

### SPINchiller<sup>3</sup>

#### Liquid chiller

WSH-XSC3: cooling only  
 WSHN-XSC3: Reversible heat pump  
 Water cooled  
 Indoor installation  
**Capacity from 211 to 394 kW**



- ✓ Double independent circuits for high reliability with scroll compressors and plate heat exchangers
- ✓ Solution for multi-family and commercial buildings
- ✓ Refrigerant R410A - GWP = 2088
- ✓ Double independent circuits for high reliability with scroll compressors and plate heat exchangers
- ✓ Solution for multi-family and commercial buildings
- ✓ Domestic hot water up to 60°C, low water temperature down to -8°C
- ✓ Modular operation management, up to 8 units in cascade
- ✓ Integrated source and user side hydronic assemblies and partial recovery



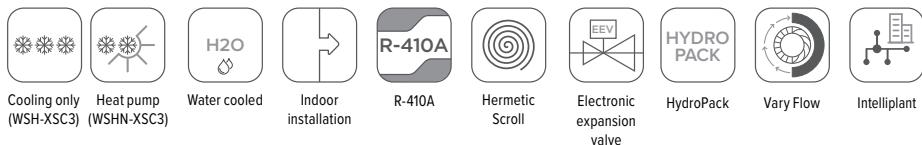
Clivet participates in the EUROVENT "Liquid Chilling Packages and Hydronic Heat Pumps". The products concerned feature on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)



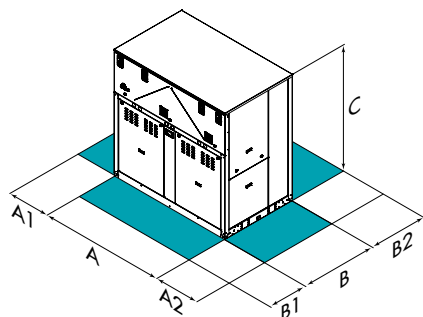
compliant  
ErP

HYDRONIC

## functions and features



## 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	▶▶ WSH-XSC3	70.4	75.4	80.4	85.4	90.4	100.4	110.4	120.4
A - Length	mm	2234	2234	2234	2234	2234	2234	2234	2234
B - Width	mm	1132	1132	1132	1132	1132	1132	1132	1460
C - Height	mm	2210	2210	2210	2210	2210	2210	2210	2210
A1	mm	500	500	500	500	500	500	500	500
A2	mm	500	500	500	500	500	500	500	500
B1	mm	800	800	800	800	800	800	800	800
B2	mm	1000	1000	1000	1000	1000	1000	1000	1000
EN Operating weight	kg	1246	1268	1336	1356	1419	1692	1751	1935

Size	▶▶ WSHN-XSC3	70.4	75.4	80.4	85.4	90.4	100.4	110.4	120.4
A - Length	mm	2234	2234	2234	2234	2234	2234	2234	2234
B - Width	mm	1134	1134	1134	1134	1134	1134	1134	1460
C - Height	mm	2210	2210	2210	2210	2210	2210	2210	2210
A1	mm	500	500	500	500	500	500	500	500
A2	mm	500	500	500	500	500	500	500	500
B1	mm	800	800	800	800	800	800	800	800
B2	mm	1000	1000	1000	1000	1000	1000	1000	1000
EN Operating weight	kg	1242	1264	1322	1343	1406	1583	1651	1924

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.

EN Super-silenced (EN)

## versions and configurations

### ACOUSTIC CONFIGURATION:

<b>EN</b>	Super-silenced acoustic configuration (Standard)
<b>GEO</b>	Version for Geothermal application

### ENERGY RECOVERY:

-	Energy recovery: not required (Standard)
<b>D</b>	Partial energy recovery

### LOW TEMPERATURE (WSH-XSC3 ONLY):

-	Low temperature: not required (Standard)
<b>B</b>	Water low temperature

### OPERATION (WSH-XSC3 ONLY):

<b>OCO</b>	Cooling-only operation (Standard)
<b>OHO</b>	Heating-only operation
<b>OHI</b>	Operation with water circuit change-over

