SABlight air-cooled chiller

Sabroe SABlight air-cooled chillers

Compact air-cooled chillers for outdoor installation, based on a screw compressor, with a 160–400 kW capacity range

The SABlight air-cooled chiller is a particularly compact design that uses V-coil condensers to substantially reduce the overall footprint. The screw compressor and fully brazed plate heat exchanger are mounted underneath the V-coils, resulting in a height of 2.9m and a width of only 1.3m.

SABlight units provide a cost-effective alternative to traditional air conditioning, chilled rooms and industrial/process refrigeration. They are designed for quiet running and outdoor operation, and a special ultra-low noise version is available.

SABlight uses a small propane refrigerant charge, providing an attractive, economical, and environmentally responsible alternative to air-cooled chillers that use HFCs as refrigerant.

Range

There are five standard models in this range of air-cooled chillers, with capacities ranging from 160 kW to 400 kW.

Advantages	Benefits
Compact design with small footprint	Easy to mount outdoors – no special machinery room required
Quiet while running Available in both low and ultra-low noise versions	Can be placed close to occupied buildings
Variable-speed drive fitted to both compressor and fans, providing very high coefficient of performance (COP), even under part-load conditions	Low power consumption, which means low operating costs
Designed for maximum safety, with very small natural refrigerant charge (propane R290)	No expenditure on special safety precautions
Easy to mount, install, and connect	Low installation costs and rapid commissioning
Straightforward, uncomplicated construction	Low maintenance costs

Capacities are nominal and based on water temperature 12/7°C, ambient temperature 35°C.										
Type	Cooling capacity	Power consumption	R290 charge	Dry weight	Unit dimensions in mm			Nominal load current	Sound pressure level	COP ESEER
	kW	kW	kg	kg	L	W	H	A	dB(A)	
SABlight A140-1	166	54	24	2300	5260	1250	2835	100	55	4.42
SABlight A140-2	163	55	24	2300	5260	1250	2835	105	45	4.63
SABlight A200-1	210	71	24	2500	5260	1250	2835	135	55	4.51
SABlight A200-2	208	71	32	3000	6660	1250	2835	140	45	4.48
SABlight A260-1	277	92	32	3000	6660	1250	2835	170	55	4.57
SABlight A260-2	274	94	40	3300	8060	1250	2835	170	45	4.52
SABlight A340-1	324	101	40	3700	8060	1250	2835	190	55	4.70
SABlight A340-2	314	106	48	4200	9460	1250	2915	195	45	4.55
SABlight A400-1	406	133	48	4600	9460	1250	2915	245	55	4.31

Sound pressure levels measured in free field. All sound measuring has been carried out according to ISO 9614-2 at a distance of 10 m.

ESEER = European Seasonal Energy Efficiency Ratio (Eurovent Institute, Europe).
Fans and VSD are included in the power consumption.

Dimensions, weight and sound pressure levels are guidelines only.

Standard equipment

- Control and monitoring system
- Variable-speed drive
- Hot-dip galvanised base frame
- Screw compressor
- Precharged with refrigerant

Our products within the scope of eco-design, implemented according to regulation No 2015/1095 for low (-25°C) and medium (-8°C) temperatures and No 2016/2281 for high temperatures (+7°C), are in compliance. The harmonised standards EN 14511 series and EN 14825 have been used for testing and calculation. Value tolerances for selection tools comply with EN 12900.

Options

- External communication via network and industrial-standard bus systems
- Evaporator heating elements for frost-proofing
- Epoxy coating of condenser surface
- Oil cooler
- Models operating with inlet temperatures down to -10 °C available on request
- Desuperheater
- Condenser with air fresh-water spray system
- AxiTop diffuser on condenser fans for additional noise reduction
- Heating element in evaporator
- Heat tracing of brine pipeline

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