

Amperex[®] ELECTRONIC CORPORATION
230 DUFFY AVENUE, HICKSVILLE, L. I., N. Y.

TUBE TYPE
8268

The 8268 is a water-cooled power triode intended for use in industrial RF heating generators at frequencies up to 50 mc. Its characteristics permit a substantially constant output to be maintained under varying load conditions. Because of the special grid material used, the grid has a very large safety margin.

GENERAL CHARACTERISTICS

MECHANICAL

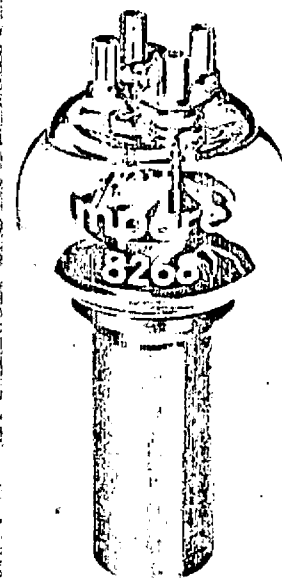
Mounting Position	Vertical with anode down	
Accessories		
4 Grid ¹ and Filament Connectors	S-3707	
1 Water Jacket	S-31517	
Weight		
Net Weight	8268	S-31517
Shipping Weight	1 lb. 4 oz	1 lb. 10 oz.
Temperatures and Cooling	3 lbs.	2 lbs.
Max. Temperatures of All Seals	220°C	
Max. Temperature of Inlet Water	50°C	
Water-Cooling Characteristics	See graphs	

Anode Dissipation (kw)	Inlet Temperature (°C)	Quantity ² gallons/min.	Pressure Drop lbs./sq.in.
2	20	0.66	0.88
	50	1.32	2.9
4	20	1.06	2.06
	50	2.37	10.3
6	20	1.58	4.4
	50	3.7	28

ELECTRICAL

Filament	Thoriated tungsten, directly heated
Voltage	12.6 +5 -10% volts
Current	33 amps
Direct Interelectrode Capacitances	
Plate to Grid	7.9 pf
Plate to Filament	1 pf
Grid to Filament	14.2 pf
Typical Characteristics at $E_b = 6$ kv and $I_b = 1$ amp	
Amplification Factor	24
Transconductance	12,000 μ mhos

- At frequencies above 4 mc the two grid terminals must be connected in parallel. Care should be taken to distribute the RF current equally between both grid terminals to avoid excessive grid seal temperatures.
- For inlet temperatures between 20 and 50°C the required quantity of water can be found by interpolation.



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MAXIMUM RATINGS AND OPERATING CONDITIONS

HF Class C oscillator for industrial use with anode voltage supplied by a three-phase full wave rectifier without filter (continuous service).

