



ELECTRONIC TUBE REFERENCE

220CA

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Forced-air-cooled high-power transmitting triode for RF service. Published data specify forced-air anode cooling, multi-kilowatt plate dissipation, and operation into the low-megahertz range for industrial transmitting applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	21.5 V / 41 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.005 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE DISSIPATION	5000 W
MAXIMUM CATHODE CURRENT	2.5 A
Promoted fields populated from explicitly published ratings/characteristics; service-specific data retained as parameters.	

The Western Electric 220CA is a triode listed in the supplied catalog table. It is a forced-air-cooled transmitting type intended for high-power RF service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 Western Electric Tubes

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

1956 WESTERN ELECTRIC TUBES

Section 1 · Triode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum/Typical Power Output	2200 W	Catalog-table value

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Dissipation	5000 W	Catalog-table value



SOURCE OPERATING CONDITIONS

1962 ITT

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

1962 ITT

Section 1 · Triode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Starting Current	82 A	—
Available Thermionic Emission	7 A	—
Grid-Plate Capacitance	23.5 pF	—
Grid-Filament Capacitance	17.5 pF	—
Plate-Filament Capacitance	1.6 pF	—
RF Frequency Full Rating Maximum	4 MHz	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Required Anode Airflow	600 cfm	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 ITT Industrial and Transmitting Tubes

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

1962 ITT INDUSTRIAL AND TRANSMITTING TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FilamentStartingCurrent	82 A	—
Peak Cathode Current	7 A	—
AnodeCoolingMethod	Forced Air	—
MaximumOperatingFrequency	4 MHz	—
Maximum Anode Dissipation	5000 W	Absolute maximum / applicable service

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GridPlateCapacitance	23.5 pF	—
GridFilamentCapacitance	17.5 pF	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1971 Machlette Laboratories

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

1971 MACHLETTE LABORATORIES

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
the ML	220	the ML-220CA is forced-air cooled and is capable of dis- exhausted by a straight-line, high-voltage process assuring the
peres apply at frequencics up to [1]	4 MHz	peres apply at frequencics up to 4 Mc; operation at 12 Mc is and super-voltage x-ray tubces,
peres apply at frequencics up to [2]	12 MHz	peres apply at frequencics up to 4 Mc; operation at 12 Mc is and super-voltage x-ray tubces,
permissible with plate voltage reduced to	5	permissible with plate voltage reduced to 5 kVde
Filament Current at	215 V	Filament Current at 21,5 volts e a1 amperes

TUBE TINKER

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