

ELECTROSTATIC REMOVER

VUVTM Ionizer L12542

ELECTROSTATIC CHARGE REMOVER

Ideal for eliminating electrostatic charges in a vacuum

OVERVIEW

The L12542 is a newly developed electrostatic charge remover that makes use of VUV (vacuum ultraviolet) light.

Due to its wide irradiation angle about 3 times larger than our current VUV light source, the L12542 efficiently removes electrostatic charges over large areas in de-pressurized or vacuum environments.

Up until now two or more VUV light sources were needed to neutralize electrostatic charges in large areas due to their limited irradiation angle. The L12542 solves this problem and efficiently neutralizes large areas in a vacuum.



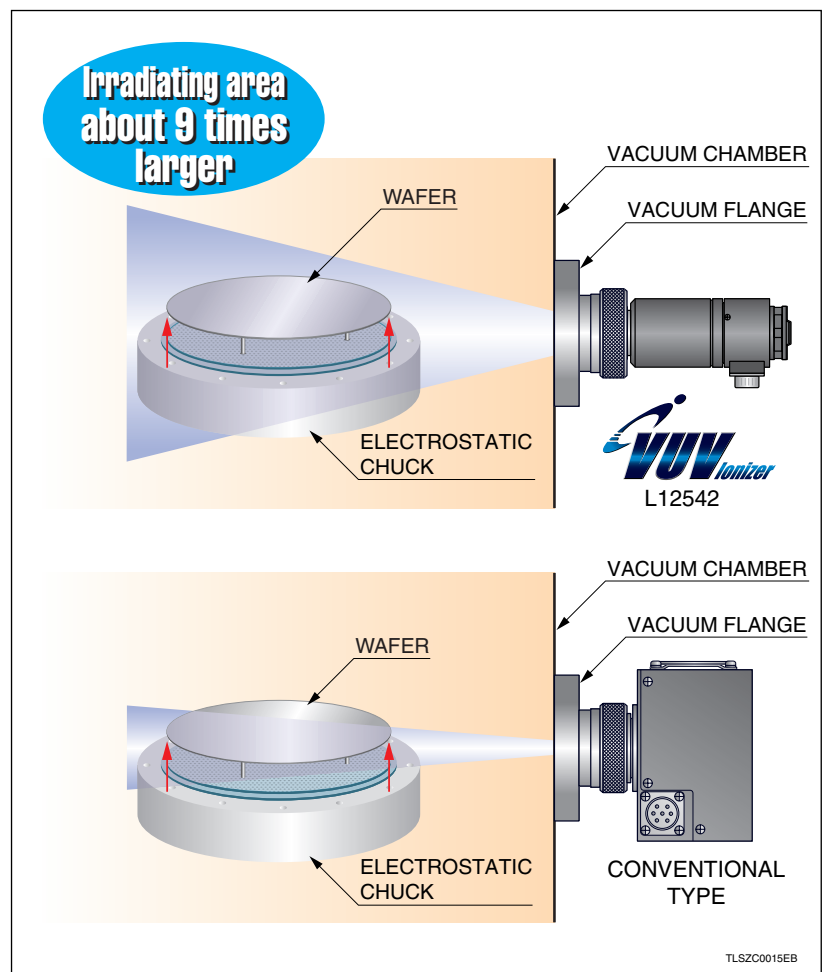
Left: Light source, Right: Power supply

FEATURES

- Large irradiation (neutralizing) area
- Highly efficient ion generation in a vacuum
- No air flow needed
- No overshoot (generates no opposite-polarity static charges)
- No dust and electromagnetic noise emissions
- Long life

