



6DT6

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SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

For FM detector service

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3 $\pm$ 10%	volts
Current	0.3	amp

Direct Interelectrode Capacitances
(Approx.):^o

Grid No.1 to plate.	0.02	μ f
Grid No.1 to cathode & internal shield, grid No.3, grid No.2, and heater.	5.8	μ f
Grid No.3 to plate.	1.4	μ f
Grid No.1 to grid No.3.	0.1	μ f
Grid No.3 to cathode & internal shield, plate, grid No.2, grid No.1, and heater.	6.1	μ f

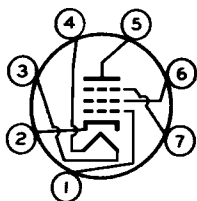
Characteristics, Class A₁ Amplifier:

Plate Supply Voltage.	150	volts
Grid-No.3 Supply Voltage.	0	volts
Grid-No.2 Supply Voltage.	100	volts
Cathode Resistor.	560	ohms
Plate Resistance (Approx.).	0.15	megohm
Transconductance, Grid No.1 to Plate. . .	800	μ mhos
Transconductance, Grid No.3 to Plate. . .	515	μ mhos
Plate Current	1.1	ma
Grid-No.2 Current	2.1	ma
Grid-No.1 Voltage (Approx.) for plate μ a = 10	-4.5	volts
Grid-No.3 Voltage (Approx.) for plate μ a = 10	-3.5	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	2-1/8"
Maximum Seated Length.	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) .	1-1/2" $\pm$ 3/32"
Diameter.	0.650" to 0.750"
Dimensional Outline	See General Section
Bulb.	T5-1/2
Base.	Small-Button Miniature 7-Pin (JEDEC No. E7-1)
Basing Designation for BOTTOM VIEW.	7EN

Pin 1-Grid No.1
Pin 2-Cathode,
Internal
Shield
Pin 3-Heater



Pin 4-Heater
Pin 5-Plate
Pin 6-Grid No.2
Pin 7-Grid No.3

← Indicates a change.

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FM DETECTOR SERVICE

→ **Maximum Ratings, Design-Maximum Values:**

PLATE VOLTAGE.	330 max.	volts
GRID-No.3 (SUPPRESSOR-GRID) VOLTAGE. . . .	28 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE . .	330 max.	volts
GRID-No.2 VOLTAGE.	<i>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</i>	
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive-bias value.	0 max.	volts
GRID-No.2 INPUT:		
For grid-No.2 voltages up to 165 volts .	1.1	watts
For grid-No.2 voltages between 165 and 330 volts.	<i>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</i>	
PLATE DISSIPATION.	1.7 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	200 max.	volts
Heater positive with respect to cathode.	200 [▲] max.	volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.25 max.	megohm
For cathode-bias operation	0.5 max.	megohm

^o With external shield JEDEC No.316 connected to cathode.

[▲] The dc component must not exceed 100 volts.

