

engineering TUBE DATA

F-7207
Power
Triode



Components Division

Tentative Specification

DESCRIPTION

The F-7207 is a three electrode tube designed for use as a modulator; its electrical characteristics making it particularly suitable for Class AB modulator circuits. The anode is air-cooled and capable of 17 kilowatts dissipation. The cathode is a thoriated tungsten filament. Maximum ratings apply for audio frequency use only.

ELECTRICAL

Filament Voltage	7.0 volts
Filament Current	110 amperes
Amplification Factor	6
$E_c = -200$ v. $I_b = 1.0$ amps	
Direct Inter-electrode Capacitance	
Grid-Plate	42 μ f
Grid-Filament	43 μ f
Plate-Filament	12 μ f

MECHANICAL

Mounting Position	Vertical, anode down		
Type of Cooling	Forced Air		
Maximum Incoming Air Temperature	45 °C		
Required Air Flow on Anode			
Plate Dissipation - kw	17	14	12
Air Flow - cfm	1000	800	700
Pressure - inches of water	3.5	2.3	1.7
Maximum Glass Temperature	180 °C		
Weight, approximate	45 lbs		

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Audio-Frequency Power Amplifier and Modulator--Class AB₁

Maximum Ratings, Absolute Values

D-C Plate Voltage	10 kv
Maximum Signal D-C Plate Current*	5 amperes
Maximum Signal Plate Input*	30 kw
Plate Dissipation*	17 kw

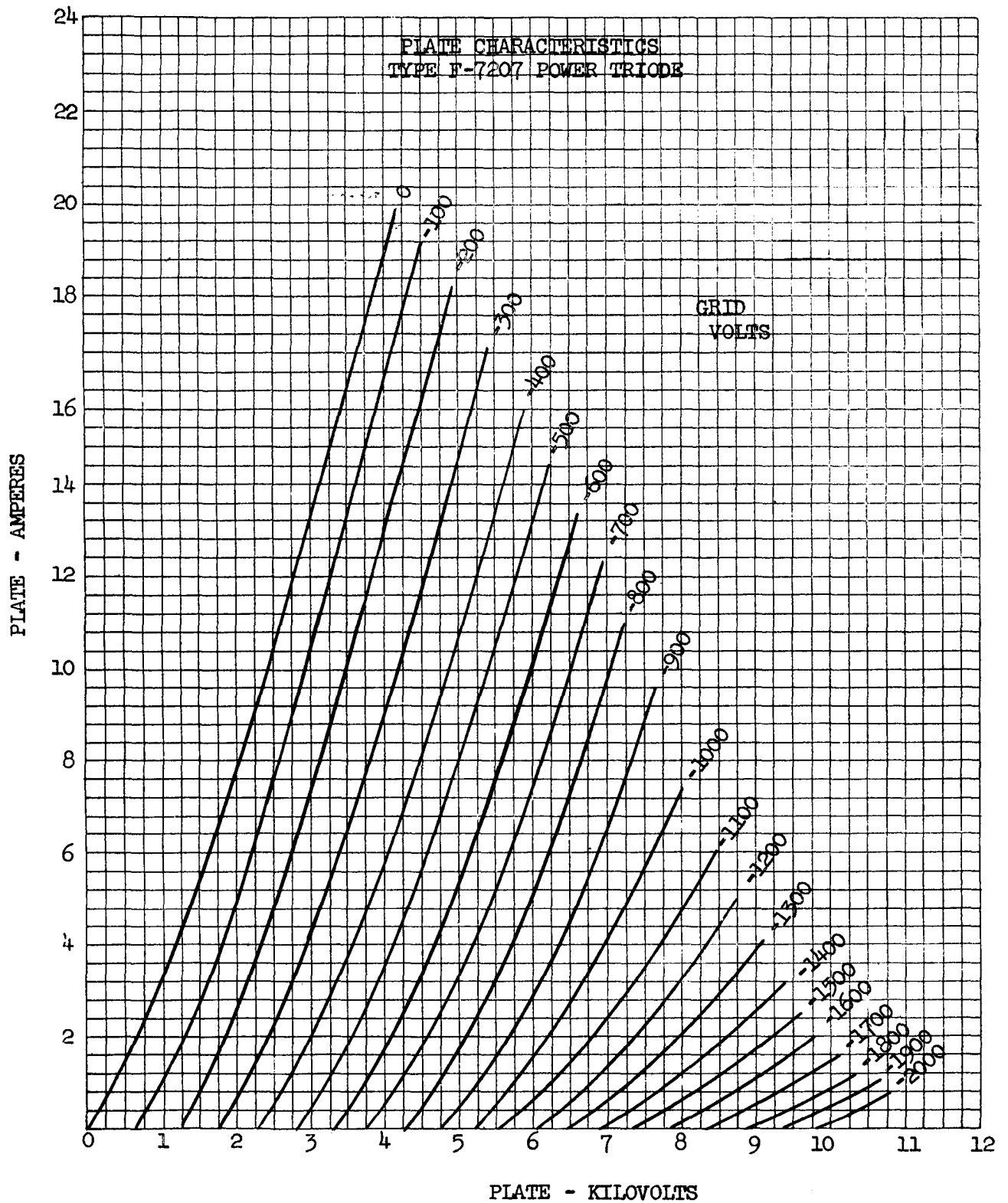
*Averaged over any audio frequency
cycle of sine wave form.

