

WSH-XSC3 WSHN-XSC3

70.4÷120.4

SPINchiller³

Liquid chiller

WSH-XSC3: cooling only

WSHN-XSC3: Reversible heat pump

Water cooled

Indoor installation

Capacity from 211 to 394 kW



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



compliant
ErP

- ✓ 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

functions and features



Cooling only
(WSH-XSC3)



Heat pump
(WSHN-XSC3)



Water cooled



Indoor
installation



R-410A



Hermetic
Scroll



Electronic
expansion
valve



HydroPack

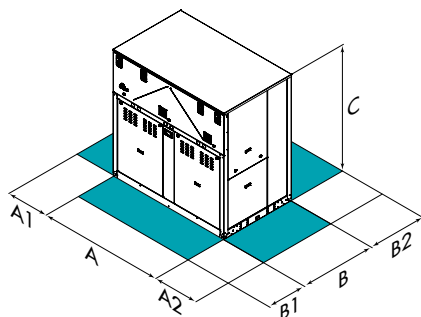


Vary Flow



Intelligent

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:

EN	Super-silenced acoustic configuration (Standard)
GEO	Version for Geothermal application

ENERGY RECOVERY:

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

LOW TEMPERATURE (WSH-XSC3 ONLY):

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

OPERATION (WSH-XSC3 ONLY):

OCO	Cooling-only operation (Standard)
OHO	Heating-only operation
OHI	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
η _{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
η _{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	-
η _{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	-
η _{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

AP	Rear water fittings
SDV	Cutoff valve on compressor supply and return
MHP	High and low pressure gauges
MF2	Multi-function phase monitor
SFSTR	Disposal for inrush current reduction
RCMRX	Remote control via microprocessor control
ACIE	Antifreeze heater for internal exchanger protection
EHCS	Source side antifreeze electric heaters
CMSC10	Serial communication module for LonWorks supervisor
CMSC9	Serial communication module for Modbus supervisor
CMSC11	Serial communication module for BACnet-IP supervisor
SCP4	Set-point compensation with 0-10 V signal
SPC2	Set-point compensation with outdoor air temperature probe
CSVX	Couple of manually operated shut-off valves
IFWX	Steel mesh strainer on the water side
PFCP	Power factor correction capacitors (cosfi > 0.9)
AVIBX	Anti-vibration mount support
CONTA2	Energy meter
RPRPD1	Refrigerant leak detector with pump down function in the casing
ECS	ECOSHARE function for the automatic management of a group of units
PSX	Mains power supply
IVFDT	Inverter driven variable flow-rate user side control depending on the temperature differential

Only WSH-XSC3:

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

Accessories whose code ends with "X" are supplied separately

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

Only WSHN-XSC3:

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