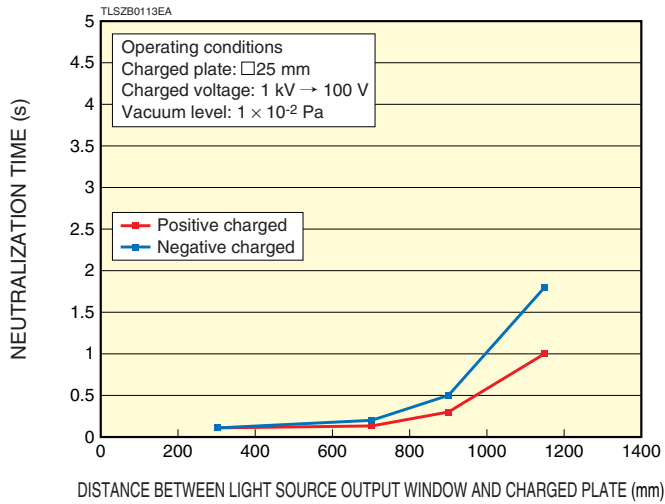
APPLICATIONS

- Dechucking of electrostatic chucks
- Semiconductor manufacturing equipment (vacuum process)
- LCD manufacturing equipment
- Organic EL manufacturing equipment
- Hard disk manufacturing equipment
- Film manufacturing equipment

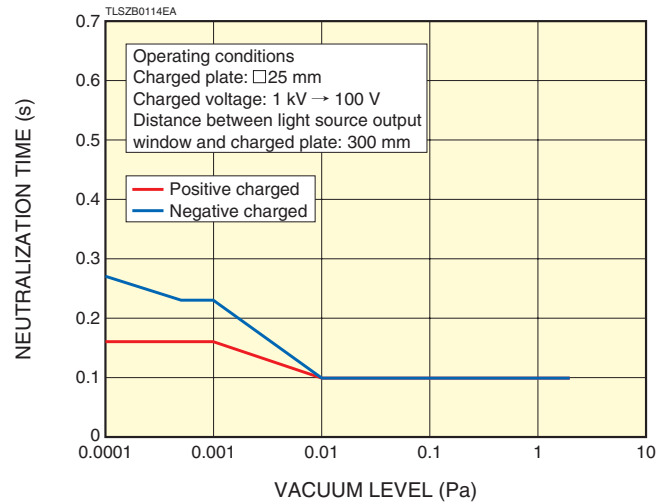


ELECTROSTATIC CHARGE REMOVAL EFFECT

NEUTRALIZATION TIME VS. DISTANCE



NEUTRALIZATION TIME VS. VACUUM LEVEL



SPECIFICATIONS

●GENERAL RATINGS

| Parameter | Description / Value | Unit |
|-----------------------------|------------------------------|------|
| Spectral distribution | 115 to 400 | nm |
| Window material | MgF ₂ | — |
| Cooling method | Forced air cooling by fan | — |
| Operating temperature range | +10 to +40 | °C |
| Storage temperature range | 0 to +60 | °C |
| Operating humidity range | Below 80 % (no condensation) | — |
| Storage humidity range | Below 85 % (no condensation) | — |

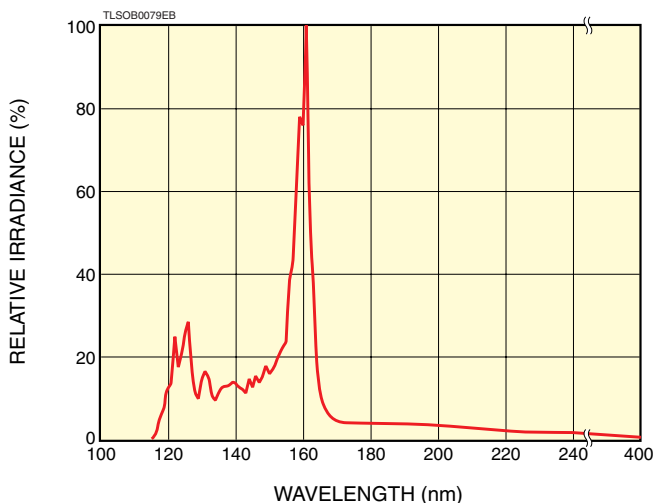
●RECOMMENDED OPERATING CONDITIONS AND CHARACTERISTICS (at 25 °C)

| Parameter | Description / Value | Unit |
|---|---|------|
| Warm-up time | 25 ± 5 | s |
| Light source guaranteed life ^① | 2000 | h |
| Input voltage (AC) | 100 V to 240 V (100 V/200 V auto switching), single phase 50 Hz / 60 Hz | — |
| Power consumption (Max.) | 90 | VA |

