

Packaged unit

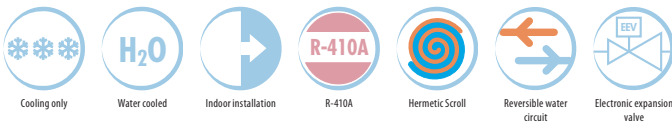
Simultaneous and independent heating and cooling
 Water cooled
 Indoor installation
Capacity from 173 to 500 kW

SPINSAVER

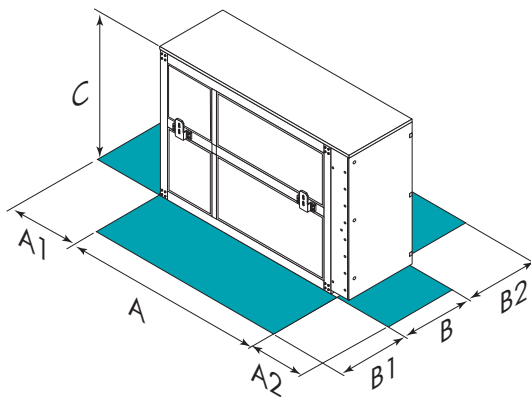


SPINSAVER is the high efficiency monobloc unit for centralised systems, able to provide both simultaneous and independent heating and cooling. SPINchiller technology offers high seasonal efficiency, using several Scroll compressors per circuit and working together with the innovative built-in automatic hydraulic switch system in **SPINSAVER**. In fact, hot and cold fluids are produced simultaneously in all load conditions with maximum energy recovery. The source is therefore only activated to exchange any excess energy, with considerable savings in terms of extraction circuit pumping energy. As a result, total primary energy savings can reach up to 50%. Thanks to its effective production combination, **SPINSAVER** is therefore the ideal solution for civil and industrial applications with centralised "four-pipe" type installations.

functions and features



dimensions and clearances



Size – WSHF-XSC	65D	70D	75D	80D	85D	90D	100D	110D	115D	120D	135E	150F	165F	180F
A - Length	mm 4266	4266	4266	4266	4266	4266	4266	4266	4266	4266	4723	4723	4723	4723
B - Width	mm 850	850	850	850	850	850	850	850	850	850	850	850	850	850
C - Height	mm 2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
A1	mm 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
A2	mm 1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
B1	mm 1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
B2	mm 700	700	700	700	700	700	700	700	700	700	700	700	700	700
Operating weight	kg 1238	1320	1360	1397	1489	1490	1604	1694	1723	1731	2012	2272	2409	2406

The above mentioned data are referred to standard units for the constructive configurations indicated. For all the other configurations, refer to the relative Technical Bulletin.

CAUTION!For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

versions and configurations

LOW TEMPERATURE:

- ▶ - Low temperature: not required (Standard)
- ▶ **B** Water low temperature

SYSTEM TYPE:

- ▶ - System with terminal units. (Standard)
- ▶ **PR** System for radiant panels, induction terminals or cold beams.

ACOUSTIC CONFIGURATION:

- ▶ **ST** Standard acoustic configuration (Standard)
- ▶ **EN** Extremely low noise acoustic configuration

UNIT INSTALLATION:

- ▶ **II** Indoor installation (Standard)
- ▶ **IO** Outdoor installation

technical data

Size – WSHF-XSC		65D	70D	75D	80D	85D	90D	100D	110D	115D	120D	135E	150F	165F	180F	
COOLING 0% - HEATING 100%																
Heating capacity	(1)	kW	224	237	257	269	289	327	356	383	407	428	466	506	574	646
Total power input		kW	51,4	55,2	58,4	61,8	65,1	73,4	80,1	86,8	93,3	98,4	107	116	130	148
COP at full load		-	4,36	4,29	4,40	4,36	4,43	4,45	4,44	4,41	4,36	4,35	4,37	4,38	4,41	4,37
COOLING 100% - HEATING 0%																
Cooling capacity	(2)	kW	212	227	243	255	272	311	341	364	385	404	443	480	539	608
Total power input		kW	32,6	34,8	37,9	39,9	43,6	47,4	52,2	55,7	59,6	62,4	68,2	74,6	83,6	94,4
EER at full load		-	6,50	6,51	6,41	6,38	6,25	6,56	6,54	6,54	6,46	6,48	6,50	6,46	6,45	6,44
COOLING 100% - HEATING 100%																
Cooling capacity	(3)	kW	173	182	199	208	224	254	276	297	314	330	360	391	444	500
Heating capacity	(3)	kW	224	237	257	269	289	327	356	383	407	428	466	506	574	646
Total power input		kW	51,4	55,2	58,4	61,8	65,1	73,4	80,1	86,8	93,3	98,4	107	116	130	148
Overall efficiency		-	7,73	7,59	7,80	7,72	7,88	7,91	7,89	7,83	7,72	7,70	7,74	7,76	7,83	7,74
Refrigerant circuits		Nr	2	2	2	2	2	2	2	2	2	2	2	2	2	2
No. of compressors		Nr	4	4	4	4	4	4	4	4	4	4	5	6	6	6
Type of compressors		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
Standard power supply		V	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Standard (ST)																
Sound pressure level	(4)	dB(A)	73	74	74	74	74	74	76	76	76	76	76	76	77	77
Extremely low noise (EN)																
Sound pressure level	(4)	dB(A)	64	64	65	65	66	66	67	68	68	68	68	68	68	69

Notes

- (1) Heating water circuit = 45/40°C; Source water circuit = 12/7°C
- (2) Cooling water circuit = 7/12°C; Source water circuit = 15/25°C
- (3) Cooling water circuit = 7/12°C; Heating water circuit = 45/40°C
- (4) Measures according to UNI EN ISO 9614-2 regulations, with respect to the EUROVENT 8/1 certification. The sound levels refer to the unit at full load, in the rated test conditions.

The sound pressure level refers to a distance of 1m from the external surface of the units operating in an open field. Data referred to the following conditions : Internal exchanger water = 12/7°C; External exchanger water = 30/35°C

accessories

- ▶ **AMRX** Rubber antivibration mounts
- ▶ **PM** Phase monitor
- ▶ **RCMRX** Remote control via microprocessor control
- ▶ **CMSC8** Serial communication module to BACnet supervisor
- ▶ **CMSC10** Serial communication module to LonWorks supervisor
- ▶ **CMSC9** Serial communication module to MODBUS supervisor
- ▶ **CFSC** Free contacts for compressor state
- ▶ **PFCP** Power factor correction capacitors (cosfi > 0.9)
- ▶ **SFSTR** Disposal for inrush current reduction
- ▶ **IFWX** Water steel mesh strainer
- ▶ **MHP** High and low pressure gauges
- ▶ **SDV** Compressor discharge and suction shut-off valve

Key to symbols and notes

- Accessories supplied separately.

For compatibility between the various accessories, please refer to the dedicated Technical Bulletin or our website in the Systems and Products section.