

SPECIFICATION MOS/CV.2456,57,58,59,60,61,62.

ISSUE No.1 DATED 1.4.58.

AMENDMENT No. 1 DATED 1.3.59.

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Dimensions

Amend the dimensions for "A" Seated Height and "D" Overall Length to read as follows:-

<u>DIMENSIONS (mm)</u>	<u>MIN.</u>	<u>MAX</u>
"A" Seated Height	57.2	66.7
"D" Overall Length	-	73.8

February, 1959
N.54377/D

T.V.C. for R.A.E.

Specification MOS/CV.2456, CV.2457, CV.2458, CV.2459, CV.2460, CV.2461, CV.2462.		<u>SECURITY</u>	
Issue No. 1	Dated 1.4.58	<u>SPECIFICATION</u>	<u>VALVE</u>
To be read in conjunction with K.1001, BS.448 and BS.1409		Unclassified	Unclassified

TYPE OF VALVE: Corona Stabiliser Valves.				<u>MARKING</u>	
CATHODE: Cold				See K.1001/4.	
ENVELOPE: Glass.				<u>BASE</u>	
PROTOTYPE: SC1/350, SC1/400, SC1/600, SC1/800, SC1/1000, SC1/1200, SC1/1400.				BS.448/B7G.	
<u>RATINGS</u> (All limiting values are absolute)				<u>CONNECTIONS</u>	
				PIN	ELECTRODE
Normal Operating Current	(μ A)	250		1	No connection NC
Average Incremental Resistance	(K Ω)	50		2	No connection NC
Temperature Stability	(% per $^{\circ}$ C)	0.01		3	No connection NC
				4	No connection NC
				5	No connection NC
				6	No connection NC
				7	Cathode k
				Top Cap	Anode a
<u>CV.2456</u>				<u>DIMENSIONS</u>	
Operating Voltage	(V)	350		BS.448/B7G/2.2 Size Ref. No.4	
Max. Stable Current	(μ A)	300			
Min. Stable Current	(μ A)	5			
<u>CV.2457</u>					
Operating Voltage	(V)	400			
Max. Stable Current	(μ A)	300			
Min. Stable Current	(μ A)	5			
<u>CV.2458</u>					
Operating Voltage	(V)	600			
Max. Stable Current	(μ A)	300			
Min. Stable Current	(μ A)	10			
<u>CV.2459</u>					
Operating Voltage	(V)	800			
Max. Stable Current	(μ A)	400			
Min. Stable Current	(μ A)	15			
<u>CV.2460</u>					
Operating Voltage	(V)	1000			
Max. Stable Current	(μ A)	400			
Min. Stable Current	(μ A)	20			
<u>CV.2461</u>					
Operating Voltage	(V)	1200			
Max. Stable Current	(μ A)	500			
Min. Stable Current	(μ A)	20			
<u>CV.2462</u>					
Operating Voltage	(V)	1400			
Max. Stable Current	(μ A)	500			
Min. Stable Current	(μ A)	20			

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CV 2460,61,62

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TESTS

To be performed in addition to K.1001.

All tests are to be performed in the specified order with the valves mounted in total darkness and except where otherwise stated in an ambient temperature of $25^{\circ} \pm 5^{\circ}\text{C}$.

The tests specified in clauses "b" to "g" inclusive are to be performed at least 28 days after Test "a".

	Test Conditions	Test	Limits		No. Tested	Notes
			Min.	Max.		
a	Adjust $I_a = 250\mu\text{A}$.	<u>Operating Voltage</u> CV.2456 (V) 335 365 CV.2457 (V) 380 420 CV.2458 (V) 580 620 CV.2459 (V) 780 820 CV.2460 (V) 975 1025 CV.2461 (V) 1170 1230 CV.2462 (V) 1365 1435			100%	1&2
b	Adjust $I_a = 250\mu\text{A}$.	<u>Operating Voltage</u> CV.2456 (V) 335 365 CV.2457 (V) 380 420 CV.2458 (V) 580 620 CV.2459 (V) 780 820 CV.2460 (V) 975 1025 CV.2461 (V) 1170 1230 CV.2462 (V) 1365 1435			100%	1, 2 & 3
c	Adjust I_a :- CV.2456 = $300\mu\text{A}$ CV.2457 = $300\mu\text{A}$ CV.2458 = $300\mu\text{A}$ CV.2459 = $400\mu\text{A}$ CV.2460 = $400\mu\text{A}$ CV.2461 = $500\mu\text{A}$ CV.2462 = $500\mu\text{A}$	<u>Current Stability</u> Meter Fluctuations (μA) - 5			100%	4
d	Adjust I_a :- CV.2456 = $5\mu\text{A}$ CV.2457 = $5\mu\text{A}$ CV.2458 = $10\mu\text{A}$ CV.2459 = $15\mu\text{A}$ CV.2460 = $20\mu\text{A}$ CV.2461 = $20\mu\text{A}$ CV.2462 = $20\mu\text{A}$	<u>Current Stability</u> Meter Fluctuations (μA) - 5			100%	4

