

Sabroe HeatPAC heat pumps

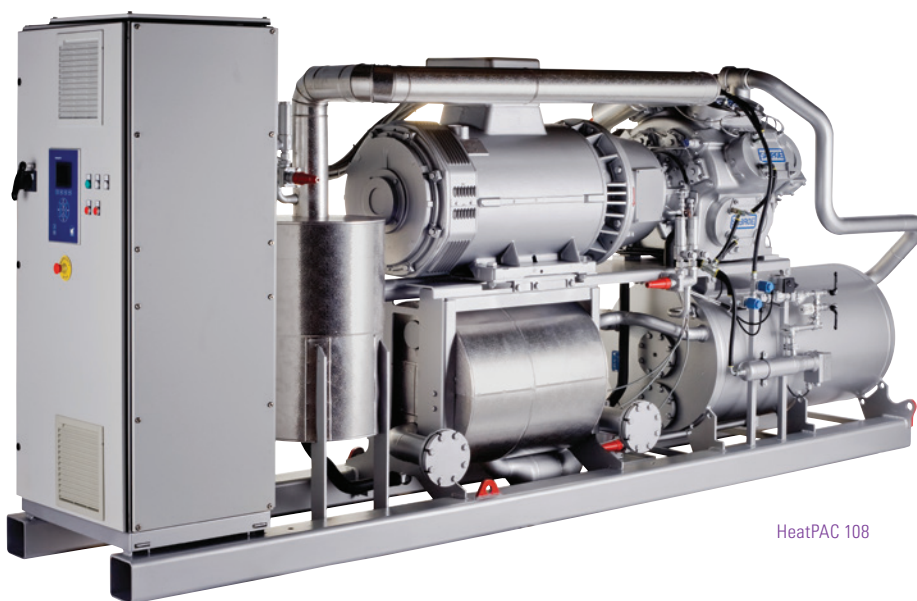
Ammonia-based heat pumps using a reciprocating compressor, with a 200–1200 kW capacity range with a 200–1200 kW capacity range

HeatPAC units are an extremely compact heat pump based on ultra-reliable Sabroe HPO/HPC high-pressure reciprocating compressors, using ammonia as refrigerant. These highly customisable integrated units, featuring an uncomplicated flooded evaporating system, provide exceptional heat pump capacity from the smallest possible footprint, and with only a very small refrigerant charge. They are designed to provide a cost-effective way to tackle needs for cooling and heating at the same time, providing an extremely high coefficient of performance (COP).

Sabroe HeatPAC heat pumps are the ideal solution for effectively exploiting low-temperature waste heat, and turning it into hot water (up to 70°C), using only a minimum of electrical energy.

Range

There are 6 standard models in this range of heat pump systems, with capacities ranging from 202 kW to 1149 kW.



HeatPAC 108

Advantages

Factory-assembled, pre-tested packaged units based on Sabroe reciprocating compressors world-renowned for their reliability

Integrated configuration weighs less, and has less than half the footprint of bespoke heat pump designs

Indirect cooling and an uncomplicated flooded evaporating system, using natural ammonia (R717) only

Exceptional COP and outstanding part-load performance

Refrigerant charge 50% smaller than with conventional heat pumps, because of special condenser/evaporator design

Benefits

Easy pre-commissioning makes installation and running-in both faster and cheaper. Factory acceptance tests (FAT) available as an option

Low installation costs. Easy to mount even in confined spaces or unconventional locations

Greater safety and outstanding reliability

Low operating costs

Higher output per unit kW/kg refrigerant, lower unit cost and lower installation costs



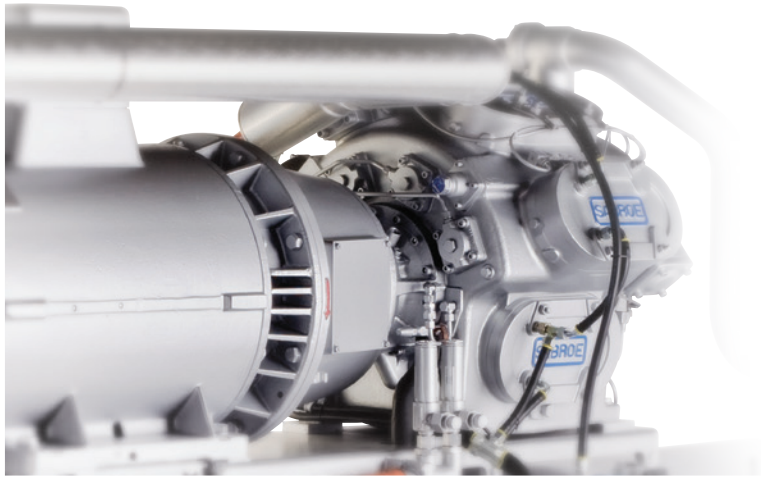
Optional equipment

Sabroe HeatPAC heat pumps provide considerable scope for customisation to meet specific customer requirements.

Compliance

All HeatPAC heat pumps are fully compliant with appropriate major international design codes and the specifications laid down by the most common classification societies.

Approval in accordance with other technical requirements, specific national legislation or other classification societies' requirements is available on request.



Optimised compressor alignment

Condenser water inlet +64°C, outlet +70°C
Evaporator water inlet +39°C, outlet +34°C

| Type | Heating capacity kW | Cooling capacity kW | Power consumption kW | Motor size kW | R717 charge kg | Dry weight kg | Dimensions in mm | | | Sound level dB(A) |
|------------|---------------------|---------------------|----------------------|---------------|----------------|---------------|------------------|------|------|-------------------|
| | | | | | | | L | W | H | |
| HPAC 24-W | 240 | 202 | 38 | 45 | 20 | 2020 | 2800 | 1000 | 2000 | 75 |
| HPAC 26-W | 359 | 302 | 57 | 75 | 23 | 2230 | 2850 | 1000 | 2000 | 76 |
| HPAC 28-W | 484 | 408 | 77 | 90 | 25 | 2420 | 2900 | 1000 | 2000 | 77 |
| HPAC 104-W | 570 | 478 | 93 | 110 | 28 | 2630 | 3050 | 1000 | 2000 | 81 |
| HPAC 106-W | 852 | 715 | 138 | 160 | 37 | 3300 | 3750 | 1000 | 2000 | 82 |
| HPAC 108-W | 1149 | 965 | 186 | 250 | 48 | 3950 | 4050 | 1000 | 2000 | 83 |

W = Heat pump unit water/water.

Motor: 3 x 400V / 50Hz, 1470 rpm.

COP ratio average = heating capacity / power consumption = 6.2.

Capacities are nominal values.

Sound pressure levels in free field. All sound measuring has been carried out according to ISO 9614-2 at a distance of 1 m.

All data are only valid for operating conditions as stated.

All information is subject to change without notice

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