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ENEC Certification Body registered under ID # 11.

Validity of ENEC+ Licences can be checked at [www.enec.com](http://www.enec.com)

# LICENCE

to use the ENEC+ Mark



Licence No.: **80585-002**

Date of issue: Wien, 2021 03 19  
Rev. No.: 02 Wien, 2026 03 02

OVE the Austrian Electrotechnical Association as signatory to the **"Agreement on the use of a commonly agreed Mark of Conformity for certain electrical equipment complying with European Standards"** hereby grants the right to label the products mentioned hereunder and listed in the Annex with the Mark(s) shown above to the following company

Licensee: **ZG Lighting France**  
Route de Paix  
27705 Les Andelys  
France

Product: **Luminaires for road and street lighting**

Trade Mark: **THORN**

Series/Type: **Isaro PRO CL2**

Basis for this given right is the conformity of the products with the requirements of the relevant Standard(s) as listed in the Annex and the fulfilment of articles 8 and 9 of the ENEC-Agreement by the manufacturer. This licence refers to the tested specimen and to all products manufactured strictly identical to the submitted one.

This licence has been issued under the presumption and conditional on the fact that the licensee holds all necessary legal rights with regard to the product presented for testing and certification.

**Only valid in conjunction with ENEC-Licence No.: 80585-019 Rev. 04**

**Österreichischer Verband für Elektrotechnik**  
Head of OVE Certification

Digitally signed by T. Neumayer  
Email=[t.neumayer@ove.at](mailto:t.neumayer@ove.at)

Dipl.-Ing. T. Neumayer



## OVE Certification

Accredited by the Austrian National Accreditation Body as Certification Body for products within the scope as given in the official decree and published under <https://akkreditierung-austria.gv.at>.



|                                                       |                                                                                                                                                                                                                                                               |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Hersteller<br/>Manufacturer</i>                    | Thorn Lighting Ltd<br>Durhamgate, Spennymoor,<br>County Durham<br>DL16 6HL<br>United Kingdom                                                                                                                                                                  |
| <i>Fertigungsstätte(n)<br/>Factory location(s)</i>    | Thorn Lighting Ltd<br>Durhamgate, Spennymoor,<br>County Durham<br>DL16 6HL<br>United Kingdom<br><br>ZG Lighting SRB doo<br>Ulica Cumtobel br. 1<br>18000 Nis<br>Serbia                                                                                        |
| <i>Typenbezeichnung<br/>Type reference</i>            | IP 12L...CL2...<br>IP 24L...CL2...<br>IP 36L...CL2...<br>IP 48L...CL2...<br>IP 60L...CL2...<br>IP 72L...CL2...<br>see type code on page 8.                                                                                                                    |
| * <i>Prüfbericht<br/>Test Report</i>                  | TR 80585-0048-01, TR 80585-0048-02, TR 80585-0048-03,<br>TR 80585-0048-04, TR 80585-0048-05, TR 80585-0048-06,<br>TR 80585-0048-07, TR 80585-0048-08, TR 80585-0048-09,<br>TR 80585-0048-10, TR 80585-0055-01.                                                |
| <i>ENEC+ Requirement Sheet<br/>Standard</i>           | PD EPRS 003:2018-05<br>(based on EN 62722-2-1:2016)                                                                                                                                                                                                           |
| * <i>Ersatz für Zertifikat<br/>Superseded licence</i> | 80585-002 Rev. 01 dated 2024 10 25<br>Items modified are marked with an asterisk (*)                                                                                                                                                                          |
| <i>Anmerkung(en)<br/>Remark(s)</i>                    | This Licence is valid for all LED luminaires as listed on page 8.<br>Rated photometric values according to EPRS 003 had been approved<br>on selected samples, which were found to be representative for the<br>certified family range (based on AD ENEC 331). |