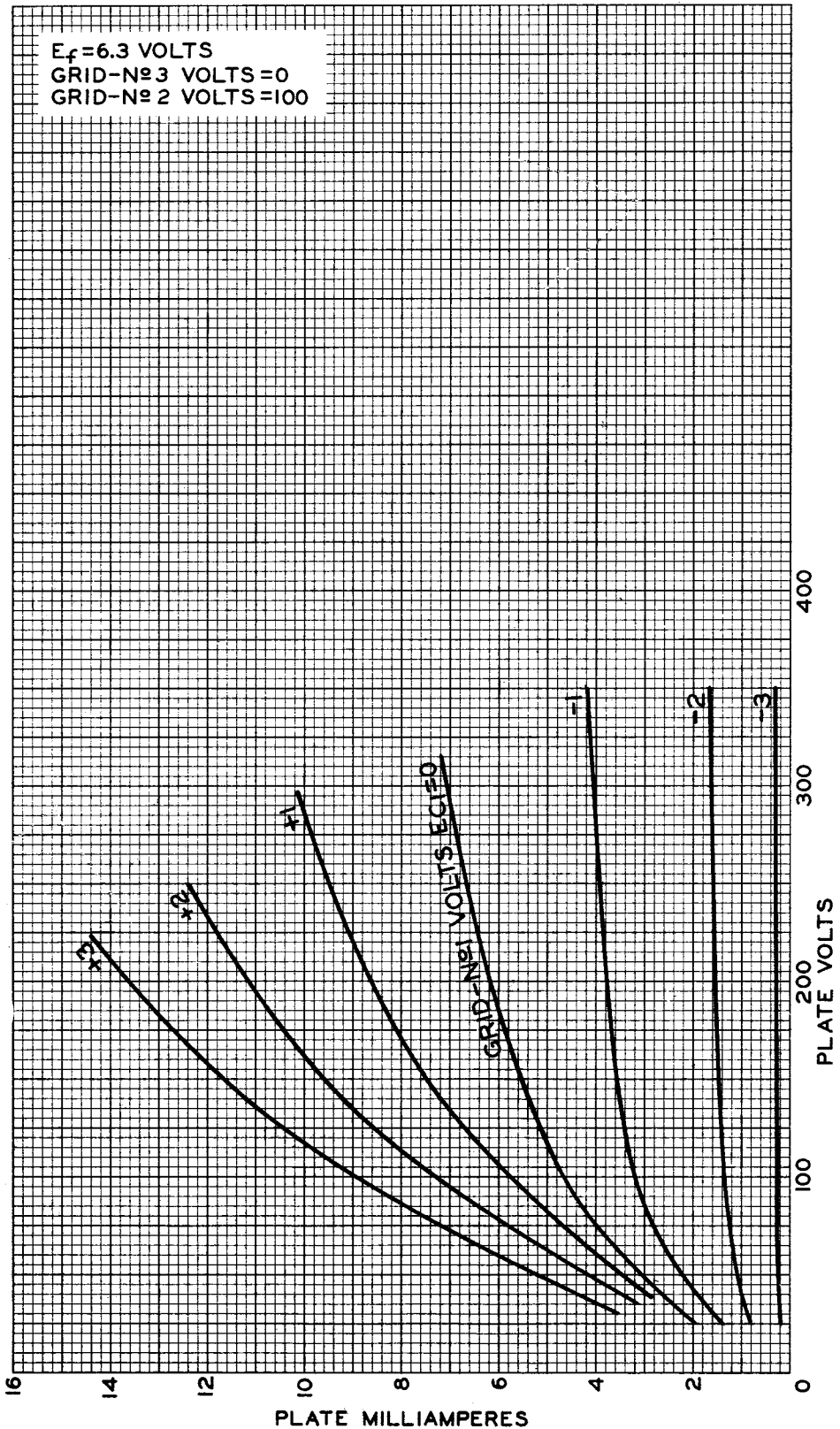
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AVERAGE PLATE CHARACTERISTICS



TