

December 15, 1959

HIGH VACUUM AMPLIFIER TYPE WL-7463

The WL-7463 is a three-electrode tube designed for use as an oscillator or amplifier. The anode is forced air and is capable of dissipating 12 kilowatts. The cathode is a single phase thoriated tungsten filament. Maximum ratings apply up to 60 megacycles.

Electrical:

Filament	6.0	Volts
Filament Current	70	Amperes
Amplification Factor	33	
Direct Interelectrode Capacitances:		
Grid to Plate	14	$\mu\mu\text{f}$
Grid to Filament	30	$\mu\mu\text{f}$
Plate to Filament	.5	$\mu\mu\text{f}$

Mechanical:

Mounting Position Δ	Vertical, Anode Down			
Type of Cooling	Forced Air			
Required Air Flow Through Radiator:				
Plate Dissipation	8	10	12	KW
Air Flow	550	850	1100	CFM
Static Back Pressure	0.4	0.9	1.4	In. Water
Required Air Flow to Filament and				
Grid Seals $\oplus$				30 CFM
Maximum Bulb Temperature	180			$^{\circ}$ C
Net Weight (Approx.)	36			Lbs.

CLASS C TELEGRAPHY

(Key down without modulation)

Maximum Ratings:

Absolute Maximum Values

DC Plate Voltage	12,000 max.	Volts
DC Plate Current	2.5 max.	Amperes
DC Grid Voltage	-1200 max.	Volts
DC Grid Current	.75 max.	Amperes
Plate Input	24 max.	Kilowatts
Plate Dissipation	12 max.	Kilowatts

Typical Operating Characteristics:

DC Plate Voltage	9000	10,000	12,000	Volts
DC Grid Voltage	-600	-700	-800	Volts
Peak R.F. Grid Voltage	960	1,100	1,200	Volts
DC Plate Current	1.97	1.96	1.94	Amp
DC Grid Current	0.45	0.42	0.39	Amp
Peak R.F. Plate Voltage	8000	9,000	11,000	Volts
Driving Power $\dagger$	414	441	445	Watts
Power Output	14.1	15.9	19.3	Kilowatts
Power Input	17.8	19.6	23.3	Kilowatts

CLASS B AUDIO FREQUENCY AMPLIFIER OR MODULATOR

Maximum Ratings (Per Tube)

Absolute Maximum Values

DC Plate Voltage	12,000 max.	volts
DC Plate Current (max. signal)	2.50 max.	amperes
DC Grid Current (max. signal)	0.50 max.	amperes
Plate Input	26.0 max.	kilowatts
Plate Dissipation	12.0 max.	kilowatts

Typical Operating Characteristics:

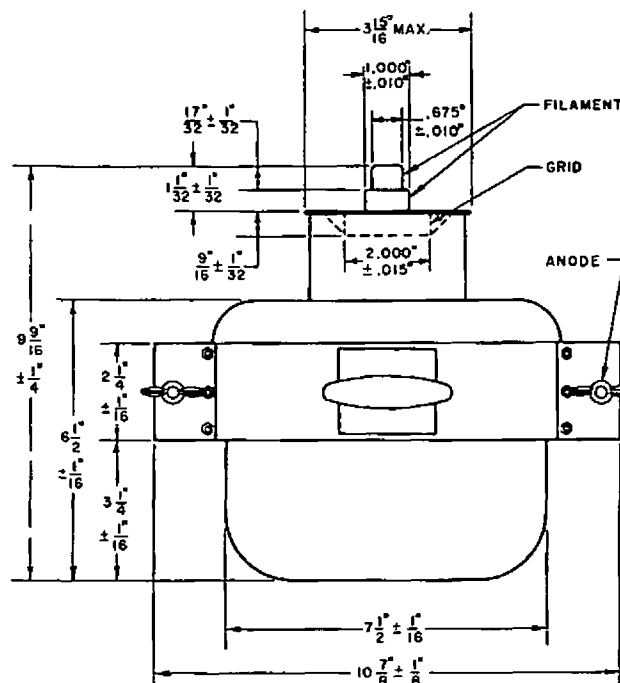
(Values are for two tubes)

