

# POWER TO PROSPER

## HIGH EFFICIENCY HEAT PUMP / HOT WATER HEATER



The high efficiency heat pump system we deploy uses a combination of technologies designed to boost efficiency, save money, and reduce impact on the environment. Comprised of a natural-gas-fueled hot water heater, our heat pump systems combine traditional boiler technology with the power of the heat pump to make a dramatic leap in heating efficiency. This clean technology equipment extracts thermal energy from the atmosphere and uses a cutting edge natural-gas-fueled engine to “pump” this heat to useful temperatures. The synergy of advanced heat pump and engine technologies result in twice the efficiency of a gas-fired boiler. For locations with substantial hot water requirements, the cost savings and environmental impact are significant.

### FEATURES AND BENEFITS

- 400,000 to 600,000 Btu/hr of hot water, ideal for domestic hot water, swimming pools, space heating, and process heat
- Hot-water delivery temperature 100°F to 160°F
- Advanced thermodynamic cycle extracts available energy from the environment, and uses mechanical work from a natural gas engine to pump this heat to a higher useful temperature
- Highly efficient heat pump with reclaimed engine-waste heat resulting in a coefficient of performance (COP) of 1.2 to 1.8
- Exceeds clean emission standards throughout the United States, including California
- 50% reduction in greenhouse gas emissions, saving 100 tons of carbon at typical installations
- Enhanced efficiency from variable speed operation
- Minimal electrical power requirement comparable to a household appliance (120 VAC, 15 amp service)
- Remote Monitoring and Control System permits remote real-time monitoring, data acquisition, and system control by telephone or Ethernet



Our heat pump systems have twice the efficiency of a gas-fired boiler.

### ON-SITE ENERGY PRODUCTS

American DG Energy offers a variety of clean energy systems, including combined heat and power, chiller cooling systems, and heat pumps to provide energy costs savings along with environmental and economic benefits to our customers. With an installed base of thousands of systems, these clean energy technologies, deployed at sites across the country for over 20 years, provide a “green” energy solution that is proven, reliable, and flexible to fit the needs of your business.

### ON-SITE UTILITY

American DG Energy sells the energy produced from an on-site energy system to an individual property as an alternative to the outright sale of energy equipment. On-Site Utility customers only pay for the energy produced by the system and receive a guaranteed discount rate on the price of the energy. All system capital, installation, operating expenses, and support are paid for and handled by American DG Energy.

### CONTACT US TODAY

Set up a site assessment and start your energy cost savings.

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## SPECIFICATIONS

	<b>HEWH-500-AS</b>
Thermal Output	400,000-600,000 Btu/hr
COP with Engine Heat Recovery	1.2 to 1.8
Hot Water -Maximum Water Temperature -Optimal Water Temperature	50 gpm 160°F 120°F
Water In & Water Out (copper tube)	2" Nom
Electrical requirement	120V/1/60 (15A); 1" connection
Gas Inlet	1" connection
Required Gas Pressure	8" - 12"wc
Weight	4,200 lbs
Dimensions	7'3"L x 4'1"W x 7'1"H
Engine	Ultra low-emission natural-gas 4-cylinder (<50 bhp) engine
Generator	5 kW generator for parasitic load
Compressor	Open-drive reciprocating compressor
Condenser	Compact brazed plate condensor
Refrigerant	Low-pressure, HFC-134a

1. All specifications are +/- 5% and are subject to change without notice.
2. Includes engine heat recovery only (not generator/power electronics heat).
3. Above performance data is valid at 70°F ambient temperature.

## PERFORMANCE CURVE