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

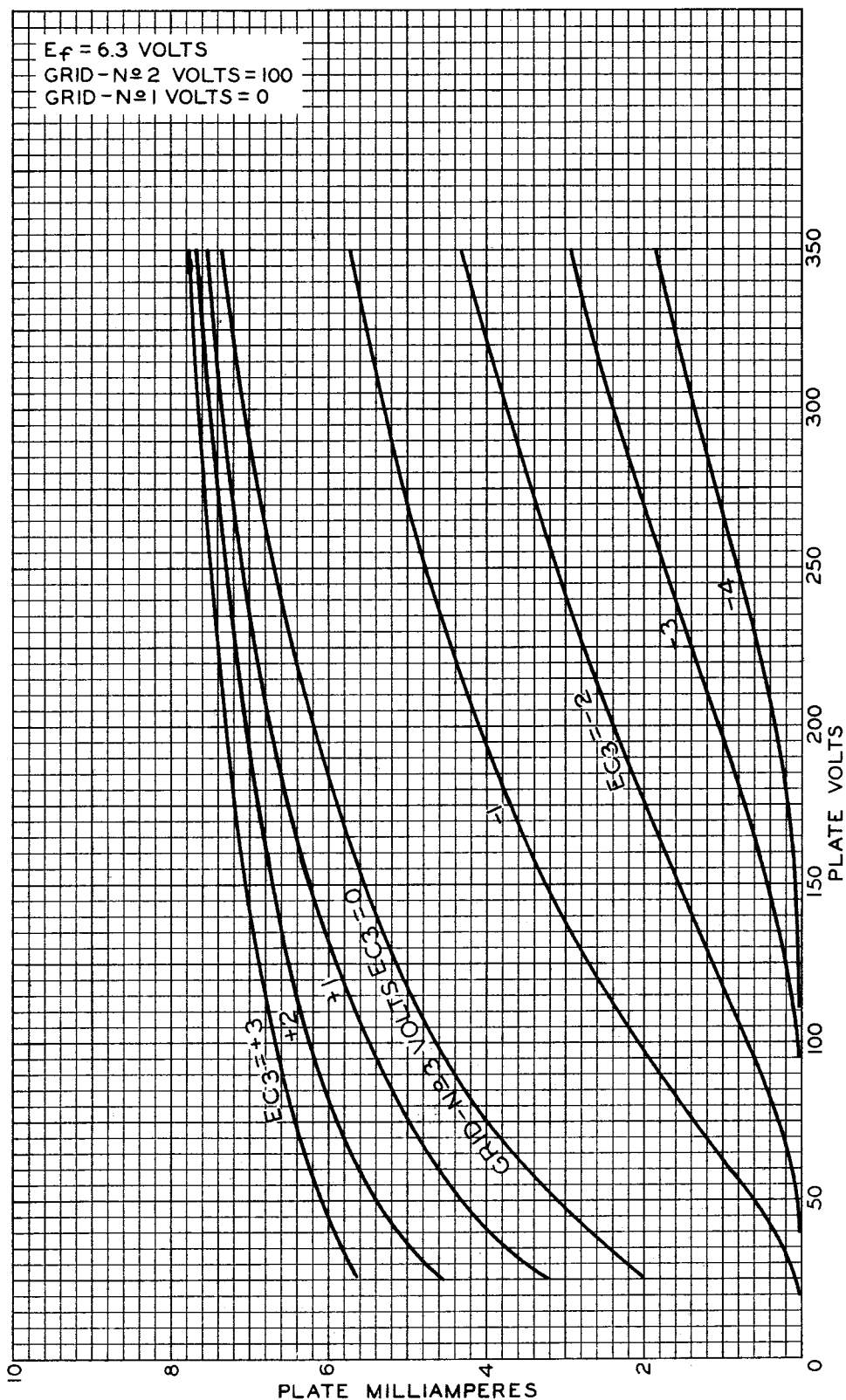
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AVERAGE PLATE CHARACTERISTICS