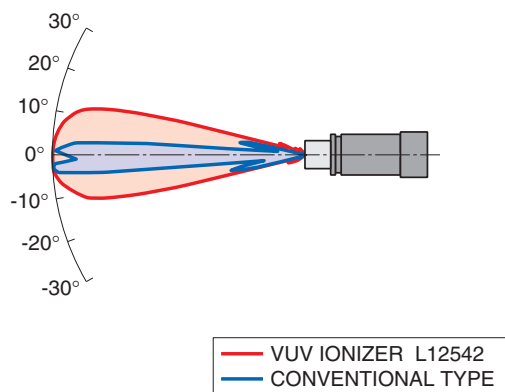
① End of life is defined as the time when light output at 230 nm falls below 50 % of its initial value. Note that the light output attenuation depends greatly on the environment of the vacuum equipment.

* When replacing the light source, please specify the type No. L12565.

SPECTRAL DISTRIBUTION



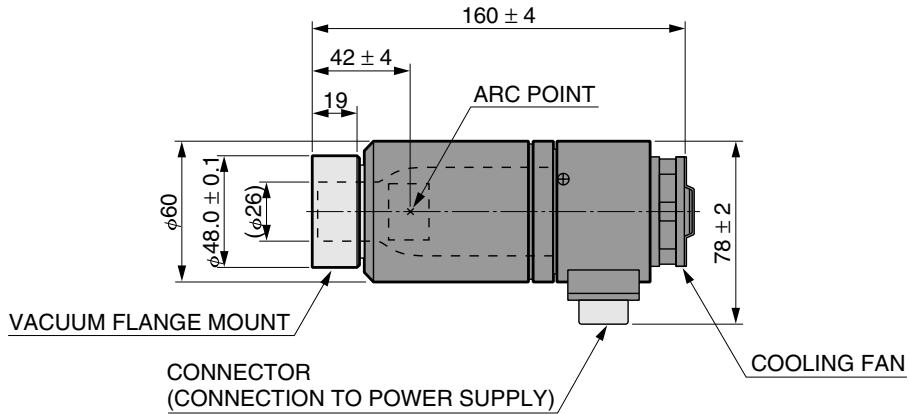
DIRECTIVITY (LIGHT DISTRIBUTION)



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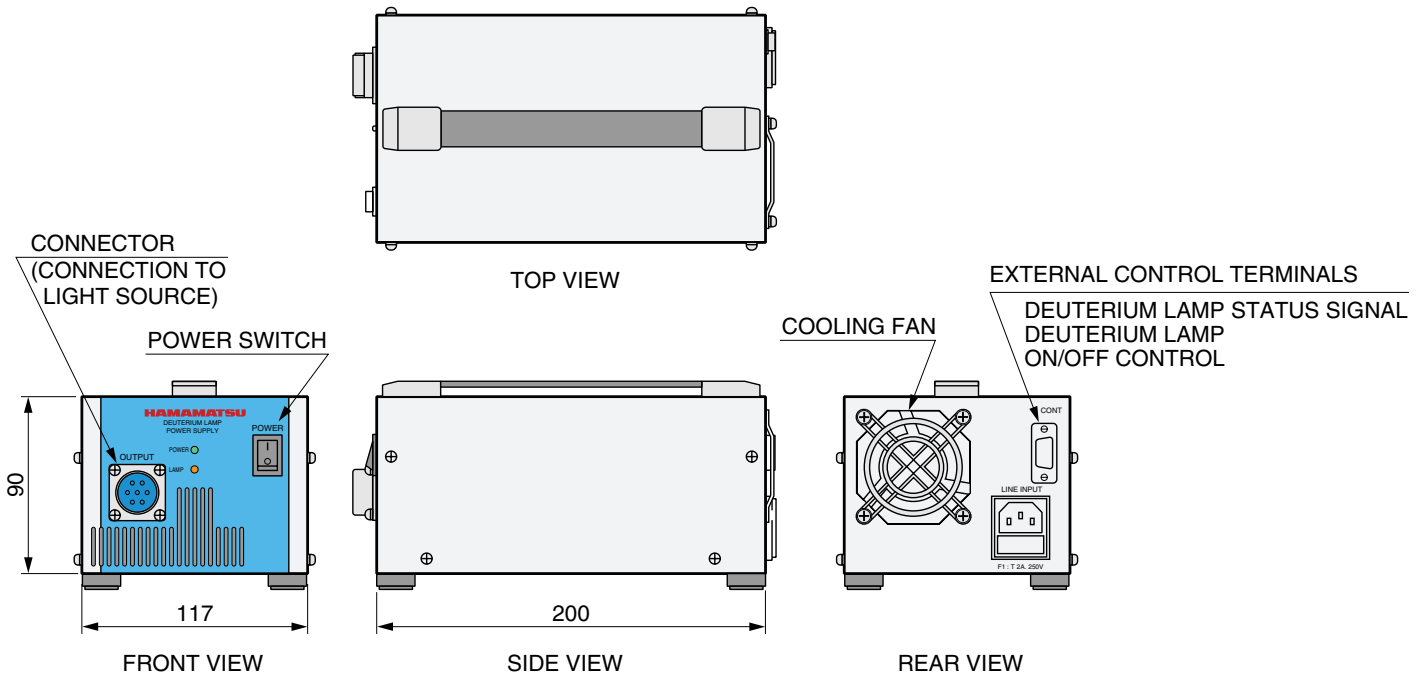
DIMENSIONAL OUTLINES (Unit: mm)

