

OPERATING INSTRUCTIONS

HV-One

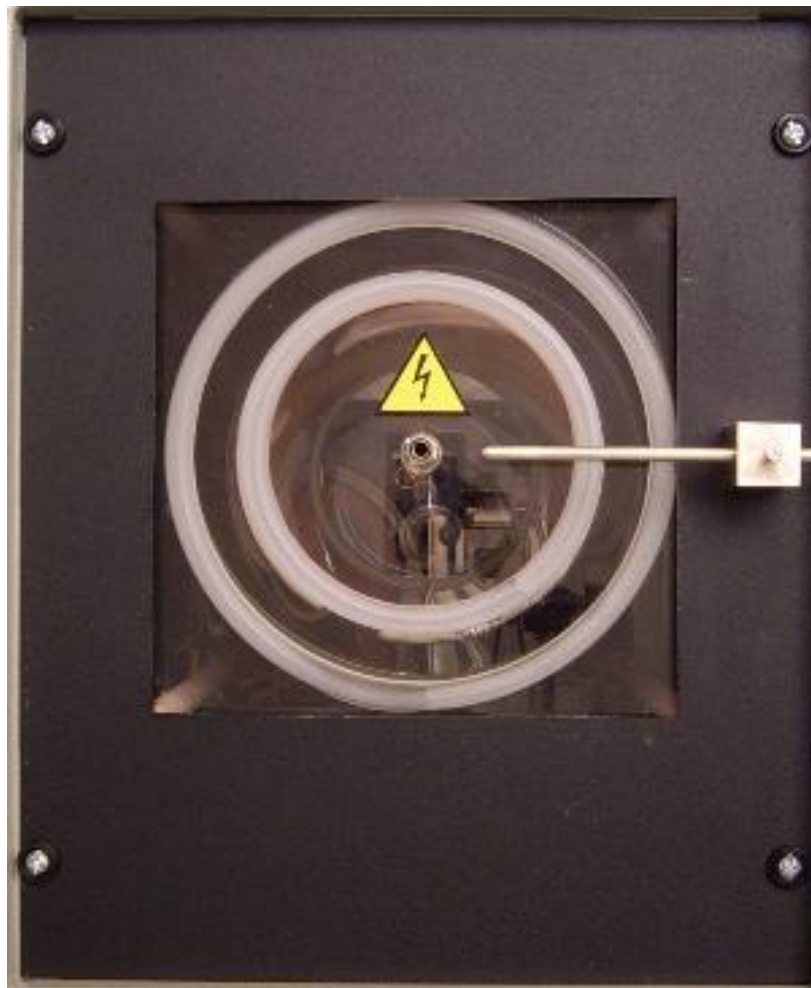


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Introduction

The HV-One is a solid state variable High Voltage generator for control and inspection use in lamp production factories. It can be used for almost all types of lamps during and after production.

Depending on the application it is possible to adjust the output voltage with the build in or an external variable transformer for the best performance.

The HV-One has a dust-tight cabinet and the maximum environment temperature may not exceed 50 degrees Celsius.

The HV-One meets the requirements of the EN 60204, and also meets the requirements of the European Industrial EMC standards. The HV-One is CE approved.

These Operating Instructions accompany this product. They contain important information on setting up and using the HV-One. You should refer to these instructions. Please retain these Operating Instructions for future use.

