



Detailed Specifications of Laser Lamp

STK394

100mm arc, wire connection, fluid cooled krypton arc lamp

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|---------------------|-----|---------------------------------|---------------------------------|
| Envelope (CDQ/CFQ): | CDQ | Impedance parameter (Ko) : | 15.6 Ohm Amp ^{0.5} |
| Wall (0.5-1-2 mm) : | 0.5 | Explosion constant (Ke) : | 9.6E+05 Watt sec ^{0.5} |
| | | Maximum Average Power: | 6434 Watts |
| Bore (mm) : | 8 | Maximum Peak Current (A) : | 2011 (See note 1) |
| Arc (mm) : | 100 | Minimum Lamp Voltage (V) : | 873 (See note 2) |
| | | Maximum Lamp Voltage (V) : | 3056 (See note 3) |
| | | Minimum Trigger Voltage (kV) : | 18 (See note 4) |
| | | Minimum Trigger Width (μs) : | 0.80 (See note 5) |
| Gas type (Xe/Kr) : | Kr | Recommended Simmer Current (mA) | 500-1000 |
| Pressure (torr) : | 700 | Maximum Simmer Current (mA) | 4000 |

CDQ: UV absorbing Cerium Doped Quartz

CFQ: clear fused quartz

Note 1: Maximum lamp current for long life applications = 4000 Amps cm⁻²

Note 2: Minimum lamp voltage for reliable ignition using external trigger.

Note 3: Maximum lamp voltage for reliable operation without self flash.

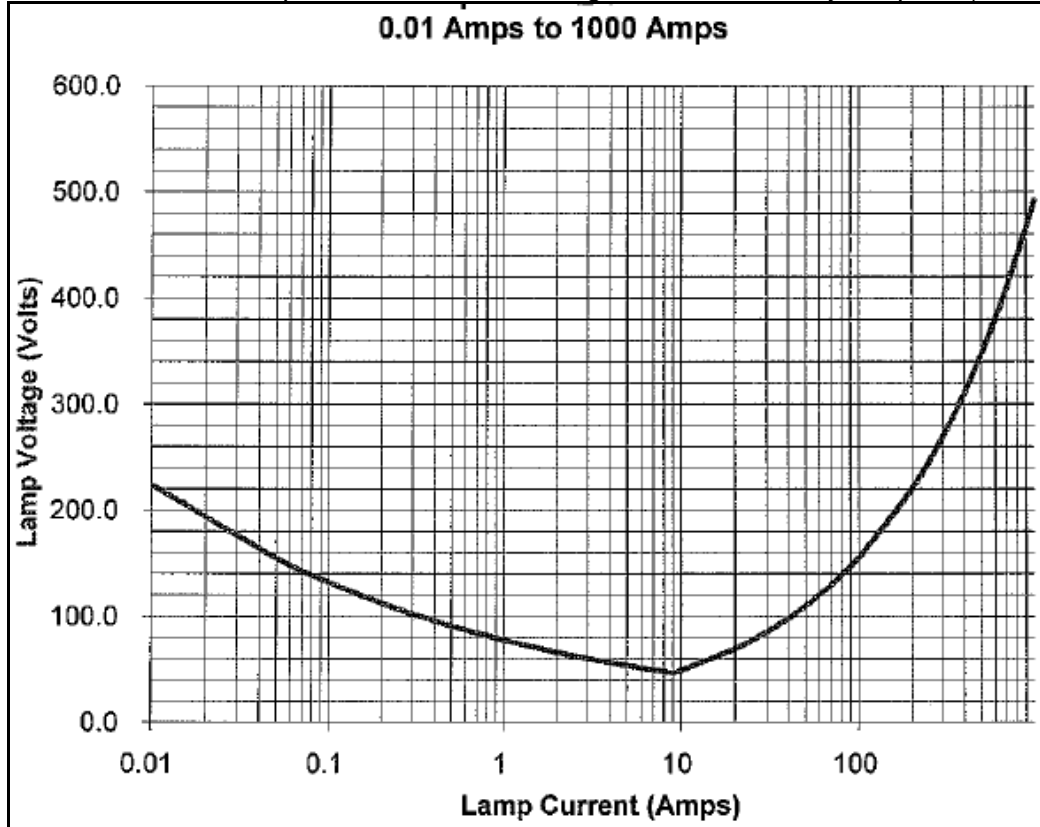
Note 4: Typical external trigger voltage, series trigger voltage similar.

Note 5: Minimum trigger pulse width (μs) at minimum trigger voltage.

Note 6: Lamp and trigger voltages assume negative ground lamp supply.

Note 7: Minimum lamp voltage for reliable ignition will be lower with series trigger.

Note 8: For simmer operation minimum voltage is determined by lamp Ko (see VI plot).



Assumes K0 remains constant throughout positive slope of operation.

Note: this report is based on theory/approximations and should be used as a guide only.