



ELECTRONIC TUBE REFERENCE

3CX10000A3

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Ceramic-metal industrial power triode designed for high-power RF amplifier, oscillator, or modulator service. Manufacturer data emphasize transmitting duty, substantial plate dissipation, and the cooling provisions required for continuous professional operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	7.5 V / 104 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	7000 V
MAXIMUM PLATE DISSIPATION	12000 W
MAXIMUM GRID DISSIPATION	250 W
MAXIMUM CATHODE CURRENT	4 A
<i>Single triode section; promoted values mapped from printed General Characteristics and Maximum Ratings headings.</i>	

The EIMAC 3CX10000A3 is a air-cooled medium-mu ceramic/metal power triode for industrial rf, fm, and linear-amplifier service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Eimac

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

1962 EIMAC

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The EIMAC [1]	3	The EIMAC 3CX10,000A3 is a ceramic and metal power triode intended
The EIMAC [2]	0	The EIMAC 3CX10,000A3 is a ceramic and metal power triode intended
Voltage - - - = = = = « - = - - - = ~	7.5	Voltage - - - = = = = « - = - - - = ~ 7.5 v
Current - = = = = - = [1]	9	Current - = = = = - = - - - - - 9 104 A
Current - = = = = - = [2]	104	Current - = = = = - = - - - - - 9 104 A
Amplification Factor	20	Amplification Factor - - - - - 20
Input [1]	48 pF	Input - - - - - 48 58 pF
Input [2]	58 pF	Input - - - - - 48 58 pF
Output - - - - - = = [1]	12 pF	Output - - - - - = = - - - - - 12 1.5 pF
Output - - - - - = = [2]	1.5 pF	Output - - - - - = = - - - - - 12 1.5 pF
Frequency for Maximum Ratings	140 MHz	Frequency for Maximum Ratings - - - - - - - - - - 140 MHz
D-C Plate Voltage [1]	6000	D-C Plate Voltage - - - - - 6000 7000 wvolts
D-C Plate Voltage [2]	7000	D-C Plate Voltage - - - - - 6000 7000 wvolts
D-C PLATE VOLTAGE [1]	7000 V	D-C PLATE VOLTAGE- - - 7000 VOLTS D-C Plate Current - - - - - 4.0 4.0 amps
D-C PLATE VOLTAGE [2]	4 V	D-C PLATE VOLTAGE- - - 7000 VOLTS D-C Plate Current - - - - - 4.0 4.0 amps
D-C PLATE VOLTAGE [3]	4 V	D-C PLATE VOLTAGE- - - 7000 VOLTS D-C Plate Current - - - - - 4.0 4.0 amps
D-C PLATE CURRENT [1]	4 A	D-C PLATE CURRENT- - - 4.0 AMPS D-C Grid Current - - - - - 610 670 mA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
D-C PLATE CURRENT [2]	610 A	D-C PLATE CURRENT- - - 4.0 AMPS D-C Grid Current - - - - - 610 670 mA
D-C PLATE CURRENT [3]	670 A	D-C PLATE CURRENT- - - 4.0 AMPS D-C Grid Current - - - - - 610 670 mA
PLATE DISSIPATION [1]	10 kW	PLATE DISSIPATION - - - 10 KW Plate Input Power - - e - - 24 28 kw
PLATE DISSIPATION [2]	24 kW	PLATE DISSIPATION - - - 10 KW Plate Input Power - - e - - 24 28 kw
PLATE DISSIPATION [3]	28 kW	PLATE DISSIPATION - - - 10 KW Plate Input Power - - e - - 24 28 kw
GRID DISSIPATION [1]	250 W	GRID DISSIPATION - - - - 250 WATTS Plate Qutput Power - - - - - 18,9 224 kW
GRID DISSIPATION [2]	189 W	GRID DISSIPATION - - - - 250 WATTS Plate Qutput Power - - - - - 18,9 224 kW


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Eimac Tube Manual

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

1965 EIMAC TUBE MANUAL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The Eimac [1]	3 W	The Eimac 3Cxlo, 000A3 is a ceramic and metal power triode in-
The Eimac [2]	0 W	The Eimac 3Cxlo, 000A3 is a ceramic and metal power triode in-
Voltage [1]	7 V	Voltage - 7. 5 volts
Voltage [2]	5 V	Voltage - 7. 5 volts
Grid-Filament	60	Grid-Filament 60 uuf
Grid-Plate	40	Grid-Plate - 40 uuf
Plate-Filament	2	Plate-Filament 2. O uuf
Anode Core	2500	Anode Core 2500c
Ceramic-to-Metal Seals	2500	Ceramic-to-Metal Seals 2500c

