Product description
• CELMA Energy Efficiency Index A2 / A3
• Nominal life-time up to 50,000 h (at max. ta with a failure rate max. 0.2 % per 1,000 h)
• Large temperature range (for values see table)
• Intelligent Voltage Guard (overvoltage indication and undervoltage shutdown)
• Constant luminous flux irrespective of fluctuations in mains voltage
• For luminaires of protection class I and protection class II
• Automatic start after replacement of defective lamps
• Safety shutdown of defective lamps and at end of lamp life
• Insulation Displacement Connection (IDC) terminal for rapid automatic or manual wiring
• For emergency lighting systems as per EN 50172
• For luminaires with F or M and MM as per EN 60598, VDE 0710 and VDE 0711
• Temperature protection as per EN 61347-2-3 C5e

Technical data
AC voltage range 198 – 264 V
DC voltage range 176 – 280 V (lamp start ≥ 198 V DC)
Overvoltage protection 320 V AC, 1 h
Defined warm start ≤ 1.5 s
Operating frequency ≥ 40 kHz
Type of protection IP20

Ordering data
<table>
<thead>
<tr>
<th>Type</th>
<th>Article number</th>
<th>Packaging carton</th>
<th>Packaging pallet</th>
<th>Weight per pc</th>
</tr>
</thead>
<tbody>
<tr>
<td>For luminaires with 1 lamp</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC 1/36 T8 PRO sc</td>
<td>89800008</td>
<td>25 pc(s)</td>
<td>1,250 pc(s)</td>
<td>0.15 kg</td>
</tr>
<tr>
<td>PC 1/58 T8 PRO sc</td>
<td>89800009</td>
<td>25 pc(s)</td>
<td>1,250 pc(s)</td>
<td>0.15 kg</td>
</tr>
</tbody>
</table>

Specific technical data

<table>
<thead>
<tr>
<th>Lamp wattage</th>
<th>Lamp type</th>
<th>Type</th>
<th>Article number</th>
<th>Dimensions L x W x H</th>
<th>Hole spacing D</th>
<th>Lamp power</th>
<th>Circuit power</th>
<th>EEI</th>
<th>Current at 50 Hz</th>
<th>λ at 50 Hz</th>
<th>tc point max.</th>
<th>Ambient temperature ta</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x 36 W</td>
<td>T8</td>
<td>PC 1/36 T8 PRO sc</td>
<td>89800008</td>
<td>150 x 40 x 28 mm</td>
<td>139 mm</td>
<td>31.8 W</td>
<td>37.1 W</td>
<td>A3</td>
<td>0.17 A</td>
<td>0.16 A</td>
<td>0.96</td>
<td>0.95</td>
</tr>
<tr>
<td>1 x 58 W</td>
<td>T8</td>
<td>PC 1/58 T8 PRO sc</td>
<td>89800009</td>
<td>150 x 40 x 28 mm</td>
<td>139 mm</td>
<td>48.7 W</td>
<td>56.0 W</td>
<td>A3</td>
<td>0.25 A</td>
<td>0.25 A</td>
<td>0.97</td>
<td>0.97</td>
</tr>
</tbody>
</table>
Standards
EN 55015
EN 61347-2-4
EN 61347-2-3
EN 60929
EN 61000-3-2
EN 61547
in accordance with EN 50172

Lamp starting characteristics
Warm start
Starting time 1.5 secs with AC and DC operation
Cathode heating will be reduced after preheat time

AC operation
Mains voltage:
220–240 V 50/60Hz
198–264 V 50/60Hz including safety tolerance (+10 %)
202–254 V 50/60Hz including performance tolerance (+8 % / -8 %)

DC operation
220–240 V 0 Hz
198–280 V 0 Hz certain lamp start
176–280 V 0 Hz operating range
Light output level in DC operation: 100 %

Emergency lighting
Use in emergency lighting installations according to EN 50172 or for emergency luminaires according to EN 61347-2-3 appendix J.