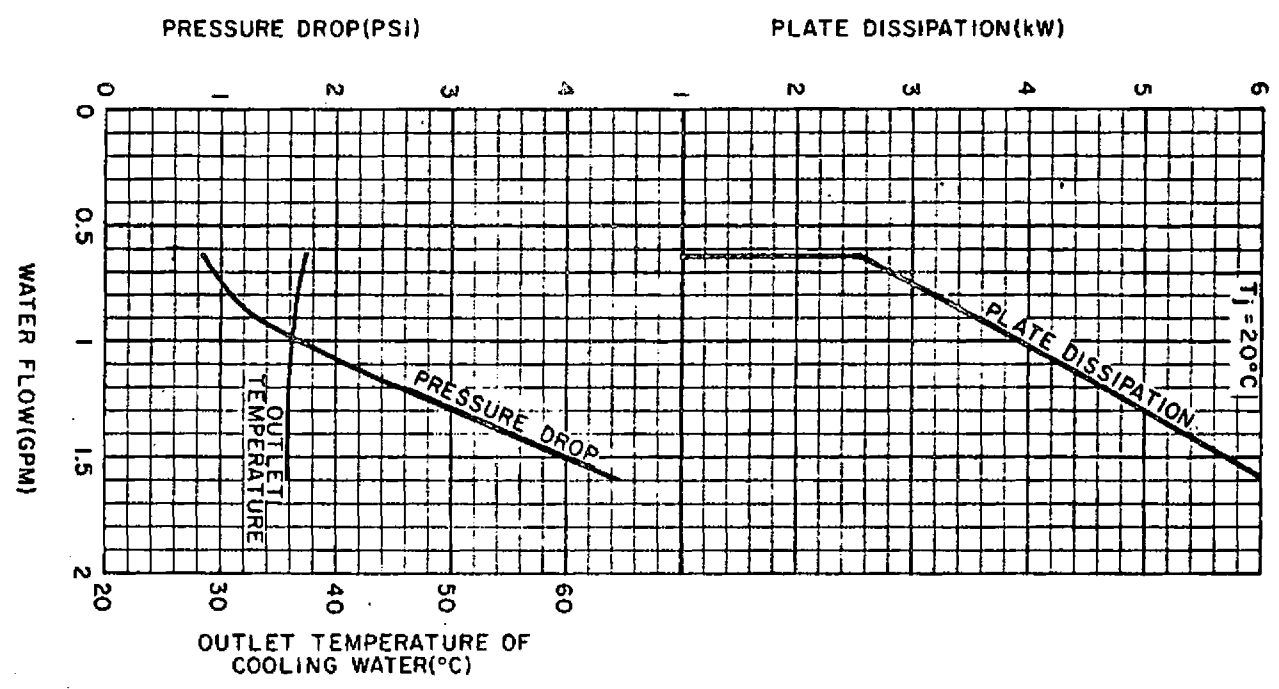
ABSOLUTE MAXIMUM RATINGS

Frequency	50 Mc
DC Plate Voltage	8 kv
DC Plate Current	1.8 amps
DC Plate Input Power	12 kw
DC Plate Dissipation	6 kw
DC Grid No. 1 Voltage	-1250 volts
Grid No. 1 Current (Loaded)	0.4 amp
Grid No. 1 Current (Unloaded)	0.5 amp
Grid Resistance	10 k ohms