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
D-C Plate Voltage [1]	6000 V	D-C Plate Voltage 6000 7000 volts
D-C Plate Voltage [2]	7000 V	D-C Plate Voltage 6000 7000 volts
MAXIMUM RATINGS D-a Grid Voltage [1]	-575 V	MAXIMUM RATINGS D-a Grid Voltage -575 -670 volts
MAXIMUM RATINGS D-a Grid Voltage [2]	-670 V	MAXIMUM RATINGS D-a Grid Voltage -575 -670 volts
D-a PLATE VOLTAGE [1]	7 V	D-a PLATE VOLTAGE 7000 MJur. voLTs D-a Plate Current 4.0 4.0 amps
D-a PLATE VOLTAGE [2]	4 V	D-a PLATE VOLTAGE 7000 MJur. voLTs D-a Plate Current 4.0 4.0 amps
D-a PLATE VOLTAGE [3]	4 V	D-a PLATE VOLTAGE 7000 MJur. voLTs D-a Plate Current 4.0 4.0 amps
D-a PIATE CURRENT [1]	4 A	D-a PIATE CURRENT 4. 0 Mjex. AMps D-a Grid Current 610 670 rna
D-a PIATE CURRENT [2]	0 mA	D-a PIATE CURRENT 4. 0 Mjex. AMps D-a Grid Current 610 670 rna
D-a PIATE CURRENT [3]	610 A	D-a PIATE CURRENT 4. 0 Mjex. AMps D-a Grid Current 610 670 rna
D-a PIATE CURRENT [4]	670 A	D-a PIATE CURRENT 4. 0 Mjex. AMps D-a Grid Current 610 670 rna
pLATE DlsslPAtIoN lo Mjex. Kw Plate Input Power [1]	24 kW	pLATE DlsslPAtIoN lo Mjex. Kw Plate Input Power 24 28 kw
pLATE DlsslPAtIoN lo Mjex. Kw Plate Input Power [2]	28 kW	pLATE DlsslPAtIoN lo Mjex. Kw Plate Input Power 24 28 kw
GRID DISSIPATION [1]	250 kW	GRID DISSIPATION 250 MAX. WATTS Plate Output Power 18.9 22.4 kw
GRID DISSIPATION [2]	18.9 kW	GRID DISSIPATION 250 MAX. WATTS Plate Output Power 18.9 22.4 kw



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1975 Eimac Tube Manual

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

1975 EIMAC TUBE MANUAL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	20	—
Heater/filament voltage	7.5 V	—
Heater/filament current	99 A	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	7000 V	—
Maximum plate dissipation	10000 W	—
Maximum grid dissipation	250 W	—
Maximum cathode/plate current	4 A	—
Frequency for maximum ratings	140 MHz	—
Typical industrial oscillator plate voltage	7000 V	ClassC
Typical industrial oscillator output power	22400 W	ClassC

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-filament capacitance	48–58 pF	—
Output/plate-filament capacitance	1.2–1.5 pF	—
Feedback/grid-plate capacitance	30–38 pF	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling	Forced air	—



SOURCE DATA APPENDIX

1976 Eimac Tube Manual

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

1976 EIMAC TUBE MANUAL

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	20	—
Heater/filament voltage	7.5 V	—
Heater/filament current	99 A	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	7000 V	—
Maximum plate dissipation	10000 W	—
Maximum grid dissipation	250 W	—
Maximum cathode/plate current	4 A	—
Frequency for maximum ratings	140 MHz	—
Typical industrial oscillator plate voltage	7000 V	ClassC
Typical industrial oscillator output power	22400 W	ClassC

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input/grid-filament capacitance	48–58 pF	—
Output/plate-filament capacitance	1.2–1.5 pF	—
Feedback/grid-plate capacitance	30–38 pF	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling	Forced air	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

199X Svetlana

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

199X SVETLANA

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage 7.50 ±	0.37 V	General
Current @	7.5 V	General
Input	53 pF	General
Output	34 pF	General
Feedback	1.5 pF	General
Input	53 pF	General
Output	1.5 pF	General
Feedback	34 pF	General
Maximum frequency for full ratings (CW)	140 MHz	General

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC plate voltage	7000 V	Maximum Ratings D 48.16 49.17 1.896 1.936
DC plate current	5 A	Maximum Ratings D 48.16 49.17 1.896 1.936
Plate dissipation	12000 W	Maximum Ratings D 48.16 49.17 1.896 1.936
Grid dissipation	250 W	Maximum Ratings D 48.16 49.17 1.896 1.936
DC plate voltage 6000	7000 V	Typical Operation
Zero-signal DC plate current 0.5	500 mA	Typical Operation
Single-tone DC plate current 4.0	4 A	Typical Operation
Zero-signal DC grid voltage* -270	-325 V	Typical Operation

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Single-tone DC grid current* 0.3	250 mA	Typical Operation
Peak driving power 1950	2050 W	Typical Operation
Single-tone plate output power 18	20000 W	Typical Operation
DC plate voltage	7000 V	Maximum Ratings
DC plate current	4 A	Maximum Ratings
Plate dissipation	10000 W	Maximum Ratings
Grid dissipation	250 W	Maximum Ratings

TUBE TINKER

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

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker