



GUIDE 2024  
PRODUCTS AND SYSTEMS  
**APPLIED**

**2024**

# Sheen EVO 2.0

Capacity from 7 to 30 tons. Preliminary data

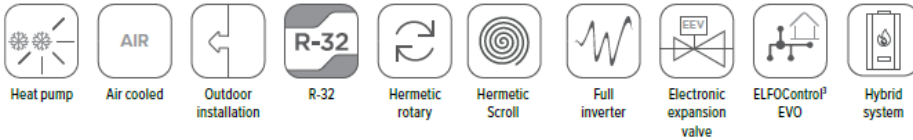
Available from November 2024.

Air-cooled Heat Pump with inverter rotary/scroll compressors

- Full inverter technology
- Refrigerant R32 – GWP = 675
- Hot water up to 140F, chiller water down to 32 F, operation down to -4F
- Two acoustic levels: standard and super silenced
- Available with a condensing boiler for instant DHW production
- Power supply 230V. Power supply 460, 575 V coming in 2025



## functions and features



## versions and configurations

### TYPE OF FANS:

**VEND** DC high efficiency fan (Standard)

### ACOUSTIC CONFIGURATION:

**SC** Acoustic configuration with compressor soundproofing (Standard)  
**EN** Super-silenced acoustic configuration

## accessories

**HYG1** Hydronic assembly with 1 ON/OFF pump  
**HYGU1V** User side hydronic group with 1 inverter pump  
**ACC** Storage tank  
**IFWX** Steel mesh strainer on the water side  
**AVIBX** Anti-vibration mount support  
**IFWI** Steel mesh strainer on the water side include in the packaging

**REMAUX** Advanced remote control module for auxiliary controls of sheen/storm units  
**AMMSX** Anti-seismic spring antivibration mounts  
**AVIBI** Anti-vibration mount support  
**PGFC** Finned coil protection grill  
**PGFCX** Finned coil protection grill  
**VACS** DHW switching valve

Imperial data will be available soon.

## technical data

### Size

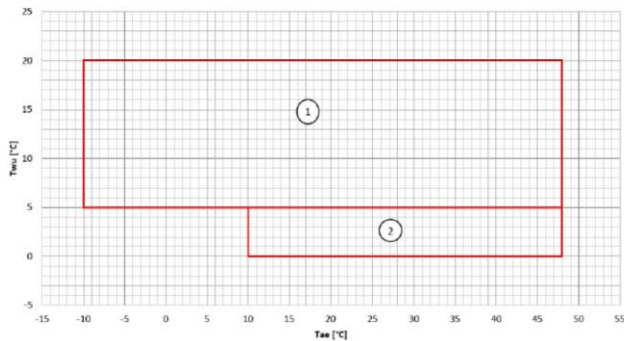
SC-EXC	♦ Cooling capacity (EN 14511:2018)	(1)	kW	24,0	26,6	30,2	43,8	49,6	57,2	70,0	81,6
SC-EXC	Total power input (EN 14511:2018)	(1)	kW	7,49	9,08	10,5	14,1	16,3	20,0	22,9	28,1
SC-EXC	EER (EN 14511:2018)	(1)	-	3,20	2,93	2,86	3,11	3,04	2,84	3,05	2,90
SC-EXC	SEER	(4)	-	4,77	4,70	4,54	4,33	4,35	4,38	4,17	4,12
SC-EXC	$\eta_{sc}$	(4)	%	187,8	184,9	178,7	170,0	170,9	172,1	163,9	161,8
SC-EXC	♦ Heating capacity (EN 14511:2018)	(2)	kW	24,2	28,8	34,1	50,5	55,3	63,3	74,9	85,8
SC-EXC	Total power input (EN 14511:2018)	(2)	kW	7,28	8,81	10,7	14,2	15,9	19,2	20,2	24,1
SC-EXC	COP (EN 14511:2018)	(2)	-	3,33	3,28	3,20	3,55	3,49	3,31	3,71	3,56
SC-EXC	Refrigeration circuits		Nr					1			
SC-EXC	No. of compressors		Nr		1				2		
SC-EXC	Type of compressors		-				ROTARY INVERTER			SCROLL INVERTER	
SC-EXC	Refrigerant		-				R-32				
SC-EXC	Standard power supply		V				400/3~/50				
SC-EXC	Sound power level	(3)	dB(A)	73	74	75	75	76	78	78	81
EN-EXC	Sound power level	(3)	dB(A)	69	71	72	71	71	72	73	75
<b>Directive ErP (Energy Related Products)</b>											
SCOP - AVERAGE Climate - W35		(4)	-	4,54	4,49	4,44	4,46	4,46	4,41	4,39	4,34
$\eta_{SP}$		(4)	%	179,0	177,0	175,0	175,0	175,0	173,0	173,0	171,0

### Size

SC-PRM	♦ Cooling capacity (EN14511:2018)	(1)	kW	25,2	27,6	32,2	45,7	52,1	60,7	74,3	86,2	94,2
SC-PRM	Total power input (EN14511:2018)	(1)	kW	8,34	10,1	11,8	15,4	18,1	22,0	25,5	31,5	35,8
SC-PRM	EER (EN14511:2018)	(1)	-	3,02	2,74	2,73	2,95	2,88	2,75	2,90	2,85	2,82
SC-PRM	SEER	(4)	-	4,50	4,40	4,24	4,04	4,09	4,07	3,96	3,91	3,87
SC-PRM	$\eta_{sc}$	(4)	%	177,0	173,0	166,6	158,5	160,6	159,8	155,4	153,4	151,8
SC-PRM	♦ Heating capacity (EN14511:2018)	(2)	kW	27,0	29,8	35,7	52,5	57,9	66,6	78,5	91,2	102
SC-PRM	Total power input (EN14511:2018)	(2)	kW	8,40	9,32	11,3	15,8	17,6	21,2	23,5	29,9	35,5
SC-PRM	COP (EN14511:2018)	(2)	-	3,21	3,20	3,15	3,33	3,29	3,14	3,34	3,05	2,88
SC-PRM	Refrigeration circuits		Nr					1				
SC-PRM	No. of compressors		Nr		1				2			
SC-PRM	Type of compressors		-				ROTARY INVERTER			SCROLL INVERTER		
SC-PRM	Refrigerant		-				R-32					
SC-PRM	Standard power supply		V				400/3~/50					
SC-PRM	Sound power level	(3)	dB(A)	75	76	77	77	78	80	80	83	83
EN-PRM	Sound power level	(3)	dB(A)	72	73	73	73	73	74	76	77	78
<b>Directive ErP (Energy Related Products)</b>												
SCOP - AVERAGE Climate - W35		(4)	-	4,29	4,23	4,11	4,22	4,19	4,17	4,12	4,08	4,13
$\eta_{SP}$		(4)	%	169,0	166,0	161,0	166,0	165,0	164,0	162,0	160,0	162,0

