

ELECTRONIC TUBE REFERENCE

AL3110

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Thirty-one-centimeter radar cathode-ray tube with a metal-backed round screen, low-voltage electrostatic focusing, and magnetic deflection for direct-view radar display.

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.

CRT-specific electrical, optical, deflection, focusing, capacitance, and mechanical data are retained in TUBE_SECTION_PARAMETER because the locked promoted fields primarily target conventional electrode sections.

31 cm radar cathode-ray tube with metal-backed round screen, magnetic deflection, and low-voltage electrostatic focus.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1957 Philips Receiving and Amplifying Tubes

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

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 1 · Cathode Ray

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	300 mA	—
DeflectionMethod	Magnetic	—
FocusMethod	Electrostatic	LowVoltage



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

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen color	Orange	RadarCRT
Focusing	Electrostatic	RadarCRT
Deflection	Double magnetic	RadarCRT
Screen persistence	Long	RadarCRT

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen useful dimension	265 mm	RadarCRT
Final accelerator voltage	12 kV	RadarCRT
Grid No.2 voltage	300 V	RadarCRT
Heater voltage	6.3 V	RadarCRT
Heater current	300 mA	RadarCRT
Focusing grid voltage range	-200 to +200 V	RadarCRT
Grid No.1 extinction voltage	-30 to -70 V	RadarCRT



SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V3

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1963 PHILIPS ELECTRON TUBES HANDBOOK V3

Section 1 · Cathode Ray

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacitances $C_g <$	8 pF	Capacitances $C_g < 8$ pF
Grid capacitance	8 pF	Capacitances $C_g < 8$ pF
Grid capacitance	8 pF	Kapazitäten $C_g < 8$ pF

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
of focus voltage the limit of	200 V	of focus voltage the limit of -200 to +200 V is such
a voltage of at least	300 V	a voltage of at least -300 to +300 V will be required
Heater current	300 mA	rallele $I_f = 300$ mA
Useful screen diameter	265 mm	Nachleuchtdauer lang Useful diameter Diametre utile 265 mm Nutzbarer Durchmesser For curves of the screen properties s

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-grid voltage	300 V	V _{g2} = 300V
Control-grid voltage	-30 V	V _{g1} = -30/-70 V4)



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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	300 mA	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Useful screen diagonal/diameter	265 mm	—
Deflection method	Magnetic	—
Focusing method	Low-voltage electrostatic	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 capacitance maximum	8 pF	—
Cathode capacitance maximum	8 pF	—
External coating capacitance	1200 pF	—

TUBE TINKER

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