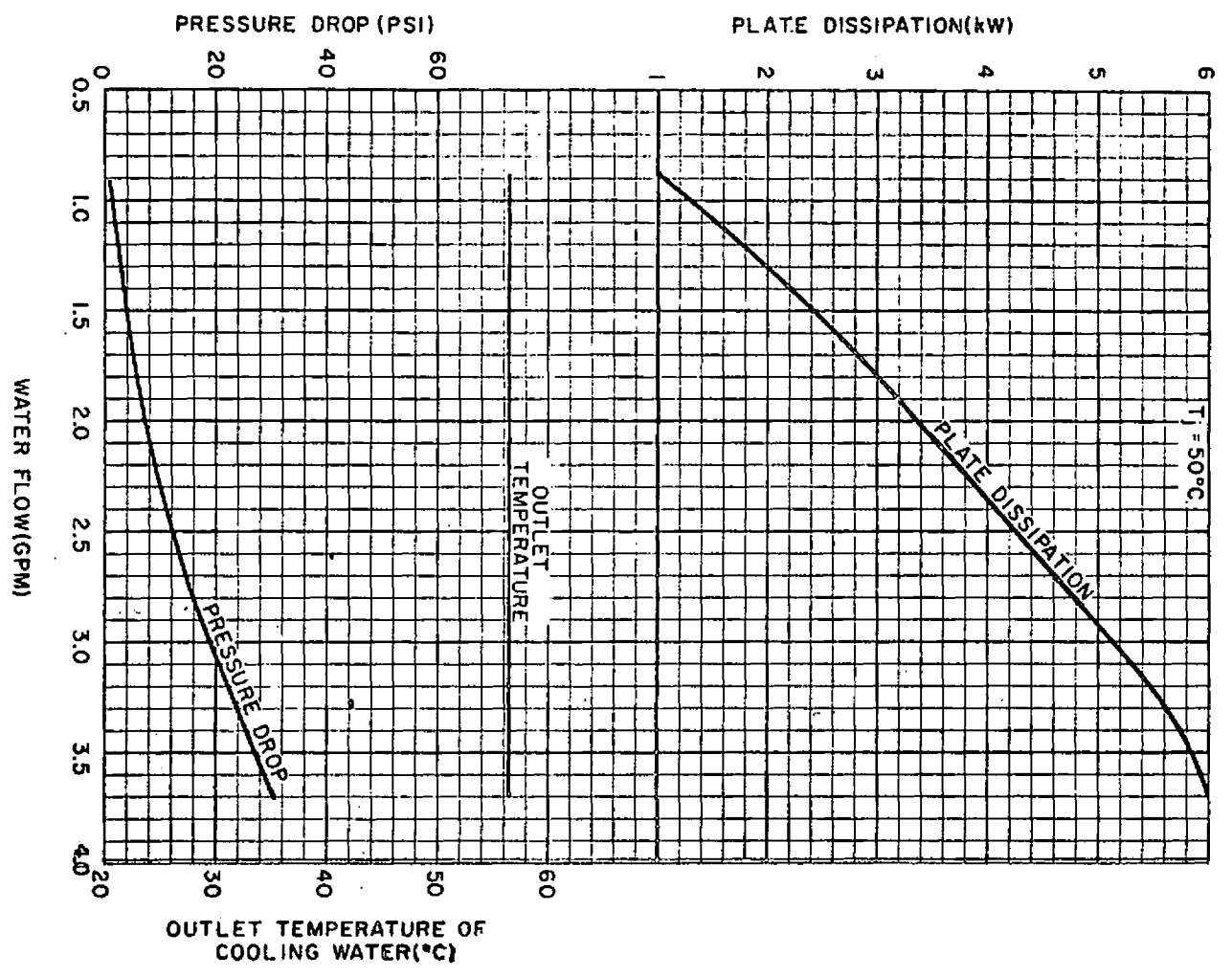
TYPICAL OPERATING CONDITIONS

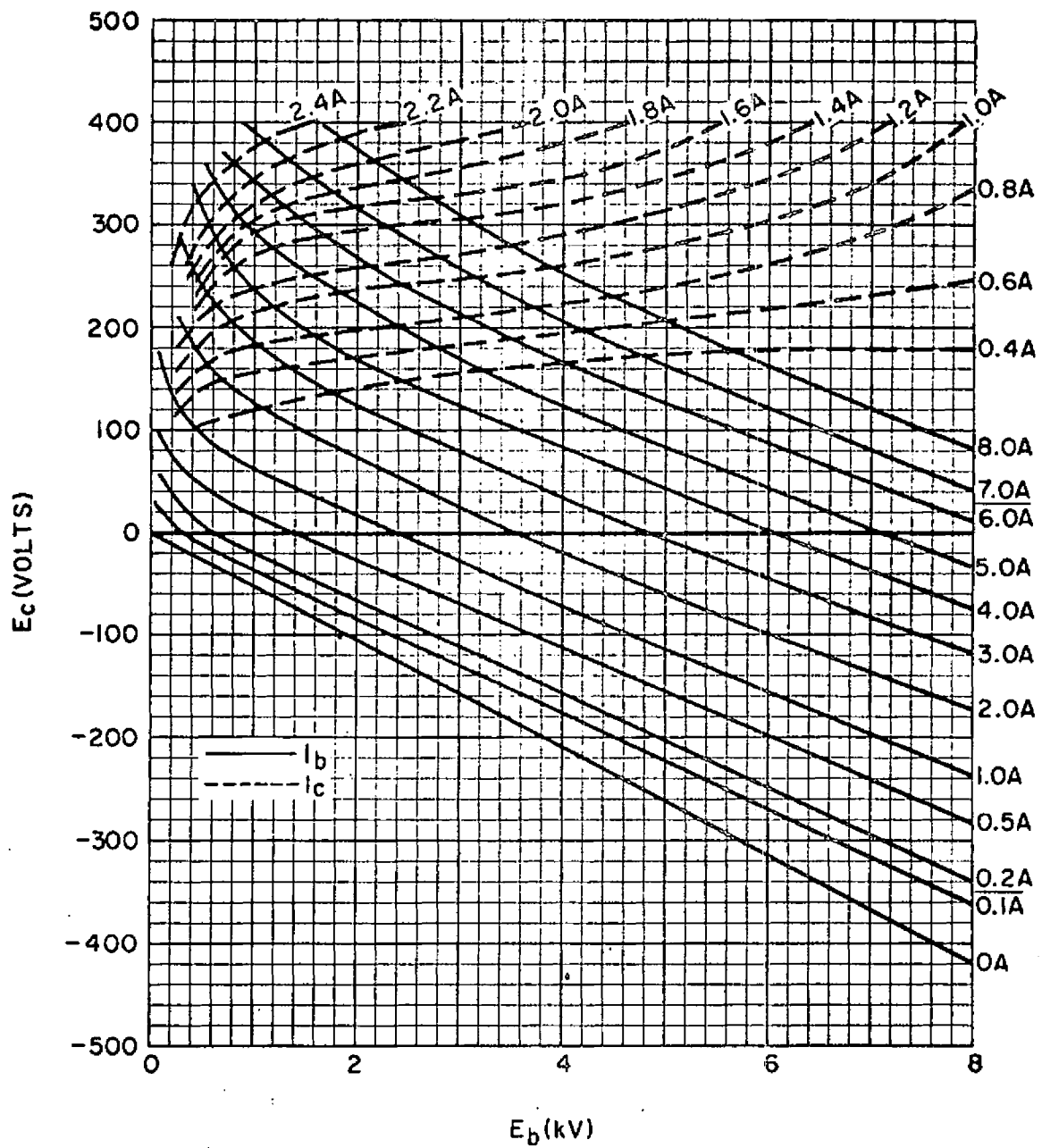
Frequency	50	50 Mc
DC Plate Supply Voltage	7200	6200 volts
DC Plate Current (Loaded)	1.5	1.4 amp
DC Plate Current (Unloaded)	0.37	0.4 amp
Grid Current (Loaded)	0.36	0.37 amp
Grid Current (Unloaded)	0.47	0.47 amp
Grid Resistor	1850	1500 ohms
DC Plate Input Power	10800	8680 watts
DC Plate Dissipation	3300	2500 watts
DC Plate Output Power	7500	6180 watts
Tube Efficiency	70	71 %
Useful Power in Load (Circuit efficiency approx. 85%)	6100	5000 watts
Feedback Factor	17	17 %
Load Impedance	2300	2100 ohms

