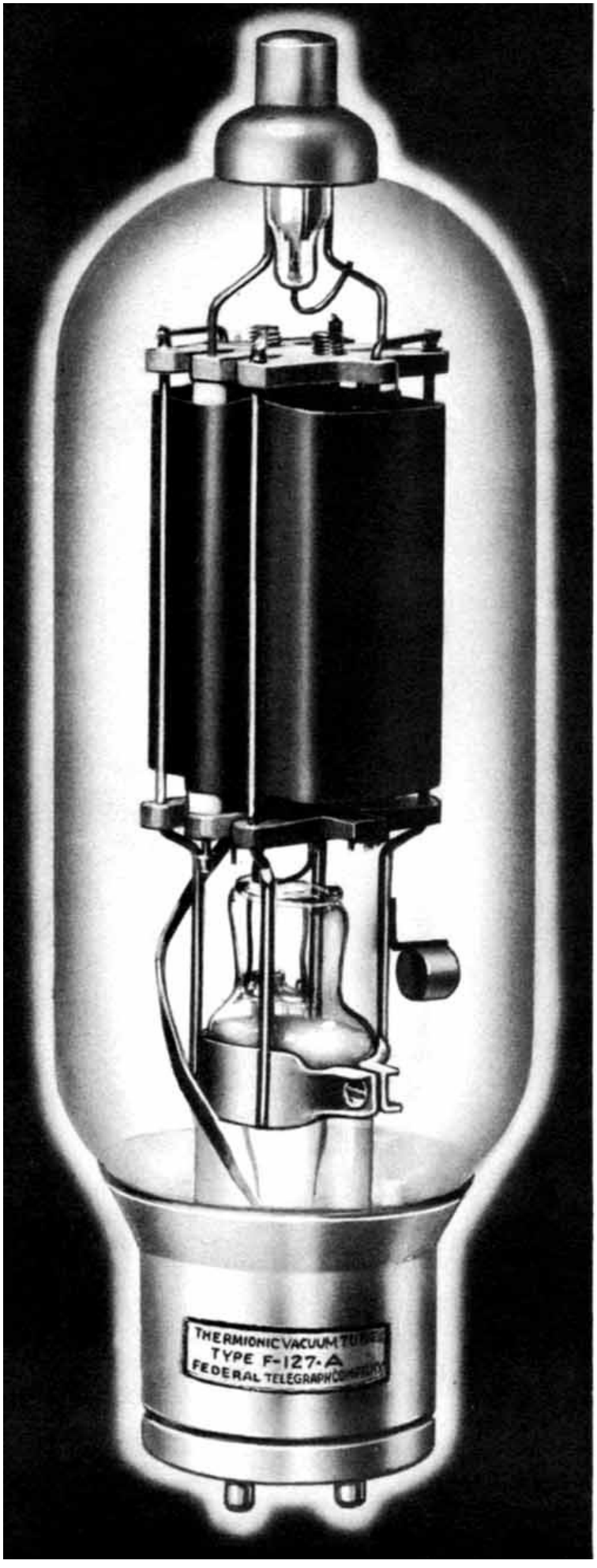


FEDERAL

F-127-A TRANSMITTING TUBE

TECHNICAL DATA

Main Use	R-F Power Amplifier, Oscillator Class B Modulator
Number of Electrodes	3
Filament Voltage	10 volts
Current	6 amperes
Type	Thoriated Tungsten
Available Thermionic Emission	2 Amperes
Average Characteristic Values calculated at $E_b = 1700$, $I_b = 0.100$, $E_f = 10$ AC volts	
Grid Voltage (approximate)	−25 volts
Amplification Factor	38
Mutual Conductance	6900 micromhos
Plate Resistance	5500 ohms
Approximate Direct Inter-electrode Capacitances	
Plate to Grid	4 mmf.
Grid to Filament	13 mmf.
Plate to Filament	13 mmf.
Type of Cooling	Air
Type Base	Standard 50 Watt
Mounting Socket	Standard 50 watt and Anode Clip

