

Klystron – Linear Accelerator Amplifier

L5822

The L5822 is a fixed tuned, S-band, cathode pulsed klystron amplifier that may be used in high energy linear accelerator systems. Peak output power exceeds 5.5 megawatts at 0.1% duty. For a lower price and with a reduced warranty a rebuild of our tube, product number L5822-90, is also available.

Specifications

Performance	Mode 1	Mode 2
Frequency.....	2856.....	2856
Peak Output Power (min, MW).....	5.5.....	3.0
Beam Voltage (max, kV).....	127.....	110
Beam Current (max, A).....	92.....	72
Drive Power (max, W).....	200.....	200
Drive Power (min, W).....	55.....	60
Duty (RF, %).....	0.104.....	0.208
Beam Pulse Width (typical, μ s).....	5.8.....	5.8
Beam Pulse Width (max, μ s).....	9.0.....	9.0
Heater Volts (V_{rms}).....	7.5.....	7.5
Heater Current (A_{rms}).....	30 \pm 3.....	30 \pm 3
Ion Pump Voltage (min, kV).....	3.0.....	3.0
Solenoid Voltage (max, Vdc).....	108.....	108
Solenoid Current (Adc).....	35 \pm 1.....	35 \pm 1

Operational Requirements

Coolant, Water	
Inlet Temperature.....	35 \pm 15 $^{\circ}$ C
Body-Collector Flow Rate (min, GPM).....	5.0
Body-Collector Pressure Drop @5 GPM (max, PSI) ..	15.0
Solenoid Flow Rate (min, GPM).....	3.0
Solenoid Pressure Drop @ 3 GPM (max, PSI).....	15.0
Oil Bath Temperature (max).....	60 $^{\circ}$ C
Waveguide Pressurization Gas.....	SF ₆ or Freon 12
Waveguide Pressure (PSIG).....	35 \pm 10

Mechanical Characteristics

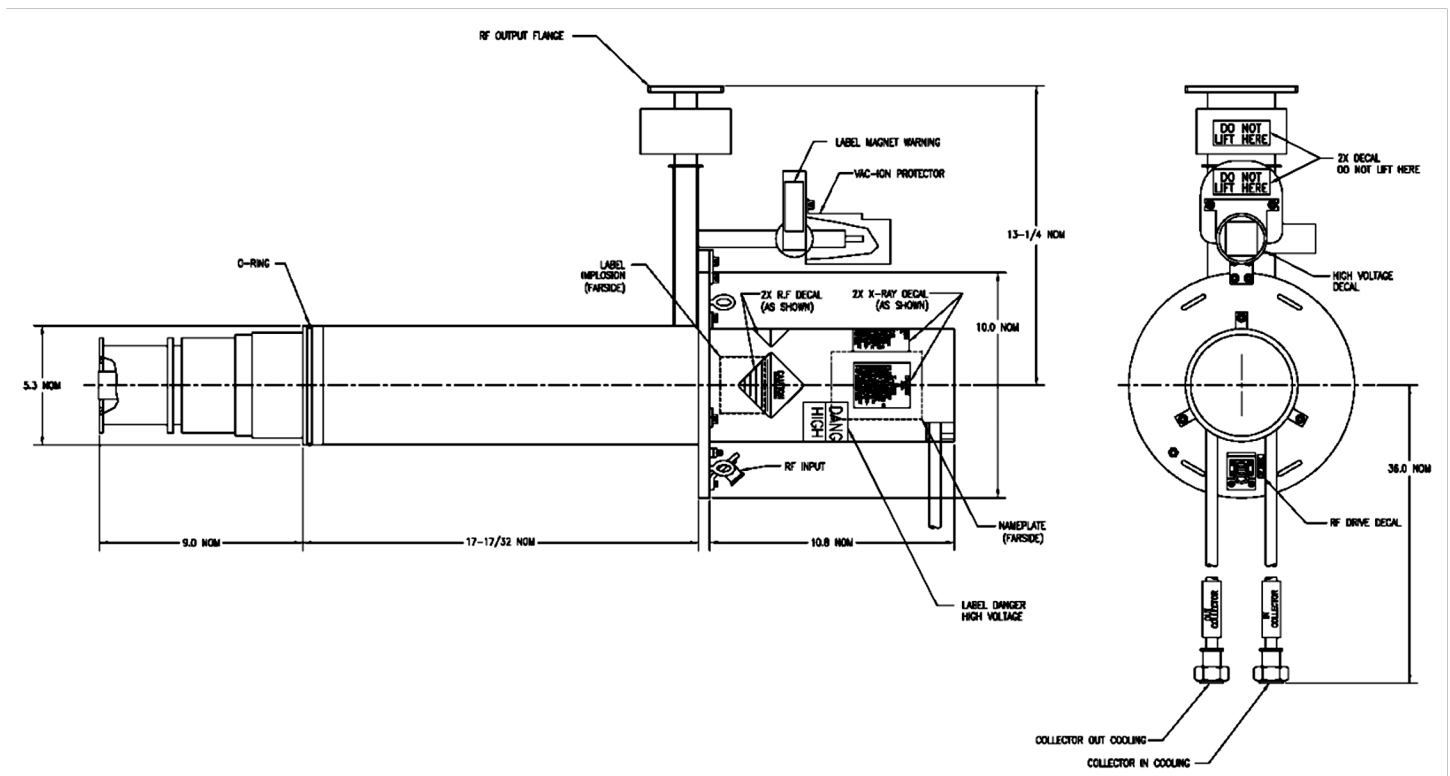
Physical Dimensions (typical, inches).....	38 x 10 x 18.25
Weight (max, pounds).....	120
Focusing Solenoid.....	per 444923-JA
Focusing Solenoid Weight (max, pounds).....	360
Mounting Position.....	Vertical, Collector up
RF Input Connector.....	Coaxial, type-N female
RF Output Waveguide.....	WR-284



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Outline Drawing

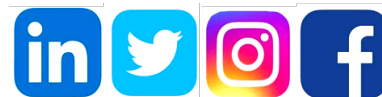


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