ELECTRONIC TUBE REFERENCE

D1319GH

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Philips or Telefunken D-series cathode-ray instrument tube designed for oscillographic and measurement display, with manufacturer-defined electrostatic beam control, deflection, screen, and accelerating characteristics for type D1319GH.

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 deflection, accelerator/focus/grid voltages, sensitivities and limiting values reviewed.

D1319GH is a Philips high-frequency high-writing-speed metal-backed oscilloscope CRT. The supplied datasheet provides electrostatic-deflection, focusing, acceleration, screen and operating characteristics.

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**
Heater voltage	**6.3 V**	Published heater rating
Heater current	**300 mA**	Published heater rating
Screen fluorescence	**Green**	Screen
Screen phosphorescence	**Green**	Screen
Screen persistence	**Medium short**	Screen
Useful screen diameter	**108 mm**	Minimum
Useful horizontal scan	**100 mm**	DisplayGeometry
Useful vertical scan	**60 mm**	DisplayGeometry
Horizontal deflection factor	**27 to 33 V/cm**	OscilloscopeCRT
Vertical deflection factor	**9.5 to 12.4 V/cm**	OscilloscopeCRT

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Post-accelerator voltage	**10 kV**	OscilloscopeCRT
Isolation-shield voltage	**1670 ± 167 V**	OscilloscopeCRT
Deflection-plate shield voltage	**1670 V**	OscilloscopeCRT
Second-accelerator voltage	**1670 ± 83 V**	OscilloscopeCRT
Focusing-electrode voltage	**320 to 500 V**	OscilloscopeCRT
First-accelerator voltage	**1670 V**	OscilloscopeCRT
Grid No.1 voltage	**-53 to -82 V**	OscilloscopeCRT
Maximum deflection-linearity deviation	**2 %**	OscilloscopeCRT

SOURCE OPERATING CONDITIONS

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

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater voltage	**6.3 V**	—
Heater current	**300 mA**	—
Horizontal deflection coefficient	**19.8 V/cm**	—
Vertical deflection coefficient	**7.1 V/cm**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Final/accelerator voltage	**10000 V**	—
Focusing electrode voltage	**320–500 V**	—
First accelerator voltage	**1670 V**	—

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid	**5.5 pF**	—
Cathode	**3.5 pF**	—
except	**3 pF**	—
except	**3 pF**	—
except	**3 pF**	—
except	**3 pF**	—
x1	**1.9 pF**	—
y1	**1 pF**	—

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