Service Type CV532

INTRODUCTION
The AH211A is a hot cathode Mercury Vapour Rectifier with maximum ratings of 16kV peak inverse voltage and 8A peak current. It will provide a D.C. output of 15kV 6A in a three phase full wave circuit.

GENERAL DATA
(See also Preamble to Rectifier Section of this catalogue)

Electrical
Filament
Filament Voltage
Filament Current
Filament Heating Time
Condensed Mercury Temperature
Max Peak Inverse Voltage
Max Anode Current:
  Peak
  Mean (30 seconds Max averaging time)
  Under fault conditions (0·1 seconds Max duration)

Mechanical
Overall Length
Overall Diameter
Net Weight
Mounting Position
Base

CONTROL OF CONDENSED MERCURY TEMPERATURE
On the following pages two curves are given showing:
1. Total heating time for any value of ambient temperature. This is for use when the valve is being switched on from cold.
2. Rise of condensed mercury temperature above ambient plotted against heating time and cooling time. This can be used as indicated by the example in the preamble to this section of the catalogue.

Indicates a change.
# MAXIMUM OPERATING CONDITIONS

(Absolute Values—see Preamble)

<table>
<thead>
<tr>
<th>Circuit</th>
<th>* Diagram</th>
<th>Condensed Mercury Temp. °C</th>
<th>Peak Inverse Voltage (50-60 c/s) kV</th>
<th>Anode current in Amperes Peak</th>
<th>Transformer Secondary Voltage (R.M.S.) kV</th>
<th>Max D.C. Output kV</th>
<th>Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Phase Full Wave</td>
<td>A</td>
<td>25-50</td>
<td>16</td>
<td>8</td>
<td>2-0</td>
<td>5-6</td>
<td>5-0</td>
</tr>
<tr>
<td>Single Phase Full Wave Bridge</td>
<td>B</td>
<td>25-50</td>
<td>16</td>
<td>8</td>
<td>2-0</td>
<td>11-2</td>
<td>10-1</td>
</tr>
<tr>
<td>Three Phase Half Wave</td>
<td>C</td>
<td>25-50</td>
<td>16</td>
<td>8</td>
<td>2-0</td>
<td>6-5†</td>
<td>7-6†</td>
</tr>
<tr>
<td>Three Phase Full Wave</td>
<td>D</td>
<td>25-50</td>
<td>16</td>
<td>8</td>
<td>2-0</td>
<td>6-5</td>
<td>15-2</td>
</tr>
</tbody>
</table>

*For diagrams see Typical Rectifier Circuits for Choke Input Filters in the preamble to this section of the catalogue.

†For operation with constant full load. If the load resistance is increased, the secondary voltage should be decreased (to avoid excessive peak inverse voltage) until at no load the reduction is 14%. The D.C. output voltage will be correspondingly decreased.

‡Mean anode currents are averaged over any period of 30 seconds maximum.
TOTAL HEATING TIME CHARACTERISTIC

AMBIENT TEMPERATURE IN DEGREES CENTIGRADE

TOTAL HEATING TIME IN MINUTES
HEATING AND COOLING CHARACTERISTIC

Rise of Condensed Mercury Temperature over Ambient Temperature

ENGLISH ELECTRIC VALVE CO. LTD.
CHELMSFORD ESSEX, ENGLAND TECHNICAL PUBLICATIONS
Printed in England
ENGLISH ELECTRIC VALVE CO. LTD.
CHELMSFORD ESSEX, ENGLAND TECHNICAL PUBLICATIONS
Printed in England
OUTLINE

Ref. | Inches | Millimetres  | Ref. | Inches | Millimetres |
-----|--------|-------------|-----|--------|-------------|
A    | 12.937±0.437 | 328.6±11.10 | H   | 2.563  | 65.10       |
B    | 2.875   | 73.03       | J   | 0.750  | 19.05       |
C    | 0.590   | 14.99       | K   | 0.375  | 9.53        |
D    | 0.031   | 0.79        | L   | 0.281±0.005 | 7.14±0.13 |
E    | 0.375±0.002 | 9.525±0.051 | M   | 0.375  | 9.53        |
F    | 11.687±0.437 | 296.8±11.10 | N   | 1.375  | 34.93       |
G    | 2.860 Max | 72.64 Max   |

Millimetre dimensions have been derived from inches.