



Heating

UK

Award winning heat pumps

Solid Energy manufactures market-leading heat pumps and small wind turbines that create value and accelerate the sustainable transition



The natural energy solution of the future

Heat pumps from Solid Energy set the standard for future efficient and flexible energy systems based on 100% natural refrigerants. Our solutions are a first choice in a world that is transitioning to clean and renewable energy. We have been delivering HC heat pumps since 2018 and have been fine-tuning ever since.

We have extensive experience in developing innovative solutions for district heating and industry of all sizes. Our pumps are hyper-flexible in terms of flow temperatures, scaling and they are tailored to each installation. Each pump is designed and manufactured in Denmark and is among the quietest on the market.



Heat output up to 4,800 kW per module



Quiet operation - screw compressor within noise reducing cabinet

Heat exchanger
SWEP plate heat exchanger



Compressor
Fracold semi-hermetic compressor





Flow temperatures up to 170° C



We provide 24/7 monitoring and support

"This versatile product ticked all the boxes in the judging criteria and showed innovation at its best, with a clearly defined objective, and demonstrable benefits."

H&VNEWS AWARDS 2024



Controls
Delta PLC.



Injection valves
Danfoss



150+

More than 150 units installed since 2018.

CO₂ savings:

74.000 tons

Every year, our heat pumps reduce CO₂ emissions by more than 74,000 tons.



HC heat pumps

Solid Energy has many years of experience with Hydrocarbon heat pumps and has been fine-tuning the system since 2018.

7 models

Compressor units are available in 7 sizes from 200 to 1,200 kW heat per unit.

A heat pump module consists up to 4 compressor units with a heat output of up to approximately 4,800 kW per module.

Hydrocarbon refrigerants



With Hydrocarbon refrigerants the pressure is kept low with the same heat pump unit regardless of whether the task is cooling or hot water production.

In the temperature range -30 to 170 C, Solid Energy uses 4 different hydrocarbon gases as refrigerant in the heat pump. Hydrocarbon is a natural and non-toxic refrigerant that is used in its pure form without the addition of environmentally harmful substances. Hydrocarbon is probably best known as a propellant in spray cans.

Propane

Refrigerant for refrigeration and heat pump operation for heating purposes. The pressure/temperature ratio of propane makes the refrigerant suitable for refrigeration between -30 and 25 degrees, and with heat deposition in the range 30 to 65 degrees.

Isobutane

Refrigerant for heat recovery and heat pump operation for district heating and industrial process heating. The pressure/temperature ratio of isobutane makes the refrigerant suitable for cooling between -10 and 40 degrees, and with heat rejection in the range 50 to 95 degrees.

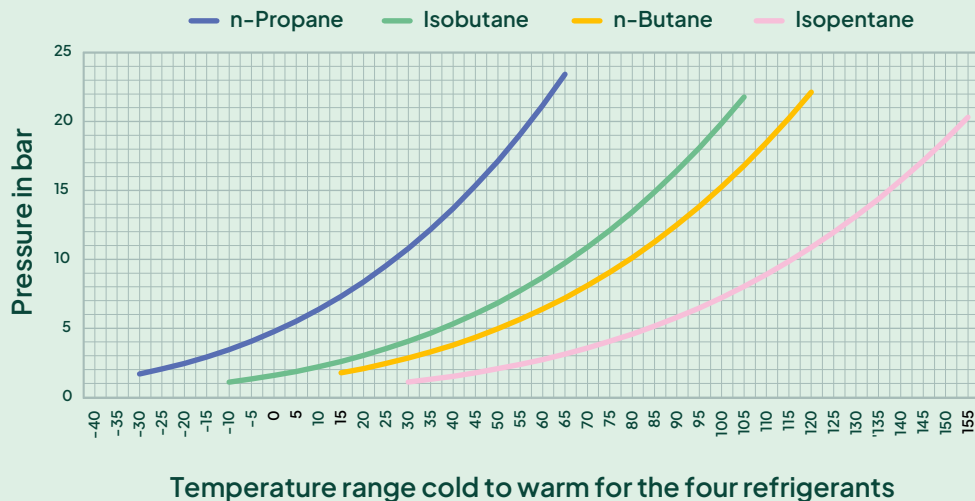
Butane

Refrigerant for heat recovery and heat pump operation for industrial process heating and hot water. The pressure/temperature ratio of butane makes the refrigerant suitable for cooling between 0 and 50 degrees, and with heat deposition in the range 70 to 120 degrees.

Isopentane

Refrigerant for heat recovery and heat pump operation for industrial process steam and hot water. The pressure/temperature ratio of isopentane makes the refrigerant suitable for cooling between 35 and 90 degrees, and with heat deposition in the range 90 to 170 degrees.

-30 to 170 C with the same machine



Hydrocarbons have an ODP value of zero and a negligible GWP value. GWP for propane is 0.02 according to the IPCC latest report. GWP is defined in relation to CO₂ which has a GWP value of 1.0.



Solid Energy A/S

Stållevej 8

DK-6900 Skjern

T. +45 9732 3300

info@solidenergy.dk

The Force of Nature

solidenergy.dk

PRODUCED IN
DENMARK

