# SPINCHILLER4 PL

Polyvalent reversible heat pump

Air cooled

Outdoor installation

Capacity from 225 to 664 kW



- √ 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 55°C
- ✓ Plate exchanger
- ✓ Two acoustic configurations: standard and super-silenced
- ✓ Modular operation management, up to 7 units in cascade
- ✓ Integrated hot side and cold side hydronic assemblies



Clivet participates in the EUROVENT "Liquid Chilling Packages and Hydronic Heat Pumps". The products concerned feature on the website www.eurovent-certification.com



# functions and features







Outdoor



Hermet Scroll



Electronic expansion valve



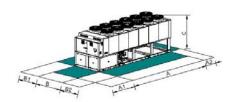
ECOBREEZE



HydroPack



# dimensions and clearances



Size	▶► WSAN-YS	C4 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

#### CAUTION

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



differential with unit

# versions and configurations

VERSION:

**EXC** Excellence (Standard)

EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

Device for fan consumption reduction of the external section, ECOBREEZE

type (Standard)

**ENERGY RECOVERY:** 

Total energy recovery (Standard)

### STRUCTURAL CONFIGURATION:

Configuration for 4-pipe system

**EVAPORATOR** 

**EVPHE** Plate heat exchanger (Standard)

ACOUSTIC CONFIGURATION:

SC Acoustic configuration with compressor soundproofing (Standard)

EN Super-silenced acoustic configuration

# technical data

Size		▶► WSAN-Y	SC4 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
Cooling 100% - Heating 0%															
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	η <sub>s,c</sub>	(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
Cooling (	0% - Heating 100%														
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
Cooling 100% - Heating 100%															
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	66,7	76,2	85,6	94,5	103	111	124	134	167	178	191	205
SC-EXC	TER (EN 14511:2022)	(4)		7,61	7,56	7,54	7,65	7,73	7,75	7,72	7,92	7,66	7,74	7,71	7,69
SC-EXC	Refrigeration circuits		Nr	2											
SC-EXC	No. of compressors		Nr	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
Directive ErP (Energy Related Products)															
SCOP - AVE	RAGE Climate - W35	(6)	-	3,88	3,91	3,86	3,93	4,01	3,89	3,94	3,93	3,96	3,95	3,97	3,99
$\eta_{\text{S,H}}$		(6)	%	152,0	153,0	151,0	154,0	157,0	153,0	155,0	154,0	155,0	155,0	156,0	157,0

(1) Data compliant to Standard EN 14511:2022 referred to the following conditions: Cold side water temperature =  $12/7^{\circ}$ C; Entering external exchanger air temperature =  $35^{\circ}$ C

(2) Data compliant to Standard EN 14511:2022 referred to the following conditions: Hot side water temperature =  $40/45^{\circ}$ C; Entering external exchanger air temperature =  $7^{\circ}$ C D.B./6°C W.B.

(3) Data compliant to Standard EN 14511:2022 referred to the following conditions: Cold side water temperature = \*/7°C; Hot side water temperature = \*/45°C (4) TER = (Cooling capacity + Heating capacity) / (Total power input)

(5) 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

(6) 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  $\le$ 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.

IoT industrial module for cloud based interoperability & services

acces	sories		
CCCA	Copper / aluminium condenser coil with acrylic lining	RPRI	Refrigerant leak detector in the casing
CCCA1	Condenser coil with Aluminium Energy Guard DCC treatment	SFSTR	Disposal for inrush current reduction
IVFCDT	Variable flow rate control heating side by inverter according to the	PFCC	Power factor correction capacitors (cosfi > 0.95)
	temperature differential	SPC1	Set-point compensation with 4-20 mA
IVFHDT	Variable flow-rate control on hot use side by inverter based on the	SCP4	Set-point compensation with 0-10 V
	temperature difference	PSX	Mains power supply
IVFCDTS	Variable flow control heating side by inverter according to the temperature	<b>AMMX</b>	Spring antivibration mounts
	differential with pressure drop sensor	<b>AMMSX</b>	Anti-seismic spring antivibration mounts
IVFHDTS	Variable flow control heating side by inverter according to the temperature	PGFC	Finned coil protection grill
	differential with pressure drop sensor	<b>PGCCH</b>	Anti-hail protection grilles
IVFCDTF		<b>PSWSA</b>	Differential pressure switch water side with antifreeze protection
	temperature differential with a flow meter	2PMCS	Hydropack cooling side with 2 on-off pumps
IVFHDTF		2PMCS2\	✓ Hydropack on cold user side with 2 pumps and 2 inverters
	differential with pressure drop sensor	1+1PMCS	Hydropack cooling side with 1 + 1 on-off pump
PFGP	Soundproofing paneling of the pumping unit	1+1PMCS	VHydropack cooling side with 1+1 inverter pump
CSVX	Couple of manually operated shut-off valves	2PMHS	Hydropack heating side with 2 on-off pumps
IFWX	Steel mesh strainer on the water side	2PMHS2	V Hydropack on hot user side with 2 pumps and 2 inverters
CMSC10	Serial communication module for LonWorks supervisor	1+1PMHS	Hydropack heating side with 1+1 on-off pump
CMSC9	Serial communication module for Modbus supervisor	1+1PMHS	VHydropack heating side with 1+1 inverter pump
CMSC11	Serial communication module for BACnet-IP supervisor	<b>FMCHX</b>	Cooling and heating side flow meters
RCMRX	Remote control via microprocessor control	RDVS	Switching valve with dual safety valves
CONTA3	M-bus total electricity meter	MISTER1	,
CONTA4	Total electricity meters and m-bus pump group		temperature differential
RE-25	Electrical panel antifreeze protection for min. outdoor temperature down	MISTER2	Direct energy meter by flow rate and temperature differential with
	to -25°C		probes (available only with options: FMCHX)
DMI 4 20	Damand limit with 1 20 mm		

Data contained in this document are not binding and may be changed by the Manufacturer without notice

IOTX

ECOSHARE function for the automatic management of a group of units

DML4-20 Demand limit with 4-20 mA

DMLO-10 Demand limit with 0-10 V

**ECS**