This information is available on the Internet at www.hansen-neon.de oder www.klinger-neon.de N33E/12/2002
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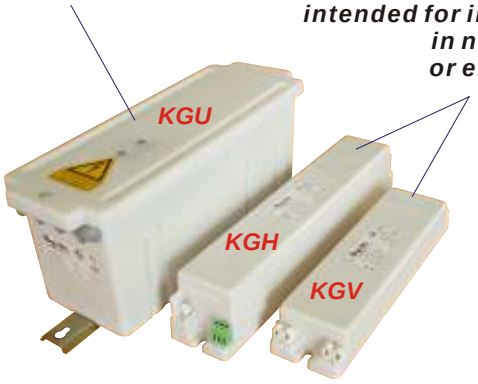
Explanations on Constant-Current Technology

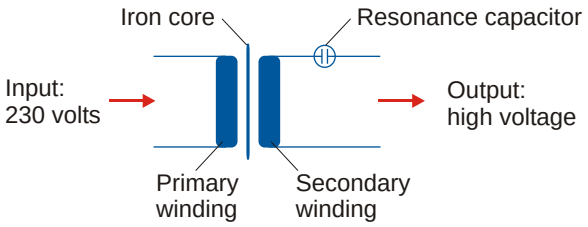
Independent transformers ***are weather-protected (IP 43) and can be installed without any additional housing. All connections are located inside the case.***

Built-in transformers ***have open connecting terminals and are intended for installation in neon letters or enclosures.***



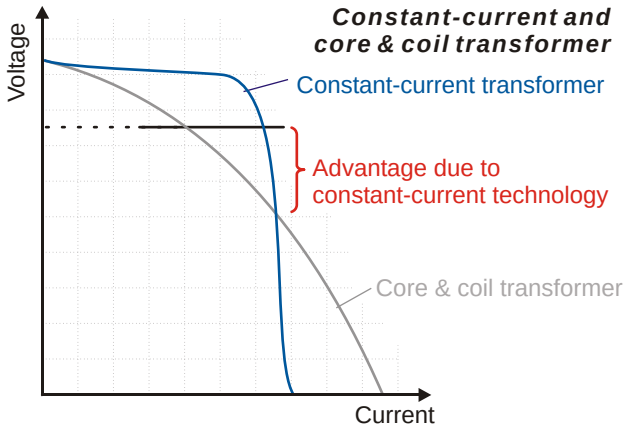
What causes the constant-current effect?

In interaction with the secondary winding, the capacitor causes a resonance effect which keeps the current constant across nearly the entire load range.



Load diagram:

Constant-current and core & coil transformer



Constant tube current:

The brightness of the neon systems remains constant even if different tube lengths are connected. This has a positive effect on the ageing process (gas disappearance) of the tube.

More tubes can be connected:

Compared to core & coil transformers, approx. 30% more tubes can be connected (at constant rated current) with the constant-current technology .

Smaller dimensions/less weight:

Compared to core & coil transformers with the same performance, constant-current transformers are smaller and lighter. This a huge advantage, particularly for built-in applications.

No compensation required:

Due to the design of the transformers, the cos phi (phase shift between current and voltage) is > 0.9, which makes any compensation of the mains current as required by many utilities unnecessary.

No overloading of the neon tubes:

Conventional core & coil transformers can overload the tubes with overcurrent when the connected neon load is too small.
This does not occur with constant-current transformers.

Efficient installation:

The built-in transformers can be pre-installed in the workshop to keep the (more expensive) installation time on site to a minimum.
The KGU surface-mounting transformers are ready for installation and must only to be connected to the mains and tube cable.

Using transformers with an output voltage below 1,000 volts makes installation even easier because less strict installation regulations are applicable.

Diming and flashing:

Constant-current transformers can be dimmed by means of a suitable series dimmer using forward phase control.
The maximum flashing rate is 1 Hz.