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6086

LONG LIFE PENTODE FOR TELEPHONE EQUIPMENT

Physical specifications

Cathode	Coated unipotential
Base	Small button noval 9-pin
Bulb	T6 $\frac{1}{2}$
Maximum overall length	2 $\frac{5}{8}$ "
Maximum seated height	2 $\frac{3}{8}$ "
Bulb length excluding tip	2" $\pm$ $\frac{3}{32}$ "
Maximum diameter	$\frac{7}{8}$ "
Mounting position	any
Basing connections - JETEC basing designation	9BK

Pin 1 - Grid No.2

Pin 2 - Grid No.1

Pin 3 - Cathode

Pin 4 - Heater

Pin 5 - Heater

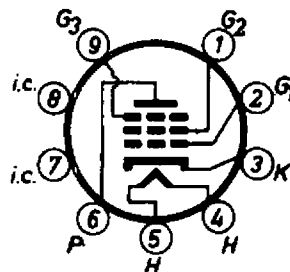
Pin 6 - Plate

Pin 7 - Internally
connected

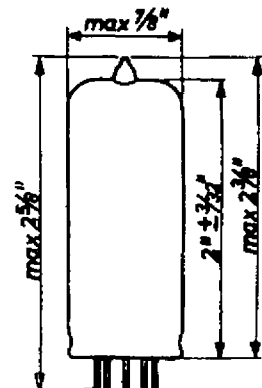
Pin 8 - Internally
connected

Pin 9 - Grid No.3

Bottom view
of base



Tube outline



General Electrical Data

Heater data

Heater voltage	18 volts
Heater current	100 ma

Direct Interelectrode Capacitances

Grid No.1 to all other elements except plate	8.8 μ F
Plate to all other elements except grid No.1	3.6 μ F
Grid No.1 to plate	max. 0.015 μ F
Grid No.1 to heater	max. 0.15 μ F
Cathode to all other elements	5.6 μ F

6086**PHILIPS**Ratings (Design center values)

Plate voltage (without current)	max. 550 volts
Plate voltage	max. 210 volts
Plate dissipation	max. 2.1 watts
Grid No.2 voltage (without current)	max. 550 volts
Grid No.2 voltage	max. 210 volts
Grid No.2 dissipation	max. 0.35 watt
Cathode current	max. 16 ma
Grid No.1 current starting point.	
Grid No.1 voltage at grid No.1 current = +0.3 μ amp	max. -1.1 volts
Grid No.1 circuit resistance (with automatic grid bias)	max. 1 megohm
External resistance between heater and cathode	max. 20,000 ohms
Voltage between heater and cathode	max. 60 volts

