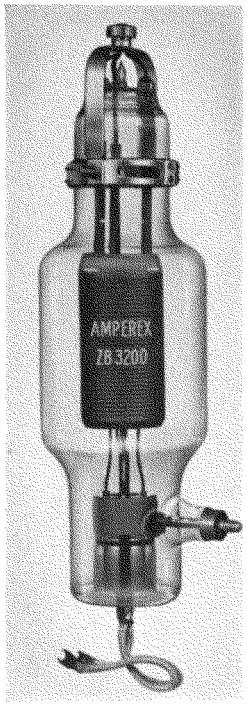
AMPEREX TRANSMITTING TUBE ZB-3200

An all glass radiation plus forced air cooled high-power triode especially suitable for use as a zero bias Class B modulator, Class B-RF Power Amplifier, and Class C. Telegraphy RF Power Amplifier.



MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

A.F. Power Amplifier and Modulator—Class B

	Maximum Rating per Tube	Typical Operation Two Tubes		
		**	**	
A.C. Filament Voltage	..	20.5	20.5	21.0
D.C. Plate Voltage	10000	5000	6000	8000
D.C. Grid Voltage	..	0	0	0
Load Resistance (per tube) (ohms)	..	1750	2250	3000
Effective Load Resistance (plate to plate) (ohms)	..	7000	9000	12000
Zero-Signal Plate Current (ma.)	..	160	200	320
Peak A.F. Grid to Grid Voltage	..	950	800	1080
Max. Signal Plate Current (amps)	1.5	1.34	1.17	1.5
Max. Signal Plate Input (kw.)	6	6.7	7.0	12
Plate Dissipation (per tube) (kw.)*	2.0	1.45	1.6	2
Minimum Grid Input Resistance (ohms)	..	600	1200	400
Max. Signal Driving Power (watts)	..	60	20	110
Max. Signal Power Output (watts)	..	3800	3800	8000
Recommended Driver (tube type)	..	4-845	2-845	2-849A

*Under maximum-signal conditions, plate dissipation should not exceed 2.5 kilowatts when averaged over any audio frequency cycle of sine-wave form.

**Conditions suitable for use as a modulator for a plate modulated 5 KW Broadcast Transmitter.

R.F. Power Amplifier—Class B—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube
A.C. Filament Voltage	..	21.5
D.C. Plate Voltage	10000	6000
D.C. Grid Voltage	..	0
Plate Load Resistance (ohms)	..	3000
Peak R.F. Grid Voltage	..	350
D.C. Plate Current (ma.)	750	525
Plate Input (kw.)	3.2	3.15
Plate Dissipation (kw.)	2.2	2.10
D.C. Grid Current (ma.)	..	5
Driving Power at Peak Modulation (watts)	..	60

GENERAL CHARACTERISTICS

Filament: Tungsten	
Voltage	**21 to 22**
Current (amps)	**40.5**
Amplification Factor	**85**
Grid to Plate Transconductance @ plate current of 1 ampere	**5000 micromhos**
Direct Interelectrode Capacitances (Approx.):	
Grid to Plate	**10 $\mu\mu$f**
Grid to Filament	**15 $\mu\mu$f**
Plate to Filament	**3 $\mu\mu$f**
Dimensions:	
Maximum Overall Length	**23″**
Bulb Diameter	**6″**

R.F. Power Amplifier—Class B—Telephony

(Carrier conditions for use with modulation factor of 1.0)

(Continued)

	Maximum Rating per Tube	Typical Operation One Tube
Plate Power Output (kw.)	..	1.05
Frequency Limit for above rating (mc.)	10	..
F.C.C. Rating for Use in Final Stage of Broadcast Transmitters (kw.)	1.0	1.0

R.F. Power Amplifier or Oscillator—Class C

Unmodulated, Negatively Modulated or Frequency Modulated Services

	Maximum Rating per Tube	Typical Operation One Tube
A.C. Filament Voltage	..	21.0
D.C. Plate Voltage	10000	8000
D.C. Grid Voltage	—2000	—400
Plate Load Resistance (ohms)	..	4400
Peak R.F. Grid Voltage	..	1200
D.C. Plate Current (amps)	1.25	.97
D.C. Grid Current (ma.)	200	150
Plate Power Input (kw.)	8	7.8
Plate Dissipation (kw.)	2.5	1.8
Plate Power Output (kw.)	..	6.0
Driving Power (watts)	..	175
Frequency Limit for Above Operation (mc.)	10	20

COOLING: Though this tube may in emergencies, and under conditions of low anode dissipation be operated without forced air cooling, an air flow of 200 to 400 cubic feet a minute broadly directed at the bottom of the tube and flowing upward around the bulb will assure optimum life.

