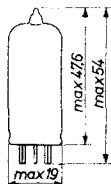
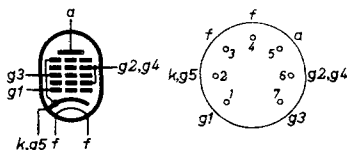


DUAL CONTROL HEPTODE for television service  
HEPTODE A DOUBLE COMMANDE pour le service de télévision  
DOPPELGESTEUERTE HEPTODE für Fernsehbetrieb

Heating : indirect by A.C. or D.C.  
series or parallel supply  
Chauffage: indirect par C.A. ou C.C.  
alimentation série ou parallèle  
Heizung : indirekt durch Wechsel-  
oder Gleichstrom; Serien-  
oder Parallelspeisung

$V_f = 6,3 \text{ V}$   
 $I_f = 300 \text{ mA}$

Dimensions in mm  
Dimensions en mm  
Abmessungen in mm



Base, culot, Sockel: MINIATURE

Capacitances  
Capacités  
Kapazitäten

|                               |   |         |
|-------------------------------|---|---------|
| $C_{ag1}$                     | < | 0,07 pF |
| $C_{ag3}$                     | < | 0,36 pF |
| $C_{g1- (k+f+g2+g3+g4+g5)}$   | = | 5,5 pF  |
| $C_{g3- (k+f+g1+g2+g4+g5)}$   | = | 7,0 pF  |
| $C_{a- (k+f+g1+g2+g3+g4+g5)}$ | = | 7,5 pF  |
| $C_{g1g3}$                    | < | 0,22 pF |

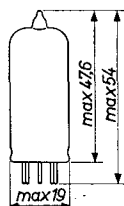
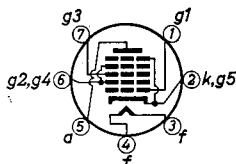
DUAL CONTROL HEPTODE for television service  
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$$V_f = 6,3 \text{ V}$$

$$I_f = 300 \text{ mA}$$

Dimensions in mm  
Dimensions en mm  
Abmessungen in mm



Base, culot, Sockel: MINIATURE

Capacitances  
Capacités  
Kapazitäten

|                                  |                     |
|----------------------------------|---------------------|
| $C_{g1}$                         | $< 0,07 \text{ pF}$ |
| $C_{g3}$                         | $< 0,36 \text{ pF}$ |
| $C_{g1-k} = (k+f+g2+g3+g4+g5)$   | $= 5,5 \text{ pF}$  |
| $C_{g3-k} = (k+f+g1+g2+g4+g5)$   | $= 7,0 \text{ pF}$  |
| $C_{a-f} = (k+f+g1+g2+g3+g4+g5)$ | $= 7,5 \text{ pF}$  |
| $C_{g1g3}$                       | $< 0,22 \text{ pF}$ |

Operating characteristics  
Caractéristiques d'utilisation  
Betriebsdaten

|                         |   |     |      |           |
|-------------------------|---|-----|------|-----------|
| $V_a$                   | = | 10  | 100  | 100 V     |
| $V_{g2+g4}$             | = | 30  | 30   | 30 V      |
| $V_{g1}$                | = | 0   | 0    | -1 V      |
| $V_{g3}$                | = | 0   | -1   | 0 V       |
| $I_a$                   | = | 1,2 | 0,8  | 0,75 mA   |
| $I_{g2+g4}$             | = | 4,1 | 4,0  | 1,1 mA    |
| $S_{g1}$                | = | -   | -    | 0,95 mA/V |
| $S_{g3}$                | = | -   | 1,25 | - mA/V    |
| $R_i$                   | = | -   | 0,7  | 1,0 MΩ    |
| $V_{g1} (I_a=50 \mu A)$ | = | -   | -    | -2,5 V    |
| $V_{g3} (I_a=50 \mu A)$ | = | -   | -2,2 | - V       |

