

# PHILIPS

6CW5  
8CW5  
15CW5  
30CW5

## PHILIPS ELECTRON DEVICES LTD

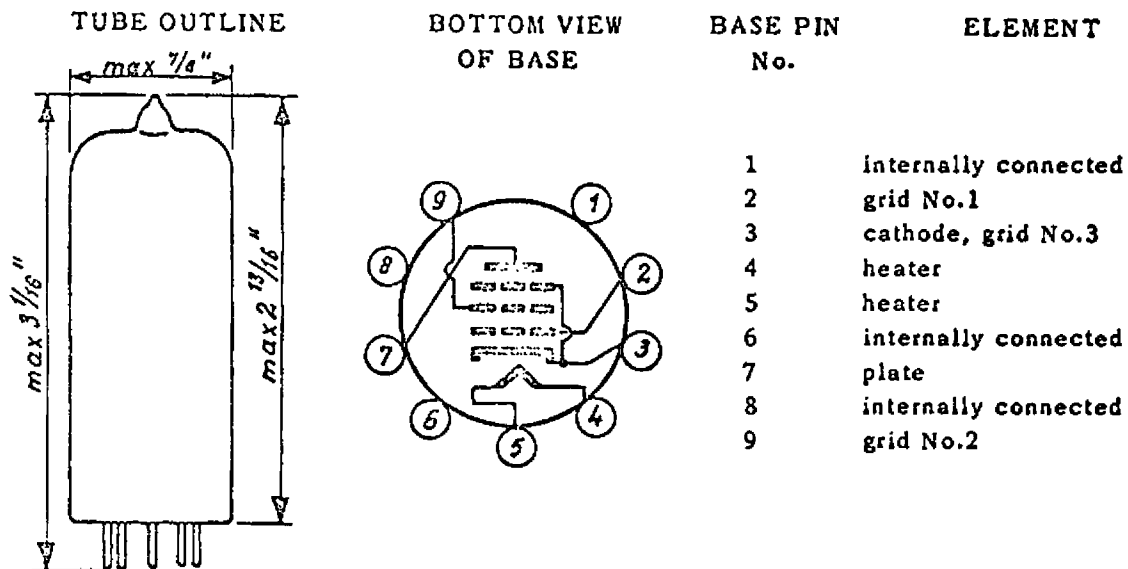
116 Vanderhoof Ave.,  
Toronto 17, Ont.

### DESCRIPTION

AF output pentode or frame output pentode.

### MECHANICAL DATA

Cathode	coated unipotential
Bulb	T 6½
Base	E 9-1
Basing	9 CV
Mounting position	Any



### ELECTRICAL DATA

Heating	6CW5	8CW5	15CW5	30CW5
heater voltage	6.3	8±10%	15±10% V	30 ± 10% V
heater current	0.76±10%	0.6	0.3 A	0.15 A

### LIMITING VALUES (design max.)

for use as AF amplifier class  $A_1$ - $AB_1$  or single ended push-pull

Plate voltage	max.	275 V
Plate voltage without plate current	max.	600 V
Plate dissipation	max.	14 W
Grid No.2 voltage	max.	220 V
Grid No.2 voltage without current	max.	600 V
Grid No.2 dissipation	max.	2.1 W
Grid No.2 peak dissipation	max.	7 W
Cathode current	max.	110 mA

JANUARY 1963

data from JEDEC release #2556E, June 15, 1964  
curves from JEDEC release #2556, Aug. 3, 1959

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30 CW 5

**LIMITING VALUES (continued)**

*for use as vertical deflection amplifier, for operation in a 525-line, 30-frame system*

Plate voltage	max.	275 V
Peak positive-pulse plate voltage	max.	2200 V <sup>1)</sup>
Grid No.2 voltage	max.	275 V
Peak negative-pulse Grid No.1 voltage	max.	250 V
Cathode current		
peak	max.	240 mA
average	max.	110 mA
Grid No.2 input	max.	2.1 W
Plate dissipation	max.	12 W

*Voltage between cathode and heater*

Cathode positive to heater		
peak	max.	330 V
D.C.	max.	220 V
Cathode negative to heater		
peak	max.	330 V
D.C.	max.	220 V

