



ELECTRONIC TUBE REFERENCE

M17220WE

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Very-high-resolution seventeen-centimeter flat CRT for photographic applications, using magnetic deflection and electrostatic focusing to produce a detailed image suitable for photographic recording.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B10-277	BASE PINS	10
NOMINAL HEATER	6.3 V / 240 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.

Very-high-resolution 17 cm flat cathode-ray tube for photographic applications

Very-high-resolution 17 cm flat cathode-ray tube for photographic applications. The Philips sheet specifies magnetic deflection, electrostatic focusing, heater data, screen and resolution characteristics, capacitances, recommended operating voltages, limiting values, and X-radiation limits where published.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Cathode Ray

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
VERY HIGH RESOLUTION FLAT CATHODE-RAY TUBE	17 cm	—
Face diagonal	17 cm	—
Neck diameter	28 mm	—
Overall length max	269 mm	—
Screen dimensions min [1]	124 mm	—
Screen dimensions min [2]	93 mm	—
approx	2500 TV lines	—
limited to a maximum of	20 μ A	—
diagonal min	155 mm	—
horizontal axis min	124 mm	—
QOverall length 262 f	7 mm	—
Neck diameter min	27.8 mm	—
Net mass approx	0.8 kg	—
Final accelerator contact connector	55663 A	—
at Vga(g) [1]	15 kV	—
at Vga(g) [2]	800 V	—
at Vga(g) [3]	3.06 kV	—
at Vga(g) [4]	2500 TV lines	—
1g	10 pA	—
Screen current tga(g) max	20 pA	—
at screen current	20 μ A	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
negative $-V_{g1}$ max	150 V	—
positive peak V_{g1p} max	2 V	—
positive V_{if} max	1256 V	—
negative $-V_{k\phi}$ max	1256 V	—
human eye, on a 312-lines non-interlaced raster with screen dimensions [1]	70 mm	—
human eye, on a 312-lines non-interlaced raster with screen dimensions [2]	70 mm	—
frequency 50 Hz and V_{gq}	15 kV	—
// anode contact	1 A	—
ant anode current of	50 pA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
final accelerator to external conductive coating $C_{g4(Q)/m}$	310 pF	—
cathode to all other elements C_k	28 pF	—
grid 1 to all other elements C_{g1}	6 pF	—
heater voltage V_s	63 V	—
heater current I_ϕ	240 mA	—
current at equilibrium conditions approx	5 s	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Final accelerator voltage $V_{ga(Q)}$	15 kV	—
Focusing electrode voltage V_{g3}	3.05 kV	—
Second accelerator voltage V_{92_2}	3.056 kV	—
Cut-off voltage for visual extinction of focused spot – V_{g1} 50t0	80 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
max	17 kV	—
Final accelerator voltage Vg4 min	13 kV	—
Focusing electrode voltage Vg3 max	32 kV	—
g min	2.9 kV	—
max	1.2 kV	—
First accelerator voltage Vgz min	6 kV	—
max	3.2 kV	—
Second accelerator voltage Vg2.2 min	2 kV	—

TUBE TINKER

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and their source documents.

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