



## ELECTRONIC TUBE REFERENCE

# 3CW5000A3

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

CONSOLIDATED TECHNICAL DATA

**1 SECTION**

CONSTRUCTION

**TRIODE**

Water-cooled ceramic-metal industrial power triode for high-power RF generation, amplification, or modulation. Its manufacturer ratings emphasize continuous transmitting duty with high plate dissipation and substantial power handling.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | —             |
| NOMINAL HEATER      | 7.5 V / 50 A      | PARALLEL HEATER      | — / —         |
| HEATING             | Direct            | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                                  |        |
|----------------------------------------------------------------------------------|--------|
| <b>SECTION 1</b> Triode                                                          |        |
| TRANSCONDUCTANCE                                                                 | 0.02 S |
| AMPLIFICATION FACTOR                                                             | 22     |
| MAXIMUM PLATE VOLTAGE                                                            | 6000 V |
| MAXIMUM PLATE DISSIPATION                                                        | 5000 W |
| MAXIMUM GRID DISSIPATION                                                         | 150 W  |
| MAXIMUM CATHODE CURRENT                                                          | 2.5 A  |
| <i>Promoted from printed general-characteristics and maximum-ratings blocks.</i> |        |

The Eimac 3CW5000A3/3CW5000A3 is a medium-mu water-cooled power triode for amplifier, oscillator, modulator, and RF power service.



## SOURCE OPERATING CONDITIONS

## 1962 Eimac

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

1962 EIMAC

## Section 1 · Triode

| CHARACTERISTIC       |                 |                  |
|----------------------|-----------------|------------------|
| PARAMETER            | PUBLISHED VALUE | CONDITION / NOTE |
| Amplification factor | 20              | —                |
| Transconductance     | 20000 $\mu$ S   | —                |

| OTHER                                       |                 |                  |
|---------------------------------------------|-----------------|------------------|
| PARAMETER                                   | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum DC plate voltage                    | 6000 V          | —                |
| Maximum plate dissipation                   | 5000 W          | —                |
| Representative maximum-signal plate current | 2.5 A           | —                |



## 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    | 22              | —                |
| Transconductance        | 20000 $\mu$ S   | —                |
| Heater/filament voltage | 7.5 V           | —                |
| Heater/filament current | 50 A            | —                |

| OTHER                               |                 |                  |
|-------------------------------------|-----------------|------------------|
| PARAMETER                           | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum plate voltage               | 6000 V          | —                |
| Maximum plate dissipation           | 5000 W          | —                |
| Maximum grid dissipation            | 150 W           | —                |
| Maximum cathode/plate current       | 3.2 A           | —                |
| Frequency for maximum ratings       | 110 MHz         | —                |
| Typical RF plate voltage            | 6000 V          | ClassC           |
| Typical AF max-signal plate current | 3 A             | ClassB           |

| CAPACITANCE                       |                 |                  |
|-----------------------------------|-----------------|------------------|
| PARAMETER                         | PUBLISHED VALUE | CONDITION / NOTE |
| Input/grid-filament capacitance   | 35–35 pF        | —                |
| Output/plate-filament capacitance | 0.9–0.9 pF      | —                |
| Feedback/grid-plate capacitance   | 20–20 pF        | —                |

| CONSTRUCTION |                      |                  |
|--------------|----------------------|------------------|
| PARAMETER    | PUBLISHED VALUE      | CONDITION / NOTE |
| Cooling      | Water and forced air | —                |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 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 | 22              | —                |

| PARAMETER               | PUBLISHED VALUE | CONDITION / NOTE |
|-------------------------|-----------------|------------------|
| Transconductance        | 20000 $\mu$ S   | —                |
| Heater/filament voltage | 7.5 V           | —                |
| Heater/filament current | 50 A            | —                |

| OTHER                               |                 |                  |
|-------------------------------------|-----------------|------------------|
| PARAMETER                           | PUBLISHED VALUE | CONDITION / NOTE |
| Maximum plate voltage               | 6000 V          | —                |
| Maximum plate dissipation           | 5000 W          | —                |
| Maximum grid dissipation            | 150 W           | —                |
| Maximum cathode/plate current       | 3.2 A           | —                |
| Frequency for maximum ratings       | 110 MHz         | —                |
| Typical RF plate voltage            | 6000 V          | ClassC           |
| Typical AF max-signal plate current | 3 A             | ClassB           |

| CAPACITANCE                       |                 |                  |
|-----------------------------------|-----------------|------------------|
| PARAMETER                         | PUBLISHED VALUE | CONDITION / NOTE |
| Input/grid-filament capacitance   | 35–35 pF        | —                |
| Output/plate-filament capacitance | 0.9–0.9 pF      | —                |
| Feedback/grid-plate capacitance   | 20–20 pF        | —                |

| CONSTRUCTION |                      |                  |
|--------------|----------------------|------------------|
| PARAMETER    | PUBLISHED VALUE      | CONDITION / NOTE |
| Cooling      | Water and forced air | —                |

## TUBE TINKER

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