Manufacturer website: **ecbemc.nl**

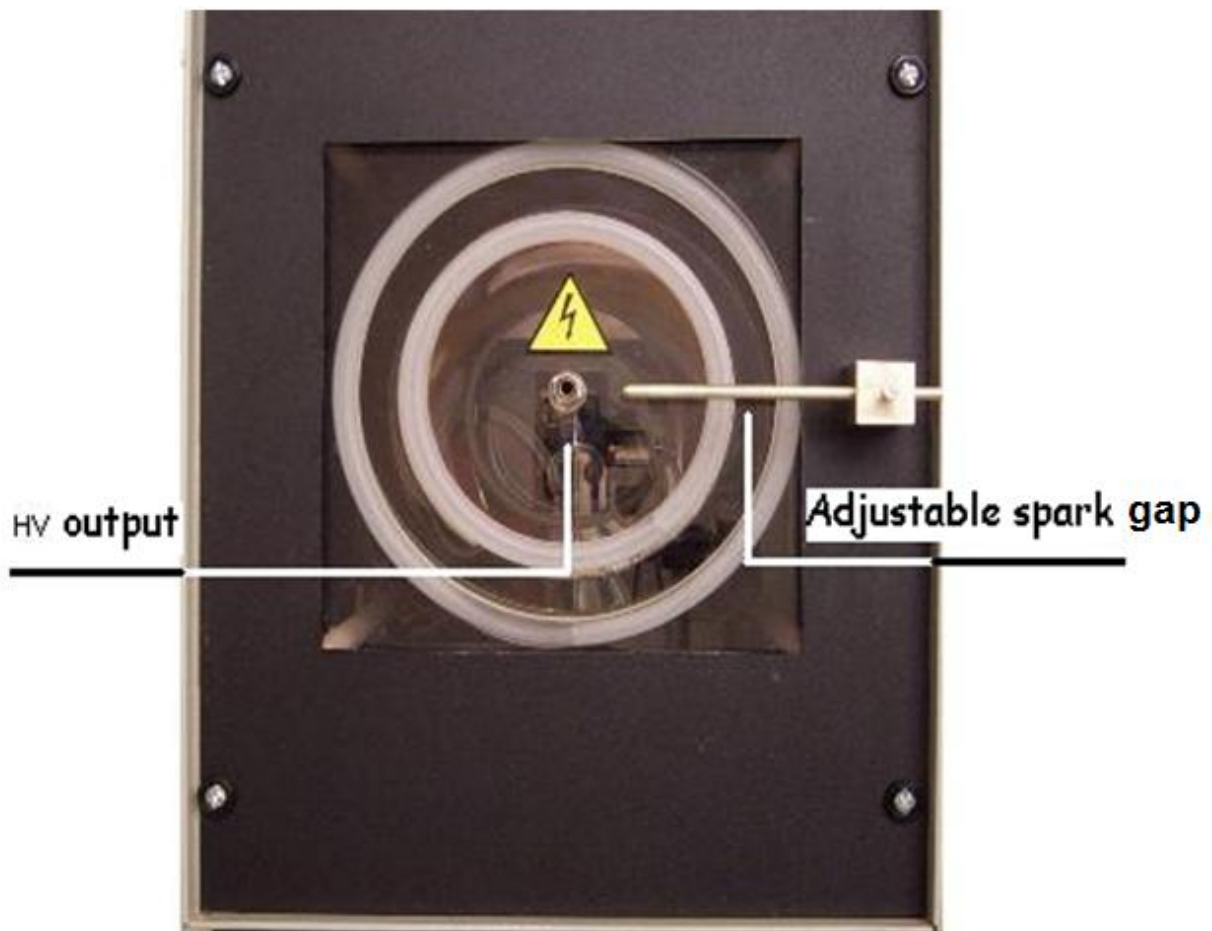
Intended use

- The maximum distance length of the spark bridge **may not exceed 3 centimeters**, larger distance will cause internal damage .
- **Never** remove the pin from the spark gap.
- The HV-One is only approved for connection to shockproof sockets with protective grounding and an alternating current of **230V~ / 50Hz** . Operation is impermissible under unfavorable ambient conditions. Unfavorable ambient conditions are:
 - Dampness or excessive humidity.
 - Dust and combustible gases, vapors or solvents.
- The HV-One is a CISPR11 Class A product. In domestic area the HV-One can cause radio disturbance . In this case the user must take care for an adequate solution.
- **The maximum length** of the High Voltage cable connected to the output of the HV-One is **1 meter**. Longer cables will cause radio interference and unacceptable load.
- Take care with the High Voltage cable connected to the output of the HV-One, create safe distance to metal objects to prevent fire.
- Connect the HV-One to machine ground with an **extra earth wire** as short as possible. Use the earth connection on the rear side of the HV-One.
- Any usage other than described above is not permitted and can damage the device and lead to associated risks such as short-circuit, fire, electric shock, etc. No part of the product may be modified or rebuilt. Please strictly comply with all safety instructions contained in these operating instructions .

