

GENERAL ELECTRIC

Transmitting Tube GL-862 - - Description and Rating

TECHNICAL INFORMATION

The GL-862 is a three-electrode power tube designed for use as a radio-frequency amplifier, oscillator, or Class B modulator. The plate is water-cooled and is capable of dissipating 50 to 100 kw, depending upon the class of service in which the tube is operated.

CHARACTERISTICS AND RATINGS

Filament Voltage	33	Volts
Filament Current	207	Amperes
Amplification Factor	48	
Grid-plate Transconductance, $I_b = 3.0$	17200	Micromhos
Direct Interelectrode Capacitances:		
Grid-plate	75	μmf
Input	52	μmf
Output	2	μmf
Frequency for Maximum Ratings	1.6	Megacycle
Type of Cooling	Water	
Net Weight (approx)	30	Pounds

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

CLASS B A-F POWER AMPLIFIER (TWO TUBES):

D-c Plate Voltage	12000	15000 max	Volts
Maximum Signal Plate Current (per tube)*		7.5 max	Amperes
D-c Maximum Signal Plate Input (per tube)*		100 max	Kilowatts
Plate Dissipation (per tube)*		50 max	Kilowatts
D-c Grid Voltage	0		Volts
Peak A-f Grid Input Voltage	2000		Volts
Zero Signal Plate Current	3		Amperes
Maximum Signal Plate Current	13		Amperes
Maximum Signal Plate Input*	156		Watts
Maximum Signal Driving Power (approx)	450		Watts
Effective Load Resistance (plate-to-plate)	1800		Ohms
Maximum Signal Plate Power Output	90		Kilowatts

CLASS B R-F POWER AMPLIFIER:

Carrier conditions per tube for use with a maximum modulation factor of 1.0

D-c Plate Voltage	12000	15000	18000	20000 max	Volts
D-c Grid Voltage	-100	-150	-200		Volts
D-c Plate Current	2.8	3.5	4.2	5.0	Amperes
Plate Input				100 max	Kilowatts
Plate Dissipation				75 max	Kilowatts
Peak R-f Grid Input Voltage	500	625	750		Volts
Driving Power (approx)**	0.5	0.75	1.1		Kilowatt
Plate Power Output	11	17.5	25		Kilowatts

CLASS C R-F POWER AMPLIFIER AND OSCILLATOR - PLATE-MODULATED:

Carrier conditions per tube for use with a maximum modulation factor of 1.0

D-c Plate Voltage	8000	10000	12000	12000 max	Volts
D-c Grid Voltage	-700	-750	-800	-3000 max	Volts
D-c Plate Current	4	4.5	5	5.0 max	Amperes
D-c Grid Current (approx)	1	1	1	1.25 max	Ampere
Plate Input				60 max	Kilowatts
Plate Dissipation				50 max	Kilowatts
Peak R-f Grid Input Voltage (approx)	1700	1850	2000		Volts
Driving Power (approx)	1.7	1.85	2		Kilowatts
Plate Power Output	24	34	45		Kilowatts

SUPPLEMENT TO GET-919 DESCRIPTION AND RATING SHEET FOR
TRANSMITTING TUBE GL-862

GENERAL CHARACTERISTICS

MECHANICAL

Gasket, Cat. No. 5182028P1	
Type of Cooling	Water and Forced Air
Water Flow, gallons per minute	15-25
Air Flow, cubic feet per minute	
To Bulb	15
To Stem	3
Shipping Weight, lb approx	175
Installation and Operation	GEH-1152

APPLICATION NOTES

Plate Series Protective Resistors (see paragraph describing plate circuit under Installation in the Instructions).

Series Resistor, ohms	10	20	40	50
Maximum Power Output of Rectifier, kilowatts	100	250	640	1600