## Operating range - Excellence

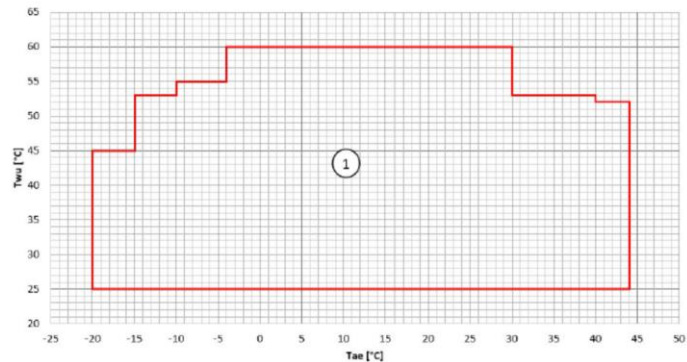
### Cooling



Tfw [°C] = Leaving exchanger water temperature  
Tse [°C] = External exchanger inlet air temperature

1. Normal operating range.
2. Operating range where the use of ethylene glycol is mandatory in relation to the temperature of the water at the outlet of the user side exchanger.

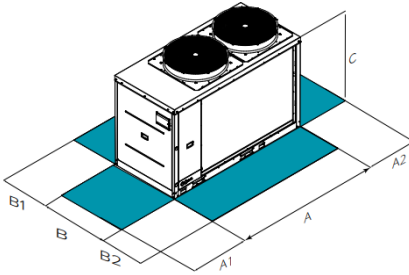
### Heating / DHW production



Tfw [°C] = Leaving exchanger water temperature  
Tse [°C] = External exchanger inlet air temperature

1. Normal operating range.

## dimensions and clearances



### CAUTION!

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

Size		▶▶	WiSAN-YSE1	10.1	12.1	14.1	16.2	18.2	22.2	30.2	35.2
SC-EXC	A - Length	mm		1920	1920	1920	2274	2274	2274	3300	3300
SC-EXC	B - Width	mm		1005	1005	1005	1060	1060	1060	1100	1100
SC-EXC	C - Height	mm		1340	1340	1340	1480	1480	1480	1510	1510
SC-EXC	A1	mm		800	800	800	800	800	800	800	800
SC-EXC	A2	mm		800	800	800	800	800	800	800	800
SC-EXC	B1	mm		800	800	800	800	800	800	800	800
SC-EXC	B2	mm		800	800	800	800	800	800	800	800
SC-EXC	Operating weight	kg		298	298	298	530	530	530	830	830

Size		▶▶	WiSAN-YSE1	10.1	12.1	14.1	16.2	18.2	22.2	30.2	35.2	40.2
SC-PRM	A - Length	mm		1920	1920	1920	2274	2274	2274	3300	3300	3300
SC-PRM	B - Width	mm		1005	1005	1005	1060	1060	1060	1100	1100	1100
SC-PRM	C - Height	mm		1340	1340	1340	1480	1480	1480	1510	1510	1510
SC-PRM	A1	mm		800	800	800	800	800	800	800	800	800
SC-PRM	A2	mm		800	800	800	800	800	800	800	800	800
SC-PRM	B1	mm		800	800	800	800	800	800	800	800	800
SC-PRM	B2	mm		800	800	800	800	800	800	800	800	800
SC-PRM	Operating weight	kg		298	298	298	530	530	530	830	830	830

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.

NEW PRODUCT

# Large EVO

Capacity from 31 to 71 tons

Available from November 2024

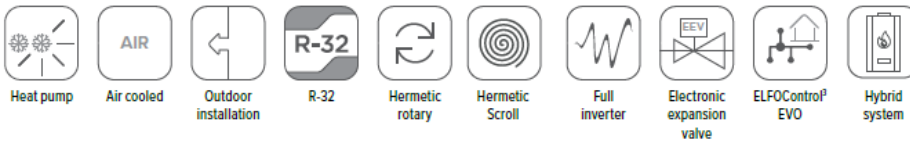
## Preliminary data

Air-cooled Heat Pump with inverter rotary/scroll compressors

- Full inverter technology
- Refrigerant R32 – GWP = 675
- Hot water up to 140F, chiller water down to 17.6 F, operation down to -4F
- Three acoustic levels: standard, silenced and super silenced
- Power supply 230V. Power supply 460, 575 V coming in 2025



## functions and features



## versions and configurations

### TYPE OF FANS:

**VENDC** DC high efficiency fan (Standard)

### ENERGY RECOVERY:

- Energy recovery: not required (Standard)
- D** Partial energy recovery

### ACOUSTIC CONFIGURATION:

- SC** Acoustic configuration with compressor soundproofing (Standard)
- LN** Silenced acoustic configuration
- EN** Super-silenced acoustic configuration

## accessories

- 1PM** Hydropack with 1 pump
- 1PMV** Hydropack user side with nr.1 inverter pump
- 1PMH** Hydropack with nr.1 high static pressure pump
- 1PMVH** Hydropack user side with nr.1 high static pressure inverter pump
- 1P1SB** Hydropack user side with 1+1 on-off pump
- 1PAP+S** 1 high head pump + 1 stand-by pump
- 1P1SBV** Hydropack on user side with one inverter pump and one stand-by pump with dedicated inverter
- 1PAPSV** Hydropack on user side with one high head inverter pump and one stand-by pump with dedicated inverter
- ACC** Storage tank
- IFWX** Steel mesh strainer on the water side
- VACS** DHW switching valve: required
- ABU** Flush hydraulic connections
- CMSC13** Serial communication module for Modbus TCP/IP, BACnet IP, BACnet MSTP superviso
- REMAU** Additional board for advanced function management

- RPR** Refrigerant leak detector
- AVIBX** Anti-vibration mount support
- AMMSX** Anti-seismic spring antivibration mounts
- PGFC** Finned coil protection grill
- PGFCX** Finned coil protection grill
- PGCCH** Anti-hail protection grilles
- PGCCHX** Anti-hail protection grilles
- TCDC** Condensate collection pan with electric heater
- IOTX** IoT industrial module for cloud based interoperability & services