Typical characteristics

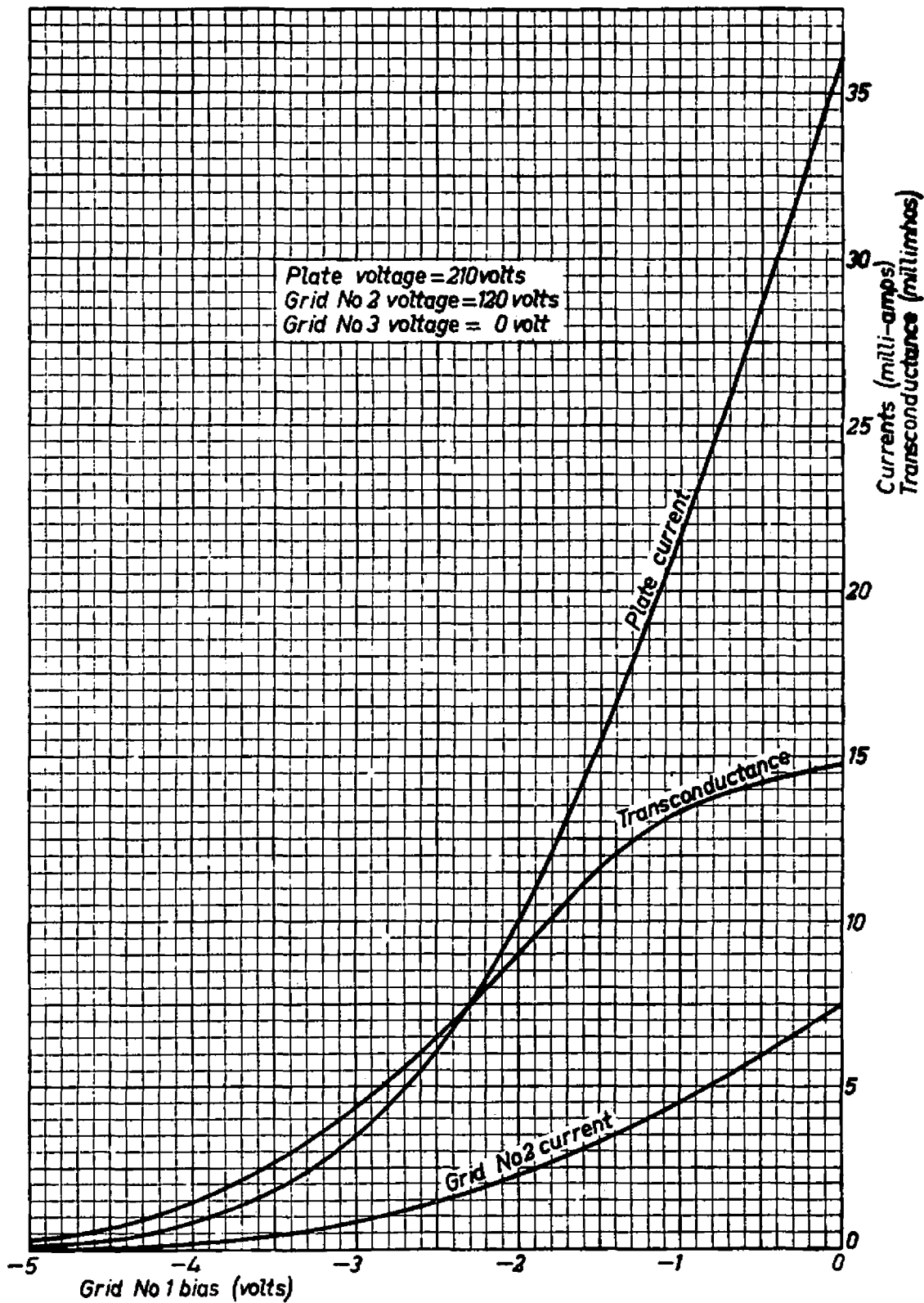
Plate voltage	210 volts
Grid No.3 voltage	0 volt
Grid No.2 voltage	120 volts
Cathode resistor	165 ohms
Plate current	10 ma
Screen grid current	2.1 ma
Transconductance	9000 micromhos
Plate resistance	0.5 megohm
Amplification factor of grid No.2 with respect to grid No.1	34
Equivalent noise resistance	750 ohms

Operating characteristics as Class A output amplifier

Plate supply voltage	120	210 volts
Grid No.2 supply voltage	120	120 volts
Grid No.2 resistor	5600	5600 ohms
Cathode resistor	180	180 ohms
Plate current	8.3	8.3 ma
Grid No.2 current	1.7	1.7 ma
Internal plate resistance	0.42	0.44 megohm
Load resistance	10,000	20,000 ohms
Transconductance	8200	8200 micromhos

