

| Specification MOSA/CV3798<br>Issue 2 Dated 26.11.1952<br>To be read in conjunction with K.1001 | <table border="1"> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td>UNCLASSIFIED</td><td>UNCLASSIFIED</td></tr> </table> | SECURITY |  | Specification | Valve | UNCLASSIFIED | UNCLASSIFIED |
|--|---|----------|--|---------------|-------|--------------|--------------|
| SECURITY   |   |          |  |               |       |              |              |
| Specification  | Valve   |          |  |               |       |              |              |
| UNCLASSIFIED   | UNCLASSIFIED  |          |  |               |       |              |              |

————> Indicates a change

|                                    |                       |   |                                       |                               |      |
|------------------------------------|-----------------------|---|---------------------------------------|-------------------------------|------|
| TYPE OF VALVE - Voltage Stabiliser |                       | <u>MARKING</u><br>See K.1001/4  |                                       |                               |      |
| CATHODE                            | - Cold                | <u>BASE</u><br>I.O<br>See K1001/AIV/D2<br><i>M Dimension (iv applies)</i> |                                       |                               |      |
| ENVELOPE                           | - Glass, unmetallised |   |                                       |                               |      |
| PROTOTYPE                          | - OA3/VR75/30         |   |                                       |                               |      |
| <u>RATING</u>                      |                       | Note  | <u>CONNECTIONS</u>                    |                               |      |
| Max. Striking Voltage              | (V) 105               |   | Pin                                   | Electrode                     |      |
| Operating Voltage (Approx.)        | (V) 75                |   | 1                                     | No connection                 |      |
| Min. Operating Current             | (mA) 5                |   | 2                                     | Cathode                       |      |
| Max. Operating Current             | (mA) 40               |   | 3                                     | Connected internally to pin 7 |      |
|                                    |                       |   | 4                                     | Pin omitted                   |      |
|                                    |                       |   | 5                                     | Anode                         |      |
|                                    |                       |   | 6                                     | Pin omitted                   |      |
|                                    |                       |   | 7                                     | Connected internally to pin 3 |      |
|                                    |                       |   | 8                                     | No connection                 |      |
|                                    |                       |   | <u>DIMENSIONS</u><br>See K.1001/A1/D1 |                               |      |
|                                    |                       |   | Dimensions                            | Min.                          | Max. |
|                                    |                       |   | A mm                                  | 96                            | 105  |
|                                    |                       |   | B mm                                  | -                             | 40   |

| Test Conditions   |  |         | Test                | Limits |      | No. Tested | Note  |
|---|--|---------|---------------------|--------|------|------------|-------|
|   |  |         |                     | Min.   | Max. |            |       |
| a   | Va(V)  | Ia (mA) | Striking Voltage(V) | -      | 105  | 100%       | 1 & 2 |
|   | Increased from zero until Ia flows.                                    | -       |                     |        |      |            |       |
| b   | Adjusted   | 40      | Va (V)              | -      | 81   | 100%       | 2     |
| c   | Adjusted   | 30      | Va (V)              | -      | 79   | 100%       | 2     |
| d   | Adjusted   | 5       | Va (V)              | 70     | -    | 100%       | 2     |
| e   | 50   | -       | Leakage Current(μA) | -      | 10.0 | 1%(5)      | 2     |
| f   | <u>Impedance</u>   |         |                     |        |      |            |       |
|   | (i) Difference between value of Va in test "b" and value in test "d".  |         |                     | (V)    | -    | 6.5        | 100%  |
| f   | (ii) Difference between value of Va in test "c" and value in test "d". |         |                     | (V)    | -    | 4.5        | 1%(5) |
|   |  |         |                     |        |      |            |       |
| g   | <u>Noise Test</u>  |         |                     |        |      |            |       |
| <p>The valve is to be tested for freedom from oscillation and noise during operation. For this purpose a calibrated amplifier detector having a level response within <math>\pm 2</math>db. of its response at 400 c.p.s. over the range of 50-5000 c.p.s. is to be connected between the Anode and Cathode. The cathode current is to be varied slowly from 5mA to 40mA and at no point in this range must the R.M.S. noise input voltage to the amplifier exceed 5mV. For the purpose of the test the valve shall be operated from a well filtered variable D.C. supply</p> |  |         |                     |        |      |            |       |
|   |  |         |                     |        |      | 100%       |       |
| <p style="text-align: center;"><u>NOTES</u></p>   |  |         |                     |        |      |            |       |
| 1. This test is to be performed 24 hours after the valve is sealed off.   |  |         |                     |        |      |            |       |
| 2. With a minimum resistance of 1K ohms in series with the anode.   |  |         |                     |        |      |            |       |