Limiting values  
Caractéristiques limites  
Grenzdaten

|                                           |        |                     |
|-------------------------------------------|--------|---------------------|
| $V_{a0}$                                  | = max. | 550 V               |
| $V_a$                                     | = max. | 300 V               |
| $W_a$                                     | = max. | 1,0 W               |
| $V_{(g2+g4)0}$                            | = max. | 550 V               |
| $V_b(g2+g4)$                              | = max. | 300 V               |
| $V_{g2+g4}$                               | = max. | 100 V               |
| $W_{g2+g4}$                               | = max. | 1,0 W               |
| $I_k$                                     | = max. | 14 mA               |
| $R_{g1}$                                  | = max. | 0,47 MΩ             |
| $R_{g3}$                                  | = max. | 2,2 MΩ              |
| $R_{g3} (V_{g2+g4} \leq 30 V)$            | = max. | 5 MΩ                |
| $V_{kr} (k \text{ pos.}; f \text{ neg.})$ | = max. | 200 V               |
| $V_{kr} (k \text{ neg.}; f \text{ pos.})$ | = max. | 200 V <sup>1)</sup> |

<sup>1)</sup> D.C. component max. 100 V  
Composante C.C. 100 V au max.  
Gleichspannungsanteil max. 100 V

Operating characteristics  
 Caractéristiques d'utilisation  
 Betriebsdaten

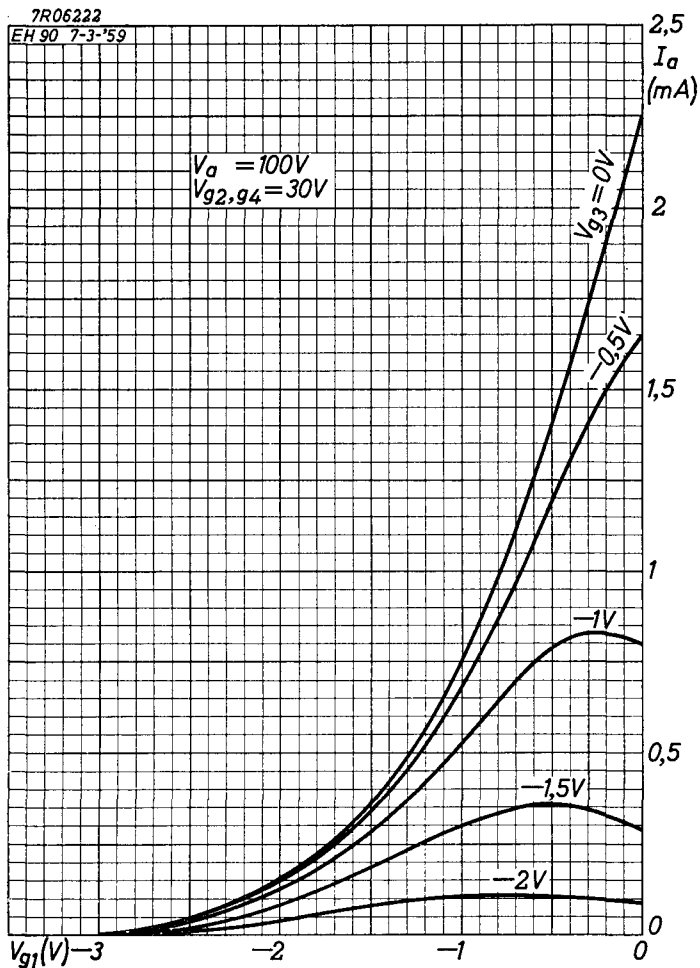
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|-----------------------------|---|-----|------|----------------|
| $V_a$                       | = | 10  | 100  | 100 V          |
| $V_{g2+g4}$                 | = | 30  | 30   | 30 V           |
| $V_{g1}$                    | = | 0   | 0    | -1 V           |
| $V_{g3}$                    | = | 0   | -1   | 0 V            |
| $I_a$                       | = | 2   | 0,8  | 0,75 mA        |
| $I_{g2+g4}$                 | = | 3,5 | 4,0  | 1,1 mA         |
| $S_{g1}$                    | = | -   | -    | 1,2 mA/V       |
| $S_{g3}$                    | = | -   | 1,55 | - mA/V         |
| $R_1$                       | = | -   | 0,4  | 0,9 M $\Omega$ |
| $V_{g1}$ ( $I_a=50 \mu A$ ) | = | -   | -    | -2,5 V         |
| $V_{g3}$ ( $I_a=50 \mu A$ ) | = | -   | -2,2 | - V            |