	Test Conditions	Test	Limits		No. Tested	Notes
			Min.	Max.		
e	Adjust $I_a = 225\mu A$	<u>Regulation (1)</u> (1) Test as in Test 'b' above but with test conditions modified as in Test Condition column at left. (2) Change in operating voltage between values found in Test 'b' and Test 'e(1)':- CV.2456 (V) - 1.0 CV.2457 (V) - 1.0 CV.2458 (V) - 1.5 CV.2459 (V) - 2.0 CV.2460 (V) - 2.5 CV.2461 (V) - 3.0 CV.2462 (V) - 3.5			100%	2 & 5
f	Adjust $I_a = 275\mu A$	<u>Regulation (2)</u> (1) Test as in Test 'b' above but with test conditions modified as in Test Condition column at left. (2) Change in operating voltage between values found in Test 'b' and Test 'f(1)':- CV.2456 (V) - 1.0 CV.2457 (V) - 1.0 CV.2458 (V) - 1.5 CV.2459 (V) - 2.0 CV.2460 (V) - 2.5 CV.2461 (V) - 3.0 CV.2462 (V) - 3.5			100%	2 & 5
g	The valve to be run for a minimum period of 7 hours with $I_a = 250\mu A$	<u>Stability Test</u> (1) Test as in Test 'b' above but with test conditions modified as in Test Condition column at left. (2) Change in operating voltage between values found in Test 'b' and Test 'g(1)':- CV.2456 (V) - 2.0 CV.2457 (V) - 2.0 CV.2458 (V) - 2.0 CV.2459 (V) - 2.0 CV.2460 (V) - 2.5 CV.2461 (V) - 3.0 CV.2462 (V) - 3.5			100%	2 & 6

	Test Conditions	Test	Limits		No. Tested	Notes
			Min.	Max.		
h	Adjust Ia = 250 μ A. Ambient Temperature = -20°C. Ambient Temperature = +70°C.	<u>Temperature Stability</u>			T.A.	2 & 5
		(1) Test as in Test 'b' but with Test Conditions modified as in Test Condition column at left.				
		(2) Test as in Test 'b' but with Test Conditions modified as in Test Condition column at left.				
		(3) Change in operating voltage between values obtained in Test 'h(1)' and Test 'h(2)':				
		CV.2456 (V)	-	17.5		
		CV.2457 (V)	-	4.0		
		CV.2458 (V)	-	6.0		
		CV.2459 (V)	-	8.0		
		CV.2460 (V)	-	10.0		
		CV.2461 (V)	-	12.0		
		CV.2462 (V)	-	21.0		

NOTES

1. The valves shall have been in the ageing rack immediately prior to Test 'b'. They shall be quickly transferred to the test position. Time taken to strike shall be less than 0.5 secs.
2. The values of operating voltage are to be recorded.
3. An increase in voltage between the value obtained in Test 'b' and that recorded in Test 'a' within the following limits is permissible:-

Valve Type	Allowable increase in Test 'b' from Test 'a'
CV.2456, CV.2457	10 volts.
CV.2458, CV.2459, CV.2460, CV.2461, CV.2462.	5 volts.

Should the value of operating voltage recorded in Test 'b' be higher than that specified above, the valves are to be held for a further minimum period of 28 days when if the upward drift is still evident the valve shall be rejected.

4. To be performed in an approved circuit.
5. Tests to be completed within 30 secs.
6. On completion of Test 'f' the valves shall be run for the seven hour stability test. The conditions of Note 1 shall apply.