*Maximum circuit values*

Grid No.1 circuit resistance		
as AF amplifier	max.	1 MΩ
as deflection amplifier	max.	2.2 MΩ
Circuit resistance between heater and cathode	max.	20 000 Ω

**TYPICAL CHARACTERISTICS**

Plate voltage	170 V
Grid No.2 voltage	170 V
Grid No.1 voltage	-12.5 V
Plate current	70 mA
Grid No.2 current	3.5 mA
Transconductance	11 000 μS
Amplification factor of grid No.2 with respect to grid No.1	8
Plate resistance	26 000 Ω

*Direct interelectrode capacitances*

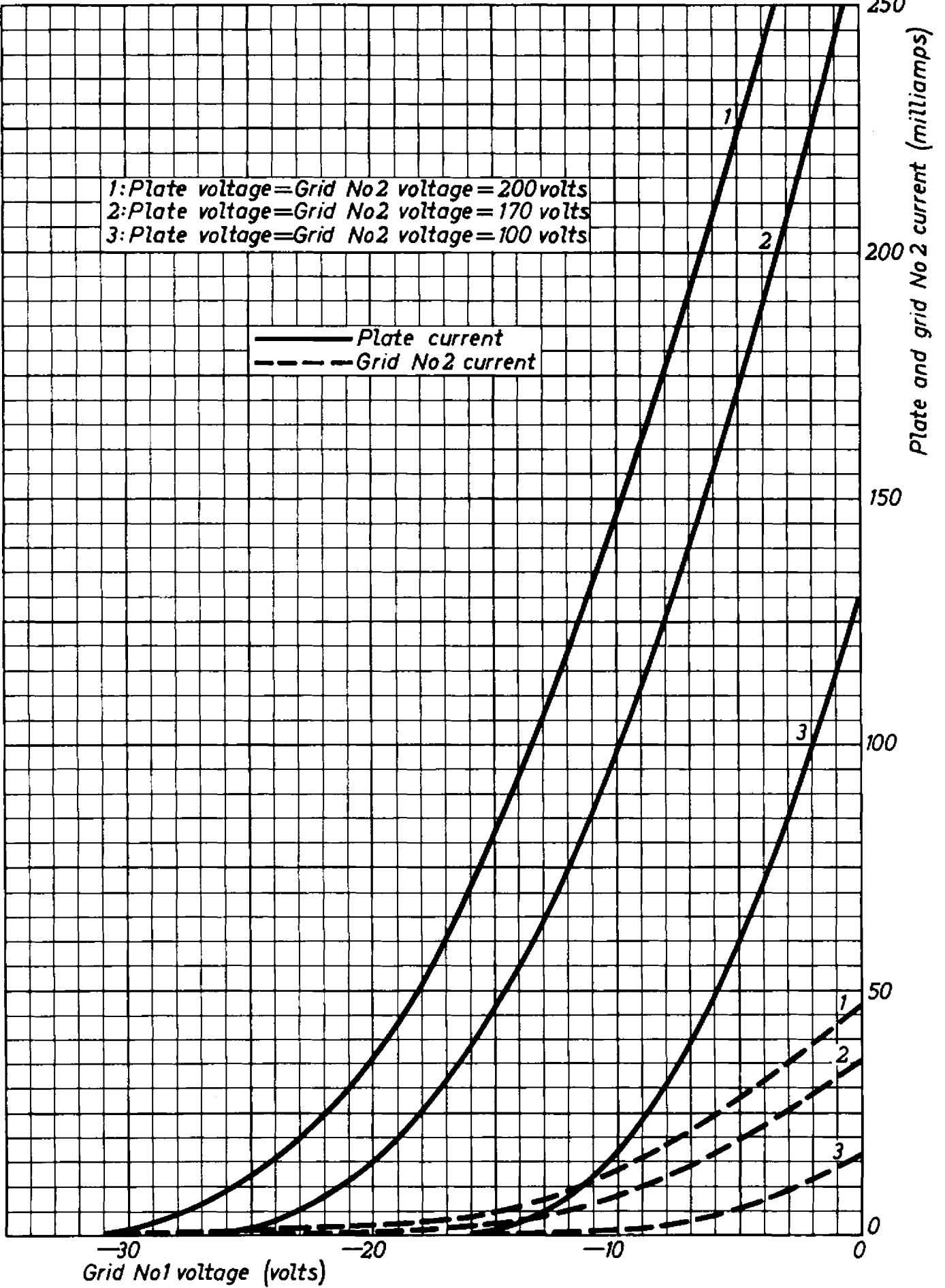
Grid No.1 to all other elements except plate	13 μF
Plate to all other elements except grid No.1	6.8 μF
Plate to grid No.1	max. 0.6 μF
Grid No.1 to heater	max. 0.25 μF

<sup>1)</sup> Max. pulse duration 6% of a cycle with a max. of 1.2 msec.

