

SPECIAL QUALITY TRIODE for use as amplifier tube in probes

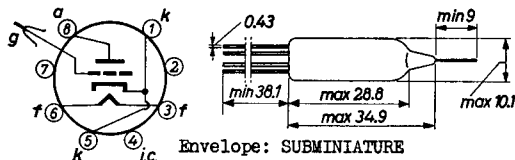
HEATING

Indirect by A.C. or D.C.; parallel supply

Heater voltage $V_f = 6.3 \text{ V}$

Heater current $I_f = 185 \text{ mA}$

Dimensions in mm



CAPACITANCES Without external shield

| | |
|------------------|----------------------------|
| Anode to grid | $C_{ag} = 1.9 \text{ pF}$ |
| Anode to cathode | $C_{ak} = 0.5 \text{ pF}$ |
| Anode to heater | $C_{af} = 0.3 \text{ pF}$ |
| Grid to cathode | $C_{gk} = 3.5 \text{ pF}$ |
| Grid to heater | $C_{gf} = 0.05 \text{ pF}$ |

LIMITING VALUES (Absolute limits)

| | |
|------------------------------------|---|
| Anode voltage in cold condition | $V_{a0} = \text{max. } 275 \text{ V}$ |
| Anode voltage | $V_a = \text{max. } 110 \text{ V}$ |
| Anode dissipation | $W_a = \text{max. } 1.5 \text{ W}$ |
| Negative grid voltage | $-V_g = \text{max. } 55 \text{ V}$ |
| External grid resistance | $R_g = 1)$ |
| Cathode current | $I_k = \text{max. } 22 \text{ mA}$ |
| Voltage between heater and cathode | $V_{kf} = \text{max. } 55 \text{ V}$ |
| Bulb temperature | $t_{\text{bulb}} = \text{max. } 170 \text{ }^\circ\text{C}$ |

¹⁾ The grid resistance should be restricted to a value such that no limiting values are exceeded at $-I_g = 0.01 \mu\text{A}$. For calculating the max. permissible value of R_g the D.C. feedback factor of the operating circuit may be taken into account.
In practice the maximum usable R_g value will also be defined by the required current stability and the permissible hum level

TYPICAL CHARACTERISTICS

| | | |
|--|--------------|------------------------------|
| Heater voltage | V_f | = 6.3 V |
| Anode voltage | V_a | = 80 V |
| Anode current | I_a | = 14 mA |
| Mutual conductance | S | = 14.5 mA/V |
| Amplification factor | μ | = 24 |
| Heater voltage | V_f | = 6.3 V |
| Anode voltage | V_a | = 80 V |
| Grid voltage | V_g | = -2 V |
| Anode current | I_a | = 14 mA |
| Input resistance at 250 Mc/s | r_g | = 450 Ω |
| Input resonance frequency | f_{res} | = 400 Mc/s |
| Negative grid current after 1000 hours of operation | $-I_g$ | < 0.01 μA ¹⁾ |
| Equivalent noise voltage on the grid | V_{gnoise} | < 1 mV ²⁾ |
| Equivalent microphony volt- age on the grid | V_{gmicro} | < 1 mV ³⁾ |
| Heater voltage | V_f | = 6.3 V |
| Grid resistor | R_g | = 0.5 M Ω |
| Cathode resistor at f = 50 c/s | R_k | = 100 Ω |
| Equivalent hum voltage on the grid | V_{ghum} | < 1 mV ⁴⁾ |

¹⁾ End of life value

²⁾ R.M.S. value measured with a straight response filter
0-10000 c/s

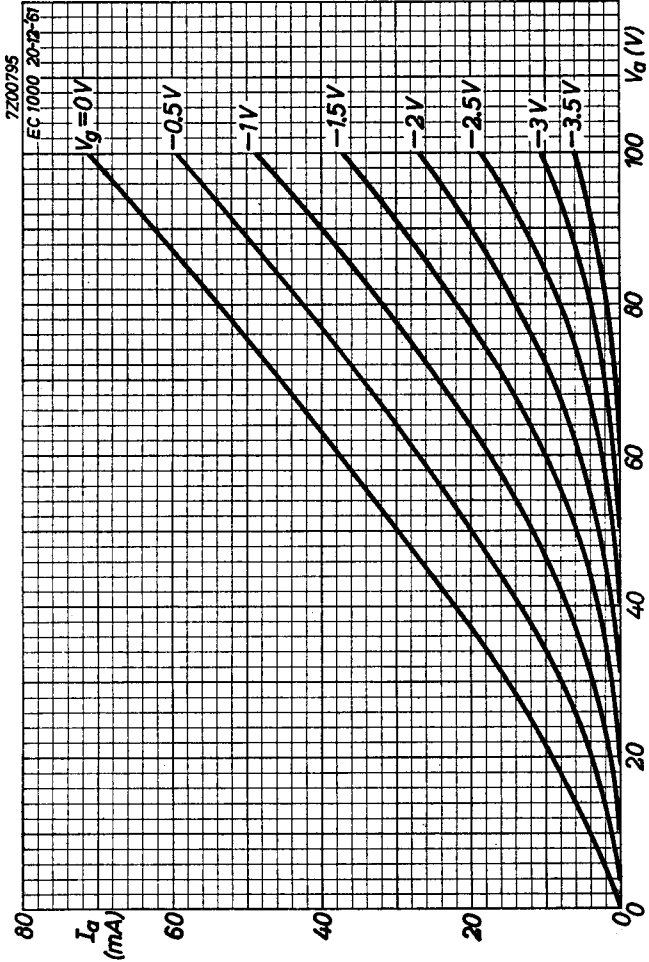
³⁾ R.M.S. value measured with an acceleration with a peak
value of 4 g at a frequency of 50 c/s

⁴⁾ R.M.S. value measured with a straight response filter
at a heater supply frequency of 50 c/s + 3 % 500 c/s.
Heater centre connected to earth

EC1000

PHILIPS

SQ



B



| | EC1000 | |
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| 1 | 1 | 1962.07.07 |
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| 4 | B | 1962.07.07 |
| 5 | FP | 1999.06.15 |