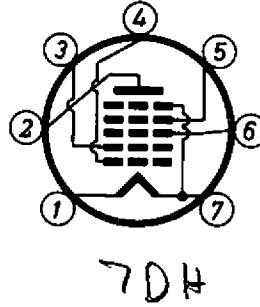
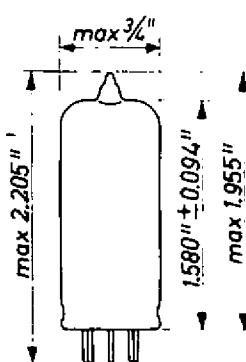


**PHILIPS****1AB6****PENTAGRID CONVERTER****Physical Specifications**

Filament	Coated
Base	Miniature button 7-pin
Bulb	T <sub>5</sub> <sup>1</sup> <sub>2</sub>
Maximum overall length	2.205"
Maximum seated height	1.955"
Bulb length excluding tip	1.580" ± 0.094"
Maximum diameter	3/4"
Mounting position	any
Basing connections - JETEC basing designation	7DH

Pin 1 - filament(-)	<u>Bottom view of base</u>	<u>Tube outline</u>
Pin 2 - plate		
Pin 3 - grid No.2		
Pin 4 - grid No.1		
Pin 5 - grid No.4		
Pin 6 - grid No.3		
Pin 7 - +filament and grid No.5		


**General Electrical Data**

Filament voltage	1.4 volts
Filament current	25 m amps

**Direct Interelectrode Capacitances**

Plate to all other electrodes	8.4 μμF
Grid No.3 to all other electrodes	7.6 μμF
Grid No.2 to all other electrodes	4.8 μμF
Grid No.1 to all other electrodes	3.9 μμF
Plate to grid No.3	max. 0.36 μμF
Plate to grid No.2	max. 0.3 μμF
Plate to grid No.1	max. 0.11 μμF
Grid No.2 to grid No.3	1.6 μμF
Grid No.1 to grid No.3	max. 0.2 μμF
Grid No.1 to grid No.2	3 μμF

**1 AB 6****PHILIPS**Ratings (Design center values)

Battery voltage	max.	90 volts <sup>1)</sup>
Plate voltage	max.	90 volts
Plate dissipation	max.	0.15 watt
Grid No.4 voltage	max.	90 volts
Grid No.4 dissipation	max.	0.03 watt
Grid No.2 voltage	max.	60 volts
Grid No.2 dissipation	max.	0.1 watt
Cathode current	max.	2.6 ma
Grid No.3 circuit resistance	max.	3 megohms
Grid No.1 circuit resistance	max.	0.1 megohm
Filament voltage	min.	1.1 volts
Filament voltage	max.	1.6 volts

Characteristics of the oscillator section  
(grid No.1 connected to +filament)

Plate voltage	64	85 volts
Grid No.4 voltage	64	64 volts
Grid No.3 voltage	0	0 volt
Grid No.2 voltage	35	35 volts
Grid No.2 current	1.7	1.7 ma
Transconductance of grid No.1 with respect to grid No.2	600	600 micromhos
Amplification factor of grid No.2 with respect to Grid No.1	7.5	7.5

<sup>1)</sup> The absolute permissible maximum of the battery voltage is 110 volts.

## Operating Characteristics

(separate excitation, no impedance in the grid No.2 lead)