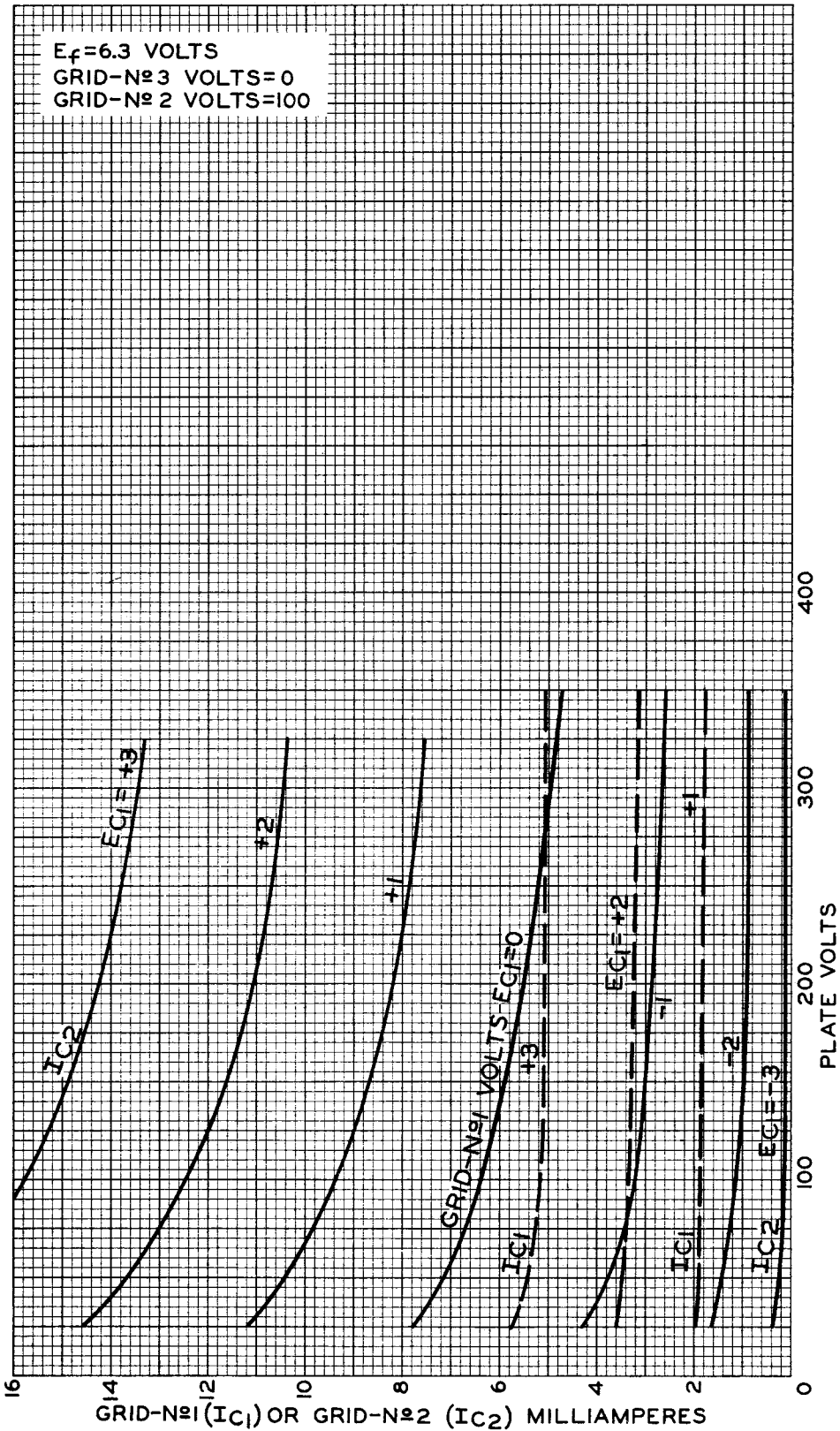




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AVERAGE CHARACTERISTICS



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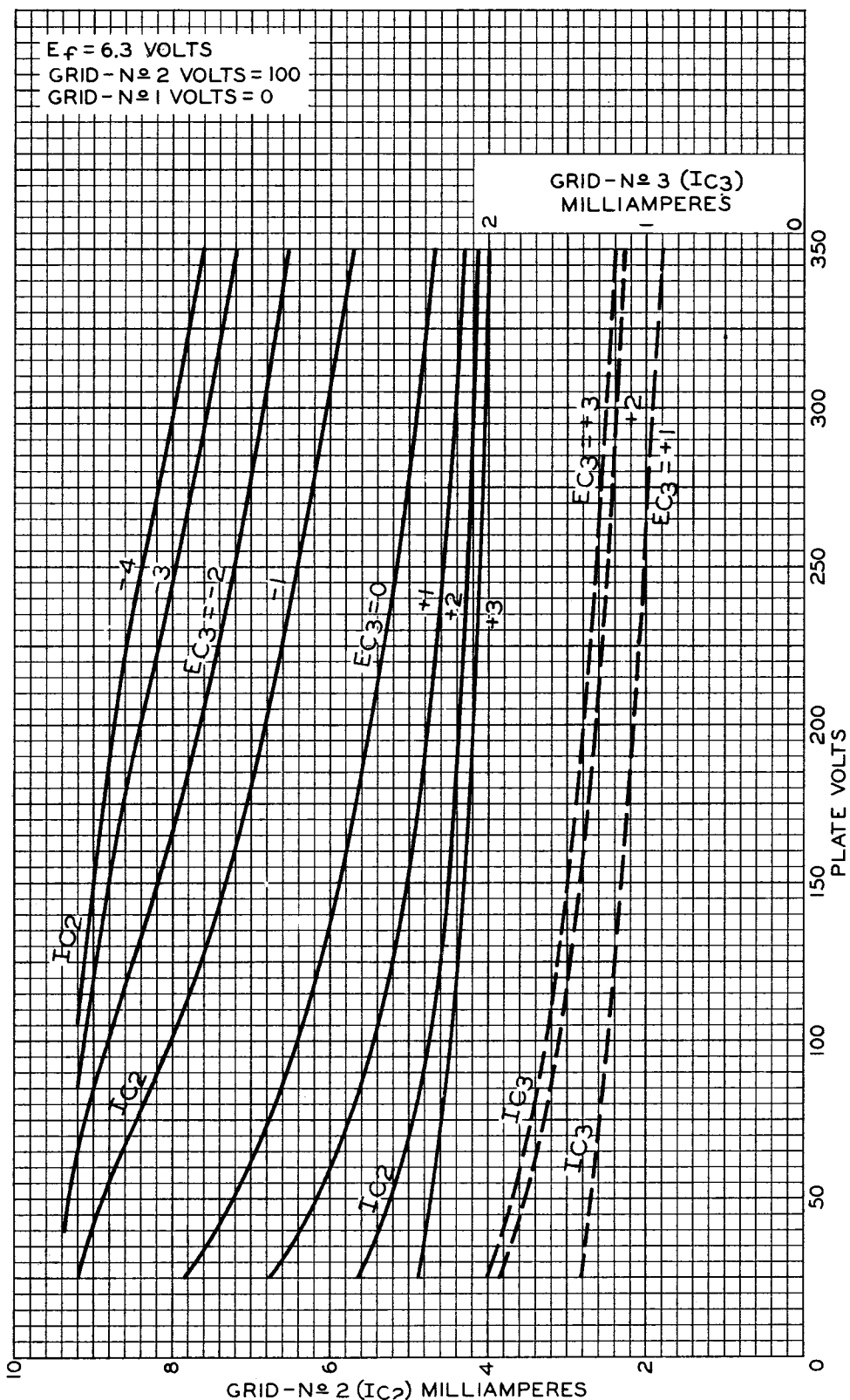
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AVERAGE CHARACTERISTICS



