

UV curing chamber BSM-03



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The BSM-03 UV curing chamber with an output of 2 kW is best suited for large-area UV curing, hardening, and bonding. The internal shutter is controlled by the UV-MAT for an accurate dose so that reproducible exposure is achieved even with medium-pressure lamps. With irradiance of 150 mW/cm², the required dose is typically achieved within several seconds. The UV curing chamber can be opened for loading and unloading while the lamp is on. The shutter is monitored and closed with a safety circuit so that no UV radiation is emitted outside the chamber. The sliding sample support also facilitates loading and unloading. It withstands all loads up to 20 kg. With 60 x 40 cm at the base and a height of 25 cm, the irradiation room offers plenty of space. The sample chamber temperature is about 45°C in operation. Due to the high uniformity of the irradiation, the samples may be positioned in any order.

The optional UV-MAT irradiation control can obtain a constant dose regardless of lamp aging, pollution, or temperature.



Dose- and shutter control UV-MAT

Applications:

- UV gluing
- UV sealing
- UV curing

The dose can be precisely controlled by means of integrated shutter. In addition, the operator is protected during handling.



TECHNICAL DATA

Interior chamber	60 x 40 x 25 cm
Dimensions	77 x 62 x 80 cm
Weight	~ 80 kg
Power consumption	2200 W (irradiation) 850 W (stand-by)
Mains	230 VAC, 10 A
Power factor	0,9
Operation temperature	15 to 30 °C
Humidity	< 80% non-condensing
Lamp lifetime	1.000 h to 3.000 h, typical
Number of lamps	1 piece
Sample temperature	45 °C +/- 10 °C
Spectra ranges	1 Standard, 2-4 optional
Irradiance	up to 150 mW/cm ²
Available lamps	Hg, Fe, Ga
Shutter control	Pneumatic, 4-6 bar
Cooling	1 x DN 100

PART NUMBERS

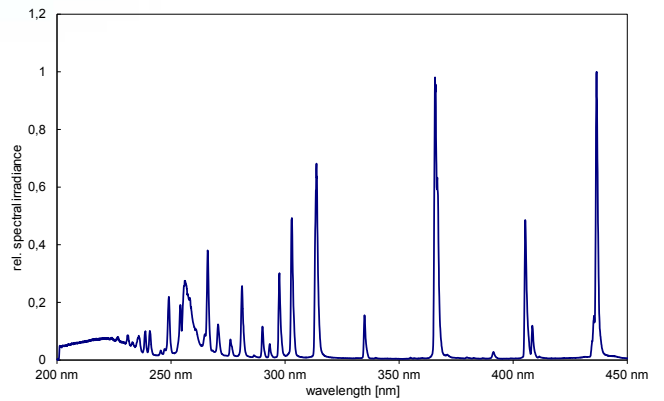
BSM-03	8608 13
UV-MAT	820220
Radiometric sensors	8110XX
Sensor holder	86080H
Spare lamp Hg	8608 13H
Spare lamp Fe	8608 13F
Spare lamp Ga	8608 13G

SCOPE OF DELIVERY

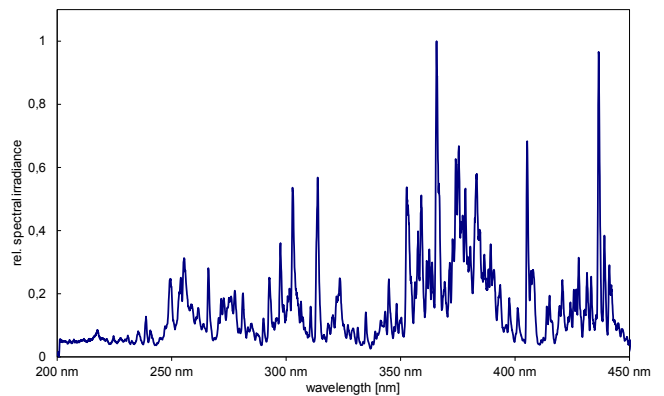
BSH-02, cable, manual, UVC lamps (ozone free, if not specified)

The leakage current of the built-in SINAMICS V20 inverter can be greater than 3.5 mA.

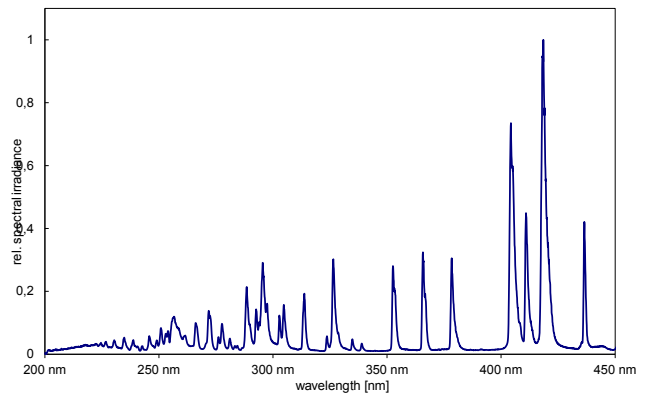
A fixed earth connection is therefore required.



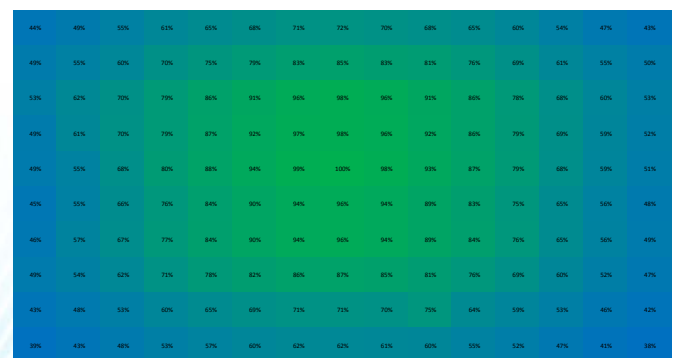
Spectra lamp (Hg), typical



Spectra lamp (Fe), typical



Spectra lamp (Ga), typical



Uniformity of irradiation (60 x 40 cm²)

ATTACHMENTS & OPTIONS

The UV curing chamber is modular expandable and thus optimal for different applications.

We gladly support you with your individual configuration.

UV-MAT

UV-MAT irradiation control continuously measures the irradiance and determines the irradiation dose regardless of lamp aging, pollution, or temperature. Irradiation is stopped at set target dose.



TIMER



Alternative to the dose control, we offer a settable timer. This timer is suitable for simple irradiances between 1 s and 500 h.

SENSORS

Calibrated radiometric sensors are available for each spectral range. The integrated diffuser ensures the required cosine correction. Excellent long-term stability is achieved through the use of appropriate materials. The sensors are calibrated with traceability to PTB (the German national test authority); after being calibrated, they are supplied with a factory calibration certificate.

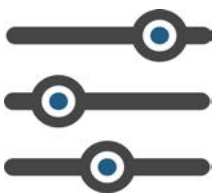


SENSOR HOLDER

The sensor holder fixates one or two radiometer sensors laterally in the irradiance chamber. The sensors are removable for the measurement of the irradiance on the material to be irradiated. That way, the irradiance can be determined at the desired location. Via a factor, the UV-MAT can be adjusted.



DIMMING



With the option of the lamp dimming the irradiance can be varied. The setting can be done at the UV-MAT.