

# 4CW50,000E

The 4CW50,000E is characterized by low input and feedback capacitances and low internal lead inductances. A rugged mesh thoriated tungsten filament provides adequate emission over the long operating life. It is recommended for use as a Class C RF amplifier or oscillator, a Class AB RF linear amplifier, or a Class AB push-pull AF amplifier or modulator. The 4CW50,000E is also useful as a plate and screen-modulated Class C RF amplifier.



## CHARACTERISTICS

Plate Dissipation (Max.)	50,000 Watts
Screen Dissipation (Max.)	1,500 Watts
Grid Dissipation (Max.)	400 Watts
Frequency for Max. rating (CW)	110 MHz
Amplification Factor	4.5
Filament/Cathode	Thoriated Tungsten
Voltage	12.0 Volts
Current	215 Amps
Capacitance	Grounded Cathode
Input	310 pf
Output	52.0 pf
Feedthrough	0.7 pf
Capacitance	Grounded Grid
Input	140 pf
Output	52.0 pf
Feedthrough	0.3 pf
Cooling	Water and Forced Air
Base	Special Coaxial
Air Socket	SK-2011A
Air Chimney	---
Boiler	---
Length	11.50 in; 292.00 mm
Diameter	9.53 in; 242.00 mm
Weight	35.0 lb; 15.9 kg

Class of Operation	Type of Service	MAXIMUM RATINGS		TYPICAL OPERATION				
		Plate Voltage (Volts)	Plate Current (Amps)	Plate Voltage (Volts)	Screen Voltage (Volts)	Plate Current (Amps)	Drive Power (Watts)	Output Power (kiloWatts)
C	RF amplifier	17,500	12.0	15,000	1,500	11.5	150	137.0
C	RF amplifier plate modulated	15,000	12.0	14,000	750	9.2	685	110.0
AB1	RF linear amplifier	17,500	12.0	10,000	1,800	9.1	---	57.0
AB1	AF linear amplifier	17,500	12.0	15,000	1,250	18.6	---	195.0

The values listed above represent specified limits for the product and are subject to change. The data should be used for basic information only. Formal, controlled specifications may be obtained from CPI for use in equipment design.



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