

GL-7151

IGNITRON

DESCRIPTION AND RATING

The GL-7151 is a sealed water-cooled ignitron 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 drop of the cooling jacket.

TECHNICAL INFORMATION

GENERAL

Electrical

Cathode Excitation - Cyclic  
 Cathode Spot Starting - Ignitor  
 Number of Electrodes  
     Main Anodes . . . . . 1  
     Main Cathodes . . . . . 1  
     Ignitors . . . . . 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  
Schenectady 5, N. Y.

OUTLINE