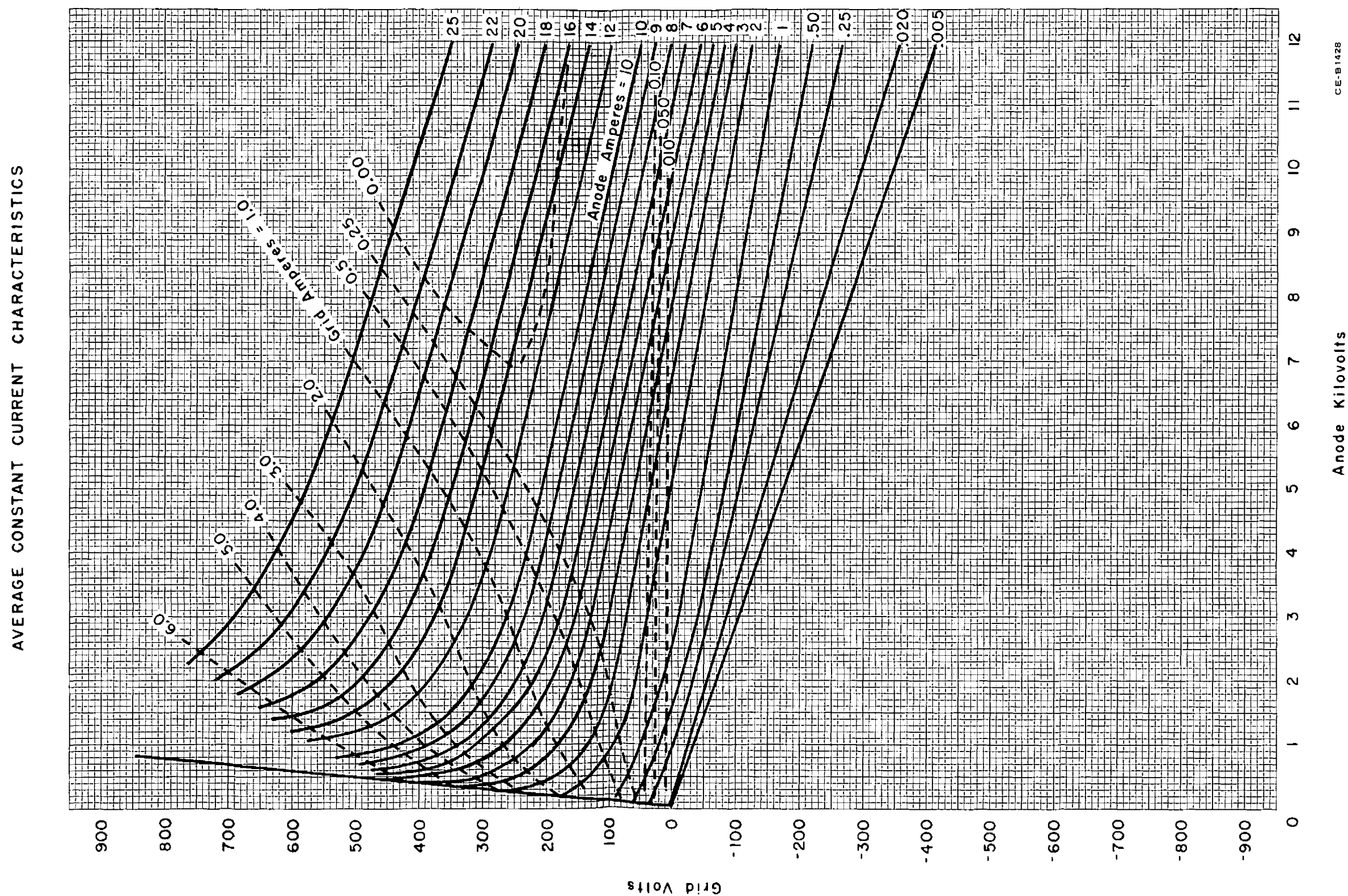
DC Plate Voltage	5500	10,500	volts
DC Plate Current (max. signal)	3.95	4.0	amperes
Plate Current, Zero-Signal	.80	0.200	amperes
Grid to Grid Peak A.F.	680	1030	volts
DC Grid Voltage	-100	-300	volts
Driving Power (max. signal)	185	150	watts
Power Output	13.2	27.0	kilowatts
Power Input	21.7	42.0	kilowatts
Plate Load (plate to plate)	2780	5600	ohms
Distortion-Harmonic (Approx.)	4.8	3	percent
Peak R.F. Plate Voltage	4300	8820	volts

$\dagger$ Allowance must be made for grid circuit losses which are not included.

