



ELECTRONIC TUBE REFERENCE

PC31000

Power - Pentode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Directly heated oxide-filament transmitting pentode designed for high-power RF amplifier service. Its construction and ratings support substantial professional transmitter output.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12 V / 4 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	4.5
MAXIMUM PLATE VOLTAGE	3000 V
MAXIMUM SCREEN VOLTAGE	1000 V
MAXIMUM PLATE DISSIPATION	600 W
MAXIMUM SCREEN DISSIPATION	100 W
MAXIMUM CATHODE CURRENT	700 mA

Directly heated oxide-filament transmitting pentode for high-power RF amplifier service. The supplied Philips source was read for heater/filament data, ratings, characteristics, RF/television operating conditions, and capacitances 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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	3000 V	—
Maximum screen voltage	1000 V	—
Maximum plate dissipation	600 W	—
Maximum screen dissipation	100 W	—
Maximum cathode current	700 mA	—
Operating plate voltage	3000 V	ClassC;RFAmplifier
Operating screen voltage	600 V	ClassC;RFAmplifier
Operating plate current	350 mA	ClassC;RFAmplifier
RF output power	1100 W	ClassC;RFAmplifier
Efficiency	63 %	ClassC;RFAmplifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6000 μ S	—
Screen-grid amplification factor	4.5	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-cathode capacitance	20 pF	—
Grid-cathode capacitance	45 pF	—
Plate-grid capacitance	0.05 pF	—

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

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