Adjustments and connections

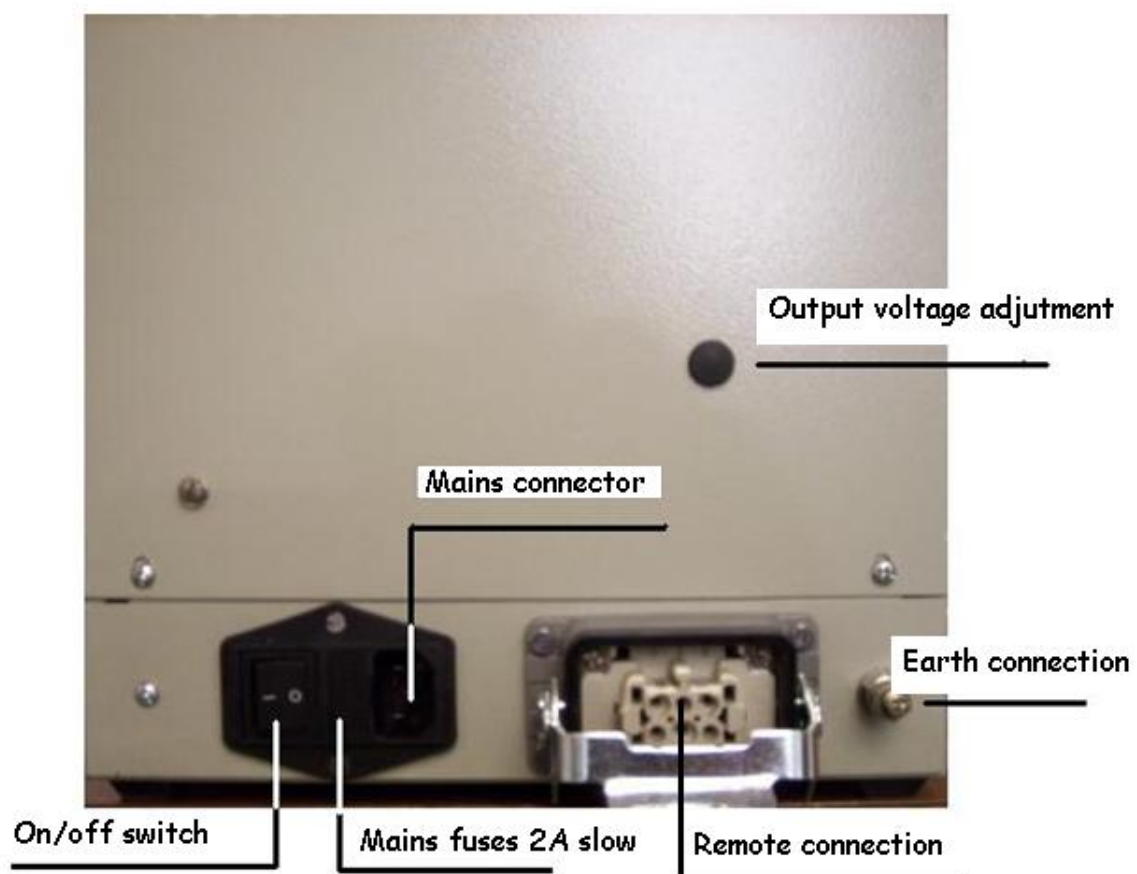
Front

1. Adjustable spark gap, adjust in such a way that no sparks are visible but always take care that the spark length is **not exceeding 3 centimeters**.
2. High voltage output.



Rear side

1. Mains connection
2. Mains fuses
3. Main switch
4. Remote connector start-stop
5. Ground connection
6. Output voltage adjustment (remove rubber plug and use screwdriver)



Safety Instructions

We do not assume liability for resultant damages to property, or personal injury if the product has been abused in any way or damaged by improper use or failure to observe these operating instructions. In addition, any unauthorized modifications, or repairs of the device will render the warranty null and void!

- The HV-One has been designed and manufactured in accordance with protective class I. It is suitable for connection to an earthed 230VAC mains socket. Make sure the conductive earth wire is not broken, disconnected, removed or interrupted as this can pose a serious threat to life in the event of malfunction.
- Never turn on the HV-One immediately after it has been brought from a cool into a warmer environment. Condensing water might destroy your device. Leave the HV-One in OFF position and wait until it has reached ambient temperature.
- Do not wear metallic or conductive jewellery such as chains, bracelets, rings, etc. when operating the HV-One.
- The device must not be used on human beings or animals.
- If there is reason to believe that safe operation is no longer possible, the device is to be put out of operation and secured against unintended operation. Safe operation is no longer possible if:
 - the HV-One has sustained visible damages,
 - the HV-One no longer works,
 - the HV-One was stored under unfavorable conditions for a long period of time,
 - the HV-One was subject to considerable transport stress.

Connection, operation, fuse replacement

Connecting the HV-One and put into operation.

Plug the power cable into the protective contact cold device connector socket on the rear side, the other end into a protective contact power socket supplying AC 230 V. Switch on the HV-One by pressing the main power switch to "ON". On delivery the wiring inside the Harting plug is in such a way connected that the output voltage is now available at the output socket. The output voltage is now adjustable at the rear side of the HV-One from to max 50 KV.

Warning!

Adjust the spark gap precisely until no sparks are visible anymore.
Check the adjustment from time to time and re-adjust if necessary.

Fuse replacement

Switch off the power supply and disconnect the connection cable and pull the mains plug from the mains socket before placing the fuse.

Use a screwdriver to open the fuse holder and pull it out.

Replace the defective fuse with a new fuse of the same type of the same nominal values 2A 250V (T2/250V)

Press the fuse holder slightly back into position.

The HV-One is now ready for operation.

Warning!