Instant start after mains interruption < 0.5 s
EBLF ≥ 0.5

Intelligent Voltage Guard
Intelligent Voltage Guard is the name of the new electronic monitor from Tridonic. This innovative feature of the PC PRO family of control gear from Tridonic immediately shows if the mains voltage rises above or falls below certain thresholds. Measures can then be taken quickly to prevent damage to the control gear.

• If the mains voltage rises above approx. 305 V (voltage depends on the ballast type), the lamp starts flashing on and off.
• This signal “demands” disconnection of the power supply to the lighting system.
• If the mains voltage falls below 150 V the control gear automatically disconnects the lamp circuit to protect the control gear from being irreparably damaged.

Smart Heating
Innovative heating circuit. Reduced filament heating after lamp has struck.

Mains currents in DC operation

<table>
<thead>
<tr>
<th>Type</th>
<th>lamp type</th>
<th>wattage</th>
<th>mains current at Un = 220 V DC</th>
<th>mains current at Un = 240 V DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC 1/36 T8 PRO sc</td>
<td>T8</td>
<td>1x36 W</td>
<td>0.17 A</td>
<td>0.16 A</td>
</tr>
<tr>
<td>PC 1/58 T8 PRO sc</td>
<td>T8</td>
<td>1x58 W</td>
<td>0.25 A</td>
<td>0.25 A</td>
</tr>
</tbody>
</table>

Harmonic distortion in the mains supply

<table>
<thead>
<tr>
<th>Type</th>
<th>lamp type</th>
<th>wattage</th>
<th>THD at 230 V / 50 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC 1/36 T8 PRO sc</td>
<td>T8</td>
<td>1x36 W</td>
<td>&lt; 11 %</td>
</tr>
<tr>
<td>PC 1/58 T8 PRO sc</td>
<td>T8</td>
<td>1x58 W</td>
<td>&lt; 10 %</td>
</tr>
</tbody>
</table>

Working voltage

<table>
<thead>
<tr>
<th>Type</th>
<th>lamp type</th>
<th>wattage</th>
<th>Uout</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC 1/36 T8 PRO sc</td>
<td>T8</td>
<td>1x36 W</td>
<td>250 V</td>
</tr>
<tr>
<td>PC 1/58 T8 PRO sc</td>
<td>T8</td>
<td>1x58 W</td>
<td>250 V</td>
</tr>
</tbody>
</table>

Ballast lumen factor (EN 60929 8.1)

<table>
<thead>
<tr>
<th>Type</th>
<th>lamp type</th>
<th>wattage</th>
<th>AC/DC-BLF at U = 198–254 V, 25 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC 1/36 T8 PRO sc</td>
<td>T8</td>
<td>1x36 W</td>
<td>1.00</td>
</tr>
<tr>
<td>PC 1/58 T8 PRO sc</td>
<td>T8</td>
<td>1x58 W</td>
<td>1.00</td>
</tr>
</tbody>
</table>

All data are typical values
Installation instructions

IDC interface
- solid wire with a cross section of 0.5 mm² according to the specification from WAGO

Horizontal interface
- solid wire with a cross section of 0.5 – 1.5 mm² according to the specification from WAGO
- strip 7.5 – 8.5 mm of insulation from the cables to ensure perfect operation of the screw terminals

Defective lamp
If a lamp is defective, the ballast switches off and goes into standby. There is an automatic restart once the lamp has been changed.

Isolation and electric strength testing of luminaires
Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an isolation test with 500 V DC for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.

The isolation resistance must be at least 2 MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 V AC (or 1.414 x 1500 V DC). To avoid damage to the electronic devices this test must not be conducted.

Additional information

Additional technical information at www.tridonic.com → Technical Data

Guarantee conditions at www.tridonic.com → Services

Life-time declarations are informative and represent no warranty claim. No warranty if device was opened.