15 CW 5

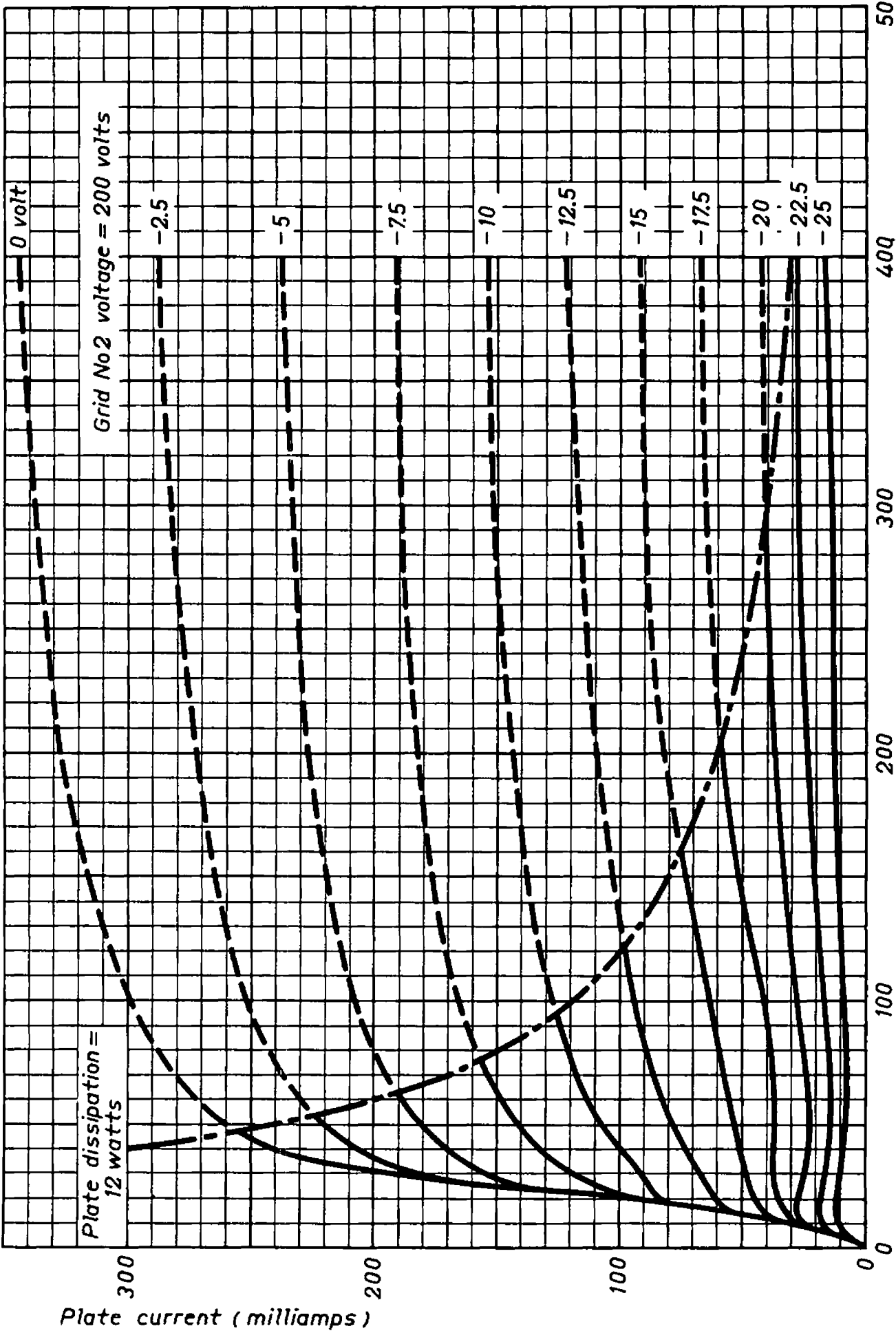
1: Plate voltage = Grid No 2 voltage = 200 volts  
2: Plate voltage = Grid No 2 voltage = 170 volts  
3: Plate voltage = Grid No 2 voltage = 100 volts