### Only WISAT-YEE1:

**CCME** Microchannel coil

### Only WISAN-YEE1:

- CCCA** Copper / aluminium condenser coil with acrylic lining
  - CCCA1** Condenser coil with Aluminium Energy Guard DCC treatment
- Accessories whose code ends with "X" are supplied separately

## WiSAT-YEE1: Cooling Only / WiSAN-YEE1: Reversible Heat Pump

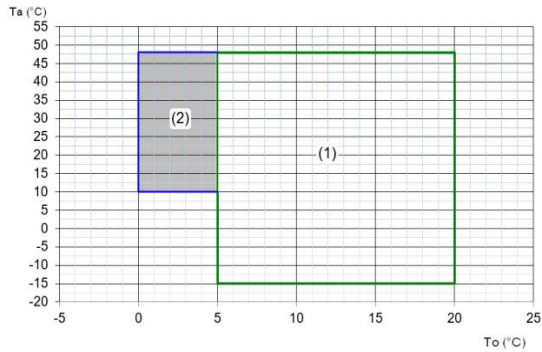
Imperial data will be available soon.

### technical data

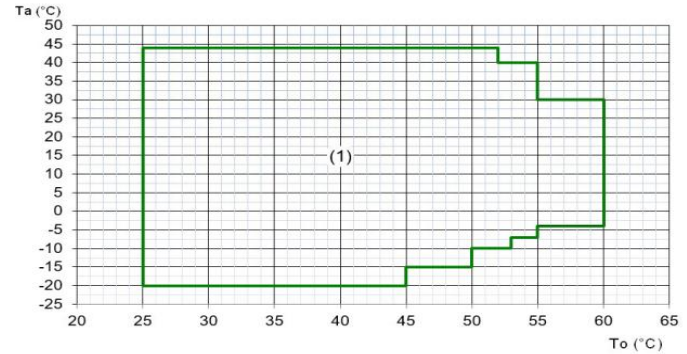
Size	▶▶ WiSAT-YEE1		45.4	50.4	55.4	60.4	65.4	70.4	75.4	80.4	85.4	90.4
SC-EXC	♦ Cooling capacity (EN 14511:2022)	(1) kW	110	118	133	142	156	169	183	196	209	226
SC-EXC	Total power input (EN 14511:2022)	(1) kW	34,2	38,5	46,1	50,3	50,0	54,6	64,0	59,4	65,5	74,2
SC-EXC	EER (EN 14511:2022)	(1) -	3,22	3,08	2,89	2,82	3,12	3,09	2,86	3,31	3,19	3,04
SC-EXC	SEER	(4) -	5,07	5,05	4,94	4,93	5,25	5,24	5,19	5,34	5,31	5,28
SC-EXC	$\eta_{sc}$	(4) %	200,0	199,0	194,0	194,0	207,0	207,0	205,0	211,0	210,0	208,0
SC-EXC	Refrigeration circuits	Nr	2									
SC-EXC	No. of compressors	Nr	4									
SC-EXC	Type of compressors	-	ROTARY INVERTER				*	SCROLL INVERTER				
SC-EXC	Refrigerant	-	R-32									
SC-EXC	Standard power supply	V	400/3N~/50									
SC-EXC	Sound power level	(3) dB(A)	84	84	84	84	85	85	85	88	89	89
LN-EXC	Sound power level	(3) dB(A)	81	81	81	81	82	82	82	84	85	85
EN-EXC	Sound power level	(3) dB(A)	78	78	78	78	79	79	79	80	81	81
Size	▶▶ WiSAT-YEE1		45.4	50.4	55.4	60.4	65.4	70.4	75.4	80.4	85.4	90.4
SC-PRM	♦ Cooling capacity (EN 14511:2022)	(1) kW	125	135	143	155	174	192	211	226	241	252
SC-PRM	Total power input (EN 14511:2022)	(1) kW	44,2	49,2	53,5	58,8	62,4	73,2	71,6	78,1	80,3	86,0
SC-PRM	EER (EN 14511:2022)	(1) -	2,83	2,74	2,67	2,64	2,79	2,63	2,94	2,90	3,00	2,93
SC-PRM	SEER	(4) -	4,76	4,71	4,70	4,77	4,91	4,90	5,06	5,03	5,06	5,05
SC-PRM	$\eta_{sc}$	(4) %	188,0	185,0	185,0	188,0	193,0	193,0	199,0	198,0	199,0	199,0
SC-PRM	Refrigeration circuits	Nr	2									
SC-PRM	No. of compressors	Nr	4									
SC-PRM	Type of compressors	-	ROTARY INVERTER				*	SCROLL INVERTER				
SC-PRM	Refrigerant	-	R-32									
SC-PRM	Standard power supply	V	400/3N~/50									
SC-PRM	Sound power level	(3) dB(A)	86	86	86	87	87	90	91	91	91	91
LN-PRM	Sound power level	(3) dB(A)	83	83	83	84	84	87	88	88	88	88
EN-PRM	Sound power level	(3) dB(A)	80	80	80	81	81	84	85	85	85	85
Size	▶▶ WiSAN-YEE1		45.4	50.4	55.4	60.4	65.4	70.4	75.4	80.4	85.4	
♦ Cooling capacity (EN 14511:2022)	(1) kW	115	127	139	152	164	176	196	215	233		
Total power input (EN 14511:2022)	(1) kW	44,0	51,0	56,3	66,5	66,8	75,2	73,6	85,8	99,0		
EER (EN 14511:2022)	(1) -	2,61	2,49	2,47	2,29	2,46	2,34	2,66	2,51	2,35		
SEER	(4) -	4,51	4,51	4,36	4,28	4,48	4,45	4,48	4,45	4,42		
$\eta_{sc}$	(4) %	177,4	177,4	171,4	168,2	176,2	175,0	176,2	175,0	173,8		
♦ Heating capacity (EN 14511:2022)	(2) kW	118	130	150	170	190	210	230	250	268		
Total power input (EN 14511:2022)	(2) kW	37,7	43,2	47,3	55,1	60,0	67,7	70,5	79,7	88,7		
COP (EN 14511:2022)	(2) -	3,13	3,01	3,17	3,09	3,17	3,10	3,26	3,14	3,02		
Refrigeration circuits	Nr	2										
No. of compressors	Nr	4										
Type of compressors	-	ROTARY INVERTER				*	SCROLL INVERTER					
Refrigerant	-	R-32										
Standard power supply	V	400/3N~/50										
SC-Sound power level	(3) dB(A)	85	85	86	86	88	88	89	89	89	89	
LN-Sound power level	(3) dB(A)	81	81	82	82	84	84	85	85	85	85	
EN-Sound power level	(3) dB(A)	77	77	78	78	80	80	81	81	81	81	
<b>Directive ErP (Energy Related Products)</b>												
SCOP - AVERAGE Climate - W35	(4) -	4,16	4,12	4,15	4,08	4,19	4,15	4,23	4,16	4,11		
$\eta_{sh}$	(4) %	163,0	162,0	163,0	160,0	165,0	163,0	166,0	163,0	161,0		