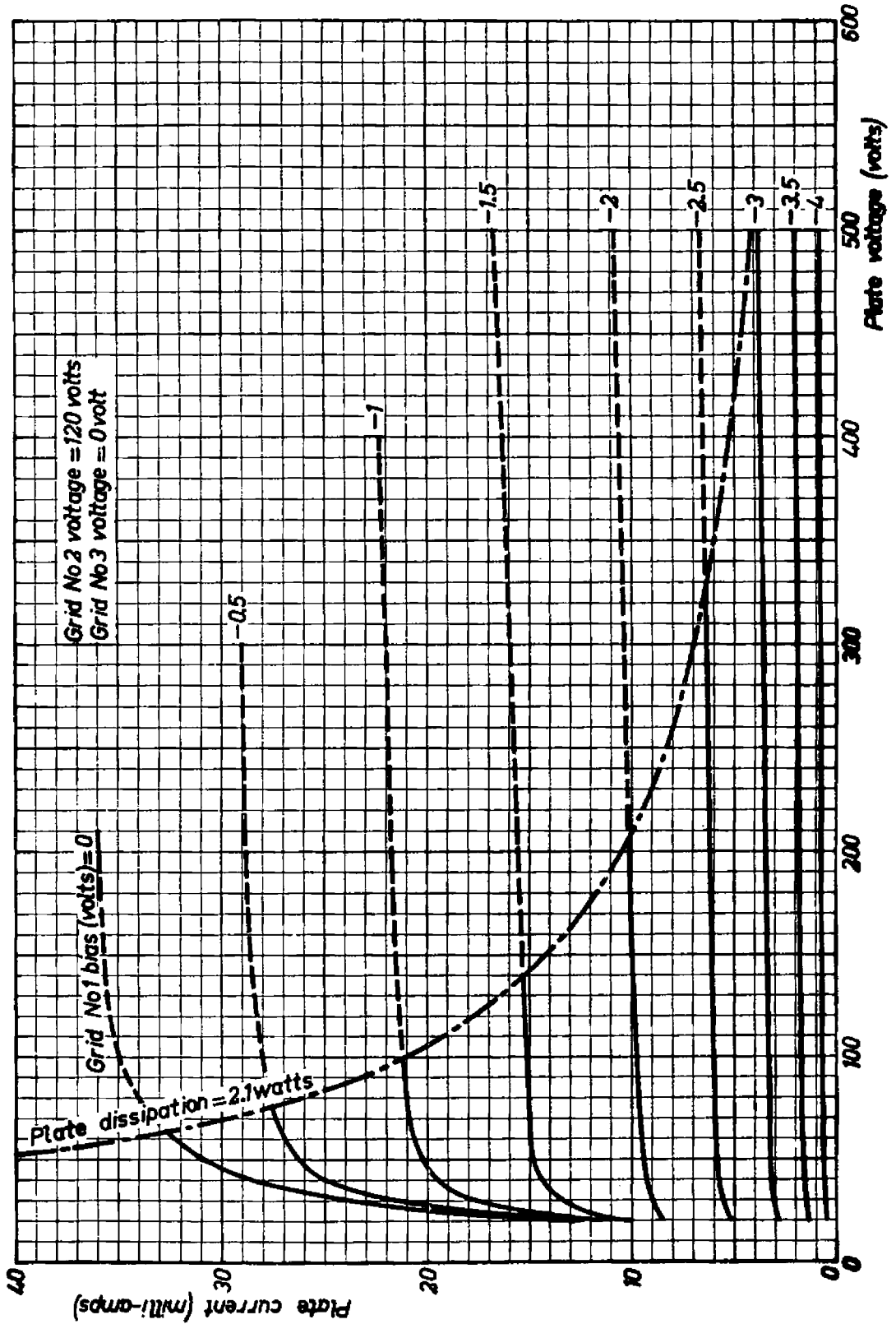
Operating characteristics as Class A output amplifier
(continued)