COOLING CHARACTERISTICS

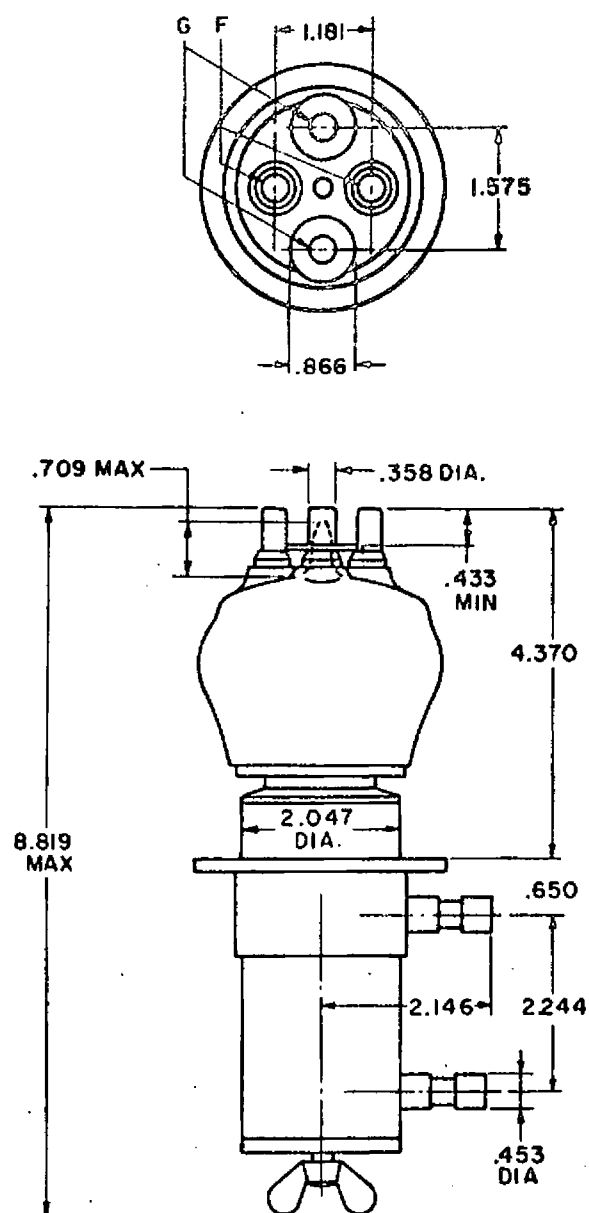


COOLING CHARACTERISTICS





CONSTANT CURRENT CHARACTERISTICS



WATER JACKET
NO. S-31517