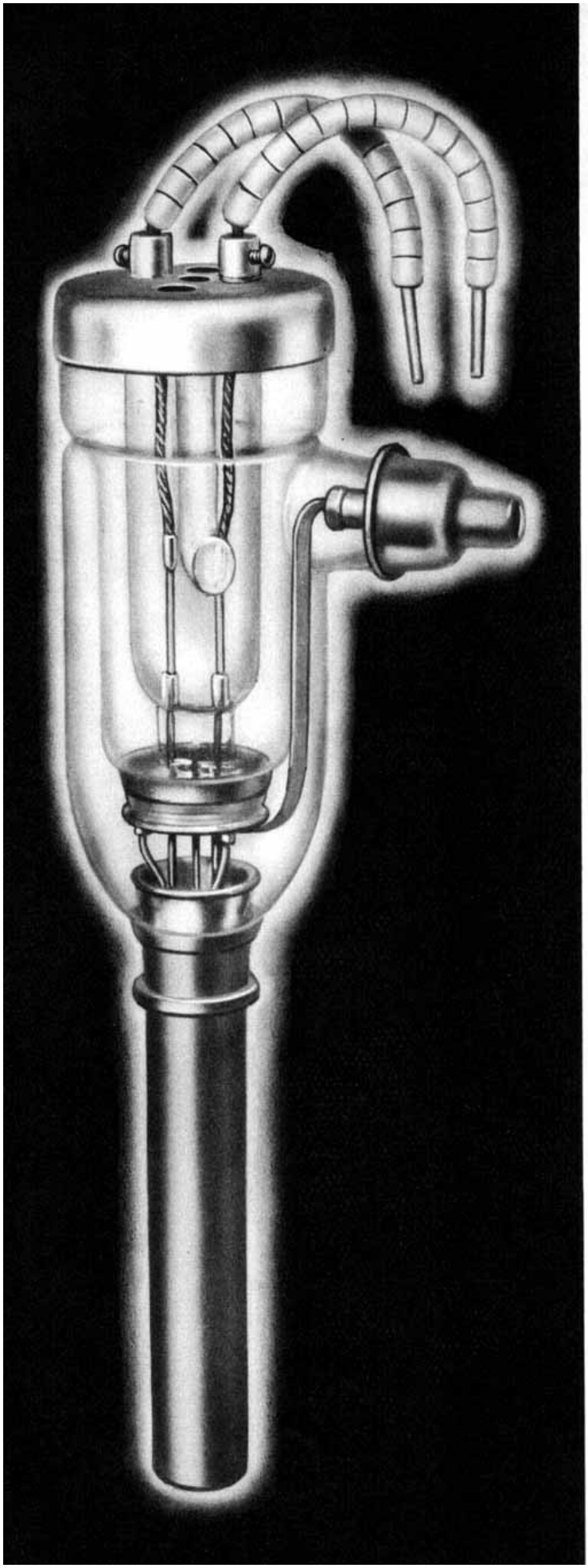


FEDERAL

F-363-A TRANSMITTING TUBE

TECHNICAL DATA

Main Use	R-F Power Amplifier, Oscillator, Class B Modulator
Number of Electrodes	3
Filament Voltage	22 volts
Current	52 amperes
Type	Tungsten
Thermionic Emission	10 amperes

Average Characteristic Values calculated at $E_b = 10000$, $I_b = 0.8$ ampere, $E_f = 22$ volts.

Grid Voltage (approximate)	0 volts
Amplification Factor	50
Mutual Conductance	7000 micromhos
Plate Resistance	7200 ohms

Approximate Direct Inter-electrode Capacitances

Plate to Grid	27 mmf.
Grid to Filament	18 mmf.
Plate to Filament	2 mmf.

