

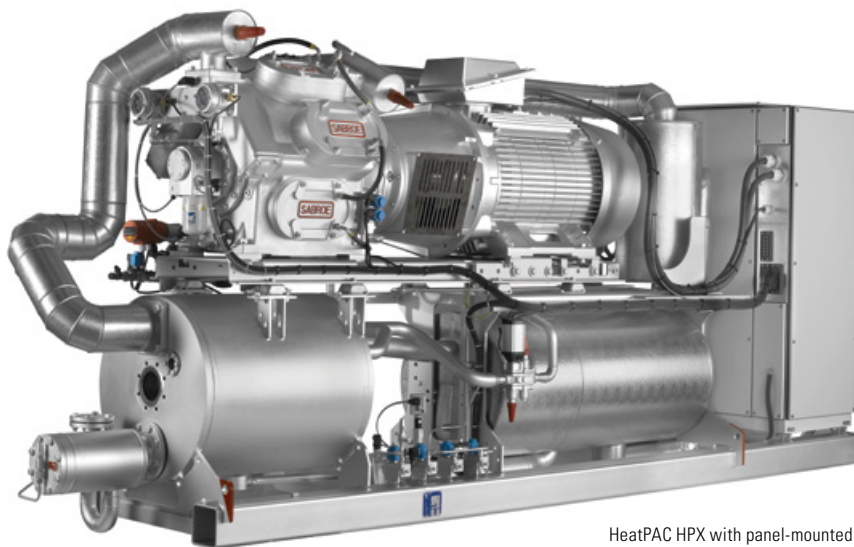
## Sabroe HeatPAC heat pumps

Single-stage high-pressure 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/HPX high-pressure reciprocating compressors achieving up to 40 bar differential pressures and up to 60 bar design pressures. Using ammonia as refrigerant, Sabroe HeatPACs provide a low-cost supply of hot water at up to 90°C, ideal for sterilization, pasteurization and many other heating processes.

These highly customisable integrated units are based on a unique vibration-resistant design, featuring an uncomplicated flooded evaporating system. With the uniquely combined desuperheater, condenser and subcooler design Sabroe HeatPACs offer superior efficiency. The units 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 90°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).



HeatPAC HPX with panel-mounted UniSAB systems controller

Advantages	Benefits
Factory-assembled, pre-tested packaged units based on Sabroe reciprocating compressors world-renowned for their reliability	Easy pre-commissioning makes installation and running-in both faster and cheaper
Compact single-stage configuration weighs less and takes up less space than bespoke and/or two-stage heat pump designs	Low installation cost. Easy to mount even in confined spaces or unconventional locations
Exceptional COP and outstanding part-load performance	High energy-efficiency, low operating costs
Service and maintenance based on Load Based Service (LBS) schedules	Improved reliability, longer service intervals, minimal downtime, low cost of ownership
Variable-speed drive (VSD) and UniSAB compressor package controller as standard	Outstanding part-load performance and maximum operating flexibility

### Range

There are twelve standard models in this range of heat pump systems, with capacities ranging from 300 kW to 2000 kW.



## Options

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

Water condenser inlet 60 °C, outlet 70 °C and evaporator inlet 39 °C, outlet 34 °C

Type	Heating capacity	Cooling capacity	E-motor	Power consumption (shaft)	R717 charge	Dry weight	Unit dimensions in mm			Sound level	COP shaft heating
	kW	kW	kW	kW	kg	kg	L	W	H	dB(A)	
HeatPAC 24-W	307	260	55	47	38	2020	2800	1000	2000	75	6.5
HeatPAC 26-W	461	391	79	71	48	2230	2850	1000	2000	76	6.5
HeatPAC 28-W	615	521	114	95	55	2420	2900	1000	2000	77	6.5
HeatPAC 104-W	725	611	136	112	73	2630	3050	1000	2000	81	6.5
HeatPAC 106-W	1087	916	207	168	87	3300	3750	1000	2000	82	6.5
HeatPAC 108-W	1432	1206	253	224	104	3950	4050	1000	2000	83	6.4
HeatPAC 112-W	2078	1742	399	338	121	5270	5050	1000	2100	85	6.2

Water condenser inlet 70 °C, outlet 90 °C and evaporator inlet 39 °C, outlet 34 °C

Type	Heating capacity	Cooling capacity	E-motor	Power consumption (shaft)	R717 charge	Dry weight	Unit dimensions in mm			Sound level	COP shaft heating
	kW	kW	kW	kW	kg	kg	L	W	H	dB(A)	
HeatPAC 704-W	341	269	97	77	35	3500	3500	1000	2100	83	4.4
HeatPAC 706-W	511	403	136	116	44	4200	3700	1000	2100	85	4.4
HeatPAC 708-W	682	537	172	154	54	5000	4100	1000	2100	86	4.4
HeatPAC 712-W	1023	805	271	232	73	6250	4700	1000	2100	87	4.4
HeatPAC 716-W	1346	1059	347	308	88	7000	6000	1000	2100	88	4.4

W = Heat pump unit water/water.

All data and nominal capacities kW at 1800 rpm.

All HeatPACs: 60 Hz or VSD operation possible.

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