F-7207
Power
Triode

Typical Operation

(Unless otherwise specified, values are for two tubes)

D-C Plate Voltage	5000	7000	9000 volts
D-C Grid Voltage	-900	-1400	-1800 volts
Peak A-F Grid-to-Grid Voltage	1760	2740	3500 volts
Zero Signal D-C Plate Current	0.8	0.5	0.5 amperes
Maximum Signal D-C Plate Current	2.6	3.2	3.2 amperes
Effective Load Resistance Plate-to-Plate	3700	4600	5800 ohms
Maximum Signal Driving Power	0	0	0 watts
Maximum Signal Power Out	7.4	13.75	18 kw



406

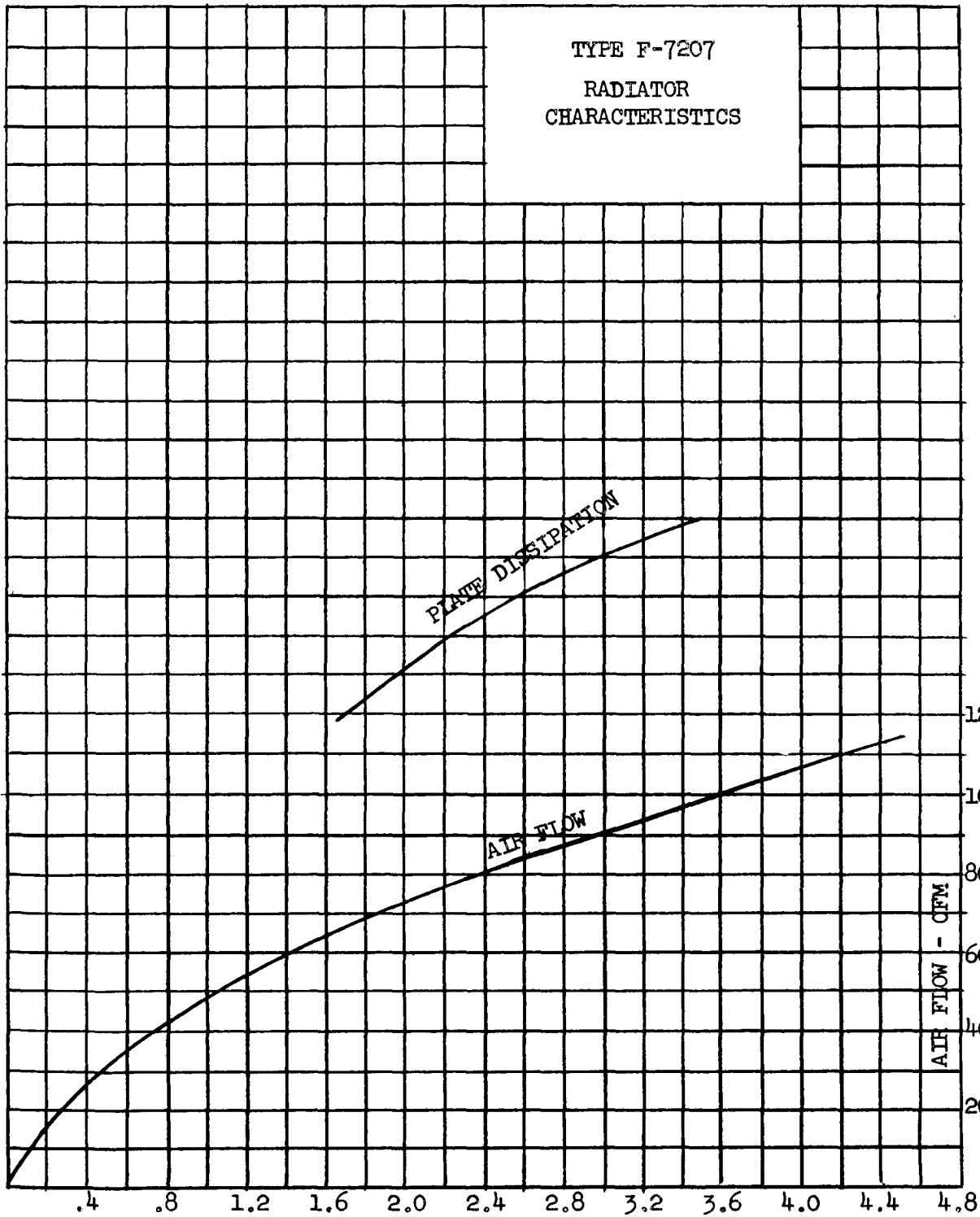
ITT **COMPONENTS DIVISION**
INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

