Applications
- projection headlights
- working lights
- rally lights
- optional lighting
- portable lighting

Micro Power Light
85V 35W
Cap: P32d-2 ¹)
Type: 85122
ECE R99
Code No. 9285 013 29400
D2S
Made in Germany/Aachen

Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>R99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test power at</td>
<td>35W ±0.3W</td>
</tr>
<tr>
<td>Voltage</td>
<td>85V ± 17V</td>
</tr>
<tr>
<td>Luminous flux</td>
<td>3200 lm ±450 lm</td>
</tr>
<tr>
<td>Lumen maintenance</td>
<td>1500 h 75%</td>
</tr>
<tr>
<td>Colour x</td>
<td>0.380 ±0.025</td>
</tr>
<tr>
<td>Colour y</td>
<td>0.390 ±0.015</td>
</tr>
<tr>
<td>Colour temp.</td>
<td>4100 k</td>
</tr>
</tbody>
</table>

¹) according to IEC 61-1 sheet 7004-111-1

Starting characteristics
- Starting voltage, max.* 23 kV
- Starting current, max. 2.6 A
- Wattage, max. 75.0 W
- Run-up time, max.* 1.3 s

Service life*

| Parameter   | Min | Typ.
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Tc&gt;</td>
<td>2500</td>
<td>3000</td>
</tr>
<tr>
<td>B3&gt;</td>
<td>1000</td>
<td>1300</td>
</tr>
</tbody>
</table>

*Depending on ballast system applied

Temperatures
- Temperature at pinch, max.: 350 °C
- Temperature at protective bulb: 700 °C
- Temperature at lamp base, max.: 240 °C
Geometric specifications

1. Electrode position

![Electrode position diagram]

This test is used to determine whether the electrodes are correctly positioned relative to the reference axis and the reference plane.

2. Arc geometry

![Arc geometry diagram]

Measuring direction: light source side and top view

<table>
<thead>
<tr>
<th>Dimensions in mm</th>
<th>Production light sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>a1</td>
<td>d + 0.2</td>
</tr>
<tr>
<td>a2</td>
<td>d + 0.5</td>
</tr>
<tr>
<td>b1</td>
<td>0.3</td>
</tr>
<tr>
<td>b2</td>
<td>0.6</td>
</tr>
<tr>
<td>c</td>
<td>4.2</td>
</tr>
</tbody>
</table>

d = diameter of the electrode < 0.3

The top of the electrode nearest to the reference plane shall be positioned in the area defined by a1 and b1. The top of the electrode furthest from the reference plane shall be positioned in the area defined by a2 and b2.

Dimensions Production in mm light sources

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>bending</td>
<td>0.50 ± 0.40</td>
</tr>
<tr>
<td>arc diffusion</td>
<td>1.10 ± 0.40</td>
</tr>
</tbody>
</table>

Refering to base reference plane

Vertical Luminance cross-section at centre of the arc: measured at 27.1mm from reference plane
Photometric specifications

1. Spectral radiant flux

- Emitted radiation: > 250 nm
- Nature of radiation: CIE values
- UVA (315...400 nm): 1.0W Typ.
- UVB (280...315 nm): 0.03W Typ.
- UVC (250...280 nm): 0.015W Typ.
- PET: 1.5h/klx Typ.
- Damage factor: 0.50 Typ.

Bulb should only be used & operated in a closed reflector.

2. Colour co-ordinates (typical shift of colourpoint)

CIE colour coordinates for white-recognition
SDCM = Standard Deviation Colour Matching

3. Luminous flux (typical change of lum. flux)

Lumen maintenance for 1500h
M = 75% Typ.
Bulb markings:
- Brand name: PHILIPS
- ANSI number: ---
- ECE Identifier: D2S
- Philips’ Part Number: 85122
- E1 03V ECE approval

Other Information
A. Bulb drawing and main dimensions.
   See sheet D2S -1
B. The D2S replaceable light source will be specified in
   ECE Regulation No. 99.
   Latest available document: TRANS/WP29/R99
C. The base P32d-2 is specified in IEC Standard 61.
   Latest available document: IEC 34B/584/FDIS

Safety and pollution control

Personal safety
The micro high-pressure burner emits fewer UV rays
when equipped with a protective UV filtering bulb. Always
adhere to instructions concerning personal safety.

When adjusting the bulb and the case of direct eye con-
tact with the open bulb, always wear safety UV glasses.

Avoid direct contact with bare hands.
Wear protective gloves.

Also wear safety glasses and gloves when working with
bulb when switched off or in non-luminous state.
Pressures inside lamp
   In cold state approx.: 7 bar
   In hot state approx.: 100 bar

Parts of the body exposed to direct light from the bulb
for long periods of time should be covered.

Discharge bulbs for Headlights
The following safety instructions should be observed.
Only hold the bulb by the base.
The bulb is manufactured from high-quality quartz and is
under high pressure. Damage, soiling and fingerprints
should be avoided and, if necessary, removed with alcohol
before the bulb is switched on. When handling the bulb
the necessary safety precautions should always be taken
on account of the high pressure (i.e. wear gloves and
safety glasses and use the bulb in a closed headlight etc.).

The bulb may only be operated with a suitable ballast
which produces very high voltages on switching on and
during operation (Caution!). Contact with bulb and wires
should therefore be avoided and a safe distance of at
least 30mm should be maintained.
When it is switched on, the bulb produces a certain
amount of UV radiation.
In order to avoid any impairment of health (sunburn and
conjunctivitis) the bulb should only be used in closed
headlights with the appropriate UV-absorbing front glass.
Due to the risk of burning, the bulb should be left to
cool down for three minutes after switching off before
touching.
For safety reasons the bulb should only be fitted by a
specialist.
Due to the use of mercury and various salts, the bulb
should be treated as special waste when discarded.

Environmental protection
Do not mechanically damage defective bulbs.
Defective bulbs should be disposed of as special waste.

Note:
D2S bulb should be used only in combination with ballast
and starter complying with automotive specifications.
All specifications are given according to the actual ballast
specification.