



ELECTRONIC TUBE REFERENCE

DB1378

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

SECTION1 Cathode Ray

No fixed ratings recorded.

Electrostatic focusing/deflection CRT section; electrical/screen/deflection data retained in parameter rows.

Flat-face post-deflection-acceleration high-sensitivity cathode-ray oscilloscope tube. The source provides CRT heater, focusing/deflection, capacitance, scan/sensitivity and operating data where published.

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Useful screen diameter	708 mm	Useful screen diameter 708 mm
Heater current If	300 mA	Heater current If = 0.3 A
Cathode to all other electrodes Ck	3.5 pF	Cathode to all other electrodes Ck = 3.5 pF
The post-accelerator helix is connected between	7 A	The post-accelerator helix is connected between 07 and 06
LINE WIDTH. measured on a circle of	30 mm	LINE WIDTH. measured on a circle of 30 mm diameter
Post accelerator voltage V	10 kV	Post accelerator voltage V67 = 10 kV
Beam current Ig	0.5 uA	Beam current Ig = 0.5 μA
Line width l.w	0.4 mm	Line width l.w. = 0.4 mm
Post accelerator voltage Vg	10 kV	Post accelerator voltage Vg7 = 10 kV
Accelerator voltage	85 V	Accelerator voltage = 1670 ± 85 V 1)
Focusing electrode voltage Vg	180–590 V	Focusing electrode voltage Vg3 = 180 to 590 V
Grid No	-50--80 V	Grid No.1 voltage Vg1 = -50 to -80 V 2)
Grid No	1 V	Grid No.1 voltage Vg1 = -50 to -80 V 2)
Post accelerator voltage_ Vg	6 kV	Post accelerator voltage_ Vg7 =min. 6 kV
Grid No	1 V	Grid No.1 voltage
Focusing voltage Vg	110–355 V	Focusing voltage Vg3 = 110 to 355 V per kV of V82.84
Grid No	30–48 V	Grid No.1 voltage 2) -V81 = 30 to 48 V per kV of
Grid No	1 V	Grid No.1 voltage 2) -V81 = 30 to 48 V per kV of

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Post-deflection acceleration present	1	Source explicitly describes post-deflection acceleration

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The useful scan may vertically be shifted max	3 mm	The useful scan may vertically be shifted max. 3 mm with
Focusing electrode voltage max	1500 V	Focusing electrode voltage max. 1500 V
cathode positive V _{kf} (k pos)= max	200 V	cathode positive V _{kf} (k pos)= max. 200 V
cathode negative V _{kf} (k neg)= max	125 V	cathode negative V _{kf} (k neg)= max. 125 V
Accelerator dissipation W _g	6 W	Accelerator dissipation W _{g2.84} = max. 6w


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips 0-D

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

1999 PHILIPS 0-D

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Accelerator voltage	12000 V	—
Minimum accelerator voltage	1000 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Useful vertical scan	40 mm	—
Useful horizontal scan	100 mm	—

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

