Xenon Light Source 300W

MAX-302

300W xenon light source - no transfer of heat

Features

• Perfect heat free design
• UV illumination (250-385nm)
• Filter wheel can hold 8 filters
• Continuous light control from 5 to 100%
• Built-in shutter

Applications

• Photocatalyst
• Photochromism
• Chemical Analysis
• Spectroscopy

Mirror Module

Reflectance (%)

Wavelength (nm)

UV 250-385nm
UV-VIS 300-600nm
VIS 385-740nm

www.asahi-spectra.com
Features

MAX-302

1. Xenon Lamp
2. Mirror Module
3. ND Filter
4. Filter Wheel

1. CERMAX Xenon Arc Lamp

The xenon lamp efficiency is enhanced by the integral parabolic reflector and molded heat sink which serve maximum transition of light energy, color temperature of 5600 kelvin. The lamp replacement is easy and precision system alignment is not required.

Spectral Intensity of the Xenon Arc Lamp

Power [μW/(cm²・nm)]

200 400 600 800 1000 1200
0 1,000 2,000 3,000 4,000 5,000 6,000

Wavelength (nm)

2. Mirror Module

This sophisticated optical unit consists of several multi-coated filters to block unwanted energy from xenon lamp and only desired throughput is obtainable. The MAX-302 offers 2 types of mirror modules, UV and VIS types.

Spectral Intensity of the Xenon Arc Lamp

3. ND (Neutral Density) Filter

Built-in variable ND filter allows precise control of lamp intensity by 1% within the range of 5% to 100%. It is applicable for temperature care applications.

Light Intensity Adjustment

Light Intensity (%)

0 20 40 60 80 100
0 90 180 270 360

Angular Position (θ)

4. Filter Wheel

The filter wheel can hold up to the maximum of 8 filters (1 inch diameter). To customize spectrum output, wide varieties of optical filters, shortpass, longpass, and bandpass are available.

Panel Controls

User friendly menu and comprehensive display for easy unit operation and maintenance.

1. Exposure Time Set 0.5-9999999.9sec
2. Shutter Activation open/close
3. Filter position
4. Light Intensity Adjustment

*All of those features can be controlled remotely by using RS232C.

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Options

Light Guide

The illuminating light from the MAX-302 is delivered to the point of use by the light guide efficiently. We carry single legged light guides as well as multi-legged types for different your needs.

Collimating Lens

Collimating lens reduces the divergence of light from the light guide and provide uniform light output. It is suitable for directional backlighting which requires clear silhouette of an object.

Optical Filters

Asahi Spectra produces varieties of precise optical filters to help modification of spectral output from the MAX-302. Along with the MAX-302 built-in features such as mirror module, variable ND filter, and shutter control, unique lighting environments for any applications are simply produced.

Bandpass Filter Series

Asahi Spectra bandpass filters are available for use with the MAX-302. They allow users to tailor the spectral throughput of the system to suit wide variety of applications more precisely while eliminating unwanted energy.

Available Bandpass Filter Types
Specifications

Includes

- Lamp x 1
- Mirror Module x 1  *Choose UV or VIS
- Light Guide Adapter x 1
- AC Cable x 1
- Filter Fitting Tool x 1
- Instruction Manual x 1
- 1 year warranty (Excluding Lamp)

Possible Combinations

![LAMP and Mirror Module Diagram]

General Specifications

Model: MAX-302
Circuit method: Forward converter switching
Input voltage: AC90 - 240V 50/60Hz
Power consumption: 500VA
Consumption current: 6A (Average)
Lamp type: Xenon lamp 300W
Lamp voltage: 14V (DC)
Lamp current: 21A (DC)
Lamp life: 500h (Average)
Lamp maintenance: Free alignment (Cartridge type)
Cooling method: Forced cooling
Shutter: Pulsed motor drive 80 msec
Exposure time set: 0.5 - 99999.9 sec
Mirror module: UV-type, VIS-type
Intensity adjustment: 100 - 5% (Transmittance)
Continuously variable
Filter wheel: 8 holes * 25mm dia/ t=6mm filter is usable
Emitting method: With or without use of light guide
Controller: Built-in
Remote control: RS232C
Recommended environment: Temperature 10 - 35 deg C
Humidity 20 - 80%
Dimensions: 216(W) x 355(D) x 326(H) mm
Weight: 13kg

Dimensions

![Dimensions Diagram]

Obtainable Throughput Ranges

<table>
<thead>
<tr>
<th>Mirror Module</th>
<th>Spectral Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>UV</td>
<td>250 - 385 nm</td>
</tr>
<tr>
<td>UV - VIS</td>
<td>300 - 600 nm</td>
</tr>
<tr>
<td>VIS</td>
<td>385 - 740 nm</td>
</tr>
<tr>
<td>IR</td>
<td>750 - 1050 nm</td>
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</tbody>
</table>

*We accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation.