

CHARACTERISTICS

GENERAL DATA

Focusing Method	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Electrostatic
Deflection Method	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Electrostatic
Types*	Fluorescence			Phosphorescence			Persistence													
3AQP1	Green			————			Medium													
3AQP2	Blue - Green			Green			Long													
3AQP7	Blue - White			Yellow			Long													
3AQP11	Blue			————			Short													
Faceplate	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Clear, Spherical

* In addition to the types shown, the 3AQP — can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	$0.6 \pm 10\%$ Ampere
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes	4.3 μf
Grid No. 1 to All Other Electrodes	7.5 μf
Between Deflecting Plates 1-2	5.2 μf
Between Deflecting Plates 3-4	7.0 μf
Deflecting Plate 1 to All Other Electrodes	10.1 μf
Deflecting Plate 2 to All Other Electrodes	7.5 μf
Deflecting Plate 3 to All Other Electrodes	8.1 μf
Deflecting Plate 4 to All Other Electrodes	9.2 μf

MECHANICAL DATA

Minimum Useful Screen Diameter	2 $\frac{3}{4}$ Inches
Base (Small Shell Duodecal 12-Pin)	B12-43
Basing	12E
Bulb	J24P1
Base Alignment	
D1-D2 Trace Aligns with Pin No. 4 and Tube Axis	± 10 Degrees
Positive Voltage on D1 deflects Beam approx. Toward Pin No. 4	
Positive Voltage on D3 deflects Beam approx. Toward Pin No. 1	
Angle Between D3-D4 and D1-D2 Traces	90 ± 1 Degree
Weight (approx.)	$\frac{1}{2}$ Pound

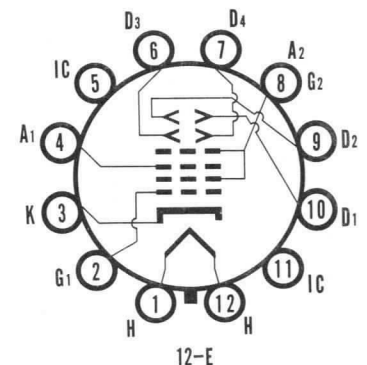
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 2 Voltage	3000 Volts	dc
Anode No. 2 Input	6.0 Watts	
Anode No. 1 Voltage (Focusing Electrode)	1200 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	220 Volts	dc
Positive Bias Value	0 Volts	dc
Positive Peak Value	2 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		
During Warm-up Period		
Not to Exceed 15 Seconds	450 Volts	
After Equipment Warm-up	140 Volts	
Heater Positive with Respect to Cathode	140 Volts	
Peak Voltage Between Anode No. 2 and		
Any Deflection Plate	600 Volts	

QUICK REFERENCE DATA

3" Direct Viewed
Round Glass Type
Electrostatic Deflection
Electrostatic Focus
Clear, Spherical
Faceplate
High Deflection
Sensitivity



SYLVANIA ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

PICTURE TUBE OPERATIONS
SENECA FALLS, NEW YORK

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

APRIL, 1960

PAGE 1 OF 2

File Under
SPECIAL AND GENERAL PURPOSE
CATHODE RAY TUBES

TYPICAL OPERATING CONDITIONS

Anode No. 2 Voltage ¹	2000 Volts dc
Anode No. 1 Voltage for Focus	330 to 620 Volts dc
Grid Voltage Required for Cutoff ²	-58 to -135 Volts dc
Deflection Factors	
Deflecting Plates 1-2 ³	146 to 198 Volts dc/Inch
Deflecting Plates 3-4 ⁴	52 to 70 Volts dc/Inch
Useful Scan	
D1-D2 ⁵	2 ³ / ₄ Inches Min
D3-D4 ⁵	2 ¹ / ₄ Inches Min
Spot Position (Undelected, Focused) ⁶	Within a 12 mm Square

CIRCUIT VALUES

Grid Circuit Resistance	1.5 Megohms Max.
Deflection Circuit Resistance ⁷	1.0 Megohms Max.

NOTES:

1. Operation of Type 3AQP7 at Anode Voltages of less than 1000 volts is not recommended.
2. Visual extinction of undeflected focused spot.
3. Deflecting Plates 1-2 are nearer the screen.
4. Deflecting Plates 3-4 are nearer the base.
5. Useful scan to be centered with respect to the tube face.
6. With the tube shielded and all deflection plates connected to Anode No. 2. Limit square centered on tube face, with sides parallel to deflection axes.
7. The resistances in each deflecting plate circuit should be approximately equal.

