

Electronic converters for simple and safe neon installations

In principle, the installation of electronic converters (EVGs) in neon systems very simple. The housings are small allowing easy installation. The required protective switches are already integrated in the device and do not have to be installed additionally.

The constant current from the EVGs ensures a uniform brightness of the tubes. However, the high frequency of the EVGs of approx. 20,000 Hz must be taken into account when installing the system.

The golden rule for a troublefree installation is to avoid installing the high-voltage cables from the EVG to the neon tubes in parallel and keep them as short as possible.

Otherwise the same rules and safety precautions apply as for the installation of traditional core & coil transformers or as published in the relevant installation standards (eg. EN 50107).

EMC, CE marking, and radio interference protection

The EVGs have been tested in accordance with the relevant EMC regulations and are checked regularly during production.

This is done according to the following standards:

- EN 55015 - EN 61000-3-2
- EN 61547 - EN 61000-3-3

Compliance with these standards is indicated by the CE mark on the device.

Earth leakage trip and open circuit protection

The installation standard EN 50107 requires a suitable earth leakage protection for all luminous discharge tube circuits in installations exceeding 1,000 volts. In order to fulfill this requirement, all our EVGs above 1,000 volts are equipped with an integrated earth leakage trip.

In addition, the EN 50107 requires luminous discharge tube circuits in installations within the so-called "arm's reach" to be equipped with an open circuit protection. This open circuit protection is available as an option for all our EVGs above 1,000 volts. It is not recommended to build in this protection in general as operational disturbances due to false tripping can be expected particularly in outdoor systems.

The EVGs 20/5 and 20/8 come with an integrated earth leakage trip as standard. All EVGs below 1,000 volts are not equipped with any protective switches.

Using EVGs in outdoor installations

EVG with a maximum output voltage of 3,000 volts can be used in outdoor installations. Because of the higher stresses due to environmental influences (moisture, dirt etc.) our installation advice should be strictly observed, particularly in terms of cable installation and adherence to creepage distances and clearances.

Dimmable EVGs

We offer several types of EVG that are dimmable. Depending on the type of EVG, dimming is achieved by three different methods:

EVG 20/5D and EVG 20/8D are equipped with a potentiometer located on the housing. The brightness can be adjusted using a small screwdriver.

EVG 40/3D and EVG 50/2D are equipped with an additional cable connection for a control voltage of 0-10 volts, which can be used to dim or switch one or more EVGs (advantage: no losses and no flicker).

EVG 40/1D (Duo) and EVG 80/1D (Duo) can be dimmed with the mains voltage using reverse phase control (advantage: simple cabling on the mains side).

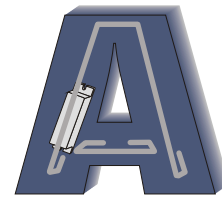
Further information on the Internet

Please visit our homepage www.hansen-neon.de for detailed information on our products (eg. data sheets) in PDF format.

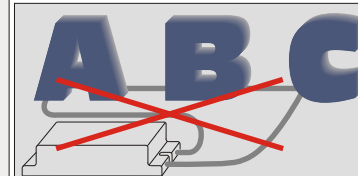
Further information on neon and LED in general can be found under "Neon Know-How" and "LED Know-How" respectively.

Installation advice for electronic converters (EVGs)

Do not connect more than one letter



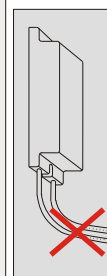
Correct:
Connect only the tubes of one letter to the converter!



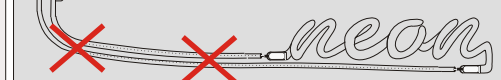
Wrong:
Never combine the tubes of multiple letters!

Do not use long/parallel high-voltage cables

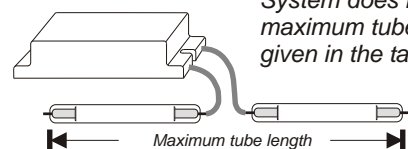
Correct:
Short high-voltage cables, not installed in parallel, supplying the power centrally, if possible



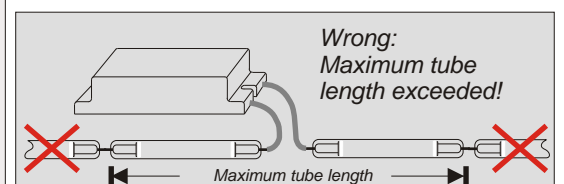
Wrong: Long, parallel cables



Observe maximum connectable tube lengths



Correct:
System does not exceed maximum tube length given in the table!



Wrong:
Maximum tube length exceeded!

Avoid accumulation of heat



max. 60°C
(temperature within the box)

Correct:
Install the converter so that no excessive heating will occur.

Wrong:
- too many neon tubes with the converter in a too small housing
- risk of external heating (eg. due to sunlight)