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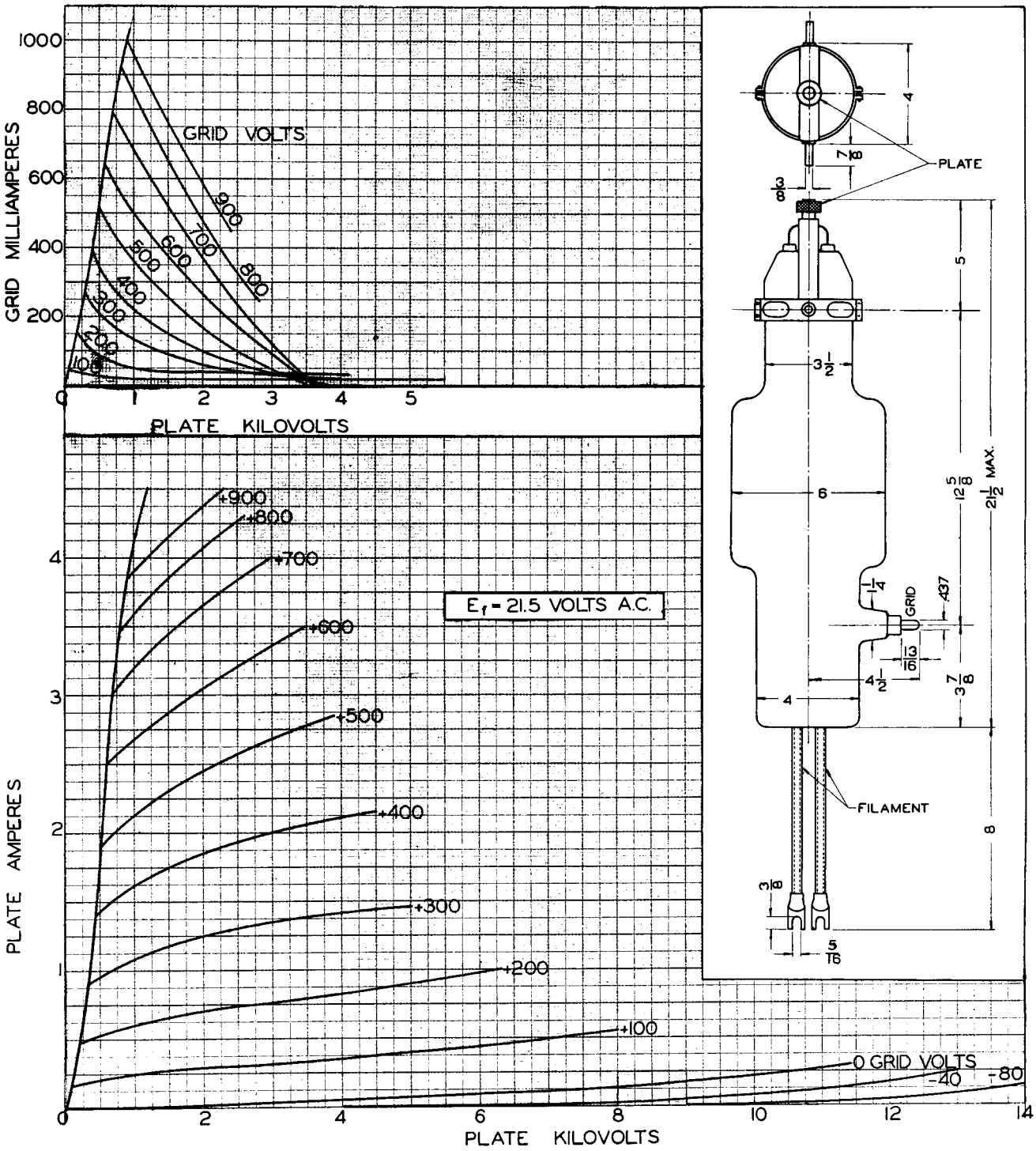

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