Limiting values  
 Caractéristiques limites  
 Grenzdaten

|                                   |        |                 |
|-----------------------------------|--------|-----------------|
| $V_{a0}$                          | = max. | 550 V           |
| $V_a$                             | = max. | 300 V           |
| $W_a$                             | = max. | 1,0 W           |
| $V_{(g2+g4)0}$                    | = max. | 550 V           |
| $V_{b(g2+g4)}$                    | = max. | 300 V           |
| $V_{g2+g4}$                       | = max. | 100 V           |
| $W_{g2+g4}$                       | = max. | 1,0 W           |
| $I_k$                             | = max. | 14 mA           |
| $R_{g1}$                          | = max. | 0,47 M $\Omega$ |
| $R_{g3}$                          | = max. | 2,2 M $\Omega$  |
| $R_{g3}$ ( $V_{g2+g4} \leq 30$ V) | = max. | 5 M $\Omega$    |
| $V_{kf}$ (k pos.; f neg.)         | = max. | 200 V           |
| $V_{kf}$ (k neg.; f pos.)         | = max. | 100 V           |

# PHILIPS

## EH 90



3.3.1959

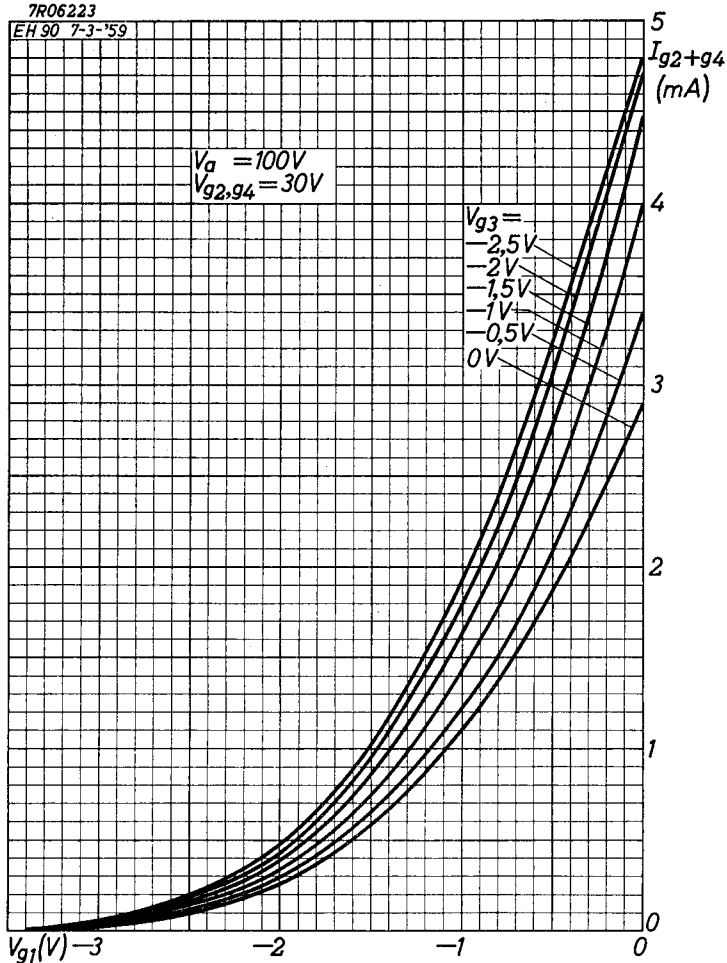
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# EH 90

# PHILIPS

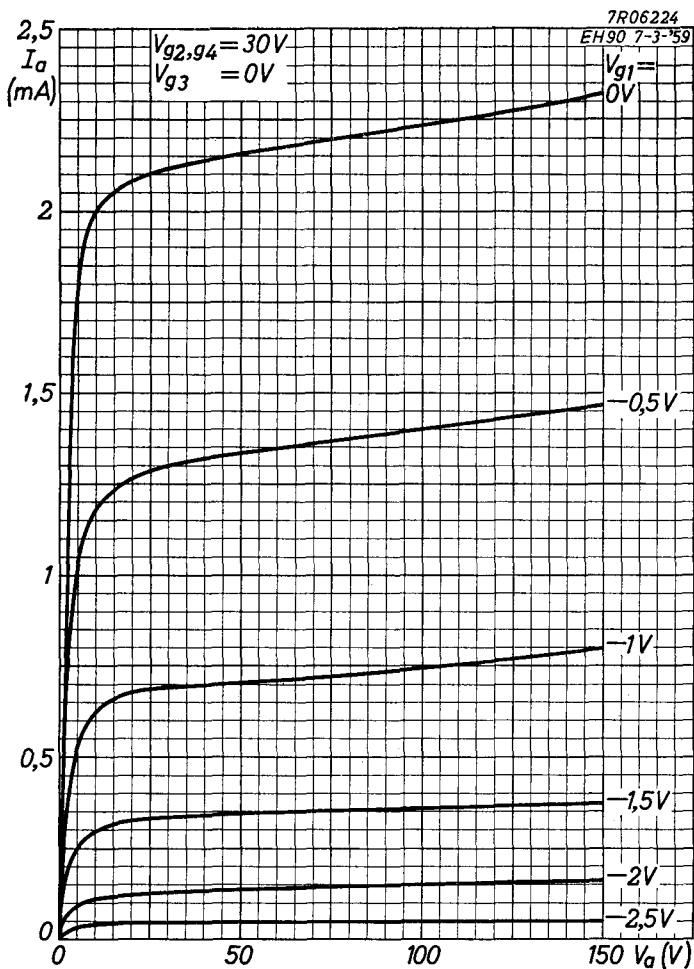
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EH 90 7-3-'59



