



ELECTRONIC TUBE REFERENCE

DB1311

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Philips flat-face post-deflection-acceleration cathode-ray oscilloscope tube for oscillography, using electrostatic beam control. Manufacturer documentation provides screen, focusing and deflection, capacitance, sensitivity, rating, and operating data where published.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Cathode Ray*No fixed ratings recorded.**Electrostatic focusing/deflection CRT section; electrical/screen/deflection data retained in parameter rows.*

Flat-face post-deflection-acceleration cathode-ray oscilloscope tube for oscillography. Philips sheet provides electrostatic focusing/deflection, screen, capacitance and operating data.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V2

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V2

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Useful screen diameter min	114 mm	Useful screen diameter min. 114 mm
The useful scan may vertically be shifted max	3 mm	The useful scan may vertically be shifted max. 3 mm with
Cathode to all other electrodes CM = max	3.5 pF	Cathode to all other electrodes CM = max. 3.5 pF
Isolation shield voltage V_{c} max	4400 V	Isolation shield voltage V_{c} max. 4400 V
voltage V_{g}	4200 V	voltage $V_{\text{g}5}$ = max. 4200 V
Focusing electrode voltage V_{g}	2000 V	Focusing electrode voltage $V_{\text{g}3}$ = max. 2000 V
cathode positive $V_{\text{kf}}(\text{k pos})$ = max	200 V	cathode positive $V_{\text{kf}}(\text{k pos})$ = max. 200 V
cathode negative $V_{\text{kf}}(\text{k neg})$ = max	125 V	cathode negative $V_{\text{kf}}(\text{k neg})$ = max. 125 V
Cathode current I_{k} = max	1.5 mA	Cathode current I_{k} = max. 1.5 mA(RMS)

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage V_{g}	6.3 V	Heater voltage V_{g} = 6.3 V
Heater current I_{f}	300 mA	Heater current I_{f} = 0.3 A
Post accelerator voltage	24 kV	Post accelerator voltage = 24 kV
Grids No	4 kV	Grids No. 2 and 4 voltage $V_{\text{B}2\text{iB}4}$ = 4 kV
Beam current I_{J}	10 μA	Beam current I_{J} = 10 μA
Line width l.w	0.2 mm	Line width l.w. = 0.2 mm

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Post accelerator voltage Vg	24 kV	Post accelerator voltage Vg. = 24 kV
Isolation shield voltage	4000 V	Isolation shield voltage = 4000 V t)
Deflection plate shield voltage	200 V	Deflection plate shield voltage = 4000 ± 200 V 1)
Accelerator voltage VB	200 V	Accelerator voltage VB2,g4 = 4000 ± 200 V 1)
Focusing electrode voltage	1400 V	Focusing electrode voltage = 800 to 1400 V
Grid No	-192 V	Grid No.1 voltage V51 = -120 to -192 V 2)
Accelerator voltage yg	4200 V	Accelerator voltage yg2,g4 = 4200 V

TUBE TINKER

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and their source documents.

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