

ELECTRONIC TUBE REFERENCE

MW312

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Philips/Mullard direct-view monochrome television picture tube with magnetic deflection and family-specific focusing and heater arrangements. Manufacturer documentation identifies receiver display service across the MW22 and MW31 picture-tube families.

GENERAL CHARACTERISTICS

BASE DESIGNATION	VII	BASE PINS	–
NOMINAL HEATER	4 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray
<i>No fixed ratings recorded.</i>
<i>Promoted only where a fixed schema field matched the source semantics; all other published operating, capacitance, CRT, converter, and output data are preserved in TUBE_SECTION_PARAMETER.</i>

White-screen cathode-ray tube for television receivers with double magnetic deflection and magnetic concentration.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Philips Miniwatt Vacuum Tube Catalog

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

1938 PHILIPS MINIWATT VACUUM TUBE CATALOG

Section 1 · Cathode Ray

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen phosphor color	White	CathodeRay
Deflection	Double magnetic	CathodeRay

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum screen diameter	310 mm	CathodeRay
Greatest overall length maximum	695 mm	CathodeRay
Greatest overall length minimum	660 mm	CathodeRay
Maximum third-anode voltage	6000 V	CathodeRay
Second-anode focusing	Magnetic concentration	CathodeRay
Maximum first-anode voltage	250 V	CathodeRay
Maximum grid bias for ray suppression	-60 V	CathodeRay
Operating third-anode voltage	5000 V	CathodeRay
Operating first-anode voltage	250 V	CathodeRay
Magnetic-concentration coil turns approximately	500 turns	CathodeRay
Concentration-coil center distance from lower edge of base	140 mm	CathodeRay
Deflection-coil center distance to screen	420 mm	CathodeRay

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Magnetic deflection sensitivity N1	1.8 mm/(cm·G)	CathodeRay
Magnetic deflection sensitivity N2	1.8 mm/(cm·G)	CathodeRay

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