## Cooling



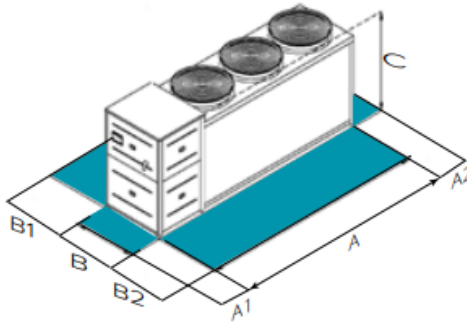
## Heating



1. Standard unit operating range
2. Operating range where the use of glycol is mandatory in relation to the temperature of the outlet water from the user side exchanger.

Imperial dimensions will be available soon.

## dimensions and clearances



Size	▶▶ WISAT-YEE1	45.4	50.4	55.4	60.4	65.4	70.4	75.4	80.4	85.4	90.4
SC-EXC A - Length	mm	3310	3310	3310	3310	4300	4300	4300	4300	4300	4300
SC-EXC B - Width	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-EXC C - Height	mm	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
SC-EXC A1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
SC-EXC A2	mm	800	800	800	800	800	800	800	800	800	800
SC-EXC B1	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-EXC B2	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-EXC Operating weight	kg	894	894	904	904	1154	1154	1154	1180	1180	1180

Size	▶▶ WISAT-YEE1	45.4	50.4	55.4	60.4	65.4	70.4	75.4	80.4	85.4	90.4
SC-PRM A - Length	mm	3310	3310	3310	3310	4300	4300	4300	4300	4300	4300
SC-PRM B - Width	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-PRM C - Height	mm	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
SC-PRM A1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
SC-PRM A2	mm	800	800	800	800	800	800	800	800	800	800
SC-PRM B1	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-PRM B2	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
SC-PRM Operating weight	kg	894	894	894	904	1154	1154	1180	1180	1180	1180

Size	▶▶ WISAN-YEE1	45.4	50.4	55.4	60.4	65.4	70.4	75.4	80.4	85.4
A - Length	mm	3310	3310	3310	3310	4300	4300	4300	4300	4300
B - Width	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200
C - Height	mm	1900	1900	1900	1900	1900	1900	1900	1900	1900
A1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000
A2	mm	800	800	800	800	800	800	800	800	800
B1	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
B2	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
Operating weight	kg	966	966	1009	1009	1250	1250	1352	1352	1352

NEW PRODUCT



# SPINchiller<sup>4</sup>

Capacity from 61 to 320 tons

Preliminary data

61 – 125 tons available from November this year

Larger capacities up to 320 tons available in Q2 2025

Air-cooled Heat Pump with inverter rotary/scroll compressors

- Scroll compressors, EC fans, two circuits
- Refrigerant R32 – GWP = 675
- Hot water up to 131F, operation down to 5 F
- Three acoustic configurations
- Modular operation management up to 8 units
- Power supply 230V, 460V, 575V

## functions and features



## versions and configurations

### VERSION:

- EXC** Excellence (Standard)
- PRM** Premium

### EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

- CREFB** Device for fan consumption reduction of the external section, ECOBREEZE type (Standard)

### ENERGY RECOVERY:

- Energy recovery: not required (Standard)
- D** Partial energy recovery
- R** Total energy recovery (WSAT-YSC4 only)

### EVAPORATOR

- EVPH** Plate heat exchanger (Standard)
- EVFTP** Shell and tube evaporator PED test

### ACOUSTIC CONFIGURATION:

- ST** Standard acoustic configuration
- SC** Acoustic configuration with compressor soundproofing (Standard)
- EN** Super-silenced acoustic configuration

### LOW TEMPERATURE

- Energy recovery: not required (Standard)
- B** Water low temperature



## accessories

Hydropack with 1 pump  
 Hydropack user side with nr.1 inverter pump  
 Hydropack with nr.1 high static pressure pump  
 Hydropack user side with nr.1 high static pressure inverter pump  
 Hydropack user side with 2 pumps  
 Hydropack user side with no.2 of inverter pumps  
 Hydropack user side with nr.2 high static pressure pump  
 Hydropack lato utilizzo con n°2 pompe ad inverter alta prevalenza  
 Inverter driven variable flow-rate user side control depending on the temperature differential  
 Steel mesh strainer on the water side  
 Couple of manually operated shut-off valves  
 Storage tank  
 Rubber antivibration mounts  
 Energy meter  
 Remote control via microprocessor control  
 Mains power supply  
 Serial communication module for LonWorks supervisor  
 Serial communication module for Modbus supervisor  
 Serial communication module for BACnet-IP supervisor  
 Set-point compensation with 0-10 V signal  
 Set point compensation with 4-20 mA signal  
 ECOSHARE function for the automatic management of a group of units  
 Power factor correction capacitors (cosφ > 0.9)  
 Disposal for inrush current reduction  
 Electrical panel antifreeze protection for min. outdoor temperature down to -25°C

High and low pressure gauges  
 Cutoff valve on compressor supply and return  
 Anti-seismic spring antivibration mounts  
 Refrigerant leak detector in the casing  
 Demand limit with 4-20 mA  
 Demand limit with 0-10 V  
 Soundproofing paneling of the pumping unit  
 Differential pressure switch water side with antifreeze protection

Microchannel coils protection panels  
 Finned coil protection grilles and compressor compartment  
 Microchannel e-coated coil  
 Electrical panel antifreeze protection for min. outdoor temperature down to -39°C  
 Variable flow-rate control of the inverter pump external to the unit depending on the temperature differential

Copper / aluminium condenser coil with acrylic lining  
 Condenser coil with Aluminium Energy Guard DCC treatment  
 Anti-hail protection grilles  
 Finned coil protection grill

Imperial data will be available soon.

