

Combined Heat & Power (CHP)

Baxi-SenerTec UK

Dachs Mini-CHP - Carbon Saving Microgeneration Technology

What is Micro-CHP?

Micro-Combined Heat and Power is the simultaneous generation of principally electricity, and also of heat, close to the point of use. By locating micro-CHP equipment in or close to a building, the electricity generated and the heat produced can be used in the building with no energy wastage.

Carbon Saving Technology

Micro-CHP is a key microgeneration technology which can deliver carbon savings of 20%-30%. It is a mature, reliable technology which delivers very attractive financial benefits and can play a big part in gaining compliance with Planning and Building Regulations.

Dachs Mini-CHP

The Dachs is designed for continuous running with a design life of ~80,000 running hours. The reliable internal combustion engine drives a maintenance-free 3-phase electrical generator, and the heat generated by the engine is captured and transferred to the building's heating system. More than 20,000 Dachs installations have saved more than one million tonnes of CO₂ and generated over 2Gwh of low cost electricity.

Selecting a Dachs

The key to a successful CHP installation is to make sure that the engine runs for as long as possible to generate valuable, low cost electricity.

Therefore, it is essential to know that the heat produced by the engine can be used in the building at all times. If the building's heat, or hot water demand falls below the minimum heat output of the CHP, it will switch off until the heat demand is re-established, meaning loss of electricity generation. The number of Dachs modules installed should therefore generally match the minimum, or base, heat demand of the building. For larger buildings the Dachs can be installed in systems of up to 10 multi-modules.

Installing a Dachs

Installing a Dachs into a new or existing heating system is very straightforward, requiring a fuel supply, flow and return connections to a primary heating circuit, and an exhaust or flue gas pipe to outside. The Dachs electrical interface complies with the G83/1 Engineering Recommendation which permits direct connection of the generator to the building's circuits, and hence parallel connection with the public grid network. The grid will make up any power shortfall from the CHP, and any excess power generated by the CHP will be automatically exported to the grid.

Dachs SE Condensing

The condenser recovers heat from the exhaust gases, increasing the overall efficiency to over 90% and enabling the gases to be discharged via plastic flue pipe. The SE buffer vessel keeps the Dachs running when temporary heat demand reductions might otherwise switch it off. Both these accessories improve the efficiency and the serviceability of the Dachs.

Condenser Exhaust Flue

The condenser plastic flue can terminate through the wall of the building, through the roof, or can be installed vertically on the external wall in accordance with flueing regulations and the requirements of the building.

DachsWeb

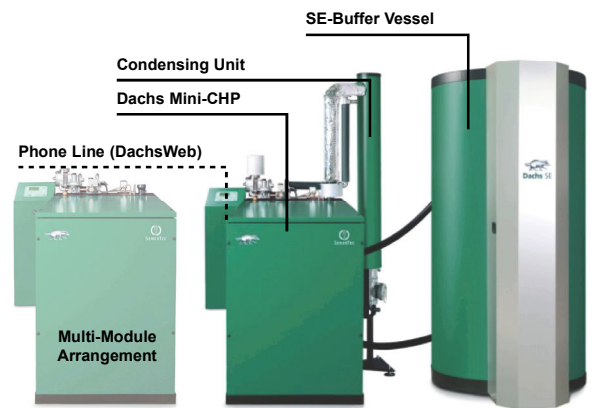
Every Dachs is equipped with a modem, and when an analogue telephone line is connected, full communication via a portal on our website is available. The Dachs can be monitored to ensure correct operation, operational data can be viewed and downloaded, and fault and service signals will be automatically transmitted.

Applications

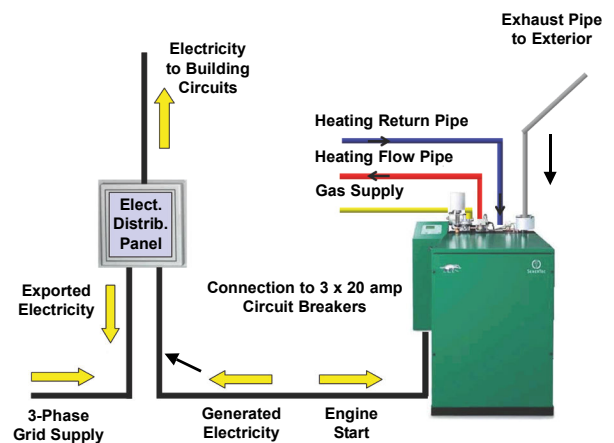
Suitable applications for the Dachs CHP system include:

- Sheltered Housing
- Apartment Blocks
- Leisure Centres
- Luxury Houses
- Fire Stations
- Hospitals
- Schools
- Hotels
- Museums

Dachs SE Condensing



Dachs Connection to Grid



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