then the mains or the unit is faulty.

Photometric data

![Normal lumen output, Open Area](image1)
![Normal lumen output, Corridor](image2)
![High lumen output, Open Area](image3)

![High lumen output, Corridor](image4)

110 lm
165 lm

We in Tungsram Operations Kft. are constantly developing and improving our products. For this reason, all product descriptions in this catalogue are intended as a general guide, and we may change specifications from time to time in the interest of product development, without prior notification or public announcement. All descriptions in this publication present only general particulars of the goods to which they refer and shall not form part of any contract. Data in this guide has been obtained in controlled experimental conditions. However, Tungsram cannot accept any liability arising from the reliance on such data to the extent permitted by law.

Emergency downlighter Data Sheet – January 2021