# Electronic Ballast
# for Gas-Discharge Lamps EVG 2300

EVG 2300-S

EVG 2300-T

## Functional description

- Electronic, controllable AC ballast (EVG) for gas-discharge lamps of a nominal power from 500 W to 2300 W
- Control of the lamp power via a galvanically separate analogue input DC 0...10V or DC 4...20mA
- It is possible to operate nearly all types of mercury vapour medium-pressure lamps and metal halide lamps the electrical characteristics of which are in the wide operating range of unit
- Ignitor is switched OFF after 10 s
- State of operation is indicated by light-emitting diodes
- In case of fault, a potential-free change-over contact is actuated
- In case of lamp faults, the output voltage is switched OFF
- Optional RS232 interface to parameterize the maximum output power and to read out an extended data range of EVG

## Advantages

- Lamp power can be adjusted steplessly
- Lamp power can be controlled constantly over the whole mains voltage range from 196 - 255 V
- Lamp power can be pulsed
- Any mains voltage variations are compensated
- Smaller and lighter than comparable standard ballasts
- Lamp voltage and current are of square-wave type
- Compensation is not necessary

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# Technical data

| | |
|---|---|
| Efficiency: | >91% |
| Ambient temperature: | 5°C to 50°C |
| Dimensions: | 255 x 120 x 327 mm (w x h x d) |
| Weight: | 5.0 kg (EVG 2300-S)<br>8,0 kg (EVG 2300-T) |

**Mains connection**

| | |
|---|---|
| Mains voltage and frequency: | 196 to 255V at 50 and 60 Hz |
| Connection: | L1, N and PE |
| Power factor: | > 0.996 (with full load) |
| Fuse: | 16A slow-blow |
| Limitation of starting current: | 35A (10 ms) |

**Energization**

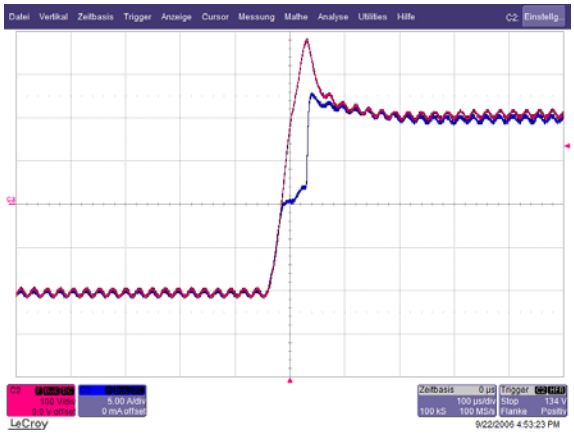
| | |
|---|---|
| Analogue power control input: | DC 0...10V (Ri <= 10 kΩ)<br>DC 1...10V = ON and lamp power 10...100% of the paramaterized nominal power<br>DC 4..20mA<br>DC 5.6..20mA = ON and lamp power 10...100% of the parameterized nominal power |

All energization connections and the serial interface are galvanically separated from the mains.

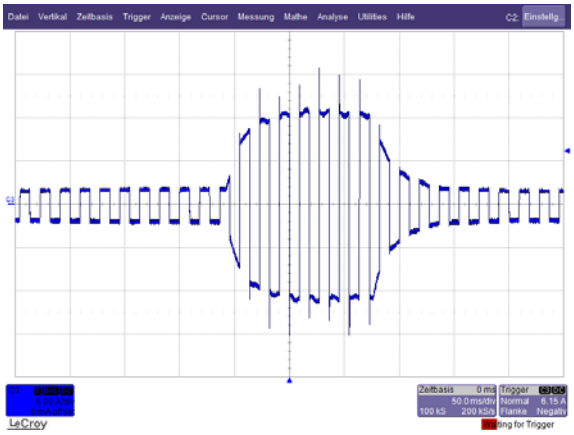
**Lamp output**

| | |
|---|---|
| Output frequency: | 55Hz |
| Maximum lamp current: | 14A |
| Lamp nominal voltage: | 100V to 300V |
| Parameterizable nominal power: | 500W...2300W |

Protection against short circuit and overload in the lamp circuit
Protection against line-to-earth fault in the lamp circuit
**Warning: Protection against line-to-earth faults is no personal protection!!**
No-load test
**Warning: In the no-load case, voltages of up to 420 V may occur at the lamp output!!**



Lamp voltage (red); lamp current (blue)



Lamp current during the variation of set value

**Forced cooling**
In order to guarantee the maximum power output of the EVG, it is important to efficiently cool the unit. The cooling effect depends on the air volume flowing through the heat sink and the air temperature. To reach the full power output, the ambient air temperature may not be higher than 50°C.
Warning: The casing may reach a temperature of up to 80°C!!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