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|                                                                                                                        |                                                                               |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| * <i>Bemessungsversorgungsspannung</i><br><i>Rated supply voltage</i>                                                  | <b>220-240V, 50-60Hz or 50/60Hz</b>                                           |
| * <i>Nennleistung</i><br><i>Rated power</i>                                                                            | <b>see page 6</b>                                                             |
| <i>Lampentyp(en)</i><br><i>Lamp identification</i>                                                                     | <b>LED modules LEM R12 (12 LEDs) or LEM R36 (36 LEDs)</b>                     |
| <i>Schutzklasse</i><br><i>Class of protection</i>                                                                      | <b>Cl.II</b>                                                                  |
| <i>Ähnlichste Farbtemperatur</i><br><i>Correlated colour temperature CCT</i>                                           | <b>2200 K, 2700 K, 3000 K, 4000 K</b>                                         |
| <i>Bemessungswert des Farbwiedergabeindex</i> <b>70</b><br><i>Rated colour rendering index CRI</i>                     |                                                                               |
| * <i>Bemessungslichtstrom</i><br><i>Rated luminous flux</i>                                                            | <b>see page 6</b>                                                             |
| * <i>Bemessungswert der Lichtausbeute</i><br><i>Rated efficacy</i>                                                     | <b>see page 6</b>                                                             |
| <i>Bemessungs-Umgebungstemperatur zur</i><br><i>Arbeitsweise tq</i><br><i>Rated ambient performance temperature tq</i> | <b>25°C</b>                                                                   |
| <i>Type von LED-Leuchte</i><br><i>Type of LED luminaire</i>                                                            | <b>Type A</b>                                                                 |
| <i>Zusatzinformation</i><br><i>Additional information</i>                                                              | <b>Classified as risk group 2 (moderate risk) according to EN 62471:2008.</b> |