P. O. BOX 412, CLIFTON, NEW JERSEY

TYPE F-7207
RADIATOR
CHARACTERISTICS

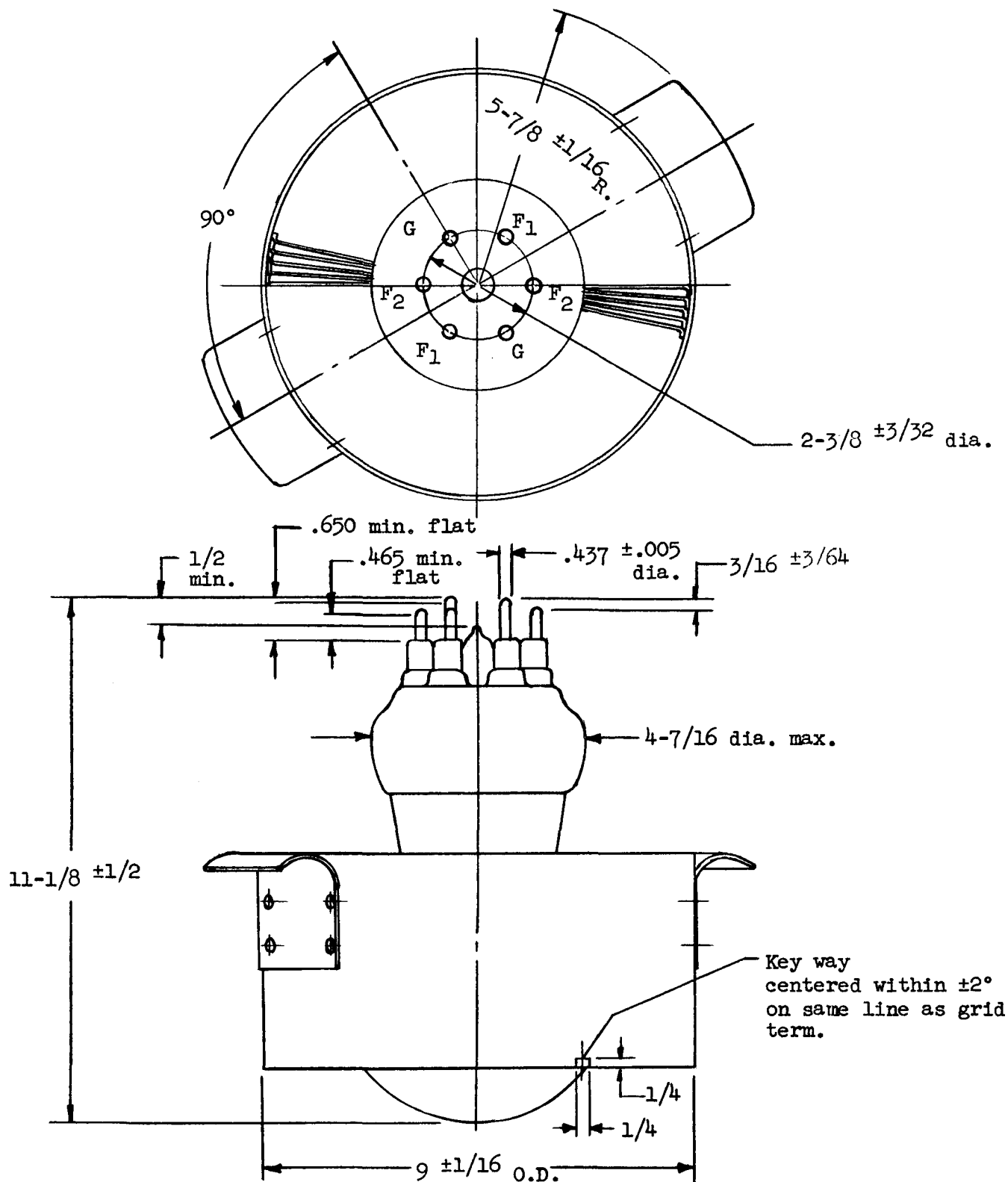
PLATE DISSIPATION - KW

20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0



AIR FLOW - CFM

1200
1000
800
600
400
200



406

OUTLINE
F-7207

ITT COMPONENTS DIVISION
INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

P. O. BOX 412, CLIFTON, NEW JERSEY