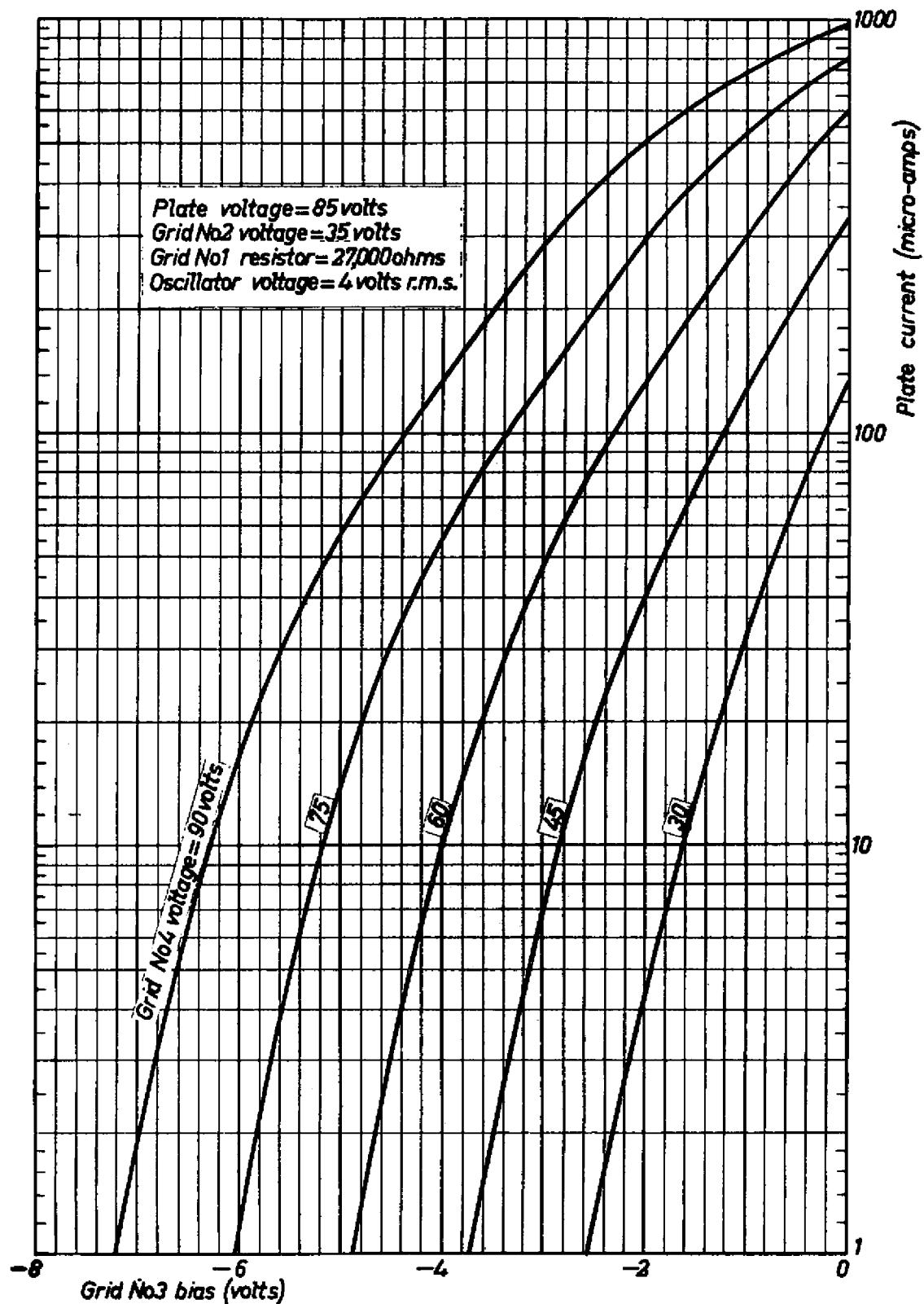
Anode voltage <sup>1)</sup>	64	85 volts
Grid No.4 voltage	64	64.5 volts
Grid No.4 resistor	0	0.12 megohm
Grid No.3 voltage	0	0 volt
Grid No.2 voltage	35	35 volts
Grid No.2 resistor	18,000	33,000 ohms
Grid No.1 A.C.voltage	4	4 volts,rms
Grid No.1 resistor	27,000	27,000 ohms <sup>2)</sup>
Plate current	0.6	0.65 ma
Grid No.4 current	0.16	0.17 ma
Grid No.2 current	1.6	1.5 ma
Grid No.1 current	85	85 $\mu$ a
Cathode current	2.45	2.4 ma
Conversion conductance	275	300 micromhos
Conversion conductance (grid No.3 voltage = -6.5 volts)	-	3.0 micromhos
Conversion conductance (grid No.3 voltage = -4.5 volts)	2.75	- micromhos
Plate resistance	0.9	1.0 megohm

<sup>1)</sup> Based on a battery voltage of 67.5 or 90 volts decreased with the negative bias for the output valve.

