ABRIDGED DATA
Hot cathode mercury vapour rectifier
Peak inverse anode voltage 15 kV max
Peak anode current (at 15kV p.i.v.) 12 A max
Mean anode current (at 15kV p.i.v.) 3.0 A max
Fault anode current (0.1s max) 120 A max
Frequency 150 Hz max

GENERAL
Electrical
Filament oxide coated
Filament voltage 5.0 V
Filament current 11.5 A
Filament heating time (minimum) 1.0 min
Voltage drop (approx) 12 V
Condensed mercury temperature rise above ambient (approx):
at no load 13 °C
at 2.5A load 23 °C

Mechanical
Overall length 308mm (12.126 inches) max
Overall diameter 72mm (2.835 inches) max
Net weight 450g (1 pound) approx
Mounting position vertical, base down
Base B4D with bayonet
Top cap B.S.448/CT9 fitted with screw terminal adaptor

March 1969
### MAXIMUM OPERATING CONDITIONS (Absolute values)

<table>
<thead>
<tr>
<th>Circuit*</th>
<th>Condensed mercury temp. (°C)</th>
<th>Peak inverse voltage (50–60Hz) (kV)</th>
<th>Anode current peak (A)</th>
<th>Transformer secondary voltage (r.m.s.) (kV)</th>
<th>Maximum d.c. output (kV) (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>25–55</td>
<td>15</td>
<td>12 3.0</td>
<td>5.3</td>
<td>4.8 6.0</td>
</tr>
<tr>
<td>Single phase</td>
<td>25–60</td>
<td>10</td>
<td>12 3.0</td>
<td>3.5</td>
<td>3.2 6.0</td>
</tr>
<tr>
<td>full wave</td>
<td>25–75</td>
<td>2.5</td>
<td>20 5.0</td>
<td>0.88</td>
<td>0.8 10</td>
</tr>
<tr>
<td>B</td>
<td>25–55</td>
<td>15</td>
<td>12 3.0</td>
<td>10.6</td>
<td>9.6 6.0</td>
</tr>
<tr>
<td>Single phase</td>
<td>25–60</td>
<td>10</td>
<td>12 3.0</td>
<td>7.1</td>
<td>6.4 6.0</td>
</tr>
<tr>
<td>bridge</td>
<td>25–75</td>
<td>2.5</td>
<td>20 5.0</td>
<td>1.77</td>
<td>1.6 10</td>
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<tr>
<td>C</td>
<td>25–55</td>
<td>15</td>
<td>12 3.0</td>
<td>6.1†</td>
<td>7.2† 9.0</td>
</tr>
<tr>
<td>Three phase</td>
<td>25–60</td>
<td>10</td>
<td>12 3.0</td>
<td>4.1†</td>
<td>4.8† 9.0</td>
</tr>
<tr>
<td>half wave</td>
<td>25–75</td>
<td>2.5</td>
<td>20 5.0</td>
<td>1.02†</td>
<td>1.2† 15</td>
</tr>
<tr>
<td>D</td>
<td>25–55</td>
<td>15</td>
<td>12 3.0</td>
<td>6.1</td>
<td>14.3 9.0</td>
</tr>
<tr>
<td>Three phase</td>
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<td>10</td>
<td>12 3.0</td>
<td>4.1</td>
<td>9.5 9.0</td>
</tr>
<tr>
<td>full wave</td>
<td>25–75</td>
<td>2.5</td>
<td>20 5.0</td>
<td>1.02</td>
<td>2.4 15</td>
</tr>
</tbody>
</table>

* See Typical Rectifier Circuits for Choke input filters in the preamble to the Rectifier section of the Valve Data Book.

† For operation at constant full load. If the load is reduced, the peak inverse voltage on the valves will exceed the ratings unless the transformer secondary voltage is reduced. The total reduction required is 14% at no load and the d.c. output voltage will be correspondingly reduced.

♦ Averaging time 15 seconds maximum.
HEATING CHARACTERISTIC

CONDENSED MERCURY TEMPERATURE RISE IN DEGREES CENTIGRADE

TIME IN MINUTES

2.5A LOAD

NO LOAD

FLAMENT ONLY
### OUTLINE

![Diagram of the valve's outline](image)

#### VIEW ON BASE

**Pin** | **Element**
---|---
1 | No connection
2 | Filament
3 | Filament
4 | No connection

#### Dimensions

<table>
<thead>
<tr>
<th>Ref</th>
<th>Inches</th>
<th>Millimetres</th>
<th>Ref</th>
<th>Inches</th>
<th>Millimetres</th>
</tr>
</thead>
<tbody>
<tr>
<td>A*</td>
<td>11.811 ± 0.315</td>
<td>300.0 ± 8.0</td>
<td>F</td>
<td>0.625</td>
<td>15.88</td>
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<tr>
<td>B*</td>
<td>2.835 max</td>
<td>72.0 max</td>
<td>G</td>
<td>0.187 ± 0.003</td>
<td>4.750 ± 0.076</td>
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<tr>
<td>C</td>
<td>0.593</td>
<td>15.06</td>
<td>H</td>
<td>1.000</td>
<td>25.40</td>
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<tr>
<td>D</td>
<td>0.375 ± 0.002</td>
<td>9.525 ± 0.051</td>
<td>J</td>
<td>0.562</td>
<td>14.27</td>
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<tr>
<td>E*</td>
<td>11.122 ± 0.236</td>
<td>282.5 ± 6.0</td>
<td>K</td>
<td>0.750</td>
<td>19.05</td>
</tr>
</tbody>
</table>

Millimetre dimensions have been derived from inches except where marked *.

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**English Electric Valve Company Limited**

Chelmsford, Essex, England

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