



# Water Cooled Triode

## 4228A

3Q/150E  
(4228A)

### CATHODE.

Tungsten filament		
Voltage (operating voltage marked on bulb)	22	V
Nominal current	41	A
Peak emission	6	A

### RATING.

Amplification factor	} Measured at } Va 5 kV Ia 0.75 A }	18	
Impedance		2,200	$\Omega$

### DIRECT INTER-ELECTRODE CAPACITIES.

Grid to anode	24	pF
Grid to filament	25	pF
Anode to filament	3.1	pF

### WATER FLOW.

Water jacket type	235/LU2A	
Nominal water flow	5	galls./min.

### DIMENSIONS.

Maximum overall length	475	mm.
Maximum bulb diameter	95	mm.
Net weight	1.2	kg.

### MAXIMUM RATINGS.

Maximum direct anode voltage	6	kV
Maximum direct anode voltage for anode modulation	4	kV
Maximum direct anode current	1.5	A
Maximum anode dissipation	5	kW
Maximum grid dissipation	100	W
Maximum frequency for above ratings	3	Mc/s
Maximum direct anode voltage for frequency of 6 Mc/s	3	kV

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## TYPICAL OPERATING CONDITIONS. AUDIO FREQUENCY.

### Class B Power Amplifier.

(For balanced 2-valve circuit).

Direct anode voltage	5	kV
Grid bias	-265	V
Direct anode current per valve— zero signal	0.15	A
Direct anode current per valve— maximum signal	0.6	A
Load resistance—anode to anode	8,400	$\Omega$
Power output 2 valves	3.75	kW

## RADIO FREQUENCY.

### Class B Telephony. Modulated Carrier applied to Grid.

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

Direct anode voltage	5	kV
Grid bias	-325	V
Direct anode current	0.65	A
Carrier output	1.1 kW approx.	

### Class C Power Amplifier. Anode subject to modulation.

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

Direct anode voltage	4,000	V
Grid bias	-500	V
Direct anode current	1.25	A
Carrier output	2.5	kW

### Class C Power Amplifier or Oscillator, unmodulated.

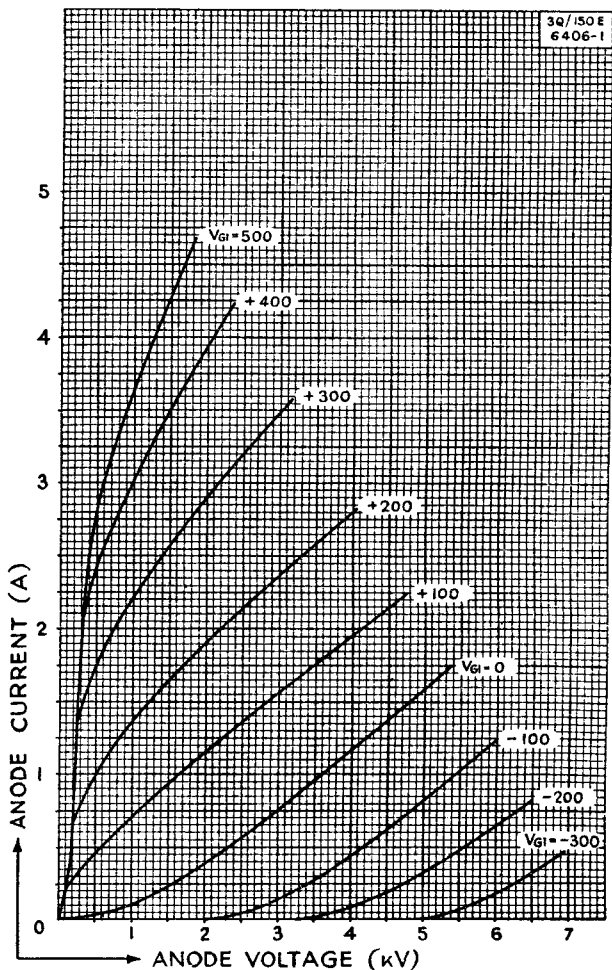
Direct anode voltage	6	kV
Grid bias	-750	V
Direct anode current	1.25	A
Power output	3.4 kW approx.	



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