<sup>2)</sup> Connected to +filament.

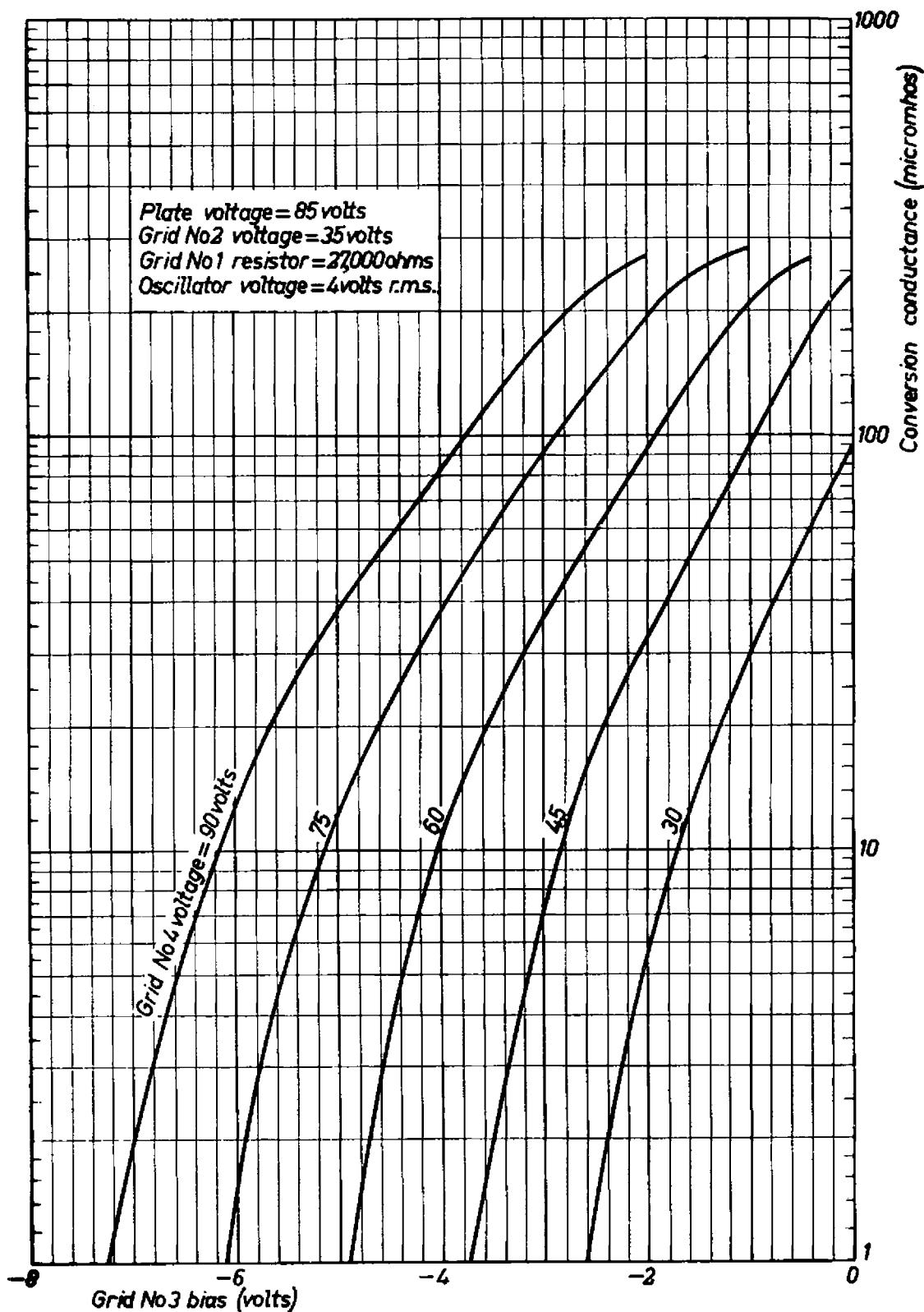
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