Type of Cooling	Water
Water Jacket	Standard or Federal Type 1000-A

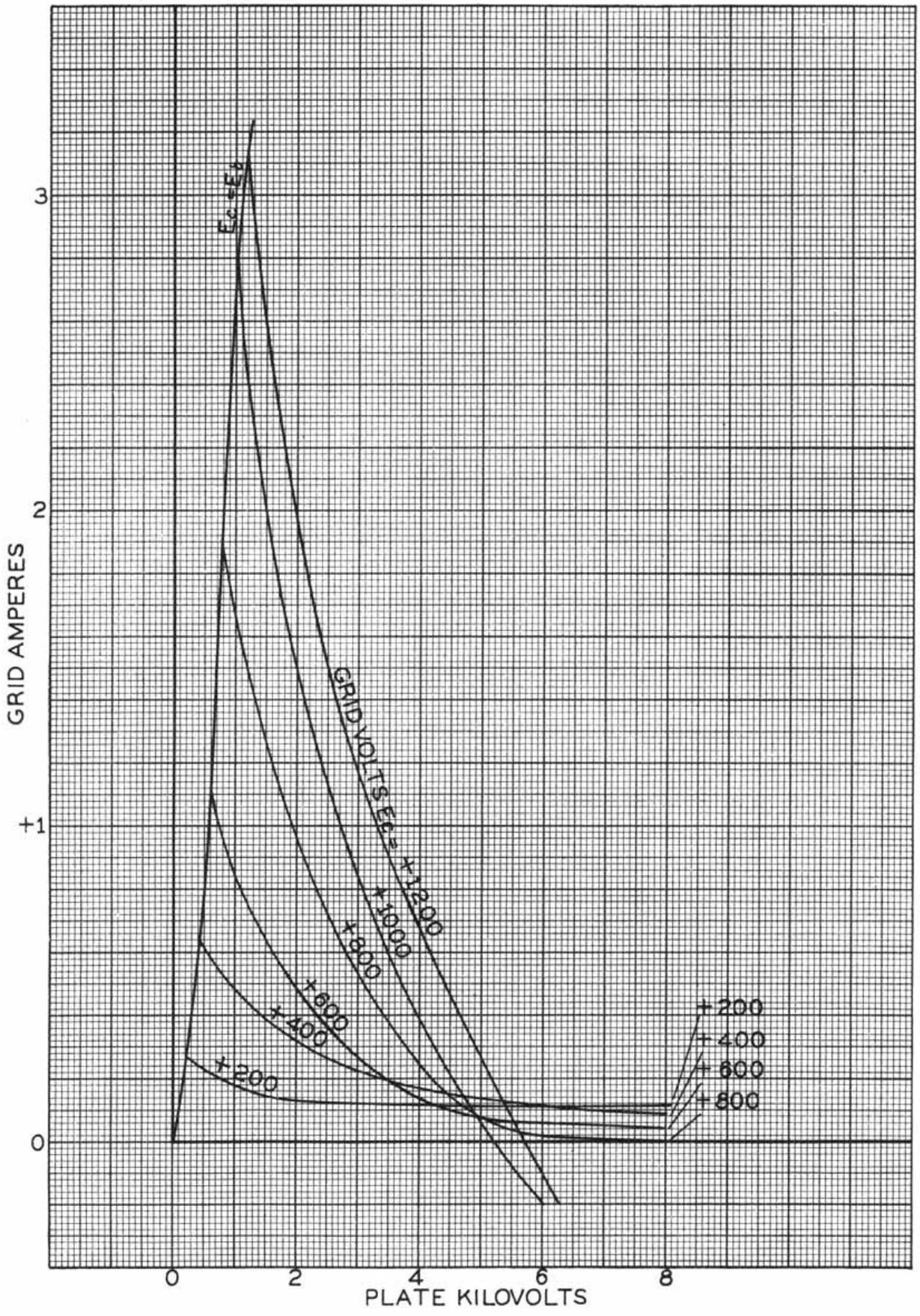
The information above and in the following pages by no means represents exact conditions of operation to be imposed for any particular situation. Since tubes are used under many widely different conditions the manufacturer will gladly furnish information regarding characteristics for design purposes.

Manufactured by

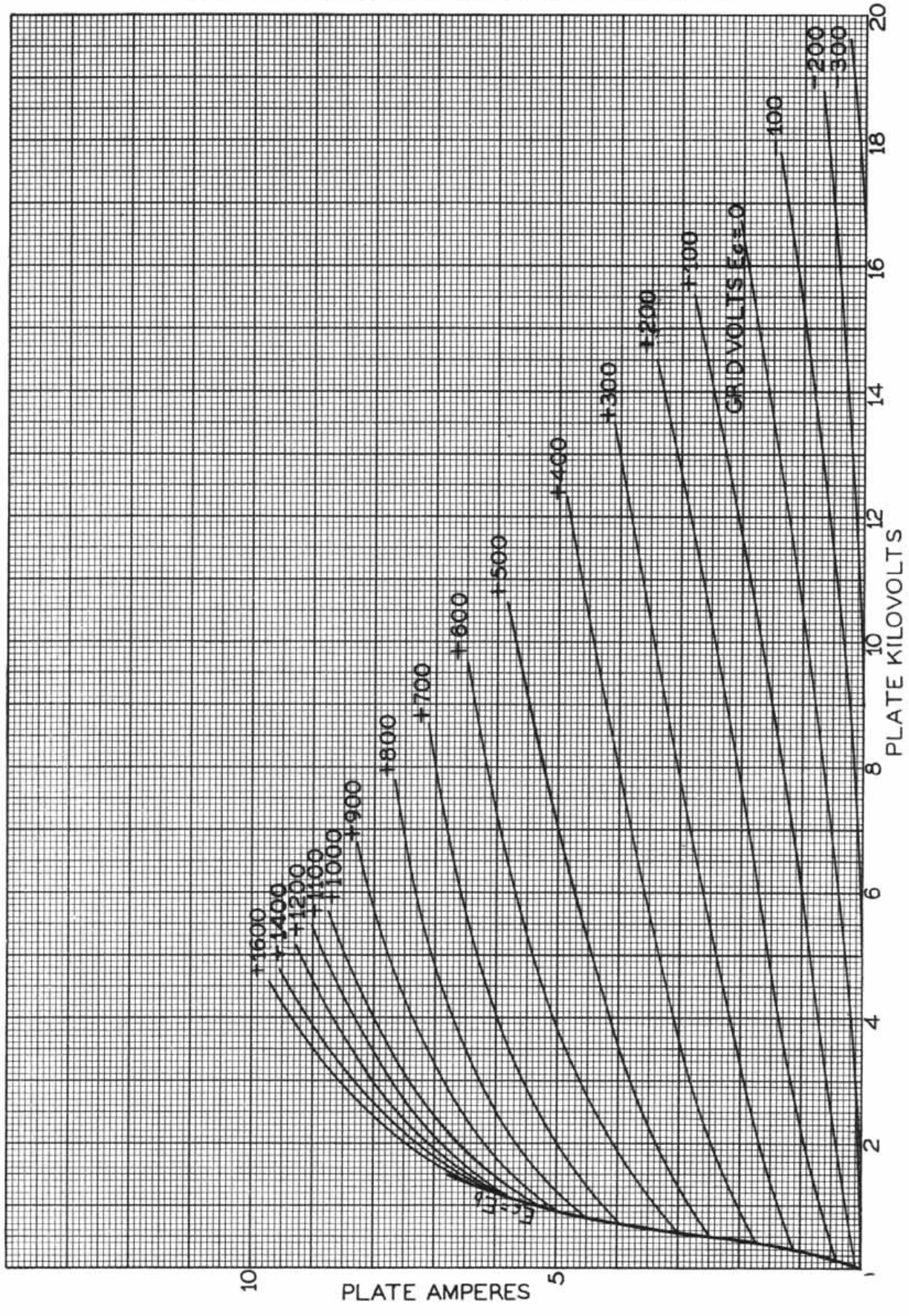
FEDERAL TELEGRAPH CO.