## technical data

Size		▶▶ WSH-XSC3	70.4	75.4	80.4	85.4	90.4	100.4	110.4	120.4
♦ Cooling capacity (EN 14511:2022)	(1)	kW	217	231	248	268	292	319	350	394
Total power input (EN 14511:2022)	(1)	kW	46,4	50,4	53,3	58,4	61,9	68,2	75,5	83,6
EER (EN 14511:2022)	(1)	-	4,68	4,59	4,65	4,58	4,71	4,68	4,64	4,72
SEER	(4)	-	6,16	6,24	6,18	6,06	6,01	5,73	5,65	5,91
$\eta_{s,c}$	(4)	%	238,6	241,7	239,1	234,3	232,4	221,3	217,9	228,2
♦ Heating capacity (EN 14511:2022)	(2)	kW	249	266	285	309	333	366	401	453
Total power input (EN 14511:2022)	(2)	kW	56,8	61,5	64,2	71,5	76,3	83,5	92,6	103
COP (EN 14511:2022)	(2)	-	4,39	4,32	4,44	4,32	4,36	4,38	4,33	4,41
Refrigeration circuits	-	Nr	2							
No. of compressors	-	Nr	4							
Type of compressors	-	-	SCROLL							
Refrigerant	-	-	R-410A							
Water flow-rate (User side)	-	l/s	10,3	11,0	11,8	12,7	13,9	15,2	16,6	18,8
Water flow (Source side)	-	l/s	12,7	13,5	14,4	15,6	16,9	18,6	20,4	22,9
Standard power supply	-	V	400/3~/50							
EN Sound power level	(3)	dB(A)	81	82	83	83	83	84	85	86

Size		▶▶ WSHN-XSC3	70.4	75.4	80.4	85.4	90.4	100.4	110.4	120.4
♦ Cooling capacity (EN 14511:2022)	(1)	kW	211	225	242	262	283	313	342	390
Total power input (EN 14511:2022)	(1)	kW	48,5	52,6	55,5	61,1	65,5	71,6	79,1	88,0
EER (EN 14511:2022)	(1)	-	4,35	4,28	4,36	4,29	4,33	4,37	4,32	4,44
SEER	(4)	-	5,95	5,89	5,84	5,90	5,92	5,65	5,40	5,92
$\eta_{s,c}$	(4)	%	229,9	227,8	225,7	228,0	228,8	217,9	207,9	228,6
♦ Heating capacity (EN 14511:2022)	(2)	kW	243	259	278	301	327	358	393	445
Total power input (EN 14511:2022)	(2)	kW	58,4	63,2	66,8	73,4	78,9	86,5	94,8	106
COP (EN 14511:2022)	(2)	-	4,17	4,10	4,17	4,10	4,14	4,14	4,14	4,20
Refrigeration circuits	-	Nr	2							
No. of compressors	-	Nr	4							
Type of compressors	-	-	SCROLL							
Refrigerant	-	-	R-410A							
Water flow-rate (User side)	-	l/s	10,0	10,7	11,5	12,5	13,5	14,9	16,3	18,6
Water flow (Source side)	-	l/s	12,4	13,3	14,3	15,5	16,7	18,4	20,2	22,9
Standard power supply	-	V	400/3~/50							
EN Sound power level	(3)	dB(A)	81	82	83	83	83	84	85	86

### Directive ErP (Energy Related Products)

SCOP - AVERAGE Climate - W35	(4)	-	6,09	6,09	6,13	6,05	5,89	6,22	6,07	-
$\eta_{s,H}$	(4)	%	241	241	242	239	233	246	240	-
SCOP - AVERAGE Climate - W35	(4)	-	4,72	4,67	4,72	4,67	4,41	4,77	4,70	-
$\eta_{s,H}$	(4)	%	181	179	181	179	168	183	180	-

(1) Performance data calculated in accordance with EN 14511:2022 referred to the following conditions: Internal exchanger water temperature = 12/7°C; External exchanger water temperature = 30/35°C

(2) Data calculated in compliance with Standard EN 14511:2022 referred to the following conditions: Internal exchanger water temperature = 40/45°C; External exchanger water temperature = 10/7°C

(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.

