



LUMETRON Control Gear For Special Lamps



12.5kW Control Gear



7.5kW Control Gear

Lumetronics has specialized in the manufacture of custom built control gear for speciality high power lamps. These are designed and manufactured to meet not only customers specifications, but also our own high standards of workmanship and performance. Control gear are available for UV Exposure Lamps ranging from 2 kW upto 19 kW and Metal Halide Lamps upto 2kW. These control gear feature the unique 'Constant Wattage Ballast' design wherein the Power delivered by the lamp varies by not more than 5% over input voltage fluctuations upto 20% from the specified input value (the power remains constant by virtue of the correctly selected set of capacitors and the lamp characteristics). This ensures a stable and accurate exposure control which is very critical for these applications. The control gear consists of a combination of Inductor coils and a carefully matched set of capacitors. During periods when the exposure is not required, lamps can be switched to a half power state by switching off one bank of capacitors. A special contactor is used for switching the capacitor bank. All terminations for connecting the Lamp, Capacitor Bank, Input Supply, etc. are provided on the inductive ballast. Several stages of voltage taps are provided at the Input as well as output sides to allow compensation for supply variations and lamp degradation during use. The design is such that the short-circuit current of the circuit is limited to the maximum lamp current in any eventuality.

Features

- * Range of high power control gear for UV and Metal Halide lamps from 2 kW upto 19 kW.
- * Available for power density ratings of 100W/inch, 200W/inch, 300 W/inch and 400W/inch.
- * Constant Wattage design for high stability operation. Maintains lamp output power within 5% of specified values for input variations of upto 20% of specified supply rating.
- * Switchable capacitor bank to lower the lamp power (Half Power operation) to conserve lamp life.
- * Capacitor bank switching by means of special contactor with arc quenching to limit inrush current allows power variation of the lamp.
- * All terminations provided on the inductor coils for connection of lamp, input supply, capacitor bank.
- * Several steps of voltage taps provided on input as well as output side to accommodate supply voltage variations and compensation of lamp degradation.
- * Low power dissipation requires minimum cooling requirements and silent operation allows several units to be housed in a single cabinet.
- * High quality, low loss, grain-oriented core material to minimize transformer losses.
- * A center tap on the output high voltage winding for earthing via an earth-leakage sensor is an important safety feature of the system to safeguard the user.
- * High Power factor circuit, better than 0.90pf for transformer, capacitor and lamp combination.
- * Control gear can be provided for various lamp sources such as Hanovia, Western Quartz, Theimer, Superior Quartz, Primarc, Philips, Amba (UK), etc.

Specifications

Input Voltage	: 230 V Single Phase or 415 Two Phase input (+/-10%), 50Hz~60Hz
Output Power	: From 2 kW upto 19 kW @ 100W/i upto 400W/i (+/-2.5%)
Output Current	: Calibrated to suit lamp specifications
Output Voltage	: Calibrated to suit lamp specifications
Power Control	: Power switching by capacitor bank. Choice of 100%, 70%, 50%, or 30%.

These instruments are manufactured in INDIA. LUMETRONICS reserves the right to change the specifications or design without prior notice.

