

PAC chillers with screw compressors



PAC 128 HF-A

Sabroe packaged ammonia chillers (PAC) based on screw compressors provide notable benefits when indirect cooling using a secondary refrigerant is required.

Because of the advanced technology that Sabroe uses in its PAC chillers, they are so energy efficient that their low running costs make them the cheapest option over the lifetime of a refrigeration plant. In addition, ammonia – because of its environmental friendliness – is the only suitable refrigerant that will still be in use in the foreseeable future.

Comprehensive series of chillers

The standard Sabroe range of packaged ammonia chillers comprises more than 30 models that have been optimised to meet the requirements experienced in the great majority of situations. Individually customised solutions are also available for large capacity requirements.

All chillers are supplied with PED approval (European Pressure Equipment Directive). Other approvals than PED on request.

Significant advantages

Sabroe PAC chiller designs feature the following advantages

- The standard PAC chiller range is factory-assembled and based on world-renowned screw compressor products developed and optimised by Sabroe.
- Sole use of natural ammonia (R717) as refrigerant.
- The Sabroe PAC chiller design is based on the flooded evaporator system, which is a relatively simple construction.
- All Sabroe chiller units are operationally tested with refrigerant at the specialist End Of Line (EOL) Test Centre before dispatch. A capacity test is also available as an option.

Customer benefits

Sabroe PAC chiller designs provide customers with the following benefits

- • Full advantage of well-tested Sabroe standard solutions that feature top-quality industrial components. This improves safety, ensures maximum reliability and provides easy access to service and parts worldwide.
- • Ammonia has the highest COP (coefficient of performance) available for chillers. It is also the most environmentally friendly and future compatible refrigerant currently available.
- • The most reliable operation with maximum energy efficiency and a very low operating cost.
- • Factory testing ensures trouble-free on-site start-up and operation as soon as the refrigerant charge has been added and water and electricity connections made. Shorter, safer start-up and commissioning periods reduce overall costs significantly.



Selection guide – packaged ammonia chillers

Water: inlet 12°C, outlet 6°C

Type	Capacity	E-motor	R717 charge	Dry weight	Dimensions			Sound level ^{*)} dB(A)
	kW	kW	kg	kg	L mm	W mm	H mm	
PAC 110 SM-A	129	30	38	2500	3350	1800	2250	78
PAC 110 LM-A	164	37	39	2500	3350	1800	2250	78
PAC 110 SF-A	212	45	41	2600	3350	1800	2250	78
PAC 110 LF-A	268	55	42	2650	3350	1800	2250	78
PAC 128 HM-A	319	75	51	3850	3600	2000	2300	79
PAC 128 HF-A	494	90	56	4100	3600	2000	2300	83
PAC 163 HM-A	669	132	72	5100	3850	2150	2400	82
PAC 163 HF-A	1037	200	84	5700	4550	2150	2400	84
PAC 202 SM-A	1289	250	168	9700	5100	2800	3150	83
PAC 202 LM-A	1668	315	178	10700	5700	2800	3150	83
PAC 202 SF-A	1933	355	187	11050	5700	2800	3150	84
PAC 202 LF-A	2502	450	245	12450	6900	2800	3350	84

Ethylene glycol 30%: inlet -4°C, outlet -8°C

Type	Capacity	E-motor	R717 charge	Dry weight	Dimensions			Sound level ^{*)} dB(A)
	kW	kW	kg	kg	L mm	W mm	H mm	
PAC 110 SM-C	72	30	38	2450	3350	1800	2250	79
PAC 110 LM-C	91	37	39	2450	3350	1800	2250	79
PAC 110 SF-C	118	45	40	2550	3350	1800	2250	79
PAC 110 LF-C	149	55	41	2600	3350	1800	2250	79
PAC 128 HM-C	176	75	49	3750	3600	2000	2300	80
PAC 128 HF-C	273	90	53	3950	3600	2000	2300	84
PAC 163 HM-C	371	132	68	4900	3850	2150	2400	83
PAC 163 HF-C	575	200	76	5450	3850	2150	2400	85
PAC 202 SM-C	719	250	83	7550	4800	2500	2400	84
PAC 202 LM-C	930	315	170	10250	5100	2800	3150	84
PAC 202 SF-C	1078	355	177	10600	5400	2800	3150	85
PAC 202 LF-C	1396	450	230	11800	6300	2800	3350	85

Condenser: water inlet 25°C, outlet 30°C

Motor: 3 x 400V, 50 Hz, 1450 rpm

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

Capacities are nominal.

A = Temperature above 0°C

C = Temperature below 0°C

*) 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 information is subject to change without previous notice.

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