WSAT – cooling only / WSAN – reversible heat pump

## technical data

Size		▶▶ WSAT-YSC4	80.3	100.4	115.4	130.4	155.5	170.5	185.5	210.6	225.6	240.6
ST/SC-EXC	♦ Cooling capacity (EN 14511:2018)	(1) kW	222	267	314	364	423	472	520	573	624	675
ST/SC-EXC	Total power input (EN 14511:2018)	(1) kW	69,4	85,5	99,8	115	135	149	167	184	200	218
ST/SC-EXC	EER (EN 14511:2018)	(1) -	3,20	3,12	3,15	3,17	3,15	3,16	3,11	3,12	3,12	3,10
ST/SC-EXC	SEER	(4) -	4,70	4,67	4,78	4,75	4,92	5,00	4,96	4,94	4,96	4,90
ST/SC-EXC	η <sub>s,c</sub>	(4) %	185,2	183,8	188,3	187,1	193,6	197,0	195,5	194,6	195,4	193,1
ST/SC-EXC	Refrigeration circuits	Nr					2					
ST/SC-EXC	No. of compressors	Nr	3	4		5		6				
ST/SC-EXC	Type of compressors	-	SCROLL									
ST/SC-EXC	Refrigerant	-	R-32									
ST/SC-EXC	Standard power supply	V	400/3~/50									
ST-EXC	Sound power level	(3) dB(A)	90	91	92	93	94	95	95	96	96	97
SC-EXC	Sound power level	(3) dB(A)	87	88	89	90	90	91	91	92	92	93
EN-EXC	Sound power level	(3) dB(A)	84	84	86	86	86	87	88	88	88	89

Size		▶▶ WSAT-YSC4	90.3	110.4	130.4	145.4	170.5	185.5	210.6	225.6	240.6	
ST/SC-PRM	♦ Cooling capacity (EN 14511:2018)	(1) kW	232	291	333	384	443	483	537	590	644	
ST/SC-PRM	Total power input (EN 14511:2018)	(1) kW	84,5	102	124	139	156	179	199	209	233	
ST/SC-PRM	EER (EN 14511:2018)	(1) -	2,74	2,85	2,70	2,77	2,84	2,70	2,70	2,82	2,76	
ST/SC-PRM	SEER	(4) -	4,38	4,48	4,46	4,47	4,65	4,64	4,61	4,69	4,62	
ST/SC-PRM	η <sub>s,c</sub>	(4) %	172,3	176,1	175,4	175,8	183,0	182,5	181,2	184,7	181,9	
ST/SC-PRM	Refrigeration circuits	Nr					2					
ST/SC-PRM	No. of compressors	Nr	3	4		5		6				
ST/SC-PRM	Type of compressors	-	SCROLL									
ST/SC-PRM	Refrigerant	-	R-32									
ST/SC-PRM	Standard power supply	V	400/3~/50									
ST-PRM	Sound power level	(3) dB(A)	90	91	92	93	94	94	95	96	96	
SC-PRM	Sound power level	(3) dB(A)	87	88	89	89	90	90	91	92	92	
EN-PRM	Sound power level	(3) dB(A)	84	86	86	87	87	88	89	89	89	

Size			▶▶ WSAN-YSC4	80.3	90.4	100.4	110.4	120.4	130.4	145.4	160.4	185.5	210.6	225.6	240.6
ST/SC-EXC	♦ Cooling capacity (EN 14511:2018)	(1)	kW	215	240	265	290	320	355	390	430	500	555	610	655
ST/SC-EXC	Total power input (EN 14511:2018)	(1)	kW	72,9	76,4	84,7	94,9	106	114	128	143	163	188	198	218
ST/SC-EXC	EER (EN 14511:2018)	(1)	-	2,95	3,14	3,13	3,05	3,02	3,11	3,04	3,00	3,06	2,96	3,08	3,01
ST/SC-EXC	SEER	(4)	-	4,45	4,79	4,74	4,81	4,84	4,86	4,78	4,72	4,88	4,84	4,89	4,86
ST/SC-EXC	$\eta_{s,c}$	(4)	%	175,0	188,5	186,6	189,4	190,4	191,3	188,1	186,0	192,1	190,7	192,6	191,5
ST/SC-EXC	♦ Heating capacity (EN 14511:2018)	(2)	kW	225	255	280	310	335	375	415	455	530	585	640	685
ST/SC-EXC	Total power input (EN 14511:2018)	(2)	kW	69,9	78,8	85,6	95,2	103	114	125	137	160	178	199	211
ST/SC-EXC	COP (EN 14511:2018)	(2)	-	3,22	3,24	3,27	3,26	3,26	3,29	3,32	3,31	3,32	3,28	3,22	3,24
ST/SC-EXC	Refrigeration circuits		Nr								2				
ST/SC-EXC	No. of compressors		Nr	3				4				5		6	
ST/SC-EXC	Type of compressors		-												
ST/SC-EXC	Refrigerant		-												
ST/SC-EXC	Standard power supply		V												
SC-EXC	Sound power level	(3)	dB(A)	87	88	89	89	89	91	91	91	92	92	93	93
EN-EXC	Sound power level	(3)	dB(A)	84	85	86	86	86	86	87	87	88	89	90	90
<b>Directive ErP (Energy Related Products)</b>															
SCOP - AVERAGE Climate - W35		(4)	-	3,73	3,90	3,92	4,10	4,08	4,05	4,00	4,10	-	-	-	-
$\eta_{s,h}$		(4)	%	146,0	153,0	154,0	161,0	160,0	159,0	157,0	161,0	-	-	-	-

