OVERVIEW

The L10366 series are newly developed VUV (vacuum UV) light source units. This product uses a “high-brightness deuterium lamp with MgF₂ window” that produces a high radiant intensity 4 times higher than conventional model. This product is now a lot easier to handle due to use of an air-cooled structure and vacuum flange mount.

FEATURES

- High Radiant Intensity: 4 Times (compared to conventional model)
- High VUV Intensity Down to 115 nm
- Air Cooling (needs no cooling water)
- External Control (lamp ON/OFF, lamp ON status signal)
- No Optical Axis Alignment Required

APPLICATIONS

- Spectrophotometer, Fluorophotometer
- Electrostatic Removal of Semiconductor* Wafer, LCD Panel, etc.
- Photoionization Detector (PID)
- UV Resistance Testing of Various Material
- Optical Chemical Vapor Deposition (optical CVD)
- Excitation Light Source

ARC DISTRIBUTION (at 230 nm)

L10366 series
(Aperture size: φ0.5 mm)

Conventional type
(Aperture size: φ1 mm)

High Radiant Intensity X 4 (compared to conventional model)
### SPECIFICATIONS

#### GENERAL RATINGS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description/Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectral Distribution</td>
<td>115 to 400</td>
<td>nm</td>
</tr>
<tr>
<td>Window Material</td>
<td>MgF₂</td>
<td>—</td>
</tr>
<tr>
<td>Aperture Size (Arc Point)</td>
<td>0.5</td>
<td>mm</td>
</tr>
<tr>
<td>Cooling Method</td>
<td>Air-cooled</td>
<td>—</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>10 to 35</td>
<td>°C</td>
</tr>
<tr>
<td>Operating Humidity Range</td>
<td>Below 80% (No Condensation)</td>
<td>—</td>
</tr>
</tbody>
</table>

#### RECOMMENDED OPERATING CONDITIONS AND CHARACTERISTICS (at 25 °C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description/Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up Time</td>
<td>25 ± 5</td>
<td>s</td>
</tr>
<tr>
<td>Output Stability</td>
<td>0.05</td>
<td>%</td>
</tr>
<tr>
<td>Light Source Life²</td>
<td>±0.3</td>
<td>%/h</td>
</tr>
<tr>
<td>Input Voltage (AC)</td>
<td>100 V to 240 V</td>
<td>—</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>140</td>
<td>VA</td>
</tr>
</tbody>
</table>

² The life end is defined as the time when the radiant output falls to 50 % of its initial value. Operating life depends on environmental conditions (vacuum atmosphere).

#### VACUUM FLANGE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>E3444</th>
<th>E3444-01</th>
<th>E3444-02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealing Method</td>
<td>O-Ring</td>
<td>JIS VF50</td>
<td>ICF114</td>
</tr>
<tr>
<td>Flange</td>
<td>Regular</td>
<td>JIS VG50</td>
<td>ICF114</td>
</tr>
<tr>
<td>Mount Flange</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Sealing Force Retention</td>
<td>1.33 × 10⁻⁴ Pa L/s or Less (1 × 10⁻⁶ Torr L/s)</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

#### SPECTRAL DISTRIBUTION

(VUV region; for reference only)

#### REPLACE LAMP SOURCE

<table>
<thead>
<tr>
<th>Type No.</th>
<th>Light Source</th>
<th>Vacuum Flange</th>
</tr>
</thead>
<tbody>
<tr>
<td>L10388</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L10388-10</td>
<td>○</td>
<td>(E3444)</td>
</tr>
<tr>
<td>L10388-11</td>
<td>○</td>
<td>(E3444-01)</td>
</tr>
<tr>
<td>L10388-12</td>
<td>○</td>
<td>(E3444-02)</td>
</tr>
</tbody>
</table>

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1. The vacuum flange E3444 series can be sold separately from the unit L10366 series.
**DIMENSIONAL OUTLINES** (Unit: mm)

**LIGHT SOURCE** (Weight: Approx. 1 kg)

Dimensions:
- Width: 122 mm
- Height: 77 mm
- Depth: 62 mm

Illustrations:
- Top View
- Side View
- Front View

Key Components:
- COOLING FAN
- METAL CONNECTOR (CONNECTION TO POWER SUPPLY)
- VACUUM FLANGE MOUNT
- ARC POINT

**POWER SUPPLY** (Weight: Approx. 2.8 kg)

Dimensions:
- Width: 310 mm
- Height: 145 mm
- Depth: 110 mm

Illustrations:
- Top View
- Side View
- Front View
- Rear View

Key Components:
- METAL CONNECTOR (CONNECTION TO LIGHT SOURCE)
- EXTERNAL CONTROL TERMINALS (D-SUB CONNECTOR)
  - LAMP STATUS SIGNAL +
  - LAMP STATUS SIGNAL –
  - +5 V dc (+)
  - +5 V dc RETURN (–)

Cable Length: 2000 ± 50 mm
DIMENSIONAL OUTLINES (Unit: mm)

VACUUM FLANGE

E3444

TLSOA0097EA

E3444-01

TLSOA0098EA

E3444-02

TLSOA0053EB

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