# PHILIPS

## EH90



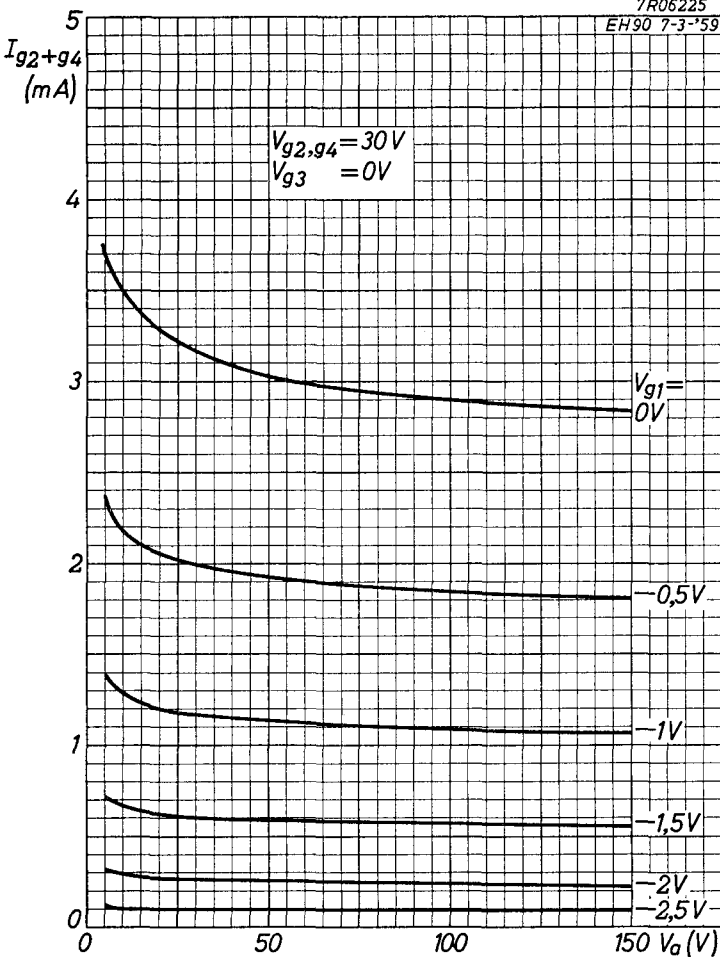
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C

