

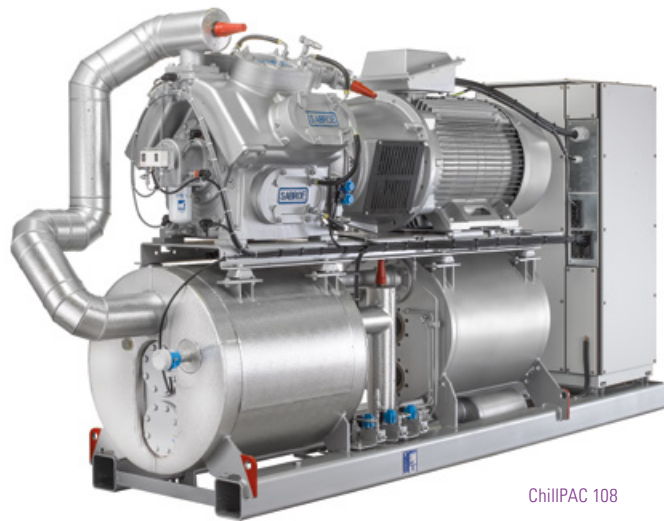
# SABROE ChillPAC® chillers

Extremely compact packaged ammonia chillers based on reciprocating compressors, with a 100–1400 kW capacity range

ChillPAC ammonia-based chillers feature an ultra-compact format so narrow that they can even pass through a normal doorway. This is achieved by having an extra-compact shell-and-plate evaporator/condenser, oil separator and control system all built in and fully integrated into a unique vibration-resistant design.

This means ChillPAC units provide exceptional refrigeration capacity – taking full advantage of the many different models of ultra-reliable SABROE reciprocating compressors – while only taking up a minimum of space. This makes ChillPAC units ideal in installations where space is limited, and where there are restrictions on the refrigerant charge used.

ChillPAC chillers are most cost-effective when fitted with a variable-speed drive (VSD) that makes it easy to deal with changing circumstances and different operating requirements.



ChillPAC 108

## Range

There are 20 different models in the standard ChillPAC range, with capacities ranging from 90 kW to 1350 kW.

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. Factory acceptance tests (FAT) available (as an option)
Exceptionally compact design and fully integrated configuration results in less than half the footprint of bespoke chiller designs	Major savings on both weight and space, resulting in lower installation costs. Much less need for expensive separate machinery rooms
Indirect cooling and uncomplicated flooded evaporating system, using natural ammonia (R717) only	Greater safety and outstanding reliability
Exceptional COP and outstanding part-load performance	Greater cooling effect from a smaller refrigerant charge, and optimum load structure over the entire capacity range
Refrigerant charge 50% smaller than with conventional chillers, because of special condenser/evaporator design	Higher output per unit kW/kg refrigerant, lower unit cost and lower installation costs

## Options

- Variable-speed drive (VSD)
- Soft-starter or Y/D starter
- Desuperheater
- Subcooler
- External condenser
- Control panel mounted separately
- S and L models: 1800 rpm at 60 Hz or VSD
- Factory acceptance tests (FAT), customer-witnessed
- Heater package for low-temperature heat pump operation
- Shunt solution for high-temperature difference.



**Water: inlet 12°C, outlet 7°C**

Type	Cooling capacity kW	E-motor kW	R717 charge kg	Dry weight kg	Unit dimensions in mm			Sound level dB(A)	SEPR
					L	W	H		
ChillPAC 34	137	32	13	2000	2900	1000	2000	72	10.75
ChillPAC 26	176	39	14	2050	2900	1000	2000	72	10.50
ChillPAC 36	205	48	14	2100	2900	1000	2000	73	10.60
ChillPAC 28	233	48	15	2150	2900	1000	2000	73	10.61
ChillPAC 38	275	66	16	2900	2900	1000	2000	74	10.63
ChillPAC 104 S-A	273	66	15	2300	2900	1000	2000	80	9.33
ChillPAC 104 L-A	361	79	21	2410	2900	1000	2000	83	11.02
ChillPAC 104 E-A *	369	74	19	2652	2900	1000	2000	80	9.86
ChillPAC 106 S-A	406	91	20	2727	2900	1000	2000	83	9.67 **
ChillPAC 106 L-A	544	113	27	2950	2900	1000	2000	79	10.86
ChillPAC 106 E-A *	553	110	27	3225	3100	1000	2000	81	9.96
ChillPAC 108 S-A	573	113	28	3060	2900	1000	2000	84	10.64
ChillPAC 108 L-A	709	142	31	3526	3100	1000	2000	85	10.63
ChillPAC 108 E-A *	729	162	34	2880	3300	1000	2000	84	9.91
ChillPAC 112 S-A	851	177	40	4315	4000	1000	2200	86	10.39
ChillPAC 112 L-A	1055	200	46	4738	4500	1000	2200	86	10.45
ChillPAC 112 E-A *	1076	245	50	5196	4600	1000	2200	84	9.87
ChillPAC 116 S-A	1114	245	51	5044	4500	1000	2200	86	10.36
ChillPAC 116 L-A	1348	303	53	5556	4700	1000	2200	87	10.18
ChillPAC 116 E-A *	1350	290	53	5878	5000	1000	2200	85	9.30 **

**Ethylene glycol 30%: inlet -2°C, outlet -8°C**

Type	Cooling capacity kW	E-motor kW	R717 charge kg	Dry weight kg	Unit dimensions in mm			Sound level dB(A)	SEPR
					L	W	H		
ChillPAC 26	87	30	10	2000	2900	1000	2000	73	5.37
ChillPAC 36	100	38	10	2050	2900	1000	2000	73	5.27
ChillPAC 28	114	46	11	2100	2900	1000	2000	74	5.24
ChillPAC 38	133	46	12	2250	2900	1000	2000	74	5.19
ChillPAC 104 S-C	140	54	13	2253	2900	1000	2000	78	5.21
ChillPAC 104 L-C	180	72	15	2378	2900	1000	2000	79	5.23
ChillPAC 104 E-C *	185	73	15	2586	2900	1000	2000	79	5.12
ChillPAC 106 S-C	208	72	16	2505	2900	1000	2000	80	5.20
ChillPAC 106 L-C	269	91	20	2701	2900	1000	2000	80	5.27
ChillPAC 106 E-C *	280	91	22	2866	2900	1000	2000	80	5.26
ChillPAC 108 S-C	280	91	22	2766	2900	1000	2000	82	5.36
ChillPAC 108 L-C	362	136	26	3091	3100	1000	2000	82	5.45 **
ChillPAC 108 E-C *	369	136	26	3523	3300	1000	2000	82	5.23
ChillPAC 112 S-C	419	136	32	3696	3800	1000	2200	83	5.38
ChillPAC 112 L-C	534	200	37	4290	4200	1000	2200	83	5.40
ChillPAC 112 E-C *	546	200	38	4733	4300	1000	2200	83	5.26
ChillPAC 116 S-C	547	200	38	4390	4200	1000	2200	83	5.38
ChillPAC 116 L-C	699	245	47	4898	4300	1000	2200	83	5.38
ChillPAC 116 E-C *	705	245	46	5322	4300	1000	2200	83	5.11

Condenser: water inlet 30°C, outlet 35°C.

The above data are only valid for the stated temperatures and operating conditions.

Capacities are nominal at 1800 rpm.

\* capacities are nominal at 1500 rpm.

\*\* Unit used for letter of compliance for ECO-design

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

SEPR = Seasonal Energy Performance Ratio

CMO and SMC S and L models, 60 Hz or VSD operation possible.

**Compliance**

All SABROE chiller units 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.

All information is subject to change without notice.