



Triode

3C/270A
(4212E)

4212E

CATHODE.

Thoriated tungsten filament

Voltage	14	V
Nominal current	6.2	A
Peak emission	4.5	A

RATING.

Amplification factor	} Measured at	16	ohms
Impedance		1,900	

V_a 2,000V V_g -90V

DIRECT INTER-ELECTRODE CAPACITIES.

Grid to anode	19	pF
Grid to filament	14.8	pF
Anode to filament	8.5	pF

DIMENSIONS.

Overall length	352	mm.
Max. diameter	93	mm.
Base	Giant 4-pin bayonet	
Net weight	750	g.

MAXIMUM RATINGS.

Maximum direct anode voltage	3,000	V
Maximum direct anode current	350	mA
Maximum direct grid current	75	mA
Maximum anode dissipation	275	W
Maximum freq. for above ratings	1.5	Mc/s
Maximum anode voltage for frequency of 4.5 Mc/s	1,000	V

This valve may be supplied in either one of the four impedance groups :

Group 1. I_a 110-129 mA	} Measured at V_a 1,500V V_g -68V
2. I_a 130-148 mA	
3. I_a 149-167 mA	
4. I_a 168-185 mA	

It is recommended that the valve be operated in a vertical position. When operated horizontally the plane of the filament must be vertical. Free circulation of air must be provided to ensure adequate cooling of the glass during operation.



TYPICAL OPERATING CONDITIONS

AUDIO FREQUENCY

Class A Power Amplifier or Modulator.

Direct anode voltage	1,500	1,250 V
Grid bias	—57	—40 V
Direct anode current	0.170	0.200 A
Load resistance	5,000	3,000 Ω
Undistorted output	50	40 W approx.

Class B Power Amplifier or Modulator. (For balanced 2-valve operation.)

Direct anode voltage	2,500	1,500 V
Grid bias	—145	—80 V
Direct anode current per valve—zero signal	50	60 mA
Direct anode current per valve max. signal	300	350 mA
Peak A.F. grid to grid drive voltage	420	300 V
*Direct grid current	13.5	38 mA approx.
Load resistance anode to anode	9,100	4,600 Ω
*Grid driving power per valve	3	6 W approx.
Recommended grid driving power	50	50 W
Power output	960	660 W



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RADIO FREQUENCY

Class B Telephony. Modulated carrier applied to grid.

(Carrier conditions per valve for use with 100% modulation.)

Direct anode voltage	2,000	1,500 V
Grid bias	—125	—90 V
Direct anode current	0.200	0.275 A
Peak R.F. grid voltage	110	110 V
*Direct grid current	0	34 mA approx.
Power output	130	130 W

Class C Power Amplifier. Anode subject to modulation.

(Carrier conditions per valve for use with 100% modulation.)

Direct anode voltage	2,000	1,500 V
Grid bias	—240	—215 V
Direct anode current	0.300	0.300 A
Peak R.F. grid voltage	330	315 V
*Direct grid current	15	22 mA approx.
Power output	420	300 W

Class C Power Amplifier or Oscillator, unmodulated.

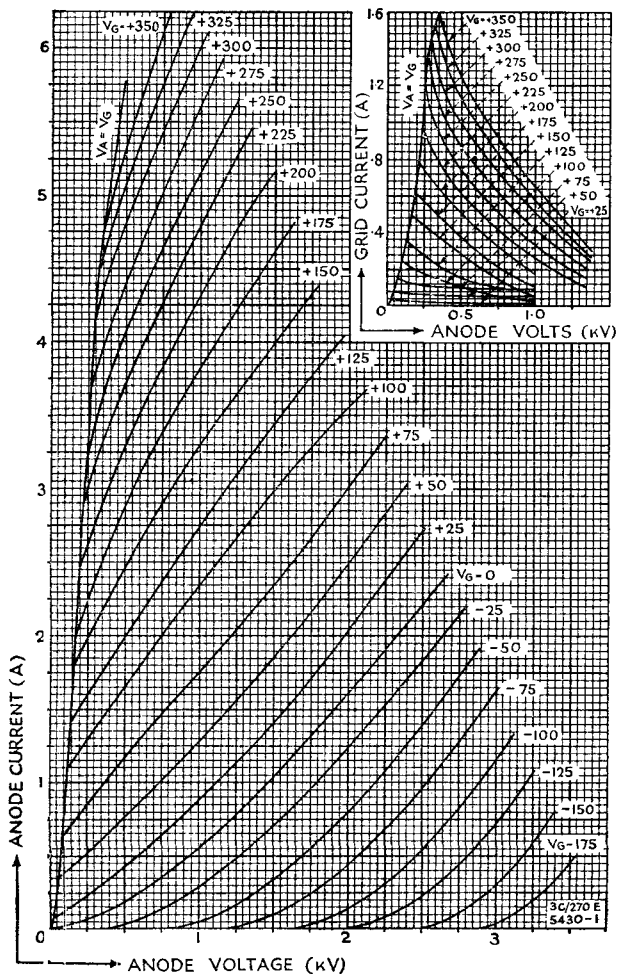
Direct anode voltage	3,000	2,000 V
Grid bias	—250	—180 V
Direct anode current	0.250	0.300 A
Peak R.F. grid voltage	345	272 V
*Direct grid current	15	22 mA approx.
*Driving power	5	6 W approx.
Power output	550	440 W

* Subject to wide variation, depending upon the impedance of the load circuit.

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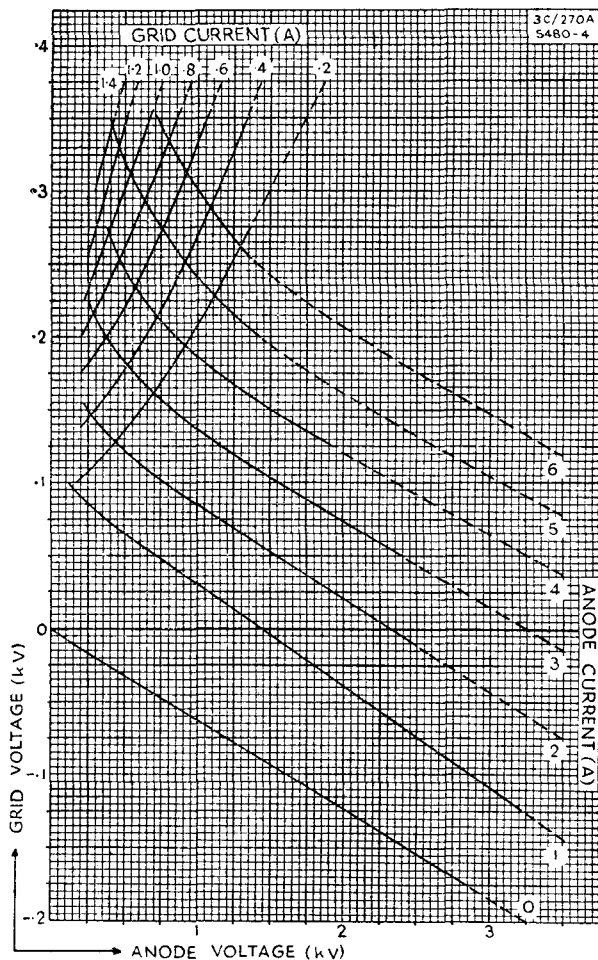




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