



## RECTIFIER

HALF-WAVE

MERCURY-VAPOR

The GL-6930 is a half-wave, mercury-vapor rectifier tube for use in industrial power-rectifier applications that require 250 volts d-c.

### TECHNICAL INFORMATION

#### GENERAL

Electrical	Minimum	Bogey	Maximum	
Cathode*—Filamentary				
Filament Voltage.....	—	2.5	—	Volts
Filament Current at 2.5 Volts.....	16	—	20	Amperes
Heating Time.....	1	—	—	Minutes
Arc Drop at 20 Peak Amperes.....	—	9	—	Volts
Filament Starting Voltage.....	—	20	—	Volts

GENERAL  ELECTRIC

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### TECHNICAL INFORMATION (Cont'd)

#### Mechanical

Mounting Position—Vertical, Base Down

Equilibrium Condensed-Mercury Temperature

Rise Above Ambient

No Load . . . . . 30 C

Full Load . . . . . 40 C

Net Weight, approximate . . . . . 6 Ounces

#### MAXIMUM RATINGS, Absolute Values

Maximum Peak Anode Voltage

Inverse . . . . . 1000 Volts

Maximum Cathode Current

Peak . . . . . 77 Amperes

Average . . . . . 6.4 Amperes

Maximum Averaging Time . . . . . 20 Seconds

Fault . . . . . 770 Amperes

Maximum Duration . . . . . 0.1 Seconds

Condensed-Mercury Temperature Limits . . . . . +35 to +100 C

Maximum Frequency . . . . . 150 Cycles per Second

\* Most satisfactory performance and life will result with quadrature filament operation, i.e., with the filament voltage 90 degrees out of phase with the anode voltage. When quadrature operation is used the voltage on the filament and cathode terminal should be crossing zero from positive toward negative when the anode voltage is at the peak of the positive half cycle.

In three-phase systems each tube should be connected so that its anode and filament voltages approximate as nearly as possible the quadrature phasing, i.e., filament voltage 90 plus or minus 30 degrees out of phase with the anode voltage.

When quadrature operation is not practicable, the filament and cathode terminal should be negative when the anode is positive.

The anode and grid-circuit returns should be made to the filament and cathode terminal. However, they can be made to the center tap of the filament transformer.

