



ELECTRONIC TUBE REFERENCE

D1321YE

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Philips/Telefunken D-series cathode-ray instrument tube for oscillographic display; no manufacturer artifact is currently attached, so the description is limited to its supported instrument-CRT family.

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

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	108 mm	Useful screen diameter min. 108 mm
The useful scan may vertically be shifted max	3 mm	The useful scan may vertically be shifted max. 3 mm with
Isolation shield voltage Vg	2200 V	Isolation shield voltage Vg6 = max. 2200 V
voltage V	2100 V	voltage V85 = max. 2100 V
Second accelerator voltage Vg	2100 V	Second accelerator voltage Vg4 = max. 2100 V
Focusing electrode voltage V	1500 V	Focusing electrode voltage V83 = max. 1500 V
cathode positive Vkf(k pos) = max	200 V	cathode positive Vkf(k pos) = max. 200 V
cathode negative Vkf(k neg) = max	125 V	cathode negative Vkf(k neg) = max. 125 V
dissipation WB	6 W	dissipation WB2 = max. 6W
Screen dissipation = max	3 mW/cm2	Screen dissipation = max. 3 mW/cm2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage Vf	6.3 V	Heater voltage Vf = 6.3 V
Heater current If	300 mA	Heater current If = 0.3 A
Cathode to all other electrodes Ck	3.9 pF	Cathode to all other electrodes Ck = 3.9 pF
LINE WIDTH measured on a circle of	30 mm	LINE WIDTH measured on a circle of 30 mm diameter
Post accelerator voltage VB	10 kV	Post accelerator voltage VB7 10 kV
Grid No	1670 V	Grid No.4 voltage Vg4 1670 V
Beam current IQ	0.5 μA	Beam current IQ = 0.5 μA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Line width l.w	0.4 mm	Line width l.w. = 0.4 mm
Post accelerator voltage	10 kV	Post accelerator voltage = 10 kV
Isolation shield voltage	1670 V	Isolation shield voltage = 1670 V 1)
Deflection plate shield voltage	1670 V	Deflection plate shield voltage = 1670 V 1)
Second accelerator voltage	1670 V	Second accelerator voltage = 1670 V 1)
Focusing electrode voltage Vg	590 V	Focusing electrode voltage Vg3 = 180 to 590 V
First accelerator voltage Vg	1670 V	First accelerator voltage Vg2 = 1670v
Grid No	-80 V	Grid No.1 voltage Vg1 = -50 to -80 V 2)
Peak voltage between second	500 V	Peak voltage between second 500 V
Focusing voltage V	355 V	Focusing voltage V63 = 110 to 355 V per kV of Vg4
Grid No	48 V	Grid No.1 voltage 2) -V81 = 30 to 48 V per kV of Vg2