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

AVERAGE GRID CHARACTERISTICS F-363-A Transmitting Tube



AVERAGE PLATE CHARACTERISTICS F-363-A Transmitting Tube



Maximum Ratings

F-363-A Transmitting Tube

For maximum frequency of 1.5 megacycles

CLASS B AUDIO AMPLIFIER OR MODULATOR

D-C Plate Voltage	15000 volts
Max. Signal D-C Plate Current	2.0 amperes
Max. Signal Plate Input	20000 watts
Plate Dissipation	7500 watts

CLASS B R-F POWER AMPLIFIER—TELEPHONY

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

D-C Plate Voltage	15000 volts
D-C Plate Current	1.0 ampere
R-F Grid Current	30 amperes
Plate Input	15000 watts
Plate Dissipation	10000 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	10000 volts
D-C Plate Current	1.0 ampere
D-C Grid Current	0.25 ampere
R-F Grid Current	30 amperes
Plate Input	10000 watts
Plate Dissipation	6600 watts

CLASS C R-F POWER AMPLIFIER AND OSCILLATOR — TELEGRAPHY

(Key-down conditions per tube without modulation)*

D-C Plate Voltage	15000 volts
D-C Grid Voltage	—3000 volts
D-C Plate Current	2.0 amperes
D-C Grid Current	0.25 ampere
R-F Grid Current	30 amperes
Plate Input	30000 watts
Plate Dissipation	10000 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

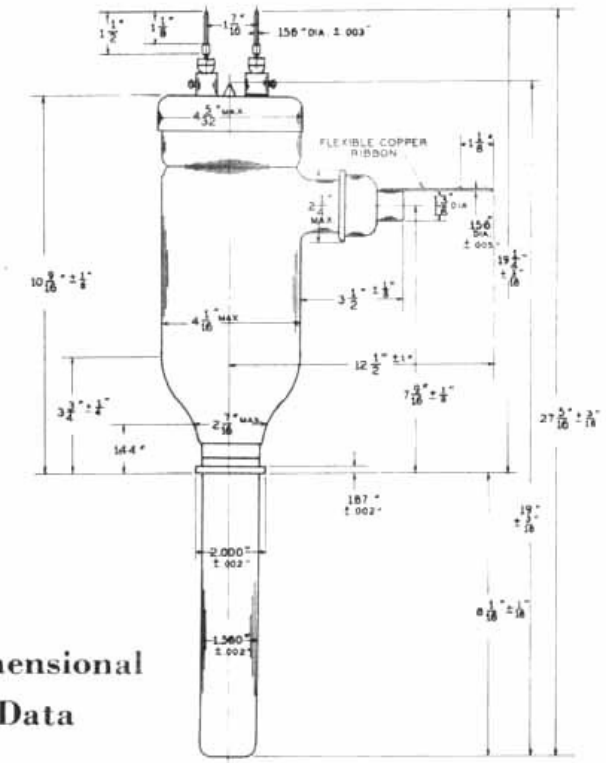
F-363-A Transmitting Tube

CLASS B R-F POWER AMPLIFIER

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

Filament Voltage	22 volts
D-C Plate Voltage	12000 volts
D-C Grid Voltage	—195 volts (approx.)
Peak R-F Grid Input Voltage	830 volts (approx.)
D-C Plate Current	0.625 ampere
D-C Grid Current	0.145 ampere
Driving Power *	53 watts (approx.)
Load Impedance	5300 ohms
Power Output	2570 watts (approx.)

* At crest of A-F cycle



Dimensional Data