

# THE WIDE RANGE OF UV - IR TECHNOLOGY



## Electronic Ballast Unit EVG UV 89-140 AC

- + *infinitely variable lamp power*
- + *automatic constant regulating*
- + *quick pulsing of lamp power*
- + *automatic constant lamp power*
- + *3-phase, symmetrical mains connection*
- + *simple mounting*
- + *no external ignitor required*
- + *compact*



The EVG UV 89-140 AC is a fully electronic, adjustable AC ballast unit for UV-lamps from approx. 8 kW – 20 kW nominal power and specially designed for industrial use. It is specially tuned to operate with mercury discharge UV-lamps of 50 – 140 cm (20" – 55") arc length. Dark phases during the zero axis known from standard, sinus shaped power supplies are eliminated by operating the lamps with a square-wave current.

Principle of function of the electronic ballast unit EVG UV 89-140 AC is an adjustable constant current source in the range of 3 A to 25 A. The lamp power is regulated to a constant value by an internal regulation unit through an external DC 0 – 10 V rated value.

Within a nominal lamp voltage of 800 V to 900 V and depending on the type of lamp and type of cooling the following lamp power is possible:

**2.500 W to 20.000 W**  
**infinitely variable from approx.**  
**10% to 100%**

Infinitely variable power regulation may be limited by given necessary lamp power as well as minimum and maximum lamp power of the individual lamp.

The lamp power is kept constant by automatic permanent adjusting of the rated value, e.g. independent of the mains power supply.

An analog output signal (DC 0 – 10 V) supplies the actual lamp voltage e.g. for an external lamp control unit. A separate digital output enables e.g. fault reports.

The electronic ballast unit is standardly equipped with two built in fans for air cooling. (Max. ambient air temperature is 40°C!)

As a special feature a customer specific microprocessor interface is optionally available upon order of a respective quantity, enabling the connection to analog or digital control systems. User-defined current/time characteristics can be set, e.g. an automatic increase of the lamp power in order to compensate lamp-aging.

The electronic ballast unit EVG UV 89-140 AC is available in the following version:

(Please state upon order)

### Item 38.1.8. Electronic Ballast Unit EVG UV 89-140 AC

Subject to change without prior notice

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## ***Electronic Ballast Unit EVG UV 89-140 AC***

### **Technical Data:**

Operation of mercury medium pressure and metal halide lamps with electrical characteristics corresponding to the wide working range of the electronic ballast unit.

Control:	DC 0 – 10 V analog, galvanically separated
Efficiency:	typical 96%
Ambient temperature range:	0° - +40°C (+32° - 104°F)
Storing temperature range:	-10 - +70°C (+14° - 158°F)
Water protection:	IP 20
Mounting position:	preferably upright with connectors down or horizontal
Dimensions:	17.75" (450 mm) x 15.75" (400 mm) x 17" (435 mm)
Weight:	ca. 119 lbs (54 kg)
Mains Voltage/Frequency:	3x376 - 509 V, ± 6%, 50 and 60 cyc.
Frequency:	50 and 60 cyc.
Connection:	L1, L2, L3 plus PE (uniform phase capacity)
Fuses:	3 x 36 A
Switch-on peak current, Mains:	typical approx. 240A (0.01ms), 100A (0,3ms)
Switch-on peak current, Lamp:	none
Lamp current:	3 A - 25 A
Frequency:	approx. 73 Hz, rectangular
Nominal voltage of lamp:	800 V - 900 V
Continuous power output:	max. 20.000 W
Ignition unit integrated:	U <sub>S</sub> = ca. 2x 2000 V symmetric
Output, analog:	DC 0 – 10 V

The efficient cooling is essential to enable maximum power output and extend the life-time of the electronic ballast unit. Both fans are electrically monitored. Low rotation or stop of a fan will automatically turn off the electronic ballast unit.

**Warranty:** 1 year from the date of purchase

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