

SABROE HeatPAC™ heat pumps

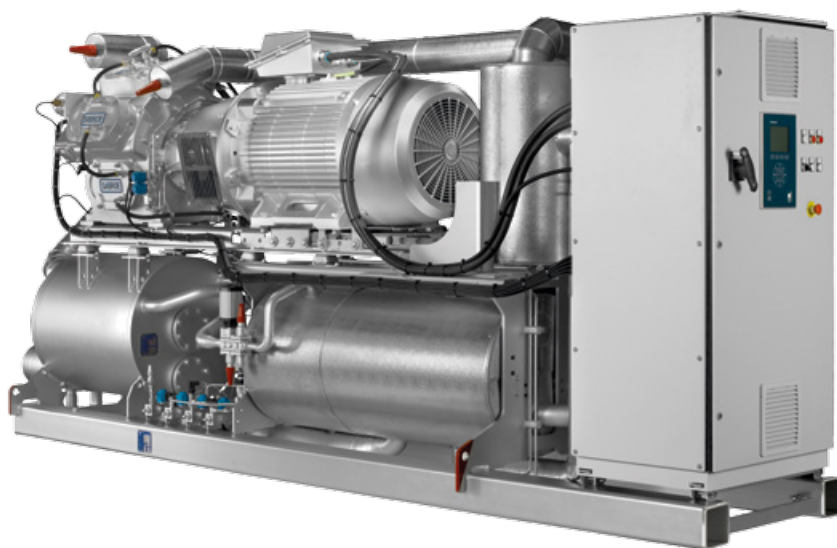
Ammonia-based heat pumps using a reciprocating compressor, with a 300–2000 kW capacity range

HeatPAC units are extremely compact heat pumps based on ultra-reliable SABROE HPO™/HPC™ high-pressure reciprocating compressors, using ammonia as refrigerant. They are usually most cost-effective when fitted with a variable-speed drive (VSD) that makes it easy to deal with changing circumstances and different operating requirements. These highly customisable integrated units are based on a unique vibration-resistant design, featuring an uncomplicated flooded evaporating system. They provide exceptional heat pump capacity from the smallest possible footprint, and with only a very small refrigerant charge.

SABROE HeatPAC heat pumps are the ideal solution for effectively exploiting low-temperature waste heat, and turning it into hot water (up to 75°C), using only a minimum of electrical energy. These units 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).

Range

There are 7 standard models in this range of heat pump systems, with capacities ranging from 310 kW to 2075 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

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

Options

- Cascade evaporator
- Variable-speed drive (VSD)
- Soft-starter or Y/D starter
- Desuperheater
- Subcooler
- Control panel mounted separately
- Factory acceptance tests (FAT), customer-witnessed.



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.

Unisab™ control for heat pump application



Condenser water inlet +60°C, outlet +70°C
Evaporator water inlet +39°C, outlet +34°C

Type	Heating capacity kW	Cooling capacity kW	Line power consumption kW	COP line heat	R717 charge kg	Dry weight kg	Unit dimensions in mm			Sound level dB(A)
							L	W	H	
HeatPAC 24-W	310	263	50	6.1	29	2020	2800	1000	2000	75
HeatPAC 26-W	465	395	76	6.1	38	2230	2850	1000	2000	76
HeatPAC 28-W	620	527	101	6.1	48	2420	2900	1000	2000	77
HeatPAC 104-W	731	618	120	6.1	55	2630	3050	1000	2000	81
HeatPAC 106-W	1081	911	180	6.0	74	3300	3750	1000	2000	82
HeatPAC 108-W	1441	1216	239	6.0	87	3950	4050	1000	2000	83
HeatPAC 112-W	2075	1735	345	6.0	110	5270	5050	1000	2100	85

W = Heat pump unit water/water
All data and nominal capacities kW at 1800 rpm.
All HeatPACs: 60 Hz or VSD operation possible.
HeatPAC 112-W available on request.

Sound pressure levels in free field, over reflecting plane and one metre distance from the unit.

All information is subject to change without notice

Johnson Controls Denmark ApS · Sabroe Factory
Christian X's Vej 201 · 8270 Højbjerg · Denmark
Phone +45 87 36 70 00 · Fax +45 87 36 70 05
www.sabroe.com

Johnson Controls

PUBL-5650 01.2017