Product description

- For metal halide lamps
- Also for mobile luminaires with connectors
- Flicker-free light
- Colour stability thanks to constant power
- No acoustic resonance
- Safety shutdown if a lamp is faulty or missing
- Automatic shutdown on overheating
- Through wiring possible
- Push-in terminals up to 2.5 mm²
- Casing: polycarbonate V0, black

**Technical data**

- Mains voltage range: 220 – 240 V
- AC voltage range: 198 – 254 V
- Mains frequency: 50 / 60 Hz
- Max. ignition voltage: 5 kVp
- Operating frequency: 104 Hz
- Type of protection: IP20

**Standards, page 2**

**Wiring diagrams and installation examples, page 2**

**Ordering data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Article number</th>
<th>Packaging, carton</th>
<th>Packaging, pallet</th>
<th>Packaging, pallet 1 (shipping quantity)</th>
<th>Weight per pc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>For luminaires with 1 lamp</td>
<td>PCI MINI Q221</td>
<td>24166388</td>
<td>40 pc(s).</td>
<td>320 pc(s).</td>
<td>1,600 pc(s).</td>
</tr>
</tbody>
</table>

**Specific technical data**

<table>
<thead>
<tr>
<th>Lamp</th>
<th>Lamp type</th>
<th>Article number</th>
<th>Dimensions</th>
<th>L x W x H</th>
<th>Lamp</th>
<th>Circuit power</th>
<th>Efficiency</th>
<th>Current at 50 Hz</th>
<th>λ at 50 Hz</th>
<th>Max. cable length to lamp</th>
<th>tc point max.</th>
<th>Ambient temperature ta tc/ta for ≥ 50,000 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x 20 W</td>
<td>H</td>
<td>PCI MINI Q221</td>
<td>24166388</td>
<td>165 x 43 x 30 mm</td>
<td>20 W</td>
<td>22.4 W</td>
<td>A2</td>
<td>&gt; 88 %</td>
<td>0.1 A</td>
<td>0.97</td>
<td>1.5 m / 120 pF</td>
<td>70 °C</td>
</tr>
</tbody>
</table>

1 At ta = +25 °C
Installation instructions

Wiring type and cross section
Stranded wire or solid wire up to 2.5 mm² may be used for wiring. Strip 9 – 10 mm of insulation from the cables to ensure perfect operation of the terminals. Use one wire for each terminal connector only.

Fixing conditions
Dry, acidfree, oilfree, fatfree. The maximum ambient temperature has not be exceeded. Is not suitable for fixing in corner.
Keep the ballast away from hot parts. It helps increasing the lifetime of the ballast.

If several ballasts are installed in masts, boxes, etc., measures must be taken to avoid overheating of individual components.
To prevent the use of a wrong lamp type we recommend to mark the luminaire with the correct lamp type that fits to the ballast.

Note on wiring
The length of the lamp wires is limited by the value of cable capacitance. The maximum of 120 pF would enable connection of approximately 1.5 metres of lamp wire.

In class 1 luminaires it is necessary to earth the ballast and the luminaire, in class 2 luminaires not.

The current of the through wiring is limited by 6 A.

Circuit diagram PCI class 1 application

Circuit diagram PCI class 2 application

Radio interference
- Do not cross mains and lamp cables.
- Do not lay mains cables together with lamp cables (ideally they should be 5 – 10 cm apart).
- Do not lead mains cables too closely along the electronic ballast.
- Twist lamp cables.
- Increase the distance between lamp cables and earthed metal surfaces.
- Keep the mains cable short.
- Parallel runs (x) of mains and lamp cables must be kept as short as possible.

Important advise
When a lamp is changed (at the end of its life), if a lamp is missing or after over-temperature shutdown the mains voltage of the ECG must be disconnected.

Warning – starting voltage up to max. 5 kV!
Not suitable for use with lamps with integral ignitors.
A list of released lamps for the safe operation with PCI can be found on www.tridonic.com → Technical Data → Lamp matrix → Lamp Matrix for HID

Overtemperature shutdown
The units shut down at ΔT approx. ≥ +7 °C compared with tc. A mains reset must be carried out so that the units switch on again.

Overload strength
320 Vac / 1 h
260 Vac / 10 h

Harmonic distortion in the mains supply

<table>
<thead>
<tr>
<th>Type</th>
<th>THD at 230V/50Hz</th>
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<tbody>
<tr>
<td>PCI 20 MINI Q221</td>
<td>&lt;10%</td>
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</table>

Ballast lumen factor EN 60929 8.1

<table>
<thead>
<tr>
<th>Type</th>
<th>AC/DC-BLF at U = 198–254 V, 25 °C</th>
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</thead>
<tbody>
<tr>
<td>PCI 20 MINI Q221</td>
<td>1.00</td>
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</table>

Standards
- EN 55015 (radio interference)
- EN 61000-3-2 (mains harmonics)
- EN 61347-2-12
- EN 61547 (interference immunity)
- EN 61167
- C-tick EMC

Glow-wire test according to EN 60598-1
850 °C passed

Loading of automatic circuit breakers

<table>
<thead>
<tr>
<th>Automatic circuit breaker type</th>
<th>C10</th>
<th>C13</th>
<th>C16</th>
<th>C20</th>
<th>B10</th>
<th>B13</th>
<th>B16</th>
<th>B20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation Ø</td>
<td>1.5 mm²</td>
<td>1.5 mm²</td>
<td>1.5 mm²</td>
<td>2.5 mm²</td>
<td>1.5 mm²</td>
<td>1.5 mm²</td>
<td>1.5 mm²</td>
<td>2.5 mm²</td>
</tr>
<tr>
<td>PCI 20 MINI Q221</td>
<td>26</td>
<td>36</td>
<td>48</td>
<td>60</td>
<td>13</td>
<td>18</td>
<td>24</td>
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