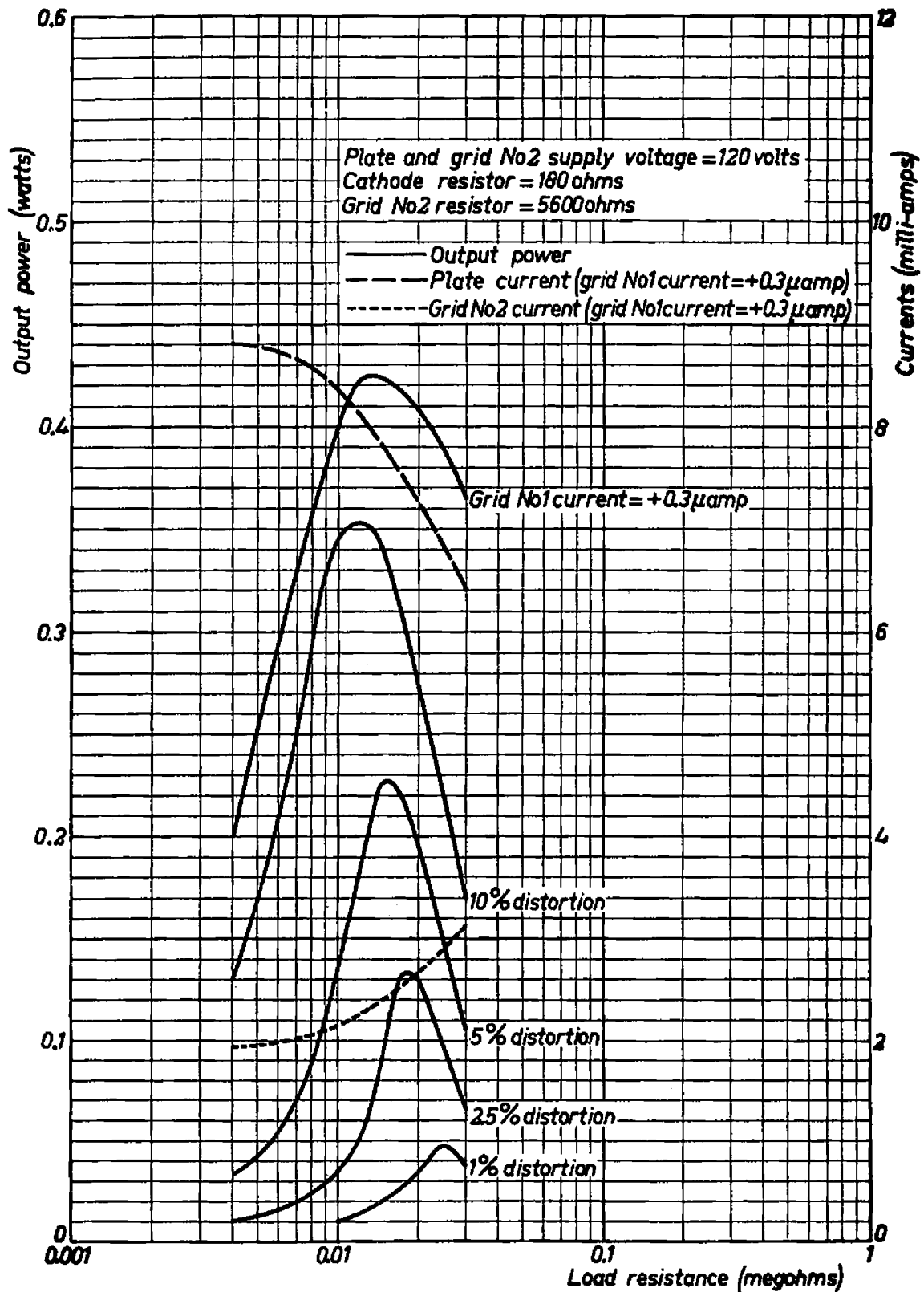
Output at a distortion of 10 %	345	660 milliwatts
Grid No.1 A.C. voltage at a distortion of 10 %	1.1	1.1 volts(rms)
Output at grid current starting point	400	870 milliwatts
Grid No.1 A.C. voltage at an output of 50 milliwatts	0.35	0.25 volts(rms)



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