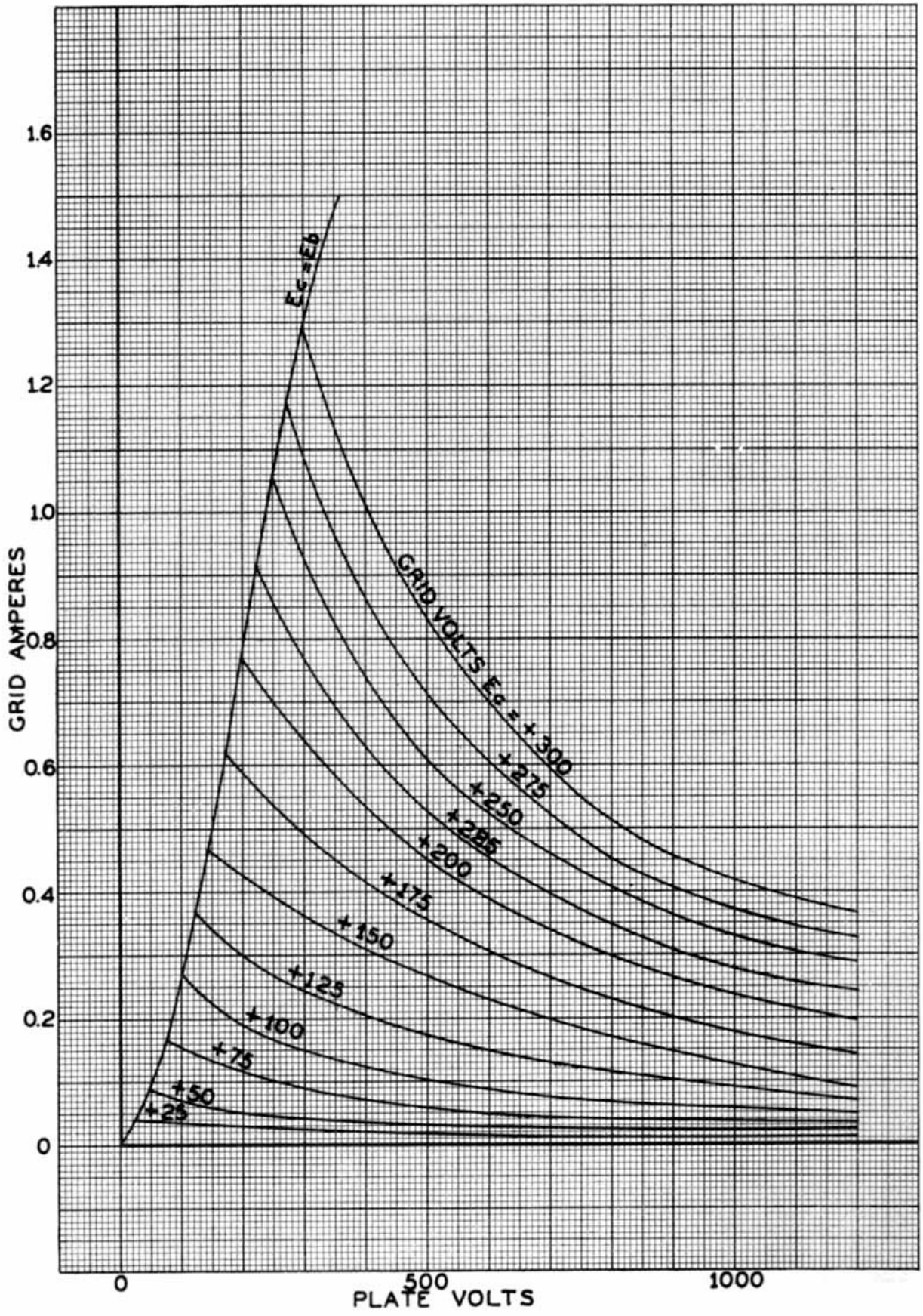
The information above and in the following pages by no means represents exact conditions of operation to be imposed for any particular situation. Since tubes are used under many widely different conditions the manufacturer will gladly furnish information regarding characteristics for design purposes.

Manufactured by

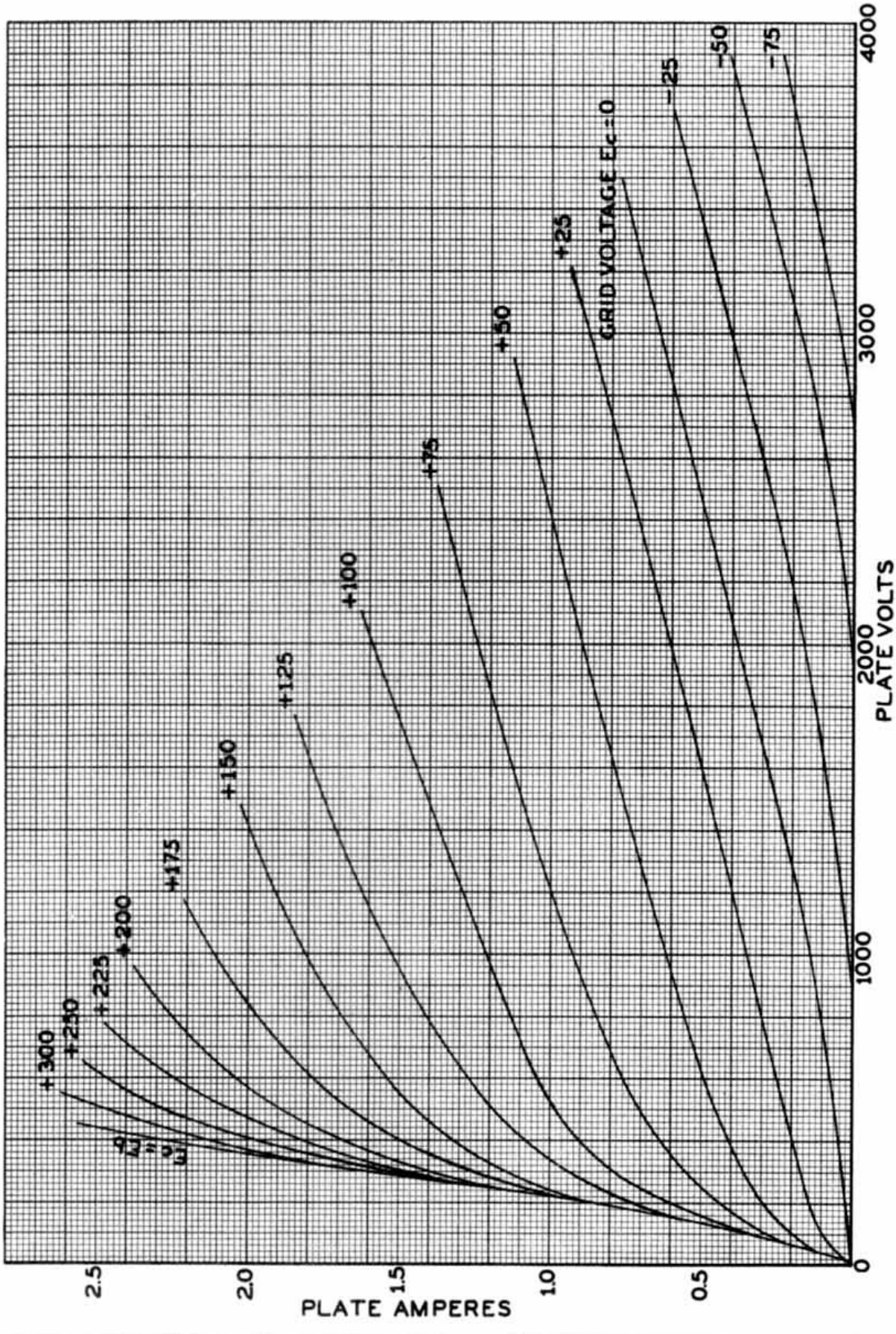
FEDERAL TELEGRAPH CO.