**EH 90****PHILIPS**

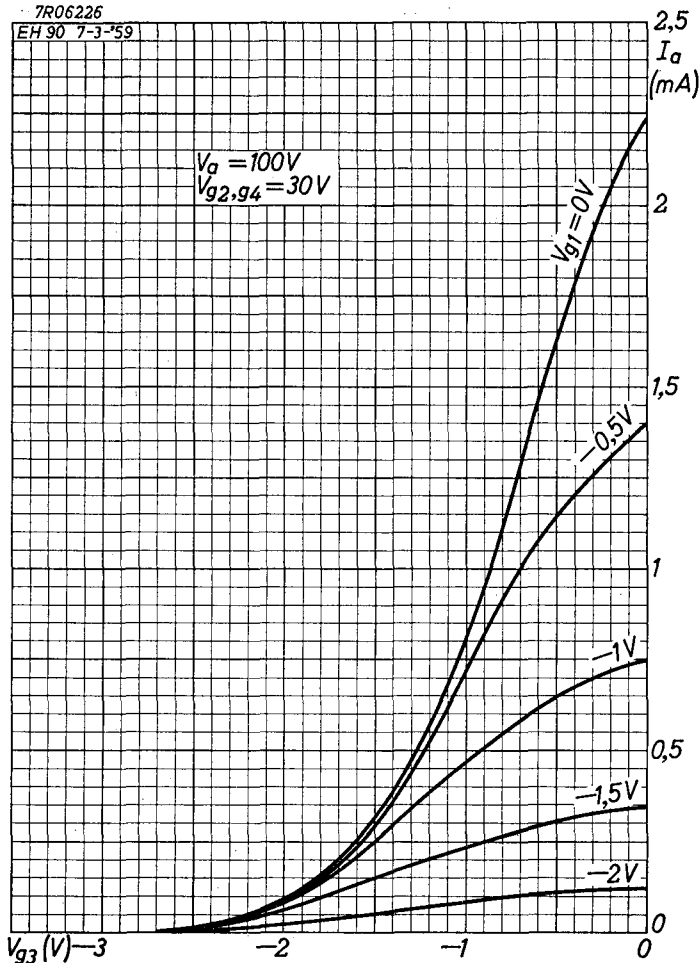
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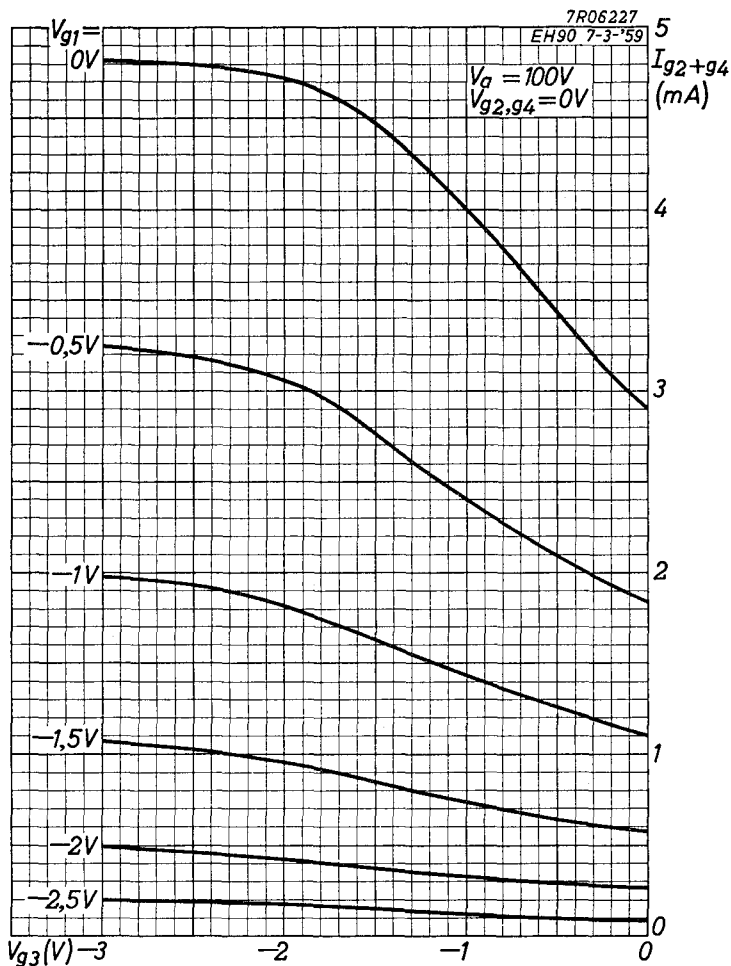
EH90 7-3-'59



