

Sabroe SMC reciprocating compressor units

Large single-stage compressors with swept volumes of 250–1350 m³/h

SMC compressor units are ideal for use in medium-sized refrigeration installations where reliable service is a major priority. They are particularly effective under part-load conditions.

Sabroe SMC compressors are world-renowned for their exceptional reliability, making them an economical, low-maintenance solution for heavy-duty refrigeration, using all common refrigerants.

Range

Fifteen different models are available to provide swept volumes of between 250 and 1357 m³/h at 1800 rpm.



SMC 108 single-stage reciprocating compressor unit with Unisab III systems controller

Advantages

High coefficient of performance (COP), with excellent performance under part-load conditions

Variable-speed drive (optional) provides stepless capacity control over the entire operating range

Repairs can be undertaken *in situ*, without removing the compressor

Easy to access for service, with limited spare parts requirements

Special oil separator design based on coalescer technology

Benefits

Low power consumption, which greatly reduces operating costs

Power consumption and operating costs kept to a minimum

Lower repair costs and less downtime

Easy, inexpensive maintenance, which helps limit downtime and reduce operating costs

Low oil carry-over, which cuts back on oil costs



Optional equipment

- Unisab III systems controller
- Variable-speed drive line
- Gauges, thermometers and temperature/pressure control switches
- Extended cylinder capacity control
- Oil level regulator (for use in parallel systems)
- ATEX-compliant configuration
- Special vibration dampening



SMC 108 single-stage reciprocating compressor block with gauges

Model	Number of cylinders	Bore x stroke mm	Swept volume at 1800 rpm m ³ /h	Nominal capacities kW					Dimensions in mm Direct coupled unit			Weight excluding motor kg	Sound pressure level dB(A)
				R717		Booster -40/-10°C	R404A		L	W	H		
				Single/high stage -10/+35°C	0/+35°C		Single/high stage 0/+35°C	-10/+35°C					
SMC 104 S	4	100 x 80	271	129	209	35	205	132	2400-2800	1228	1103	830	80
SMC 104 L	4	100 x 100	339	167	266	46	208	235	2400-2800	1228	1103	830	81
SMC 104 E	4	100 x 120	339	206	324	57	N/A	N/A	2400-2800	1228	1103	830	81
SMC 106 S	6	100 x 80	407	194	313	52	308	197	2400-2800	1190	1108	925	81
SMC 106 L	6	100 x 100	509	251	398	70	312	202	2400-2800	1190	1108	925	82
SMC 106 E	6	100 x 120	509	309	486	86	N/A	N/A	2400-2800	1190	1108	925	82
SMC 108 S	8	100 x 80	543	259	417	70	410	263	2400-2800	1201	1103	990	82
SMC 108 L	8	100 x 100	679	335	531	93	416	270	2400-2800	1201	1103	990	83
SMC 108 E	8	100 x 120	679	412	648	115	N/A	N/A	2400-2800	1201	1103	990	83
SMC 112 S	12	100 x 80	814	388	626	106	616	395	2425-3000	1290	1314	1660	83
SMC 112 L	12	100 x 100	1018	502	796	140	624	405	2425-3000	1290	1314	1660	83
SMC 112 E	12	100 x 120	1018	618	972	172	N/A	N/A	2425-3000	1290	1314	1660	83
SMC 116 S	16	100 x 80	1086	517	834	141	821	526	2475-3200	1301	1314	1760	84
SMC 116 L	16	100 x 100	1357	669	1062	187	831	539	2475-3200	1301	1314	1760	84
SMC 116 E	16	100 x 120	1357	824	1297	230	N/A	N/A	2475-3200	1301	1314	1760	84

Nominal capacities are based on 5°C subcooling and 1500 rpm.

SMC-E series: max. rpm 1500 for R717

SMC-S series: max. rpm 1500 for R404A

SMC-L series: max. rpm 1200 for R404A

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

All information is subject to change without notice.

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