

Temperature-controlled water-cooled mercury-pool ignitron for high-power DC rectifier and 2400 V AC-control service.

GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | —             |
| NOMINAL HEATER      | — / —             | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

SECTION RATINGS

|                                                                                                                                                                                                                                                                                                                 |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| SECTION1 IgnitronPowerSwitch                                                                                                                                                                                                                                                                                    |        |
| PEAK INVERSE VOLTAGE                                                                                                                                                                                                                                                                                            | 2100 V |
| NOMINAL OUTPUT CURRENT                                                                                                                                                                                                                                                                                          | 200 A  |
| PEAK FORWARD CURRENT                                                                                                                                                                                                                                                                                            | 1800 A |
| <i>Special-purpose data not represented by fixed promoted fields are preserved in TUBE_SECTION_PARAMETER. Ignitron/mercury-pool data semantically matching rectifier inverse-voltage and current fields were promoted; remaining grid, ignitor, auxiliary-anode, thermal, and fault ratings are parameters.</i> |        |

The GL-6513 is a sealed stainless-steel-jacketed, water-cooled mercury-pool ignitron for high-power DC rectifier service and 2400-volt AC control. It is electrically equivalent to the GL-5555/FG-238-B and adds integral water-temperature control and over-temperature protection.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1968 General Electric Co

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1968 GENERAL ELECTRIC CO

## Section 1 · IgnitronPowerSwitch

| OTHER                            |                 |                                                                                             |
|----------------------------------|-----------------|---------------------------------------------------------------------------------------------|
| PARAMETER                        | PUBLISHED VALUE | CONDITION / NOTE                                                                            |
| The GL                           | 6513 C          | —                                                                                           |
| rating is                        | 200 A           | tube designed for rectifier service in the 125-, 250~, 600-, and 900-volt d=c power fields. |
| Like its prototype the GI        | 6513 C          | tube designed for rectifier service in the 125-, 250~, 600-, and 900-volt d=c power fields. |
| Ignitor Voltage Required to Fire | 450 V           | tube designed for rectifier service in the 125-, 250~, 600-, and 900-volt d=c power fields. |
| Peak Inverse Anode Voltage       | 900 V           | Power-Rectifier Service                                                                     |
| Peak Inverse Anode Voltage       | 2100 V          | Power-Rectifier Service                                                                     |
| Voltage                          | 2400 V          | AC Control Service                                                                          |
| Pressure Drop at                 | 3 gal/min       | AC Control Service                                                                          |
| Peak                             | 180 C           | Fower-Rectifier Service, Continuous Duty                                                    |
| Voltage                          | 2 V             | AC Control Service 4                                                                        |
| Maximum Demand                   | 2400 kVA        | AC Control Service 4                                                                        |
| Maximum Averaging Time at        | 2400 V          | AC Control Service 4                                                                        |
| Peak                             | 100 A           | AC Control Service 4                                                                        |
| Average                          | 2 A             | AC Control Service 4                                                                        |
| Maximum Averaging Time           | 10 s            | AC Control Service 4                                                                        |
| Maximum Peak Forward Voltage     | 160 V           | AC Control Service 4                                                                        |
| Pesk                             | 30 A            | AC Control Service 4                                                                        |
| Average                          | 9 A             | AC Control Service 4                                                                        |
| Root Mean Square                 | 15 A            | AC Control Service 4                                                                        |
| Above Ground                     | 1500 V          | AC Control Service 4                                                                        |