



ELECTRONIC TUBE REFERENCE

TBL12100

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Very-high-power directly heated Philips transmitting triode for RF generation and amplification. Rated for approximately 30 kW plate dissipation and 10 kV plate voltage for demanding transmitter and industrial RF applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	17.5 V / 196 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.05 S
AMPLIFICATION FACTOR	27
MAXIMUM PLATE VOLTAGE	10000 V
MAXIMUM PLATE DISSIPATION	30000 W
MAXIMUM CATHODE CURRENT	10.5 A
<i>Published filament, capacitance, typical characteristics, limiting values and RF/AF operating tables reviewed.</i>	

TBL12100 is a Philips very-high-power transmitting triode. The supplied datasheet provides direct-filament data, RF/AF ratings, capacitances and high-power 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	17.5 V	DirectlyHeated
Filament current	196 A	DirectlyHeated

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	10000 V	Published limit
Maximum plate dissipation	30000 W	Published limit
Maximum cathode/plate current	10.5 A	Published limit
Maximum starting filament current	420 A	FilamentStarting
Maximum grid current	3.5 A	RFService
Maximum frequency	30 MHz	RFService
Plate input power	105 kW	RFService



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage	10000 V	—
Transconductance	50000 μS	—
Amplification factor	27	—
Anode capacitance	3.4 pF	—
Grid capacitance	116 pF	—
Anode-grid capacitance	86 pF	—
Maximum anode voltage	15000 V	—
Maximum anode dissipation	45000 W	—

TUBE TINKER

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and their source documents.

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