●LIGHT SOURCE (WEIGHT: Approx. 530 g)



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●POWER SUPPLY (WEIGHT: Approx. 1.8 kg)



LIGHT SOURCE TO POWER SUPPLY CONNECTION CABLE LENGTH: 1800 ± 50

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RELATED PRODUCTS

■ VACUUM FLANGE

● OVERVIEW

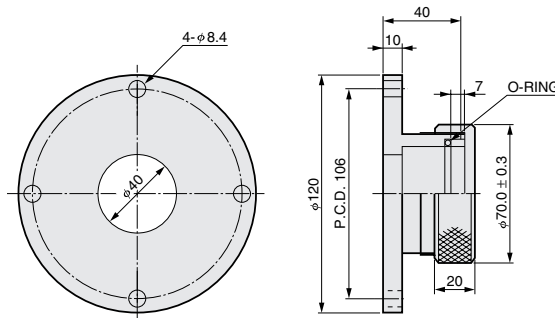
Various vacuum flanges are available for the L12542 VUV ionizer. The E3444-02 mount flange meets ICF114 flange specifications and so easily attaches to ports of most vacuum equipment. We also provide other vacuum flanges including flanges made to JIS (Japanese Industrial Standards) specifications, so users can select the best flange that matches their vacuum vessel.

● SPECIFICATIONS

| Parameter | E3444 | E3444-01 | E3444-02 |
|-------------------------|--|----------|----------|
| Sealing method | O-ring | | |
| Flange | Regular | JIS VF50 | ICF114 |
| Mount flange | — | JIS VG50 | ICF114 |
| Sealing force retention | 1.33 × 10 ⁻⁴ Pa L/s or less (1 × 10 ⁻⁶ Torr L/s) | | |

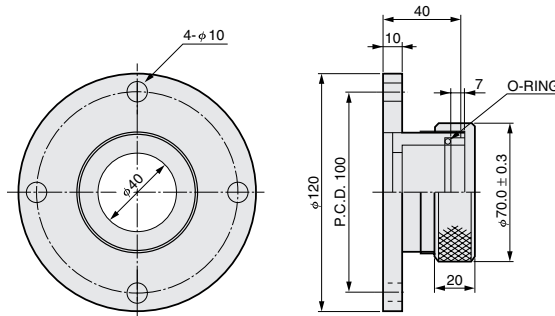
● DIMENSIONAL OUTLINE (Unit: mm)

E3444



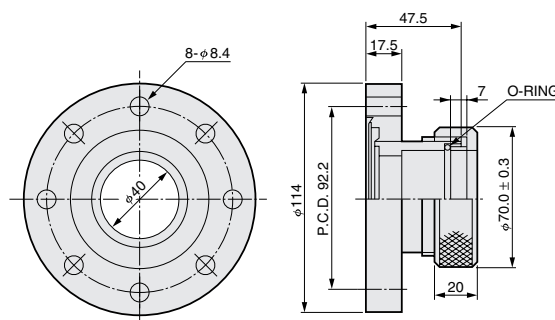
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E3444-01



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E3444-02



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