



ELECTRONIC TUBE REFERENCE

L14150GH95

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Fourteen-centimeter Philips instrument CRT with electrostatic focusing and deflection, intended for precision oscilloscope/display service with documented storage/display, capacitance, operating-voltage, and deflection characteristics.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
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.**14 cm instrument cathode-ray tube*

14 cm instrument cathode-ray tube. The supplied Philips sheet specifies electrostatic focusing and deflection, storage/display characteristics, heater data, capacitances, operating voltages, deflection coefficients, and limiting values.

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
INSTRUMENT CATHODE-RAY TUBE	14 cm	—
Final accelerator voltage Vg10(9)	8.6 kV	—
Minimum useful scan area [1]	90 mm	—
Minimum useful scan area [2]	72 mm	—
horizontal My	9.5 V	—
Writing speed	2.5 div/μs	—
Useful screen area min [1]	90 mm	—
Useful screen area min [2]	72 mm	—
Useful scan area min [1]	90 mm	—
Useful scan area min [2]	72 mm	—
and vertical directions max	6 mm	—
Heater voltage Vg	63 V	—
Heater current If	240 mA	—
current at equilibrium conditions approx	5 s	—
Heater voltage VFGt	126 V	—
Heater current IFGf	240 mA	—
Overall length (socket included) <	452 mm	—
Faceplate dimensions (final accelerator contact excluded) 118+ [1]	0.5 mm	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Faceplate dimensions (final accelerator contact excluded) 118+ [2]	0.6 mm	—
Net mass ' approx	1.3 kg	—
- - T ;) i T' ref:.. line	280 %	—
T 7 2"	0 s	—
(1) Minimum cable length is	420 mm	—
{2) Minimum length of connecting leads is	350 mm	—
more than	3 mm	—
FGK sub-division	1.8 mm	—
line width	0.2 mm	—
dot diameter	0.4 mm	—
lal -a2 <	0.3 mm	—
910 (final accelerator)	100 ms	—
< [1]	500 ms	—
< [2]	600 ms	—
910 (final accelerator)	150 V	—
910 (final accelerator)	15 V	—
910 (final accelerator)	5 V	—
99 { backing electrode)	50 V	—
oV	-5 V	—
oV [1]	150 V	—
oV [2]	150 V	—
Vgg (col)	120 V	—
I & Ig7 3 {collimator) [1]	75 V	—
I & Ig7 3 {collimator) [2]	75 V	—
I & Ig7 3 {collimator)	140 V	—
I & Ig7 3 {collimator) [1]	100 V	—
I & Ig7 3 {collimator) [2]	100 V	—
\$	40 V	—
I & Ig7 3 {collimator) [1]	40 V	—
I & Ig7 3 {collimator) [2]	40 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
I & Ig7 3 {collimator)	90 V	—
I & Ig7 3 {collimator) [1]	30 V	—
I & Ig7 3 {collimator) [2]	30 V	—
I & Ig7 3 {collimator)	50 V	—
I & Ig7 3 {collimator) [1]	28 V	—
I & Ig7 3 {collimator) [2]	28 V	—
horizontal min	90 mm	—
vertical min	72 mm	—
Deflection coefficient	9.5 V	—
horizontal My max	10.56 V	—
Deflection coefficient	4.1 V	—
max	4.4 V	—
Line width at the centre of the screen Lw	0.35 mm	—
just black >	90 s	—
Storage viewing time	15 s	—
Grid drive for [1]	10 μ A	—
Grid drive for [2]	26 V	—
Grid drive for specified writing speed V4 max	45 V	—
at FGA [1]	28 V	—
at FGA [2]	1 mA	—
at FGA [1]	50 V	—
at FGA [2]	2 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
x1 to all other elements except x2 Cx1(x2)	55 pF	—
x2 to all other elements except x4 Cy2(x1)	55 pF	—
y1 to all other elements except y7 Cy1 {y2)	3.5 pF	—
y2 to all other elements except vy Cyz(y1)	3.6 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
X1 to x2 Cx1x2	25 pF	—
Y1 to y2 Cy1y2	2 pF	—
g1 to all other elements Cg1	6 pF	—
k to all other elements Ck	3.5 pF	—
g3 to all other elements Cg3	45 pF	—
g7-1 to all other elements Cq7-1	30 pF	—
g7-2 to all other elements Cg7_2	65 pF	—
g7-3 to all other elements Cq7-3	60 pF	—
gg to all other elements Cgg	60 pF	—
g10 to all other elements Cq10	80 pF	—
FGA to all other elements CrFGA	15 pF	—
FGK' to all other elements CEGK'	8 pF	—
FGK'' to all other elements CFGK''	8 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Final accelerator voltage Vg10(®)	8500 V	—
Geometry control electrode voltage Vge 1500 f	100 V	—
Deflection plate shield voltage Vg5	1500 V	—
Astigmatism control electrode voltage Vga 1500 f	50 V	—
Focusing electrode voltage Vg3 400 to	600 V	—
First accelerator voltage Vg2	1500 V	—
OPERATION l {static erasing pulses) l [1]	7000 V	—
OPERATION l {static erasing pulses) l [2]	7000 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Geometry control electrode voltage Vg6 max	2100 V	—
Deflection plate shield voltage Vg5 max	2000 V	—
min. 2000	1250 V	—
negative $-g/g1$ max	200 V	—
positive Vit max	125 V	—

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