CLIMEON
HEAT POWER SYSTEM
TECHNICAL PRODUCT SHEET

HOW DOES IT WORK?
By exploiting the temperature difference between hot and cold water (or heat exchange of gas or steam with hot water), the Climeon Heat Power system converts waste heat into clean electricity. The system operates at low pressure levels in comparison to traditional heat power solutions.

For example, Organic Rankine Cycles (ORC), which operate at much higher pressure levels, are both larger in size and less efficient at the low temperatures where the bulk of waste heat is found. Climeon’s low pressure levels allow delivery of up to 50% higher efficiencies than other solutions on the market, while creating a smaller CO₂ footprint from manufacturing.

The Climeon system also enables the utilization of the earth’s own heat resources. By converting geothermal heat into clean electricity, it is possible to create an almost infinite power source.

Unlike other renewable energy sources, such as wind or solar power the Climeon system is unaffected by weather conditions. This means our production can run 24/7, throughout the year, with just two days of planned maintenance making it a dependable renewable baseload.

FLEXIBLE AND SCALABLE DESIGN

The system operates at low pressure, 2.5 bar(a), allowing for a compact and modular design, making it easily scalable from 150 kW modules, to 50 MW systems for larger installations. The modular design ensures optimal efficiency, and the system can be tailored for maximum capacity, even at partial load. Modules are automatically powered on, or off, to match thermal power whenever there is fluctuation in the heat source. Modules can be installed both indoors and outdoors.

SMART AUTOMATION

The Climeon control system, Climeon Live, makes the system fully automatic. It optimizes performance in real time, to ensure maximum energy generation. Each Climeon module has multiple sensors delivering measurements. Rich data is collected and stored in the cloud for historical performance reporting.

BENEFITS SNAPSHOT

- Climeon Live enables full automation of the system
- Automatic software updates incorporate learnings from the global installed base
- Proactive maintenance identifies and resolves potential failures early
- Powerful analytics enable finely tuned optimizations
- Customers can generate positive publicity by publishing CO₂ savings to the market
- SMS and email alerts enable rapid response when issues are detected
- Customers are equipped with real time, comprehensive data
- Both engineers and management have complete visibility
- Current and historical performance are tracked, analyzed, and reported
- Climeon Live’s API supports integration into customers’ internal monitoring systems.

PREDICTIVE MAINTENANCE

Climeon Live identifies potential faults before they arise. When issues are identified, the system sends remote alerts as text messages, emails or app notifications, minimizing the risk of unplanned downtime. Climeon Live’s API also allows customers to integrate Climeon Live into their existing control systems.

FIND OUT MORE

For more information and customer references, please visit our website, www.climeon.com. Or get in touch with us directly. You can find our contact details on the last page.

OUTPUT

@ 40 l/s hot volume flow, 150 kW module

NET EFFICIENCY

@ 40 l/s hot volume flow, 150 kW module