

The Mainspring Linear Generator

Generate cost savings and increase resiliency while meeting your sustainability goals.

Easy Installation
One Fuel Connection
One Electrical Connection



Each package contains two linear generator cores, operating in tandem



Breakthrough design enables an unmatched combination of features and benefits.

High Efficiency
 Direct conversion of linear motion into electricity.

Fuel Flexibility
 Continuous, adaptive control without mechanical constraints.

Near-Zero NOx
 Low-temperature, non-combustion reaction without a flame or burning.

Fully Dispatchable
 Load-tracking, fast on/off, black start, and islanding.

Turnkey Packaging
 Built-in grid tie inverters and auxiliaries.

Performance Specifications

For products delivered in 2022

| | | |
|-------------------------------|---|---|
| Outputs | Power (net AC) Electrical | 230 kW 480 V, 3 Phase, 60 Hz |
| Inputs | Fuels Input Pressure Water Consumption | Natural Gas, Biogas, Hydrogen blend up to 30% 8-25 psig (15 psig nominal) None |
| Efficiency¹ | Electrical (LHV, net AC) Heat Rate (HHV, net AC) | 45% 8,416 BTU/kWh |
| Emissions² | NO _x Noise | < 2.5 ppm (<0.07 lb/MWh) < 70 dBA @ 6 feet |
| Physical | Weight Dimensions (L x W x H) | 20 tons 20.5' x 8.5' x 9.5' |

| | | |
|---------------------------|---|---|
| Environment | Temperature Range Humidity | -20 to 50 C 0 to 100% |
| Grid-Parallel | Load Tracking Power Output Range | 20 kW/second up/down 0 to 100% power output |
| Backup³ | Grid Parallel to Island Transfer Maximum Step Load Building Soft Start Capability | < 10 sec 120% nameplate kVA Yes |
| Other | <ul style="list-style-type: none"> UL 2200 package UL 1741 SA grid-tie inverter | <ul style="list-style-type: none"> Remote monitoring Secure customer portal |

¹ Measured according to ASME PTC 50 at 15 C and 1 atm.

² Products comply with emissions limits in South Coast AQMD.

³ Performance with purchase of internal backup kit and additional site relays and controls equipment.

All data is subject to technical development and modification. r001

About Mainspring Energy

Driven by its vision of the affordable, reliable, net-zero carbon grid of the future, Mainspring is the leading manufacturer of linear generators, delivering onsite, dispatchable, fuel-flexible power for commercial and industrial customers, utilities, municipalities, and microgrid developers.

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