

WSAT-YSC4 WSAN-YSC4

80.3÷240.6

HYDRONIC

SPINCHILLER⁴

Liquid chiller

WSAT-YSC4: cooling only

WSAN-YSC4: Reversible heat pump

Air cooled

Outdoor installation

Capacity from 215 to 675 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

- ✓ Scroll compressors, EC axial fans and two independent circuits for high reliability
- ✓ High full load and seasonal efficiency (Excellence version), high seasonal efficiency and compact dimensions (Premium version)
- ✓ Refrigerant R32 - GWP = 675
- ✓ Domestic hot water up to 55°C, low water temperature down to -12°C
- ✓ Plate heat exchanger or shell & tube exchanger
- ✓ Three acoustic configurations
- ✓ Modular operation management, up to 8 units in cascade
- ✓ Integrated hydronic assembly, system tank, partial heat recovery and total heat recovery (only for chiller)

functions and features



Cooling only
(WSAT-YSC4)



Heat pump
(WSAN-YSC4)



AIR
Air cooled



Outdoor
installation



R-32



Hermetic
Scroll



Electronic
expansion
valve



ECO
BREEZE

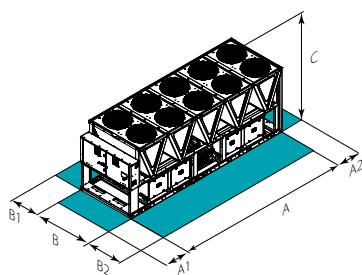


HYDRO
PACK



Intelliplant

dimensions and clearances



CAUTION!

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

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

SC-PRM Compressors soundproofing (SC)-Premium

Size		▶▶ WSAT-YSC4		80.3	100.4	115.4	130.4	155.5	170.5	185.5	210.6	225.6	240.6		
SC-EXC	A - Length	mm		2925	2925	4175	4175	5417	5417	5417	6680	6680	6680		
SC-EXC	B - Width	mm		2228	2228	2228	2228	2228	2228	2228	2228	2228	2228		
SC-EXC	C - Height	mm		2535	2535	2535	2535	2535	2535	2535	2535	2535	2535		
SC-EXC	A1	mm		1500	1500	1500	1500	1500	1500	1500	1500	1500	1500		
SC-EXC	A2	mm		700	700	700	700	700	700	700	700	700	700		
SC-EXC	B1	mm		1200	1200	1200	1200	1200	1200	1200	1200	1200	1200		
SC-EXC	B2	mm		2250	2250	2250	2250	2250	2250	2250	2250	2250	2250		
SC-EXC	Operating weight	kg		1879	1898	2345	2494	2979	3152	3314	3810	3943	4100		
Size		▶▶ WSAT-YSC4		90.3	110.4	130.4	145.4	170.5	185.5	210.6	225.6	240.6			
SC-PRM	A - Length	mm		2925	2925	2925	4175	4175	4175	5417	5417	5417			
SC-PRM	B - Width	mm		2228	2228	2228	2228	2228	2228	2228	2228	2228			
SC-PRM	C - Height	mm		2535	2535	2535	2535	2535	2535	2535	2535	2535			
SC-PRM	A1	mm		1500	1500	1500	1500	1500	1500	1500	1500	1500			
SC-PRM	A2	mm		700	700	700	700	700	700	700	700	700			
SC-PRM	B1	mm		1200	1200	1200	1200	1200	1200	1200	1200	1200			
SC-PRM	B2	mm		2250	2250	2250	2250	2250	2250	2250	2250	2250			
SC-PRM	Operating weight	kg		1893	2000	2116	2576	2763	2938	3396	3563	3684			
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
SC-EXC	A - Length	mm		3118	4114	4114	4114	4114	5091	5091	5091	6066	6066	7045	7045
SC-EXC	B - Width	mm		2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
SC-EXC	C - Height	mm		2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520
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		2300	2631	2652	2772	2890	3295	3438	3594	4097	4199	4761	4861
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	
SC-PRM	A - Length	mm		3118	3118	3118	3118	4114	4114	4114	5091	5091	6066	6066	
SC-PRM	B - Width	mm		2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	
SC-PRM	C - Height	mm		2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520	
SC-PRM	A1	mm		1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	
SC-PRM	A2	mm		700	700	700	700	700	700	700	700	700	700	700	
SC-PRM	B1	mm		1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	
SC-PRM	B2	mm		1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	
SC-PRM	Operating weight	kg		2320	2445	2345	2562	2893	3018	3143	3779	3867	4310	4435	

