



## ELECTRONIC TUBE REFERENCE

## EL5

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

High-sensitivity receiving power pentode with approximately 18 W plate dissipation for substantial audio output.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | —             |
| NOMINAL HEATER      | 6.3 V / 1.35 A    | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                           |                |
|---------------------------------------------------------------------------|----------------|
| SECTION 1 Pentode                                                         |                |
| PLATE RESISTANCE                                                          | 22000 $\Omega$ |
| TRANSCONDUCTANCE                                                          | 0.0035 S       |
| MAXIMUM PLATE VOLTAGE                                                     | 550 V          |
| MAXIMUM SCREEN VOLTAGE                                                    | 550 V          |
| MAXIMUM PLATE DISSIPATION                                                 | 18 W           |
| <i>Published target-row operating and characteristic values reviewed.</i> |                |

EL5 is listed in the supplied valve table as a high-sensitivity power pentode. Published operating and characteristic values were transcribed from its target row.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1938 Philips Miniwatt Vacuum Tube Catalog

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1938 PHILIPS MINIWATT VACUUM TUBE CATALOG

## Section 1 · Pentode

| OTHER             |                 |                                 |
|-------------------|-----------------|---------------------------------|
| PARAMETER         | PUBLISHED VALUE | CONDITION / NOTE                |
| Plate voltage     | 250 V           | Published table operating point |
| Screen voltage    | 275 V           | Published table operating point |
| Plate current     | 72 mA           | Published table operating point |
| Control-grid bias | 14 V            | Published table operating point |
| Power output      | 8.8 W           | Published table operating point |

| CHARACTERISTIC          |                 |                                  |
|-------------------------|-----------------|----------------------------------|
| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE                 |
| Plate resistance        | 22000 ohm       | Published table characteristic   |
| Transconductance        | 3500 $\mu$ S    | Published table characteristic   |
| Heater/filament voltage | 6.3 V           | Published heater/filament rating |
| Heater/filament current | 1.35 A          | Published heater/filament rating |

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1999 Philips E-Z

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1999 PHILIPS E-Z

## Section 1 · Pentode

| CHARACTERISTIC                                      |                 |                  |
|-----------------------------------------------------|-----------------|------------------|
| PARAMETER                                           | PUBLISHED VALUE | CONDITION / NOTE |
| male Ausgangsleistung von                           | 9 W             | —                |
| Heizspannung V                                      | 163 V           | —                |
| 300 : /ga2'                                         | 75 V            | —                |
| Ausgangsleistung . . . . .<br>. . . . W             | 88 W            | —                |
| Gitterwechselsp. bei 109/,<br>Verzerrung Vi         | 8.2 V           | —                |
| Empfindlichkeit . . . . .<br>. . . . . Vis0 mw)     | 0.5 V           | —                |
| Anodenspannung. . . . .<br>. . . . Va               | 250 V           | PushPull         |
| Schirmgitterspannung. . . .<br>. . . . . Vg2        | 275 V           | PushPull         |
| Anodenruhestrom . . . . .<br>. . . . I              | 2 X 58 mA       | PushPull         |
| zom Gitterstrom . . . . .<br>. . . . lamax          | 2 X 65 mA       | PushPull         |
| Schirmgitterruhestrom . . .<br>. . . . . Ig3,       | 2 X 6.25 mA     | PushPull         |
| Schirmgitterstrom bei voller<br>Aussteuerung Iz max | 2 X 10.5 mA     | —                |
| Maximale Ausgangsleistung .<br>. . . . . Womax      | 195 W           | —                |
| pysates 11¥a                                        | 250 V           | —                |
| 2% Vgz [1]                                          | 275 V           | —                |
| 2% Vgz [2]                                          | 175 Ohm         | —                |
| e T111Ck 2 [1]                                      | 50 uF           | —                |
| e T111Ck 2 [2]                                      | 72 mA           | —                |
| T LT 1] H                                           | 3500 Ohm        | —                |
| widerstand von                                      | 2500 Ohm        | —                |
| Kathodenwiderstand. folgt,<br>daBl bei              | 2500 Ohm        | —                |
| monische bedeutend geringer<br>als bei              | 3500 Ohm        | —                |
|                                                     |                 |                  |

| PARAMETER                                                            | PUBLISHED VALUE | CONDITION / NOTE  |
|----------------------------------------------------------------------|-----------------|-------------------|
| ist, die Anwendung eines Belastungswiderstandes von                  | 2500 Ohm        | —                 |
| Wenn eine griflere Auns- H –;ffik                                    | 50 pF           | PushPull;TwoTubes |
| spannung von                                                         | 275 V           | PushPull;TwoTubes |
| muf} dieser Widerstand durch einen ausreichenden Kondensator (25 bis | 50 pF           | —                 |
| 1 Ve                                                                 | <250 V          | —                 |
| T Vee                                                                | <275 V          | PushPull          |

| CAPACITANCE                                       |                 |                  |
|---------------------------------------------------|-----------------|------------------|
| PARAMETER                                         | PUBLISHED VALUE | CONDITION / NOTE |
| tion der negativen Gitterspannung bei $V_a = [1]$ | 250 V           | —                |
| tion der negativen Gitterspannung bei $V_a = [2]$ | 275 V           | —                |

| OTHER                                     |                 |                  |
|-------------------------------------------|-----------------|------------------|
| PARAMETER                                 | PUBLISHED VALUE | CONDITION / NOTE |
| Anodenspannung . . . . . $V_a$            | 250 V           | OneTube          |
| Schirmgitterspannung. . . . . $V_2$       | 275 V           | OneTube          |
| Neg. Gittervorspannung . . . . . $F_{y1}$ | 14 V            | OneTube          |
| Anodenstrom . . . . . $I_a$               | 72 mA           | OneTube          |
| Schirmgitterstrom . . . . . $I_y$         | 7 mA            | OneTube          |
| Normale Steitheit . . . . . 8             | 8.5 mA/V        | OneTube          |
| $V_{ao} = \max [1]$                       | 550 V           | —                |
| $V_{ao} = \max [2]$                       | 90 mA           | —                |
| $a = \max [1]$                            | 250 V           | —                |
| $a = \max [2]$                            | 0.3 pA          | —                |
| $a = \max [3]$                            | 1.3 V           | —                |
| $W_a = \max$                              | 18 W            | —                |

| PARAMETER     | PUBLISHED VALUE | CONDITION / NOTE |
|---------------|-----------------|------------------|
| V2o = max     | 550 V           | —                |
| Va2 = max [1] | 275 V           | —                |
| Va2 = max [2] | 50 V            | —                |
| W2 = max,     | 3 W             | —                |

# TUBE TINKER

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and their source documents.

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