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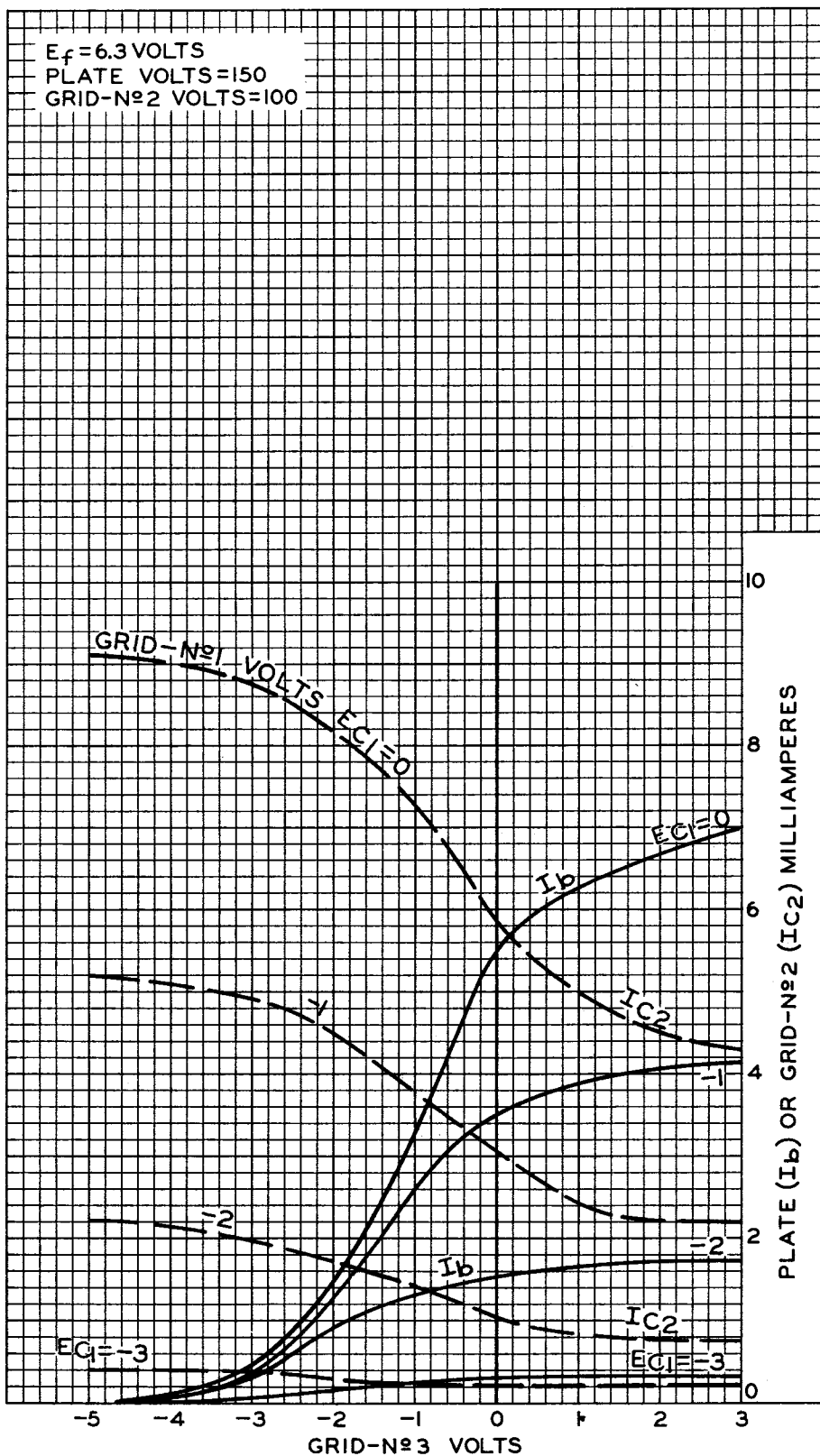
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AVERAGE CHARACTERISTICS