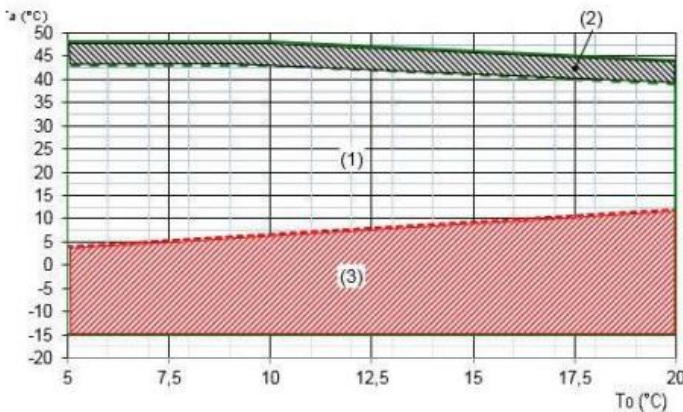
Size			▶▶ WSAN-YSC4	90.3	100.3	110.4	120.4	130.4	145.4	160.4	185.5	210.6	225.6	240.6
ST/SC-PRM	♦ Cooling capacity (EN 14511:2018)	(1)	kW	235	255	275	300	335	370	405	480	530	585	630
ST/SC-PRM	Total power input (EN 14511:2018)	(1)	kW	83,7	94,1	102	116	119	136	155	172	200	207	227
ST/SC-PRM	EER (EN 14511:2018)	(1)	-	2,80	2,71	2,70	2,59	2,81	2,72	2,61	2,80	2,65	2,83	2,77
ST/SC-PRM	SEER	(4)	-	4,26	4,24	4,35	4,37	4,55	4,57	4,33	4,64	4,62	4,66	4,64
ST/SC-PRM	$\eta_{s,c}$	(4)	%	167,2	166,7	171,0	171,6	178,9	179,9	170,1	182,8	181,8	183,4	182,5
ST/SC-PRM	♦ Heating capacity (EN 14511:2018)	(2)	kW	240	265	285	315	350	385	420	500	555	610	655
ST/SC-PRM	Total power input (EN 14511:2018)	(2)	kW	76,4	85,5	92,3	102	112	124	134	157	175	191	206
ST/SC-PRM	COP (EN 14511:2018)	(2)	-	3,15	3,10	3,09	3,09	3,12	3,10	3,13	3,19	3,17	3,18	3,18
ST/SC-PRM	Refrigeration circuits		Nr								2			
ST/SC-PRM	No. of compressors		Nr	3				4				5		6
ST/SC-PRM	Type of compressors		-											
ST/SC-PRM	Refrigerant		-											
ST/SC-PRM	Standard power supply		V											
SC-PRM	Sound power level	(3)	dB(A)	87	88	88	88	90	90	90	91	91	92	92
EN-PRM	Sound power level	(3)	dB(A)	85	86	86	86	86	87	87	88	89	90	90
<b>Directive ErP (Energy Related Products)</b>														
SCOP - AVERAGE Climate - W35		(4)	-	3,47	3,64	3,83	3,87	3,80	3,64	3,82	3,91	-	-	-
$\eta_{s,h}$		(4)	%	136,0	143,0	150,0	152,0	149,0	143,0	150,0	153,0	-	-	-

(1) Data calculated in compliance with Standard EN 14511:2018 referred to the following conditions: Internal exchanger water temperature = 12/7°C; Entering external exchanger air temperature = 35°C  
(2) Data compliant to Standard EN 14511:2018 referred to the following conditions: - Internal exchanger water temperature = 40/45°C - Entering external exchanger air temperature = 7°C D.B./6°C W.B.  
(3) Sound pressure levels are referred to units operating at nominal load in nominal conditions. Measurements are carried out accordingly to UNI EN ISO 9614-1 at nominal standard conditions defined in respective regulations: EU 2016/2281, UE 813/2013, UE 811/2013  
(4) Data calculated according to the EN 14825:2018 Regulation

The Product is compliant with the Erp (Energy Related Products) European Directive. It includes the Commission delegated Regulation (EU) No 811/2013 (rated heat output ≤70 kW at specified reference conditions), the Commission delegated Regulation (EU) No 813/2013 (rated heat output ≤400 kW at specified reference conditions) and the Commission delegated Regulation (EU) No 2016/2281, also known as Ecodesign Lot21.

## Operating range - Cooling

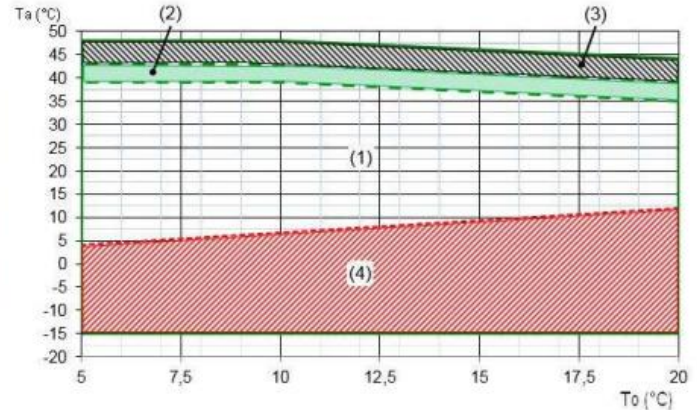
### Excellence ST/SC



Ta (°C) = external exchanger inlet air temperature (D.B.)  
Tc (°C) = internal exchanger outlet water temperature

- Standard unit operating range at full load
- Unit operating range with automatic staging of the compressor capacity
- Unit operating range with air flow automatic modulation

### Excellence EN

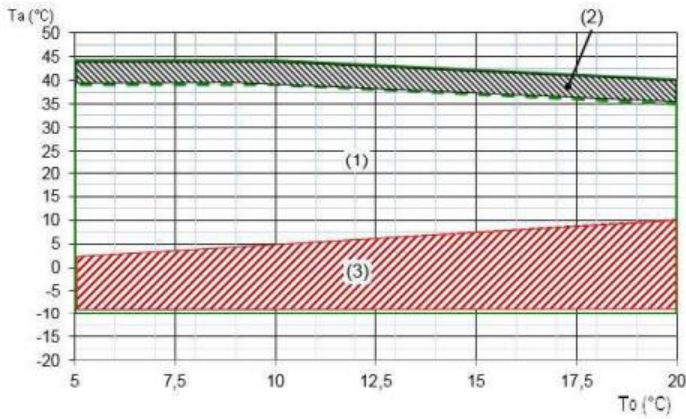


Ta (°C) = external exchanger inlet air temperature (D.B.)  
Tc (°C) = internal exchanger outlet water temperature

- Standard unit operating range at full load
- Extended operating range with air flow-rate automatic increasing. Inside this field the sound levels are the same of the 'compressor soundproofing (SC)' acoustic configuration
- Unit operating range with automatic staging of the compressor capacity
- Unit operating range with air flow-rate automatic modulation



