



ELECTRONIC TUBE REFERENCE

TBW66000

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Philips water-cooled transmitting triode for television, AM, and FM broadcast transmitters. Rated around 6 kW dissipation, its useful operation to roughly 220 MHz suits substantial VHF broadcast service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12.6 V / 33 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.017 S
AMPLIFICATION FACTOR	32
MAXIMUM PLATE VOLTAGE	6000 V
MAXIMUM PLATE DISSIPATION	6000 W
MAXIMUM CATHODE CURRENT	1.5 A
<i>Published filament data, capacitances, typical characteristics, limiting values and RF operating conditions reviewed.</i>	

TBW66000 is a Philips water-cooled transmitting triode for television, AM and FM transmitters. Its datasheet specifies direct-filament operation, RF power ratings, cooling requirements, capacitances and representative operating conditions.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V4

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V4

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage	12.6 V	DirectlyHeated
Filament current	33 A	DirectlyHeated
Amplification factor	32	Published
Transconductance	17000 μ S	Published

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	6000 V	Published limit
Maximum plate dissipation	6000 W	Published limit
Maximum plate/cathode current	1.5 A	Published limit
Maximum operating frequency	220 MHz	RFService
Plate voltage	6000 V	75 MHz
Plate current	1.5 A	75 MHz
Plate input power	9 kW	75 MHz
Plate dissipation	2.1 kW	75 MHz
Power output	6.9 kW	75 MHz

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-cathode capacitance	0.3 pF	Published
Grid-to-plate capacitance	11 pF	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 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	12.6 V	—
Heater/filament current	33 A	—
Transconductance	17000 μ S	—
Amplification factor	32	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	6000 V	—
Maximum plate dissipation	5000 W	—
Maximum cathode current	1.5 A	—
Operating plate voltage	6000 V	ClassC;75MHz
Operating plate current	1.5 A	ClassC;75MHz
Output power	6900 W	ClassC;75MHz

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate/anode capacitance	0.3 pF	—
Grid capacitance	16 pF	—
Plate-grid capacitance	11 pF	—