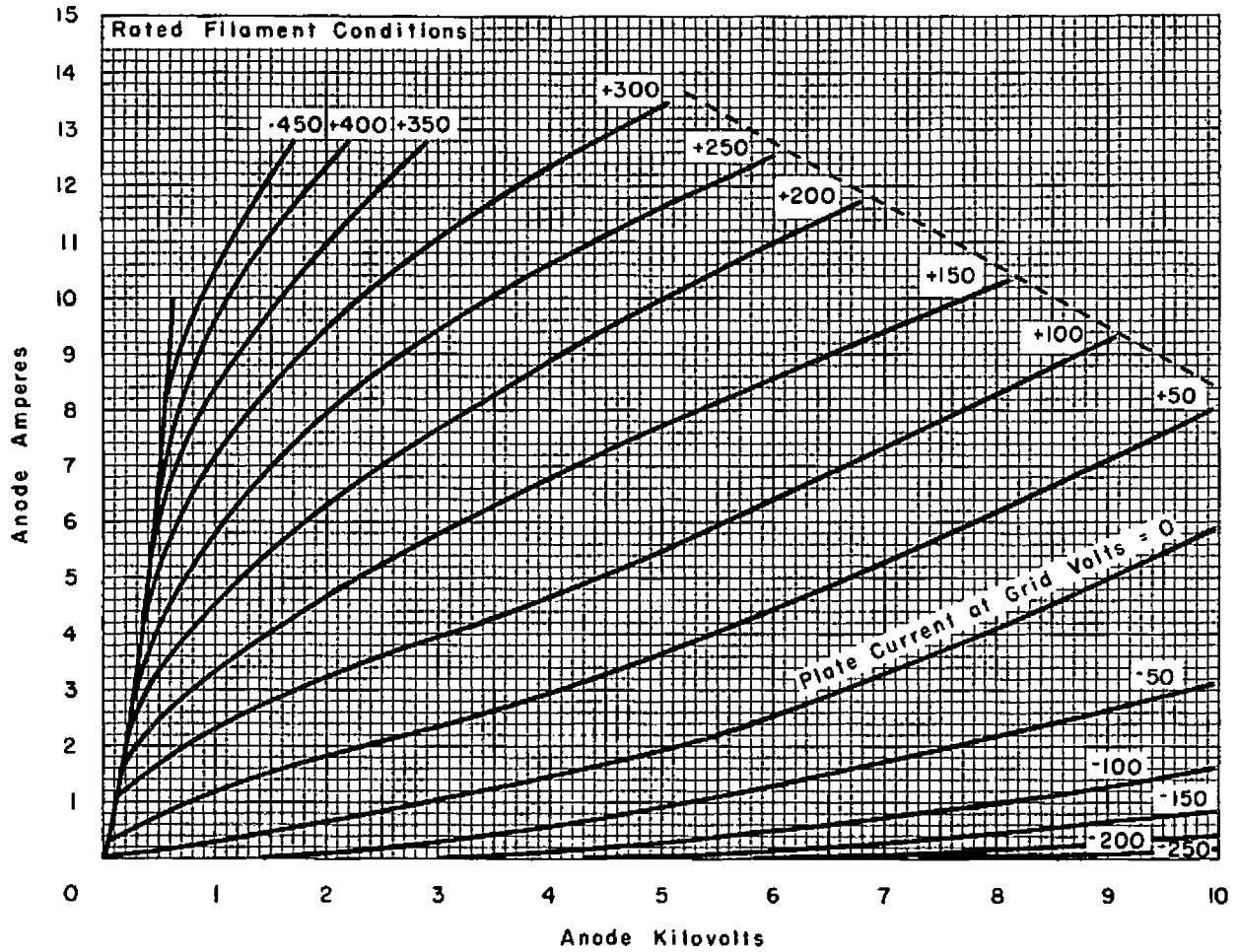
Δ Connectors for WL-7463 are available from Westinghouse.

$\oplus$ A portion of the air flowing through the radiator may be deflected to provide cooling of the filament and grid seals.





AVERAGE PLATE CHARACTERISTICS



CE-A1429