Product description

- For metal halide lamps
- Also for mobile luminaires with connectors
- Pulse packets for increased ignition energy (pulseCONTROL technology)
- With patented circuit elements
- Halogen-free lamp cable with ST18 socket and interlock lug
- Flicker-free light
- Colour stability thanks to constant power
- Guaranteed long life
- No acoustic resonance
- Two independent lamp output circuits
- Safety shutdown of an affected lamp circuit if a lamp is missing or faulty
- Greatly reduced reignition time
- Hardly any EMC interference in the ignition phase
- Automatic shutdown on overheating
- Through wiring possible
- No tools required for installing the terminal cover and cable clamps
- Screw terminals: ≤ 1.5 mm² for stranded wire, ≤ 2.5 mm² for solid wire
- Casing, one-part, polyamide, black

Technical data

- Mains voltage range: 220 – 240 V
- AC voltage range: 198 – 254 V
- DC voltage range: 153 – 320 V
- Mains frequency: 0 / 50 / 60 Hz
- Max. ignition voltage: 5 kVp
- Operating frequency: 145 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>Weight per pcs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCI 2/35 B521 ST</td>
<td>86458338</td>
<td>12 pieces</td>
<td>288 pieces</td>
<td>0.45 kg</td>
</tr>
<tr>
<td>PCI 2/70 B521 ST</td>
<td>86458339</td>
<td>12 pieces</td>
<td>252 pieces</td>
<td>0.54 kg</td>
</tr>
</tbody>
</table>

For luminaires with 2 lamps

<table>
<thead>
<tr>
<th>Lamp type</th>
<th>Lamp type</th>
<th>Article number</th>
<th>Dimensions L x W x H</th>
<th>Lamp power</th>
<th>Circuit power</th>
<th>EEI Efficiency</th>
<th>Current at 50 Hz 230 V</th>
<th>λ at 50 Hz 230 V</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>PCI 2/35 B521 ST</td>
<td>86458338</td>
<td>180 x 79.5 x 34 mm</td>
<td>2 x 39 W</td>
<td>87 W</td>
<td>A2 &gt; 89 %</td>
<td>0.38 A</td>
<td>0.97 per 3 m / 240 pF</td>
<td>65 °C</td>
<td>-25 ... +50 °C</td>
<td>65/50 °C</td>
<td></td>
</tr>
<tr>
<td>PCI 2/70 B521 ST</td>
<td>86458339</td>
<td>210 x 79.5 x 35 mm</td>
<td>2 x 72 W</td>
<td>158 W</td>
<td>A2 &gt; 91 %</td>
<td>0.70 A</td>
<td>0.97 per 3 m / 240 pF</td>
<td>75 °C</td>
<td>-25 ... +45 °C</td>
<td>75/45 °C</td>
<td></td>
</tr>
</tbody>
</table>

At ta = 25 °C.
Electronic ballasts for high-intensity discharge lamps
Indoor HI

Installation instructions

Wiring type and cross section
Stranded wire with end ferrule with a cross section up to 1.5 mm² or solid wire up to 2.5 mm² may be used for wiring.

Mains supply

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Cross Section (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>min. 9.7</td>
<td>0.5 – 2.5</td>
</tr>
<tr>
<td>max. 16.3</td>
<td>0 – 2.5</td>
</tr>
</tbody>
</table>

Lamp cable

<table>
<thead>
<tr>
<th>Diameter (mm)</th>
<th>Cross Section (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>min. 9.7</td>
<td>0.5 – 2.5</td>
</tr>
<tr>
<td>max. 16.3</td>
<td>0 – 2.5</td>
</tr>
</tbody>
</table>

Lamp cable connector

Black ST-18 socket

Terminals

Screw type M3
Torque 0.5 Nm

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 in the luminaire 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 overtemperature 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.

Note on wiring

The length of the lamp wires is limited by the value of cable capacitance. The maximum of 240 pF would enable connection of approximately 3 metres of lamp wire for each lamp.

In class 1 luminaires it is necessary to earth the ballast and the luminaire.

Fixing conditions

Dry, acidfree, oilfree, fattree. The maximum ambient temperature should not be exceeded. Is not suitable for fixing in corner.

If several ballasts are installed in masts, boxes, etc., measures must be taken to avoid overheating of individual components.

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>PCI 2/35</td>
<td>14</td>
<td>25</td>
<td>36</td>
<td>42</td>
<td>8</td>
<td>14</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>PCI 2/70</td>
<td>7</td>
<td>14</td>
<td>20</td>
<td>20</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>PCI 2/35</td>
<td>1.0</td>
</tr>
<tr>
<td>PCI 2/70</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Harmonic distortion in the mains supply

<table>
<thead>
<tr>
<th>Ballast Type</th>
<th>THD 3</th>
<th>5</th>
<th>7</th>
<th>9</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCI 2/35</td>
<td>7.5</td>
<td>6.0</td>
<td>3.5</td>
<td>3.5</td>
<td>1.5</td>
</tr>
<tr>
<td>PCI 2/70</td>
<td>7.5</td>
<td>4.5</td>
<td>5.0</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Safety switch off

End of life of the lamps

At the end of their useful life, lamps often cycle on/off. The PCI ballast recognises this condition and switches off the lamp, after three complete on/off cycles and whilst the supply has been unswitched. Complete lamp switch off enables easy identification of a defective lamp in the application. After a change of the faulty lamp and an interruption of the mains supply (mains reset) the ballast will strike the lamp. When there is no lamp in circuit or a defective lamp is connected to the ballast, the ballast will switch off after apr. 25 minutes (3.5 minutes of ignition time).

Overtemperature shutdown

The units shut down at Δt approx. +10 °C compared with tc/ta. A mains reset must be carried out so that the units switch on again.

Overload strength

320 V. / 1 h

Standards

EN 55015 (radio interference)
EN 61000-3-2 (mains harmonics)
EN 61347-2-12
EN 61547 (interference immunity)
CE mark
EMV-VDE mark
ENEC mark

Data sheet 03/12-601-4
Subject to change without notice.

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