- **Servicing, adjustment, or repair works must only be carried out by a specialist/specialist workshop.**
- **There are HIGH VOLTAGES inside the HV-One.**
- **Capacitors within the device may retain their charge even if the device is disconnected from all power sources.**

Disposal

Disposal of waste electrical and electronic equipment.

In order to preserve, protect and improve the quality of environment, protect human health and utilize natural resources prudently and rationally, the user should return unserviceable product to relevant facilities in accordance with statutory regulations.

Technical Data

General

Type HV-One

Operating voltage 230 VAC (+6 / -10 %)

Mains frequency 50 - 60 Hz

Power consumption max. 250VA

Output voltage (AC) 0 – 50 KV

Output current << 5mA

Output frequency 200-300 KHz 100 Hz modulated

Fuse (slow) 2 AT

Weight (approx.) 19,0 kg

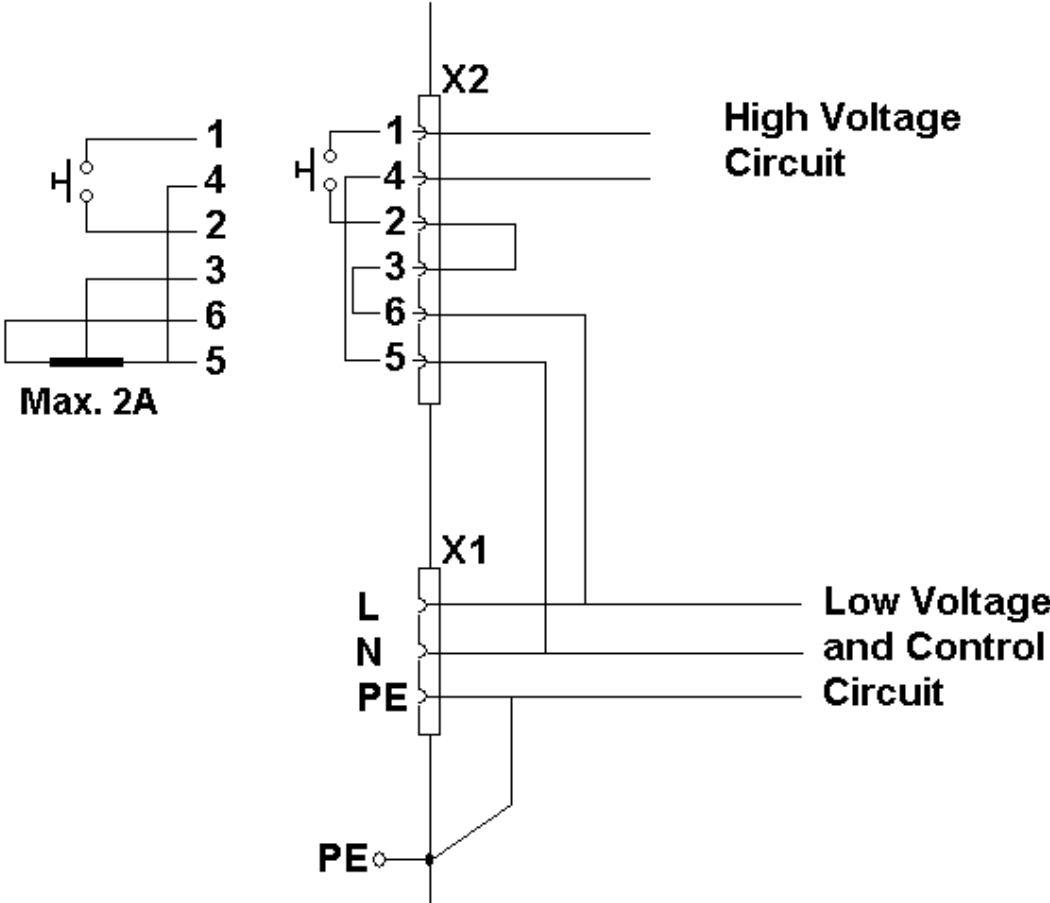
Dimension (W x H x L) in mm 244x300x515 (inclusive harting plug)

Environment

Operating temperature : +5 °C to +50°C

Relative humidity approx. : 80%, non- condensing

Remote connections for external start stop and/or (variable mains transformer).



CE verklaring van overeenstemming & toegepaste normen



Fabrikant: EMC Consult Brabant

Adres : Mon plaisir 102 d
4879 AT Etten-Leur.

Verklaart hiermee dat :

Produkt : HV – One

Voldoet aan de bepalingen van de EEG/EMC richtlijn 204/108/EG.

Onderstaande geharmoniseerde normen zijn toegepast :

Alg. immuniteit standaard : EN 61000-6-2

Alg. emissie standaard : EN 61000-6-4

Veiligheid machines : EN 60204

Etten-leur, 13 februari,2008.

Dhr. J.A. Verschuren



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