

3kW Microwave Generator, Fixed Output, WR284

GERLING

Model GA4301
Model GA4304

The GA4301 and GA4304 Microwave Generators are designed to deliver nominally 3kW of microwave power for use in industrial heating applications. Microwave output power from the GA4301 is fixed at 3kW, while the GA4304 is capable of operating at user-selectable nominal output power levels of 1.5kW and 3kW.

The magnetron power supply is a typical "full wave doubler" type which provides output regulation by means of a high leakage reactance HV transformer. Microwave power is delivered in pulses at a rate equal to the line frequency when operating at half power (GA4304 only) and twice the line frequency at full power operation.

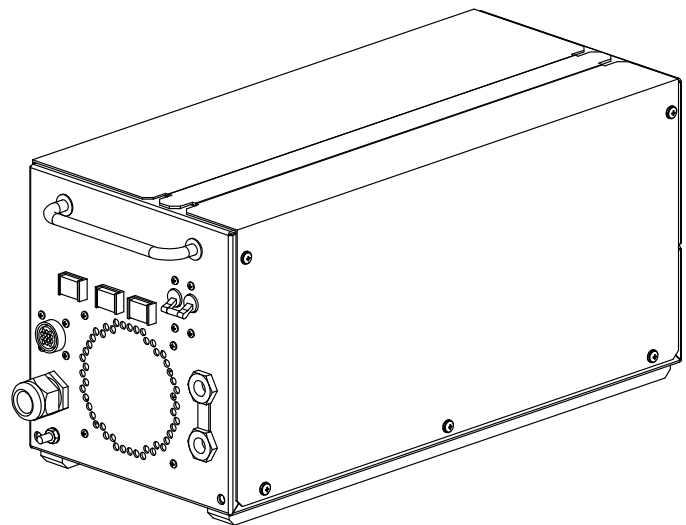
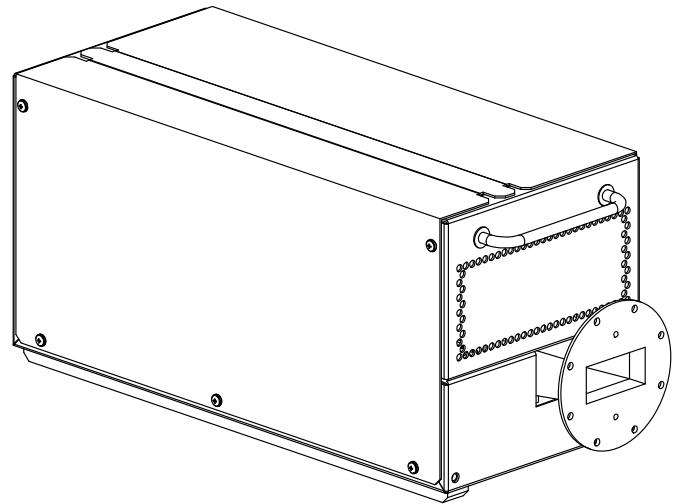
The magnetron, power supply and controls of the GA4301 and GA4304 are fully integrated into a single compact, robust cabinet. All controls necessary for local operation of both models are provided on the rear panel of the generator cabinet. Connections for full remote control are also provided along with mating connectors.

Serviceability was a key factor in the GA4301 and GA4304 design. Removal and replacement of the internal magnetron can be done in less than fifteen minutes using standard tools. Replacement magnetrons are available from multiple stocking distributors, thus ensuring a reliable supply of spares. Also featured is the popular WR284 Q-D (quick-disconnect) round flange that uses the convenient single screw clamp (GAE model GA8410) for waveguide connections.

The heavy steel enclosure provides rugged durability while multiple safety interlocks meet compliance requirements. Protective base runners enable bench-top use while conveniently located mounting holes facilitate integration into process systems.

General Specifications

Output Power	GA4301: 3kW fixed GA4304: 3kW and 1.5kW, fixed
Magnetron	Panasonic 2M265
Output Waveguide	WR284
Output Flange	UG-584/U with taper for quick-release clamp
Frequency	2450 MHz +/- 30 MHz
Duty Cycle	0-100% (1 sec. min. pulse width)
Regulation	+/-2% change in output power for +/- 10% change in line voltage
Cooling Water	0.5 gpm, 35°C max inlet temp (dew point minimum inlet temp), 70 psig max inlet pressure
Input Power	200-240 VAC, 60 Hz, 1-ph, 30 A
Interlocks	Access covers; Water Flow; Magnetron temp; External device
Weight	105 lbs.



Controls

Function	Local	Remote
System On/Off	x	
Mw Start/Stop	x	x
System On indicator	x	x
Mw On indicator	x	x
Hi/Lo Select (GA4304 only)	x	x
Hi/Lo Indicator (GA4304 only)	x	x