200 Mt. Pleasant Avenue Newark, N. J., U.S.A.

AVERAGE GRID CHARACTERISTICS F-127-A Transmitting Tube



AVERAGE PLATE CHARACTERISTICS F-127-A Transmitting Tube



Maximum Ratings

Type F-127-A Vacuum Tube

For maximum frequency of 30 megacycles

CLASS B AUDIO AMPLIFIER OR MODULATOR

D-C Plate Voltage	3000 volts
Max. Signal D-C Plate Current	0.325 amperes
Max. Signal Plate Input	600 Watts
Plate Dissipation	200 watts

CLASS C R-F POWER AMPLIFIER TELEPHONY-PLATE MODULATED

(Carrier conditions per tube for use with modulation factor up to 1.0)

D-C Plate Voltage	2500 volts
D-C Plate Current	0.275 amperes
D-C Grid Current	0.070 amperes
R-F Grid Current	7.50 amperes
Plate Input	550 watts
Plate Dissipation	150 watts

CLASS C R-F POWER AMPLIFIER AND OSCILLATOR-TELEGRAPHY

(Key-down conditions per tube without modulation)*

D-C Plate Voltage	3000 volts
D-C Grid Voltage	−500 volts
D-C Plate Current	0.325 amperes
D-C Grid Current	0.070 amperes
R-F Grid Current	7.50 amperes
Plate Input	950 watts
Plate Dissipation	200 watts

* Modulation essentially negative, may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier condition value.

Typical Operation Data

F-127-A

CLASS B, A-F POWER AMPLIFIER AND MODULATOR

(Key-down conditions per tube without modulation)*

Filament Voltage	10 volts
D-C Plate Voltage	2800 volts
D-C Grid Voltage	75 volts
Peak A-F Grid Input Voltage	175 volts (approx.)
Zero Signal Plate Current	0.010 Amp. (per tube)
Max. Signal Plate Current	0.200 amp. (per tube)
Max. Signal Plate Input	560 watts (per tube)
Max. Signal Driving Power	6.65 watts
Effective Load	16600 ohms (plate to plate)
Power Output	820 watts (2 tubes, approx.)

CLASS C, R-F POWER AMPLIFIER AND OSCILLATOR-TELEGRAPHY

(Key-down conditions per tube without modulation)*

Filament Voltage	10 volts
D-C Plate Voltage	3000 Volts
D-C Grid Voltage	−250 volts (approx.)
Peak R-F Grid Input Voltage	400 volts (approx.)
D-C Plate Current	0.250 amperes
D-C Grid Current	0.047 amperes
Driving Power	18 watts (approx.)
Power Output	600 watts (approx.)

* Modulation essentially negative, may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

CLASS C, R-F POWER AMPLIFIER AND OSCILLATOR-PLATE MODULATED

(Carrier conditions per tube for use with modulation factor up to 1.0)

Filament Voltage	10 volts
D-C Plate Voltage	2500 volts
D-C Grid Voltage	−300 volts (approx.)
Peak R-F Grid Input Voltage	450 volts (approx.)
D-C Plate Current	0.200 amperes
D-C Grid Current	0.058 amperes
Driving Power	25.2 watts (approx.)
Power Output	420 watts (approx.)
Grid Resistor	5000 ohms

Dimensional Data