— Plate current  
- - - Grid No 2 current

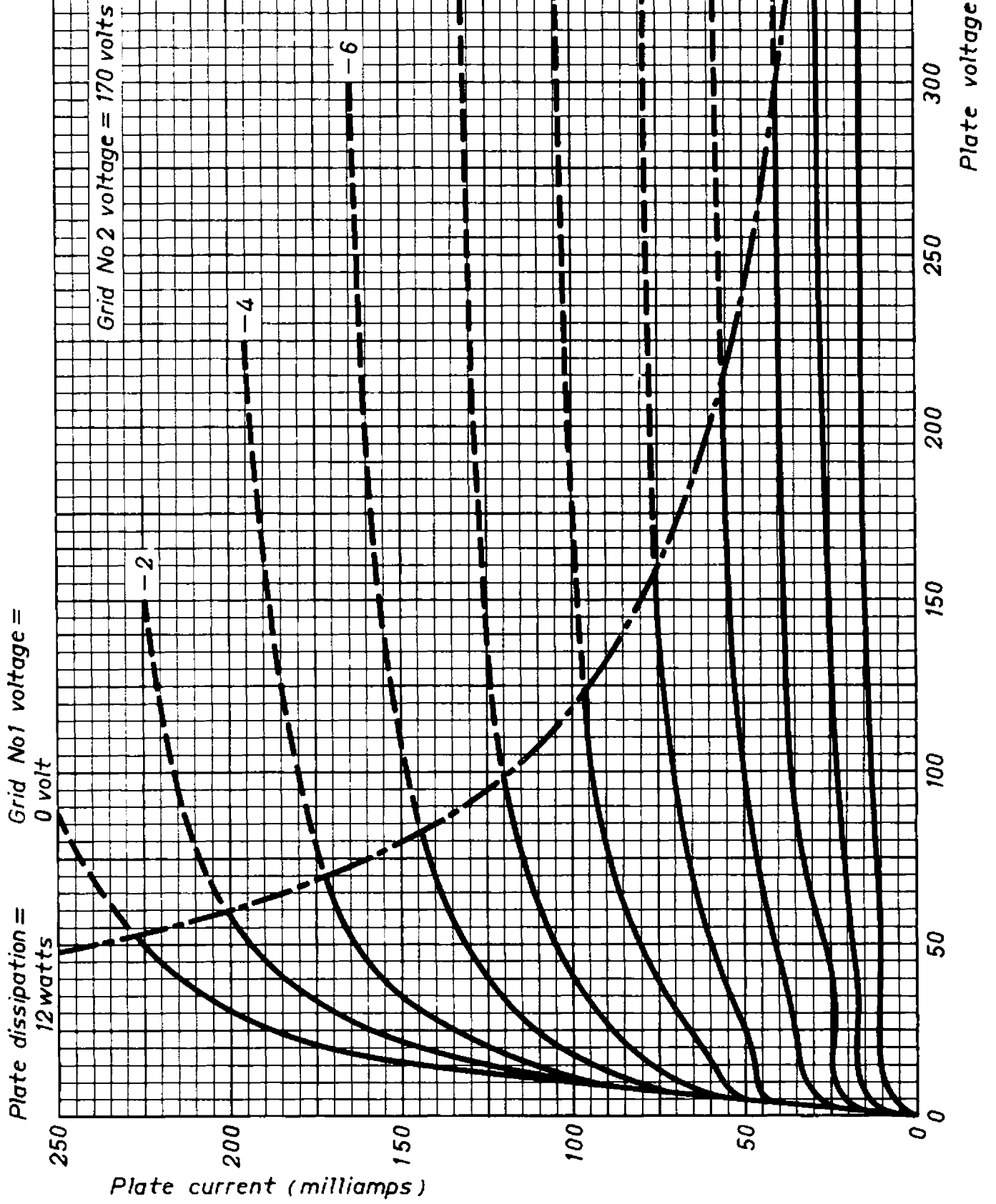


15CW5

Grid No1 voltage =



15CW5



10.10.1958

Q