Options

- ◆ 50 Hz input line power
- ◆ WR340 output waveguide and flange



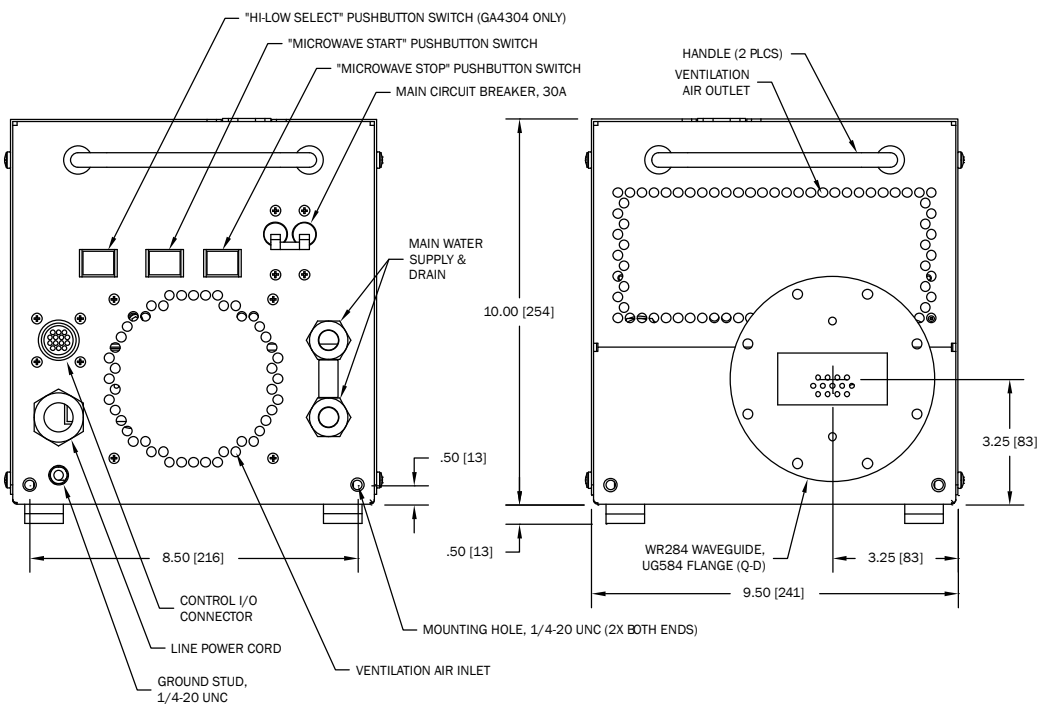
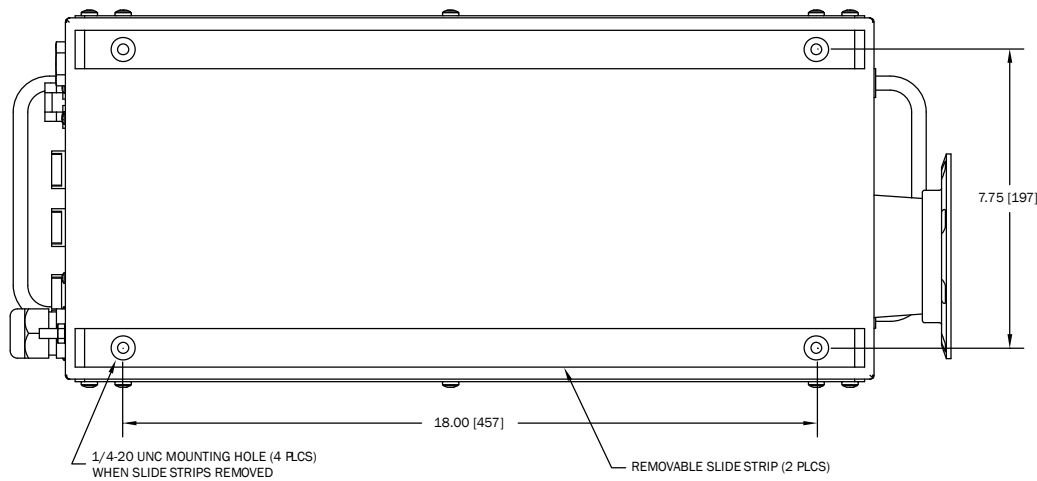
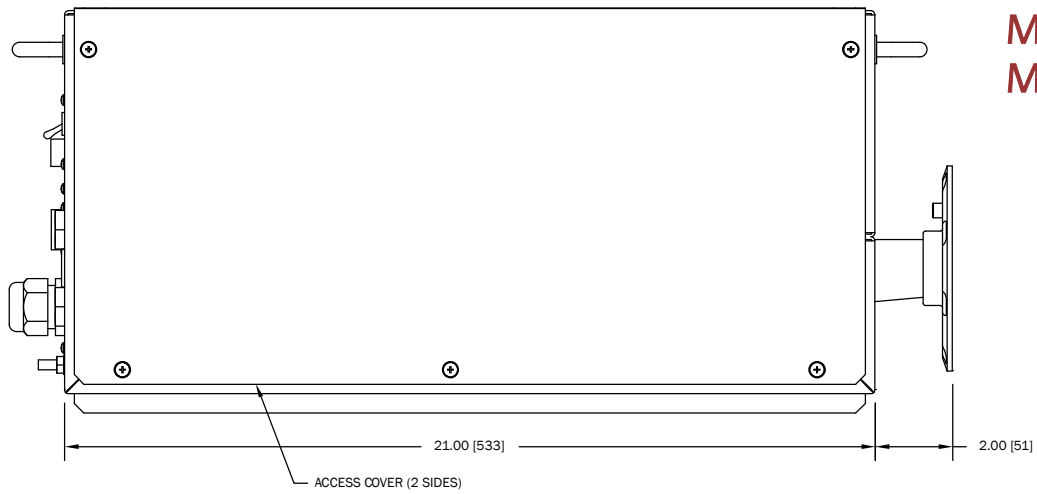
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All dimensions are in inches [millimeters].