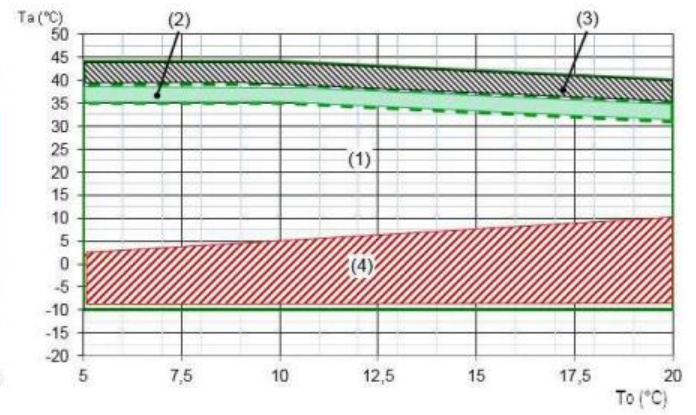
## Premium ST/SC



Ta (°C) = external exchanger inlet air temperature (D.B.)  
To (°C) = internal exchanger outlet water temperature

1. Standard unit operating range at full load
2. Unit operating range with automatic staging of the compressor capacity
3. Unit operating range with air flow automatic modulation

## Premium EN

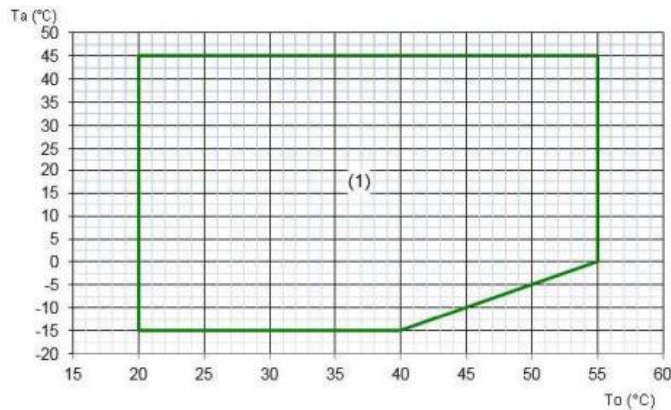


Ta (°C) = external exchanger inlet air temperature (D.B.)  
To (°C) = internal exchanger outlet water temperature

1. Standard unit operating range at full load
2. Extended operating range with air flow-rate automatic increasing. Inside this field the sound levels are the same of the 'compressor soundproofing (SC)' acoustic configuration
3. Unit operating range with automatic staging of the compressor capacity
4. Unit operating range with air flow automatic modulation

## Operating range - Heating

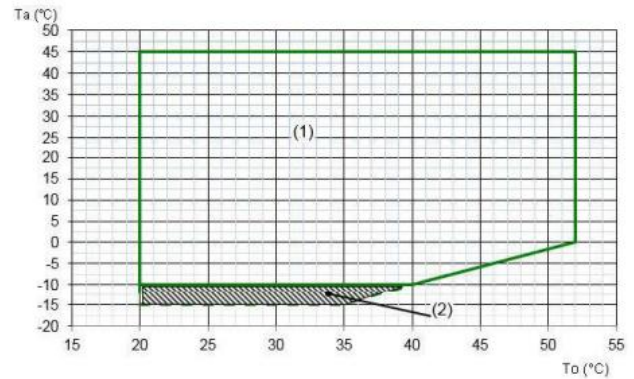
### Excellence ST/SC/EN



Ta (°C) = external exchanger inlet air temperature (D.B.)  
To (°C) = internal exchanger outlet water temperature

1. Standard unit operating range at full load

### Premium ST/SC/EN



Ta (°C) = external exchanger inlet air temperature (D.B.)  
To (°C) = internal exchanger outlet water temperature

1. Standard unit operating range at full load
2. Unit operating range with automatic staging of the compressor capacity



# SPINChiller<sup>4</sup> Polyvalent

Capacity from 61 to 320 tons Preliminary data

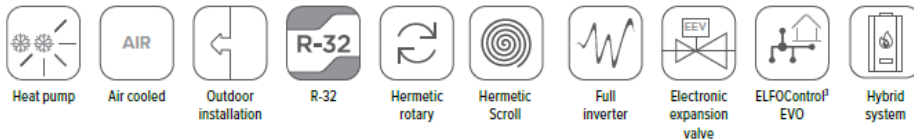
61 – 125 tons available from January 2025

Larger capacities up to 320 tons available in Q2 2025

- Scroll compressors, EC axial fans and two independent circuits for high reliability
- Polyvalent technology configurable for 4-pipe
- Refrigerant R32 – GWP = 675
- Domestic Hot water up to 131F
- Plate heat exchanger or shell & tube heat exchanger
- Two acoustic configurations: standard and super-silenced
- Modular operation management, upto 8 units in cascade
- Available in 230V, 460V and 575V from January 2025