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| <i>Bauteil<br/>Component</i> | <i>Code<br/>Code</i> | <i>Hersteller<br/>Manufacturer</i> | <i>Typenbezeichnung<br/>Type Reference</i> | <i>Konformitätszeichen<br/>Mark(s) of conformity</i> |
|------------------------------|----------------------|------------------------------------|--------------------------------------------|------------------------------------------------------|
| <i>LED control</i>           | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 14/100-550/38...</b>                | <b>ENEC 11</b>                                       |
| <i>* gear</i>                | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 14/100-500/38...</b>                | <b>ENEC 11</b>                                       |
|                              | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 40/200-1050/64...</b>               | <b>ENEC 11</b>                                       |
| <i>*</i>                     | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 40/200-1050/77...</b>               | <b>ENEC 11</b>                                       |
|                              | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 60/200-1050/100...</b>              | <b>ENEC 11</b>                                       |
| <i>*</i>                     | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 60/200-1050/107...</b>              | <b>ENEC 11</b>                                       |
|                              | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 90/200-1050/165...</b>              | <b>ENEC 11</b>                                       |
| <i>*</i>                     | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 90/200-1050/176...</b>              | <b>ENEC 11</b>                                       |
|                              | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 135/200-1050/220...</b>             | <b>ENEC 11</b>                                       |
| <i>*</i>                     | <b>B</b>             | <b>Tridonic</b>                    | <b>LCO 200/200-1050/355...</b>             | <b>ENEC 11</b>                                       |
|                              | <b>B</b>             | <b>Philips</b>                     | <b>Xi FP 110W 0.3-1.0A C133 sXt</b>        | <b>ENEC 05</b>                                       |
|                              | <b>B</b>             | <b>Philips</b>                     | <b>Xi FP 165W 0.2-0.7A C170 sXt</b>        | <b>ENEC 05</b>                                       |
|                              | <b>B</b>             | <b>Philips</b>                     | <b>Xi SR 40W 0.2-1.0A C123 sXt</b>         | <b>ENEC 05</b>                                       |
|                              | <b>B</b>             | <b>Philips</b>                     | <b>Xi SR 75W 0.2-1.0A C150 sXt</b>         | <b>ENEC 05</b>                                       |
|                              | <b>B</b>             | <b>Philips</b>                     | <b>Xi SR 110W 0.2-1.0A C150 sXt</b>        | <b>ENEC 05</b>                                       |
|                              | <b>B</b>             | <b>Philips</b>                     | <b>Xi SR 165W 0.2-1.0A C170 sXt</b>        | <b>ENEC 05</b>                                       |
| <i>Base (Zhaga)</i>          | <b>B</b>             | <b>Tyco</b>                        | <b>2213858-1</b>                           | <b>CB US-34131-M2-UL</b>                             |
| <i>Base (Nema)</i>           | <b>B</b>             | <b>Tyco</b>                        | <b>2213362-4</b>                           | <b>CB US-37285-M2-UL</b>                             |
| <i>SPD</i>                   | <b>B</b>             | <b>Citel</b>                       | <b>MLPC2-230L-R</b>                        | <b>IMQ</b>                                           |
| <i>LED Module</i>            | <b>A*</b>            | <b>THORN</b>                       | <b>LEM R12</b>                             | <b>ÖVE</b>                                           |
|                              | <b>A*</b>            | <b>THORN</b>                       | <b>max. 1050mA, RG2, tc=105°C</b>          | <b>ÖVE</b>                                           |
|                              | <b>A*</b>            | <b>THORN</b>                       | <b>LEM R36</b>                             | <b>ÖVE</b>                                           |
|                              | <b>A*</b>            | <b>THORN</b>                       | <b>max. 1050mA, RG2, tc=105°C</b>          | <b>ÖVE</b>                                           |
| <i>Terminals</i>             | <b>A</b>             | <b>Electro Terminal</b>            | <b>SLK/3</b>                               | <b>VDE</b>                                           |
|                              |                      |                                    | <b>450V, 24A, T85</b>                      |                                                      |
| <i>Disconnecter</i>          | <b>B</b>             | <b>OMT</b>                         | <b>130</b>                                 | <b>IMQ</b>                                           |
|                              |                      |                                    | <b>400V, 16A, T140</b>                     |                                                      |
|                              | <b>B</b>             | <b>OMT</b>                         | <b>132</b>                                 | <b>IMQ</b>                                           |
|                              |                      |                                    | <b>400V, 16A, T140</b>                     |                                                      |
|                              | <b>B</b>             | <b>OMT</b>                         | <b>135</b>                                 | <b>IMQ</b>                                           |
|                              |                      |                                    | <b>250V, 6A, T140</b>                      |                                                      |
| <i>Internal wiring</i>       | <b>B</b>             | <b>BLF</b>                         | <b>SilHSil U</b>                           | <b>VDE</b>                                           |
|                              |                      |                                    | <b>300V; 0,75mm<sup>2</sup>; 180°C</b>     |                                                      |
|                              |                      |                                    | <b>(double insulated)</b>                  |                                                      |
|                              | <b>B</b>             | <b>BLF</b>                         | <b>SIL 100</b>                             | <b>VDE</b>                                           |
|                              |                      |                                    | <b>300V; 0,75mm<sup>2</sup>; 180°C</b>     |                                                      |
|                              | <b>B</b>             | <b>BLF</b>                         | <b>UG4G4</b>                               | <b>IMQ</b>                                           |
|                              |                      |                                    | <b>450/750V; 0,75mm<sup>2</sup>; 180°C</b> |                                                      |
|                              |                      |                                    | <b>(double insulated)</b>                  |                                                      |
|                              | <b>A</b>             | <b>Leoni</b>                       | <b>LI2X-U</b>                              | <b>BBJ</b>                                           |
|                              |                      |                                    | <b>300/500V; 110°C</b>                     |                                                      |

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|------------------------------|----------------------|------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------|
| <i>External wiring</i>       | <b>A</b>             | <b>Pecso Cavi SRL</b>              | <b>H07RN-F</b>                                                             | <b>IMQ</b>                                           |
|                              | <b>D</b>             | <b>Ozguven Kablo</b>               | <b>750V; 1,5/2,5mm<sup>2</sup><br/>318<br/>300-500V; 1,5mm<sup>2</sup></b> | <b>BASEC</b>                                         |
| <i>Gland</i>                 | <b>A</b>             | <b>Bimed</b>                       | <b>BM22<br/>PA 6, IP68</b>                                                 | <b>VDE</b>                                           |

- A The component is replaceable with another one, also certified, with equivalent characteristics.  
A\* The component is replaceable with another one according to ETF5-OSM-LUM/DSH 2057  
B The component is replaceable if authorised by the test house.  
C Integrated component tested together with the appliance.  
D Alternative component.

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