IGNITRON

DESCRIPTION AND RATING

The GL-7151 is a sealed water-cooled igniton with a stainless-steel jacket for a-c control service. In such application two tubes in an inverse-parallel connection will control 4800 kilovolt-amperes at voltages of 250 to 500 volts over a frequency range of 25 to 60 cycles. The water-cooling chamber is especially designed to provide high cooling efficiency, where this requirement exists, without increasing the over-all water-pressure crop of the cooling jacket.

TECHNICAL INFORMATION

GENERAL

Electrical

Cathode Excitation - Cyclic
Cathode Spot Starting - Ignitor
Number of Electrodes

Main Anodes ........................................... 1
Main Cathodes ........................................... 1
Igniters ................................................... 1

Mechanical

Envelope Material - Stainless Steel
Net Weight ............................................ 70 Pounds

Thermal

Type of Cooling - Water
Inlet Water Temperature, minimum ......................... 0 °C
Outlet Water Temperature, maximum ....................... 40 °C
Water Flow, minimum .................................. 10 Gallons per Minute
Maximum Working Water Pressure ......................... 100 Pounds per Square Inch

MAXIMUM RATINGS

AC Control Service, Two Tubes in Inverse Parallel, Ratings per Tube

Voltage Range ......................................... 250 to 600 Volts RMS
Maximum Demand ....................................... 4800 Kilovolt-Amperes
Average Current at Maximum Demand ....................... 486 Amperes
Maximum Average Current ................................ 900 Amperes
Demand at Maximum Average Current ...................... 1600 Kilovolt-Amperes
MAXIMUM RATINGS (Cont'd)

Maximum Peak Fault Current at 250 Volts ............ 54,000 Amperes
Maximum Peak Fault Current at 600 Volts .......... 22,400 Amperes
Frequency Range ........................................ 25-60 Cycles per Second

Ignitor Characteristics

Maximum Inverse Voltage ................................. 5 Volts
Recommended Pulse Length .............................. 500 Microseconds
Minimum Pulse Length, for average anode currents
          greater than 20 amperes .......................... 150 Microseconds
Maximum Pulse Length ................................. 4000 Microseconds

* Maximum demand current at voltages below 500 is 9600 amperes RMS.

Electronic Components Division

GENERAL ELECTRIC COMPANY

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