## functions and features



## versions and configurations

### VERSION:

**EXC** Excellence (Standard)

### EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

**CREFB** Device for fan consumption reduction of the external section, ECOBREEZE type (Standard)

### ENERGY RECOVERY:

**R** Total energy recovery (Standard)

### STRUCTURAL CONFIGURATION:

**4T** Configuration for 4-pipe system

### EVAPORATOR

**EVPHE** Plate heat exchanger (Standard)

**EVFTP** Shell and tube evaporator PED test

### ACOUSTIC CONFIGURATION:

**SC** Acoustic configuration with compressor soundproofing (Standard)

**EN** Super-silenced acoustic configuration



## accessories

<b>CCCA</b>	Copper / aluminium condenser coil with acrylic lining	<b>DML0-10</b>	Demand limit with 0-10 V
<b>CCCA1</b>	Condenser coil with Aluminium Energy Guard DCC treatment	<b>ECS</b>	ECOSHARE function for the automatic management of a group of units
<b>IVFCDT</b>	Inverter driven variable flow-rate user side control depending on the temperature differential	<b>RPRI</b>	Refrigerant leak detector in the casing
<b>IVFHDT</b>	Variable flow rate control heating side by inverter according to the temperature differential	<b>SFSTR</b>	Disposal for inrush current reduction
<b>IVFCDTS</b>	Variable flow control heating side by inverter according to the temperature differential with pressure drop sensor	<b>PFCC</b>	Power factor correction capacitors (cosfi > 0.95)
<b>IVFHDTs</b>	Variable flow control heating side by inverter according to the temperature differential with pressure drop sensor	<b>SPC1</b>	Set-point compensation with 4-20 mA
<b>IVFCDTF</b>	Variable flow rate control cooling side by inverter according to the temperature differential with a flow meter	<b>SCP4</b>	Set-point compensation with 0-10 V
<b>IVFHDTF</b>	Variable flow control heating side by inverter according to the temperature differential with pressure drop sensor	<b>PSX</b>	Mains power supply
<b>PFGP</b>	Soundproofing paneling of the pumping unit	<b>AMMX</b>	Rubber antivibration mounts
<b>IVFDT</b>	Inverter driven variable flow-rate user side control depending on the temperature differential	<b>AMMSX</b>	Anti-seismic spring antivibration mounts
<b>CSVX</b>	Couple of manually operated shut-off valves	<b>PGFC</b>	Finned coil protection grill
<b>IFWX</b>	Steel mesh strainer on the water side	<b>PGCCH</b>	Anti-hail protection grilles
<b>CMSC10</b>	Serial communication module for LonWorks supervisor	<b>PSWSA</b>	Differential pressure switch water side with antifreeze protection
<b>CMSC9</b>	Serial communication module for Modbus supervisor	<b>2PMCS</b>	Hydropack cooling side with 2 on-off pumps
<b>CMSC11</b>	Serial communication module for BACnet-IP supervisor	<b>2PMCS2V</b>	Hydropack on cold user side with 2 pumps and 2 inverters
<b>RCMRX</b>	Remote control via microprocessor control	<b>1+1PMCS</b>	Hydropack cooling side with 1 + 1 on-off pump
<b>CONTA3</b>	M-bus total electricity meter	<b>1+1PMCSV</b>	Hydropack cooling side with 1 + 1 inverter pump
<b>CONTA4</b>	Total electricity meters and m-bus pump group	<b>2PMMS</b>	Hydropack heating side with 2 on-off pumps
<b>RE-25</b>	Electrical panel antifreeze protection for min. outdoor temperature down to -25°C	<b>2PMMS2V</b>	Hydropack on hot user side with 2 pumps and 2 inverters
<b>DML4-20</b>	Demand limit with 4-20 mA	<b>1+1PMMS</b>	Hydropack heating side with 1 + 1 on-off pump
		<b>1+1PMMSV</b>	Hydropack heating side with 1 + 1 inverter pump
		<b>FMCHX</b>	Cooling and heating side flow meters
		<b>RDVS</b>	Switching valve with dual safety valves
		<b>MISTER1</b>	Indirect energy meter through pressure drops and unit probes temperature differential
		<b>MISTER2</b>	Direct energy meter by flow rate and temperature differential with unit probes (available only with options: FMCHX)

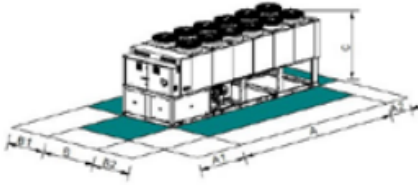
Imperial data will be available soon.

## technical data

Size	▶▶ WSCAN-YSC4 PL		90.4	100.4	110.4	120.4	130.4	145.4	160.4	175.4	215.6	230.6	250.6	265.6	
<b>Cooling 100% - Heating 0%</b>															
SC-EXC	Cooling capacity (EN 14511:2022)	(1)	kW	225	250	276	307	336	366	409	449	532	573	627	664
SC-EXC	Total power input (EN 14511:2022)	(1)	kW	72,4	84,9	96,5	108	119	126	141	156	195	210	217	237
SC-EXC	EER (EN 14511:2022)	(1)	-	3,11	2,95	2,87	2,85	2,83	2,90	2,90	2,87	2,73	2,73	2,89	2,81
SC-EXC	SEER	(4)	-	4,82	4,70	4,61	4,74	4,80	4,82	4,68	4,65	4,88	4,91	4,94	4,94
SC-EXC	$\eta_{s,c}$	(4)	%	190,0	185,0	182,0	187,0	189,0	190,0	184,0	183,0	192,0	193,0	195,0	195,0
<b>Cooling 0% - Heating 100%</b>															
SC-EXC	Heating capacity (EN 14511:2022)	(2)	kW	231	258	285	317	349	376	419	463	554	599	648	694
SC-EXC	Total power input (EN 14511:2022)	(2)	kW	71,8	80,1	89,3	97,5	106	115	128	140	172	182	199	213
SC-EXC	COP (EN 14511:2022)	(2)	-	3,22	3,23	3,19	3,25	3,31	3,27	3,27	3,31	3,23	3,29	3,26	3,25
<b>Cooling 100% - Heating 100%</b>															
SC-EXC	Cooling capacity (EN 14511:2022)	(3)	kW	221	250	280	315	346	374	418	465	555	601	642	687
SC-EXC	Heating capacity (EN 14511:2022)	(3)	kW	287	326	365	409	448	483	542	598	720	777	832	890
SC-EXC	Total power input (EN 14511:2022)	(3)	kW	67,0	76,6	86,0	95,1	103	111	125	135	168	179	192	207
SC-EXC	TER (EN 14511:2022)	(4)	-	7,58	7,53	7,50	7,61	7,69	7,70	7,67	7,86	7,60	7,69	7,66	7,63
SC-EXC	Refrigeration circuits		Nr								2				
SC-EXC	No. of compressors		Nr					4					6		
SC-EXC	Type of compressors		-								SCROLL				
SC-EXC	Refrigerant		-								R-32				
SC-EXC	Standard power supply		V								400/3~/50				
SC-EXC	Sound power level	(5)	dB(A)	90	90	90	91	91	92	92	93	93	93	94	94
EN-EXC	Sound power level	(5)	dB(A)	85	85	85	86	87	88	88	89	89	90	90	91
<b>Directive ErP (Energy Related Products)</b>															
SCOP - AVERAGE Climate - W35		(6)	-	3,88	3,91	3,86	3,93	4,01	3,89	3,94	3,93	-	-	-	-
$\eta_{s,H}$		(6)	%	152,0	153,0	151,0	154,0	157,0	153,0	155,0	154,0	-	-	-	-

Imperial dimensions will be available soon.

## dimensions and clearances



Size		▶ WSAN-YSC4 PL	90.4	100.4	110.4	120.4	130.4	145.4	160.4	175.4	215.6	230.6	250.6	265.6
SC-EXC	A - Length	mm	4114	4114	4114	4114	4114	5091	5091	5091	6066	6066	7033	7045
SC-EXC	B - Width	mm	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
SC-EXC	C - Height	mm	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530
SC-EXC	A1	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
SC-EXC	A2	mm	700	700	700	700	700	700	700	700	700	700	700	700
SC-EXC	B1	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-EXC	B2	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
SC-EXC	Operating weight	kg	2604	2805	2911	3027	3151	3698	3903	4042	4480	4677	5590	5875

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.

SC-EXC Compressors soundproofing (SC)-Excellence

PRELIMINARY DATA