revitalize the environment from within
A Different Perspective on Green

Evolve to Green and Save

ecopower™ is an ENERGY STAR Emerging Technology system that combines both heat and electrical power in an economic and ecofriendly way. Evolve to a system that depends less on electricity from the grid and lowers utility costs. Be in control of the production of energy you consume while saving the environment and your bank account with ecopower™.

How Does It Work?
The ecopower™ micro cogeneration system (microCHP) houses a generator powered by a long life Marathon engine that runs on natural gas or propane. Electricity produced from the generator is consumed in the building, saving on the electric bill. If more electricity is generated than is consumed, the power is sent back to the grid. Simultaneously, the heat from the engine is captured to create thermal energy. The heat is used to warm the building and/or create domestic or process hot water.

Green That Pays

It pays to go green with an ecopower™ system. Lower your electricity costs by using the electricity the system produces. In certain cases put unused electricity back on the grid for credit from the utility company. Be in charge of your own power production.

Reduce, Reuse, Recycle

The ecopower™ system emits significantly less carbon dioxide than a traditional power plant. This is because the ecopower™ runs more efficient by reusing energy with minimal waste. Waste heat is recovered through the system and is recycled, making the ecopower™ more efficient than a conventional power plant. One ecopower™ will reduce the emission of carbon dioxide in the atmosphere by 33 tons a year. Reuse and recycle energy while reducing your carbon footprint from inside.

Green Intelligence

The ecopower™ advanced software is the brain that allows the system to function most efficiently for energy demands. The software intelligently monitors the building conditions and adjusts the heat and electrical output to meet energy requirements. The ecopower™ optionally can be monitored via the internet. Be intelligently green and do your part for the environment with award-winning technology that tracks conditions and optimizes energy use.
**ECOPOWER™ MICRO CHP TYPICAL INSTALLATION**

A typical installation consists of an ecopower™ microCHP system, buffer tank, boiler, and hot water tank. The ecopower™ micro CHP unit uses a natural gas or propane Marathon engine and power conversion technology to supply thermal and electrical power to the building and the grid. This efficient technology is extraordinarily quiet when running. The advanced software located inside the system integrates the ecopower™ with the buffer tank, adjusting the system output to match the buildings thermal and electrical needs. An indirect hot water tank can be hooked up to satisfy water heating needs. This allows for year round electricity generation. The ecopower™ system can be installed in parallel configuration with up to four units operating simultaneously.

**FEATURES**
- Provides heat and electrical power
- Powered by Marathon long life engine
- Natural gas or Propane fueled
- Advanced System Monitoring
- Parallel Operation for larger installations

**SUGGESTED APPLICATIONS**
- Residential
  - Small Business
  - Commercial Thermal
  - Hotels
  - Apartment
  - Condo complexes
  - Swimming Pools
  - Spas
  - Sports Centers

**BENEFITS**
- ENERGY STAR Emerging Technology
- Reduces Utility Bill and Carbon Foot Print
- Long Maintenance Interval
- Power System that Generates ROI
- Ultra Quiet

**MARATHON ENGINE - THE POWER BEHIND ecopower™**

Proudly made in the USA, the Marathon engine is the prime energy source for the ecopower™. The engine’s superior construction and environmentally responsible design allow the engine to run for a long life with 4,000 hours between service intervals. Clean burning natural gas or propane contributes to the long engine life, thermal efficiency, and produces significantly less CO₂ emissions than an engine fueled by gasoline. The Marathon engine is like no other.
**ecopower™ microCHP Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage (Single Phase)</td>
<td>240 VAC</td>
</tr>
<tr>
<td>Frequency</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Dimensions (L x W x H)</td>
<td>54&quot; x 30&quot; x 43&quot;</td>
</tr>
<tr>
<td>Power Factor</td>
<td>0.98 – 1</td>
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<tr>
<td>Exhaust Gas Temperature</td>
<td>&lt; 180 °F</td>
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**Certified Test Data**

<table>
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<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Electrical Output Range</td>
<td>2.0 – 4.7 kW</td>
</tr>
<tr>
<td>Thermal Output Range</td>
<td>13,000 – 39,000 BTU/hr</td>
</tr>
<tr>
<td>Gas Consumption Range</td>
<td>NG 0.21 – 0.65 therms/hr</td>
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<tr>
<td></td>
<td>LPG 0.26 – 0.78 gal./hr</td>
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<tr>
<td>Overall Efficiency</td>
<td>93%</td>
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<tr>
<td>Avg. Sound Level @ 1m</td>
<td>55 dB (A)</td>
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<tr>
<td>Avg. NOx Emissions</td>
<td>0.005 lb/MWh</td>
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</table>

**Approvals**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Certification</th>
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<tr>
<td>UL Standards</td>
<td>UL 1741, UL 2200</td>
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<tr>
<td>CSA Standards</td>
<td>CSA C22.2 No. 14-10, 100-04, 107.1-01</td>
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<tr>
<td>Engine Emissions Compliance</td>
<td>EPA, CARB Certified</td>
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</table>

Certified third party results tested in accordance with established EPA, ISO, and ASERTTI laboratory testing protocols. System performance can be affected by atmospheric conditions and energy content of fuel.

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**REUSE ENERGY WITH MINIMAL WASTE COMPARED TO A CONVENTIONAL POWER PLANT**


**ecopower™ Cogeneration System**

- Power Generating Efficiency 25%
- Heat Recovery 68%
- Waste Heat 7%
- Overall Efficiency 93%

**Conventional Power Plant**

- Power Generating Efficiency 42%
- Overall Efficiency 42%
- Waste Heat 58%

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