



Plasma &

Reactive Gas Solutions

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High Power Microwave Plasma Source

HIGH POWER SOURCE FOR NEW AND EXISTING PLASMA APPLICATIONS

The High Power Microwave Plasma Source can be combined with a 6kW microwave generator for a high concentration of radicals providing a high productivity manufacturing solution. The High Power Microwave Plasma Source is capable of igniting in multiple process gases, over a wide operating range with performance benefits in current and emerging applications such as, high throughput photoresist removal, advanced surface cleaning and conditioning, as well as, advanced deposition applications at the atomic level.

The High Power Microwave Plasma Source is ideal for use with MKS microwave plasma systems, comprised of an MKS microwave power generator, waveguide components, and the advanced SmartMatch® intelligent matching unit. Designed with a high efficiency field replaceable plasma applicator, this new microwave plasma source delivers optimal cost of ownership advantages.

MKS engineering and applications groups collaborate with our customers to determine the optimum configuration, as well as, consultation and process verification services for customer-specific applications at an MKS plasma lab.

Features & Benefits

- Higher productivity compatible with the 6kW MKS microwave generator and autotuner
- MKS high power technology enables processes with high output of H* radicals
- Wider operating range and higher flow capability for higher throughput
- Delivers a high concentration of radicals at low electron temperature for advanced semiconductor and flat panel display applications
- Brass free component design
- Backward compatible with the existing 3kW SmartPower® installed base
- New thermal management design improvements enable source tube lifetimes greater than 3x versus AX7610
- Upgrade kit reduces cost of ownership of installed base production and enables new process applications



Specifications and Ordering Information

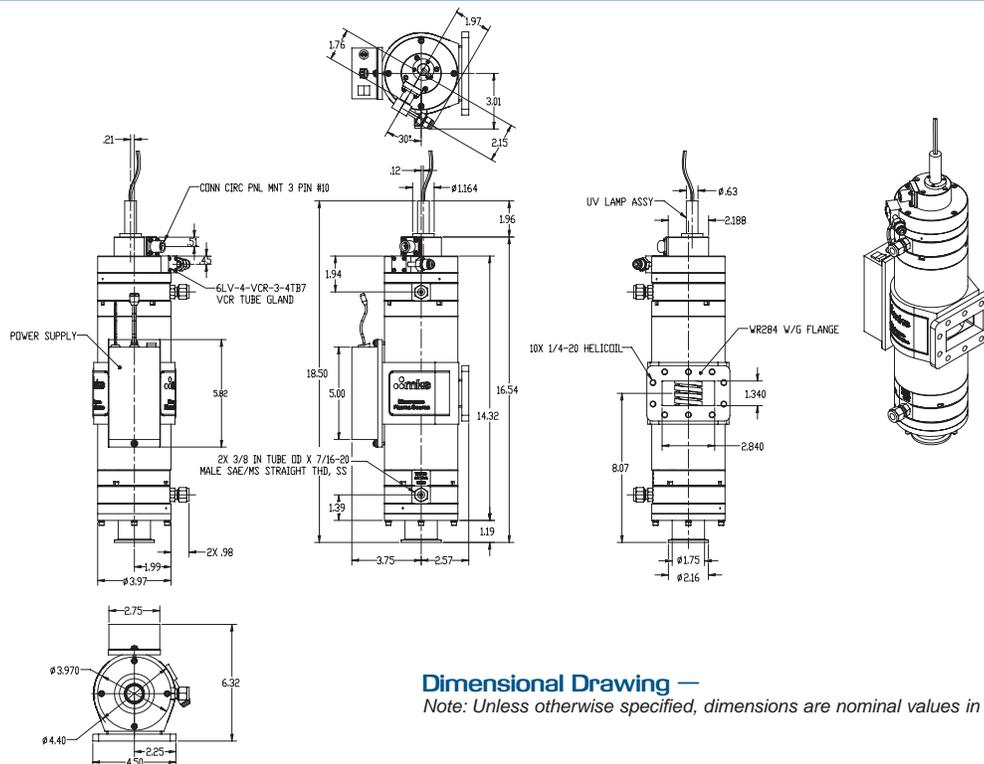
Operating Frequency	2.44 -2.47 GHz
Maximum Power	6kW*
Operating Pressure	1-10 Torr*
Total Gas Flow	1-10 slm*
Minimum Water Flow	0.50 gpm at min 37 psid
Waveguide	WR284
Waveguide Flange Connection	CPR284F with bolts
Gas Line Connection	1/4" male VCR®
Water Inlet Connection	3/8" Swagelok®
Water Outlet Connection	3/8" Swagelok
Plasma Tube Material	Configurable: Quartz, Sapphire
Dimensions	18.52" x 4.5" x 6.32"
Electrical Requirements for UV Lamp	24 VDC, 1.0 amp
Weight	18 lbs
Compliance	CE

*Please contact an Applications Specialist for additional information.

Ordering Information

Code

High Power Microwave Plasma Source, Quartz	HMP SQ-MKS
High Power Microwave Plasma Source, Sapphire	HMP SS-MKS



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