

ELECTRONIC TUBE REFERENCE

# AF3648

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Rectangular radar cathode-ray tube with gray filter glass, metal-backed screen, low-voltage electrostatic focusing, and double magnetic deflection for specialized radar presentation.

## 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                                                                                                                                                                         |
| <p>No fixed ratings recorded.</p> <p>Rectangular radar cathode-ray tube with gray filter glass, metal-backed screen, low-voltage electrostatic focusing, and double magnetic deflection.</p> |

AF3648 is a CathodeRay device. Rectangular radar cathode-ray tube with gray filter glass, metal-backed screen, low-voltage electrostatic focusing, and double magnetic deflection.

## 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

| OTHER                           |                              |                  |
|---------------------------------|------------------------------|------------------|
| PARAMETER                       | PUBLISHED VALUE              | CONDITION / NOTE |
| Heater voltage                  | 6.3 V                        | —                |
| Heater current                  | 300 mA                       | —                |
| Screen color                    | Orange with orange afterglow | —                |
| Useful diagonal                 | 318— mm                      | Minimum          |
| Useful width                    | 288— mm                      | Minimum          |
| Useful height                   | 217— mm                      | Minimum          |
| Grids 3 and 5 voltage           | 14 kV                        | —                |
| Grid 4 voltage                  | -200–200 V                   | —                |
| Grid 2 voltage                  | 300 V                        | —                |
| Grid 1 cutoff voltage magnitude | 30–70 V                      | —                |

| CAPACITANCE                           |                 |                  |
|---------------------------------------|-----------------|------------------|
| PARAMETER                             | PUBLISHED VALUE | CONDITION / NOTE |
| Grid-1 capacitance                    | —8 pF           | Maximum          |
| Cathode capacitance                   | —8 pF           | Maximum          |
| Grid-3+5 to outer-coating capacitance | 1100 pF         | —                |

| CHARACTERISTIC |                 |                                                          |
|----------------|-----------------|----------------------------------------------------------|
| PARAMETER      | PUBLISHED VALUE | CONDITION / NOTE                                         |
| Resolution     | 650— lines      | Minimum; picture height 217mm; brightness 50 ft-lamberts |

## 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 | 318 mm          | —                |
| Deflection method               | Magnetic        | —                |
| Screen construction             | Metal-backed    | —                |

**CAPACITANCE**

| PARAMETER                     | PUBLISHED VALUE | CONDITION / NOTE |
|-------------------------------|-----------------|------------------|
| Grid No.1 capacitance maximum | 8 pF            | —                |
| Cathode capacitance maximum   | 8 pF            | —                |

**OTHER**

| PARAMETER         | PUBLISHED VALUE | CONDITION / NOTE |
|-------------------|-----------------|------------------|
| Grid No.2 voltage | 300 V           | —                |

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