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 14511:2022)	(1) kW	222	267	314	364	423	472	520	573	624	675
ST/SC-EXC	Total power input (EN 14511:2022)	(1) kW	69,4	85,5	99,8	115	135	149	167	184	200	218
ST/SC-EXC	EER (EN 14511:2022)	(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 _{s,c}	(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 14511:2022)	(1) kW	232	291	333	384	443	483	537	590	644
ST/SC-PRM	Total power input (EN 14511:2022)	(1) kW	84,5	102	124	139	156	179	199	209	233
ST/SC-PRM	EER (EN 14511:2022)	(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 _{s,c}	(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
SC-EXC	♦ Cooling capacity (EN 14511:2022)	(1)	kW	215	240	265	290	320	355	390	430	500	555	610	655
SC-EXC	Total power input (EN 14511:2022)	(1)	kW	72,9	76,4	84,7	94,9	106	114	128	143	163	188	198	218
SC-EXC	EER (EN 14511:2022)	(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
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
SC-EXC	η _{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
SC-EXC	♦ Heating capacity (EN 14511:2022)	(2)	kW	225	255	280	310	335	375	415	455	530	585	640	685
SC-EXC	Total power input (EN 14511:2022)	(2)	kW	69,9	78,8	85,6	95,2	103	114	125	137	160	178	199	211
SC-EXC	COP (EN 14511:2022)	(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
SC-EXC	Refrigeration circuits		Nr	2											
SC-EXC	No. of compressors		Nr	3	4				5				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	(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

Directive ErP (Energy Related Products)

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	153	154	161	160	159	157	161	-	-	-	-

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
SC-PRM	♦ Cooling capacity (EN 14511:2022)	(1)	kW	235	255	275	300	335	370	405	480	530	585	630
SC-PRM	Total power input (EN 14511:2022)	(1)	kW	83,7	94,1	102	116	119	136	155	172	200	207	227
SC-PRM	EER (EN 14511:2022)	(1)	-	2,80	2,71	2,70	2,59	2,81	2,72	2,61	2,80	2,65	2,83	2,77
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
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
SC-PRM	♦ Heating capacity (EN 14511:2022)	(2)	kW	240	265	285	315	350	385	420	500	555	610	655
SC-PRM	Total power input (EN 14511:2022)	(2)	kW	76,4	85,5	92,3	102	112	124	134	157	175	191	206
SC-PRM	COP (EN 14511:2022)	(2)	-	3,15	3,10	3,09	3,09	3,12	3,10	3,13	3,19	3,17	3,18	3,18
SC-PRM	Refrigeration circuits		Nr	2										
SC-PRM	No. of compressors		Nr	3	4				5			6		
SC-PRM	Type of compressors		-	SCROLL										
SC-PRM	Refrigerant		-	R-32										
SC-PRM	Standard power supply		V	400/3~/50										
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

Directive ErP (Energy Related Products)

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	143	150	152	149	143	150	153	-	-	-

(1) Data calculated in compliance with Standard EN 14511:2022 referred to the following conditions:
Internal exchanger water temperature = 12/7°C; Outdoor heat exchanger inlet air temperature = 35°C

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

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)
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ENERGY RECOVERY:

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

EVAPORATOR

EVPH	Plate heat exchanger (Standard)
EVFT	Shell and tube evaporator PED test

ACOUSTIC CONFIGURATION:

ST	Standard acoustic configuration (WSAT-YSC4 only)
SC	Acoustic configuration with compressor soundproofing (Standard)
EN	Super-silenced acoustic configuration

LOW TEMPERATURE (WSAT-YSC4 ONLY):

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

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
2PM	Hydropack user side with 2 pumps
2PMV	Hydropack user side with no.2 of inverter pumps
2PMH	Hydropack user side with nr.2 high static pressure pump
2PMVH	Hydropack lato utilizzo con n°2 pompe ad inverter alta prevalenza
IVFDT	Inverter driven variable flow-rate user side control depending on the temperature differential
IFWX	Steel mesh strainer on the water side
CSVX	Couple of manually operated shut-off valves
ACC	Storage tank
AMMX	Spring antivibration mounts
AMMSX	Anti-seismic spring antivibration mounts
CONTA2	Energy meter
RCMRX	Remote control via microprocessor control
PSX	Mains power supply
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
SPC1	Set point compensation with 4-20 mA signal
ECS	ECOSHARE function for the automatic management of a group of units
PFCP	Power factor correction capacitors (cosfi > 0.9)
SFSTR	Disposal for inrush current reduction

RE-25	Electrical panel antifreeze protection for min. outdoor temperature down to -25°C
MHP	High and low pressure gauges
SDV	Cutoff valve on compressor supply and return
RPRI	Refrigerant leak detector in the casing
DML4-20	Demand limit with 4-20 mA
DML0-10	Demand limit with 0-10 V
PFGP	Soundproofing paneling of the pumping unit
PSWSA	Differential pressure switch water side with antifreeze protection
IOTX	IoT industrial module for cloud based interoperability & services

Only WSAT-YSC4:

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

Only WSAN-YSC4:

CCCA	Copper / aluminium condenser coil with acrylic lining
CCCA1	Condenser coil with Aluminium Energy Guard DCC treatment
PGCCH	Anti-hail protection grilles
PGFC	Finned coil protection grill

Accessories whose code ends with "X" are supplied separately