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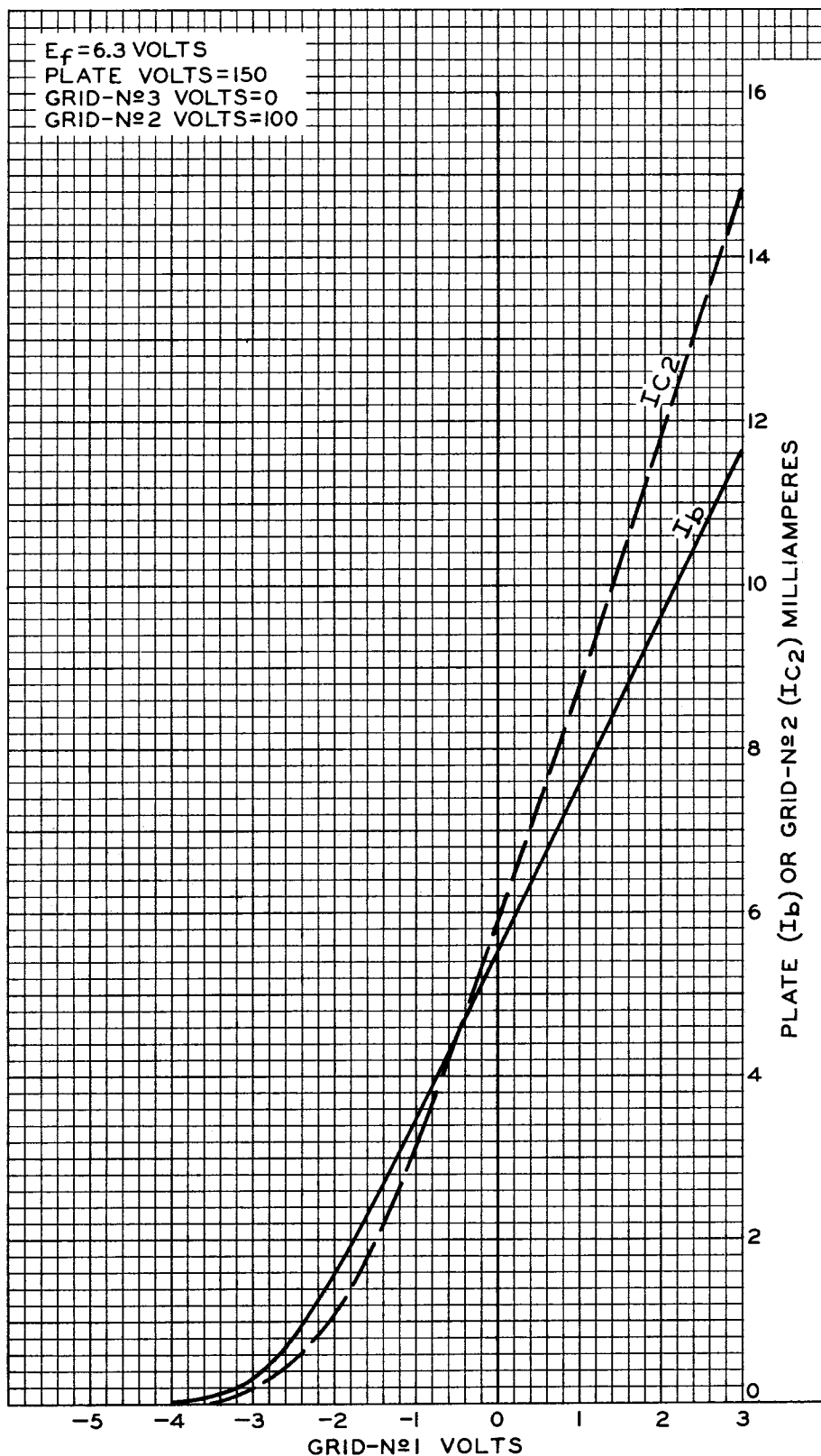
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AVERAGE CHARACTERISTICS



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