## accessories

<b>AP</b>	Rear water fittings
<b>SDV</b>	Cutoff valve on compressor supply and return
<b>MHP</b>	High and low pressure gauges
<b>MF2</b>	Multi-function phase monitor
<b>SFSTR</b>	Disposal for inrush current reduction
<b>RCMRX</b>	Remote control via microprocessor control
<b>ACIE</b>	Antifreeze heater for internal exchanger protection
<b>EHCS</b>	Source side antifreeze electric heaters
<b>CMSC10</b>	Serial communication module for LonWorks supervisor
<b>CMSC9</b>	Serial communication module for Modbus supervisor
<b>CMSC11</b>	Serial communication module for BACnet-IP supervisor
<b>SCP4</b>	Set-point compensation with 0-10 V signal
<b>SPC2</b>	Set-point compensation with outdoor air temperature probe
<b>CSVX</b>	Couple of manually operated shut-off valves
<b>IFWX</b>	Steel mesh strainer on the water side
<b>PFCP</b>	Power factor correction capacitors (cosfi > 0.9)
<b>AVIBX</b>	Anti-vibration mount support
<b>CONTA2</b>	Energy meter
<b>RPRPDI</b>	Refrigerant leak detector with pump down function in the casing
<b>ECS</b>	ECOSHARE function for the automatic management of a group of units
<b>PSX</b>	Mains power supply
<b>IVFDT</b>	Inverter driven variable flow-rate user side control depending on the temperature differential

### Only WSH-XSC3:

<b>HYGC1</b>	Cooling side hydronic assembly with 1 ON/OFF pump
<b>HYGC2</b>	Cooling side hydronic assembly with 2 ON/OFF pumps
<b>VS2MC</b>	Cooling side 2-way modulating valve
<b>VS2MCX</b>	Cooling side 2-way modulating valve
<b>VS3MCX</b>	Cooling side 3-way modulating valve
<b>VARYC</b>	VARYFLOW + (cooling side 2 inverter pumps)
<b>2PMC</b>	Hydropack cooling side with 2 pumps
<b>V2MCP</b>	Cooling side 2-way modulating valve for high DP
<b>V2MCPX</b>	Cooling side 2-way modulating valve for high DP
<b>HYGH1</b>	Heating side hydronic assembly with 1 ON/OFF pump
<b>HYGH2</b>	Heating side hydronic assembly with 2 ON/OFF pumps
<b>VARYH</b>	VARYFLOW + (heating side 2 inverter pumps)
<b>VS2MH</b>	Heating side 2-way modulating valve

Accessories whose code ends with "X" are supplied separately

<b>VS2MHX</b>	Heating side 2-way modulating valve
<b>VS3MHX</b>	Heating side 3-way modulating valve
<b>2PMH</b>	Hydropack heating side with 2 pumps
<b>V2MHP</b>	Heating side 2-way modulating valve for high DP
<b>V2MHPX</b>	Heating side 2-way modulating valve for high DP

### Only WSHN-XSC3:

<b>HYGU1</b>	User side hydronic assembly with 1 ON/OFF pump
<b>HYGU2</b>	User side hydronic assembly with 2 ON/OFF pumps
<b>VARYU</b>	VARYFLOW + (user side 2 inverter pumps)
<b>HYP2U</b>	Hydropack user side with 2 pumps
<b>HYGS1</b>	Source side hydronic assembly with 1 ON/OFF pump
<b>HYGS2</b>	Source side hydronic assembly with 2 ON/OFF pumps
<b>VARYS</b>	VARYFLOW + (source side 2 inverter pumps)
<b>VS2M</b>	Source side 2-way modulating valve
<b>VS2MX</b>	Source side 2-way modulating valve
<b>VS3MX</b>	Source side 3-way modulating valve
<b>HYP2S</b>	Hydropack source side with 2 pumps
<b>V2MSP</b>	Source side 2-way modulating valve for high DP
<b>V2MSPX</b>	Source side 2-way modulating valve for high DP