

Water Cooled Transmitting Tube

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

R.F. Power Amplifier—Class B—Telephony

(Carrier conditions for use with a maximum modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube		
A.C. Filament Voltage	—	20	20	20
D.C. Plate Voltage	20000	10000	15000	17500
D.C. Grid Voltage	—	-150	-250	-400
Plate Load Resistance (ohms)	—	1800	2750	3200
Peak R.F. Grid Voltage	—	720	750	800
D.C. Plate Current (amps.)	2.0	1.5	1.5	1.48
Plate Input (kw.)	30	15	22.5	26
Plate Dissipation (kw.)	20	10	15	18.3
D.C. Grid Current (Approx.) (ma.)	—	-25	-20	-30
Driving Power* (Approx.) (watts)	—	200	0	0
Plate Power Output (kw.)	—	5.0	7.5	8.7
Frequency Limit for Above Operation (mc.)	3	15	7.5	4
F.C.C. Broadcast Rating (watts)	8500	—	—	8500

*At crest of modulating frequency cycle with 100% modulation

Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with a maximum modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	20	20
D.C. Plate Voltage	14000	10000	12500
D.C. Grid Voltage (Total)	-3000	-680	-700
Grid Leak Resistor (ohms)	—	3500	3500
With Fixed Bias (volts)	—	-120	-175
Plate Load Resistance (ohms)	—	3400	5400
Peak R.F. Grid Voltage	—	1600	1500
D.C. Plate Current (amps.)	2.0	1.54	1.23
Plate Input (kw.)	28.0	15.4	15.4
Plate Dissipation (kw.)	15.0	3.4	3.0
D.C. Grid Current (Approx.) (ma.)	250	160	150
Driving Power (Approx.) (watts)	—	250	220
Plate Power Output (kw.)	—	12.0	12.4

GENERAL CHARACTERISTICS

Filament Voltage	20
Filament Current (amps)	72
Thermionic Emission (amps)	14
Amplification Constant	40
Grid to Plate Transconductance at a plate current of 1.5 amps.	8000 micromhos
Direct Interelectrode Capacitances:	
Grid to Plate	22.0 $\mu\mu\text{f}$
Grid to Filament	15.0 $\mu\mu\text{f}$
Plate to Filament	1.5 $\mu\mu\text{f}$
Dimensions:	
Maximum overall length	21 $\frac{5}{16}$ "
Maximum Diameter	4 $\frac{1}{8}$ "
Water Jacket	Ampere type DW2000 or Standard

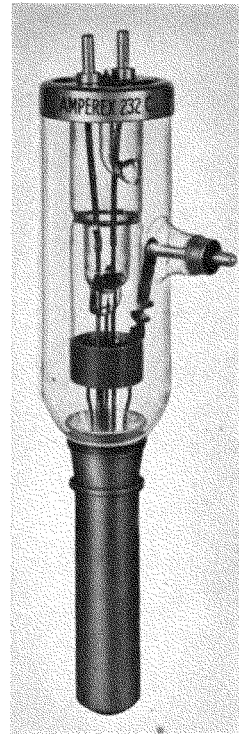


Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with a maximum modulation factor of 1.0)

(Continued)

	Maximum Rating per Tube	Typical Operation One Tube	
Frequency Limit for Above Operation (mc.)	3	10	6
F.C.C. Broadcast Rating (watts)	10000	10000	10000

R.F. Power Amplifier—Class C—Telegraphy

Key down conditions without modulation.

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	20	20
D.C. Plate Voltage	20000	15000	12000
D.C. Grid Voltage	-3000	-1000	-800
Plate Load Resistance (ohms)	—	3000	2400
Peak R.F. Grid Voltage	—	2300	2200
D.C. Plate Current (amps.)	3.0	2.5	2.5
Plate Input (kw.)	50	37.5	30.0
Plate Dissipation (kw.)	25	9.5	8.0
D.C. Grid Current (Approx.) (ma.)	300	110	140
Driving Power (Approx.) (watts)	—	240	300
Plate Power Output (kw.)	—	28.0	22.0
Frequency Limit for Above Operation (mc.)	3	7.5	15

AMPEREX

232-C

232-C - AMPEREX TRANSMITTING TUBE