7R06226

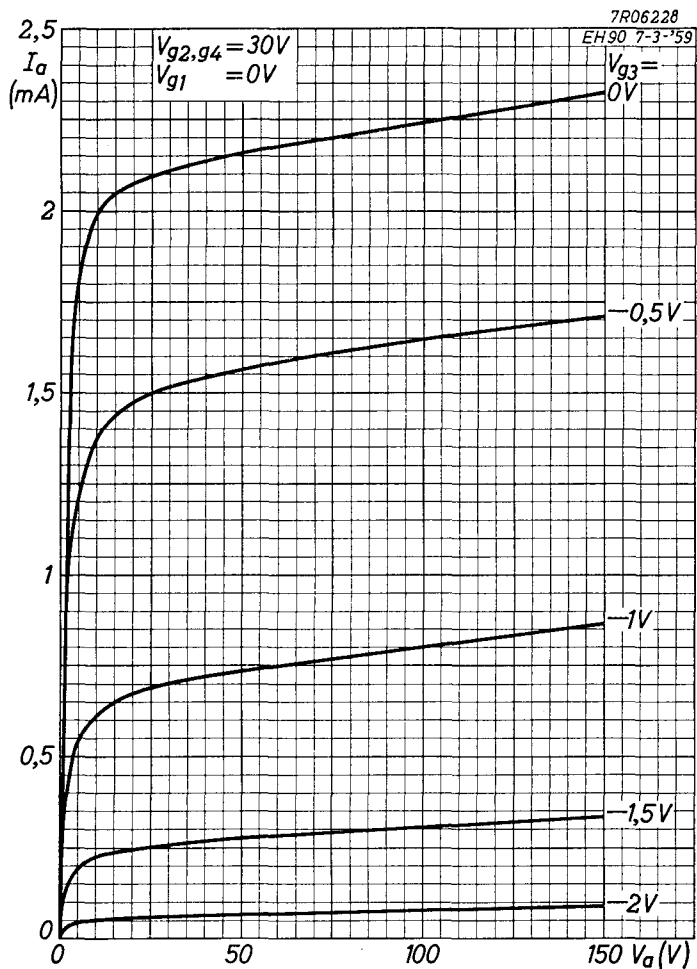
EH 90 7-3-59



**EH90****PHILIPS**

# PHILIPS

# EH90



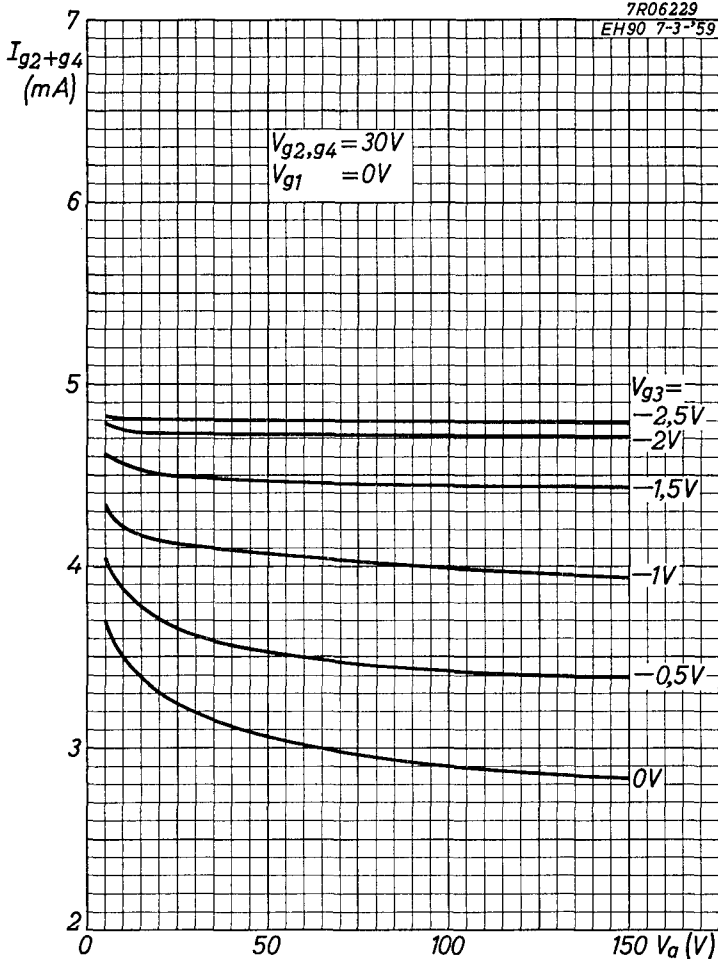
3.3.1959

G

**EH 90****PHILIPS**

7R06229

EH90 7-3-59





|             | <b>EH90</b>  |             |
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| 4           | 2            | 1959.03.03  |
| 5           | A            | 1959.03.03  |
| 6           | B            | 1959.03.03  |
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| 8           | D            | 1959.03.03  |
| 9           | E            | 1959.03.03  |
| 10          | F            | 1959.03.03  |
| 11          | G            | 1959.03.03  |
| 12          | H            | 1959.03.03  |
| 13          | FP           | 1999.07.04  |