

VLS

AIR-WATER CHILLERS
AND HEAT PUMPS
WITH VERY HIGH
SEASONAL EFFICIENCY AND
LOW-GWP REFRIGERANT.
150 - 590 KW

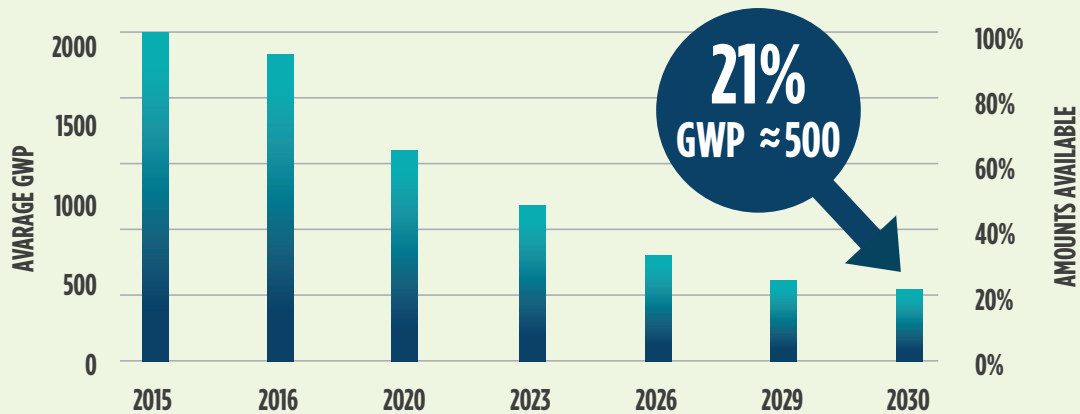


**THE PERFECT SOLUTION FOR YOUR
COMFORT AND OUR ENVIRONMENT.**

VERY LOW ENVIRONMENTAL IMPACT

DIRECT IMPACT

the use of refrigerant fluids with GWP greater than 0.
F-GAS Regulation



R454B is the only choice that makes it possible to provide NOW a solution in line with the average GWP of the market required to comply with the quotas of approximately 500 equivalent tonnes of CO₂ available on the European market starting in 2029.

R32	GWP = 675	<input type="checkbox"/>
R452B	GWP = 676	<input type="checkbox"/>
R454B	GWP = 467	<input checked="" type="checkbox"/>

INDIRECT IMPACT

electricity consumption
EU ERP Directive 2009/125/EC



01 EER UP TO 3,33

02 SEER UP TO 4,69

03 COP UP TO 3,42

04 SCOP UP TO 4,04

UP TO 15 CAPACITY STEPS!

The use of uneven solutions on all models in the range makes it possible to increase the efficiency at partial loads and therefore the seasonal efficiency.



Cooling capacity 160 kW
Heating capacity 167 kW
2 compressors and 3 capacity steps



Cooling capacity 204-315 kW
Heating capacity 224-335 kW
Up to 4 compressors and 8 capacity steps



Cooling capacity 344-370 kW
Heating capacity 370-391 kW
Up to 4 compressors and 11 capacity steps



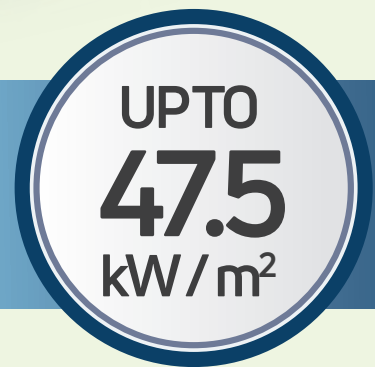
Cooling capacity 420-475 kW
Heating capacity 443-505 kW
Up to 6 compressors and 6 capacity steps



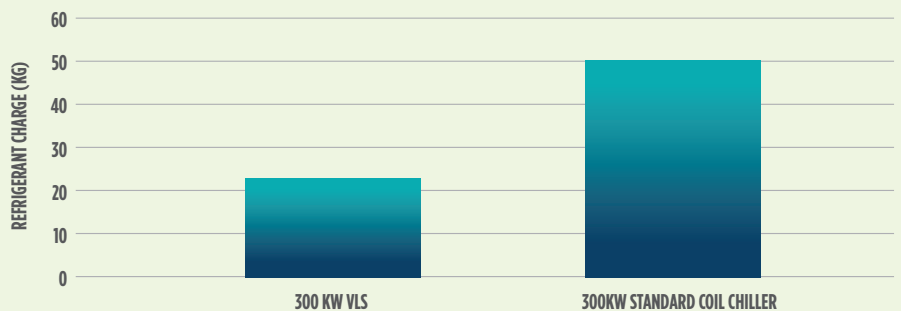
Cooling capacity 540-590 kW
Heating capacity 583-640 kW
Up to 6 compressors and 15 capacity steps



THE MODULAR V-SHAPED DESIGN OF THE FAN SECTION ENSURES STURDINESS, MAXIMUM ACCESSIBILITY, AND VERY HIGH POWER DENSITY.



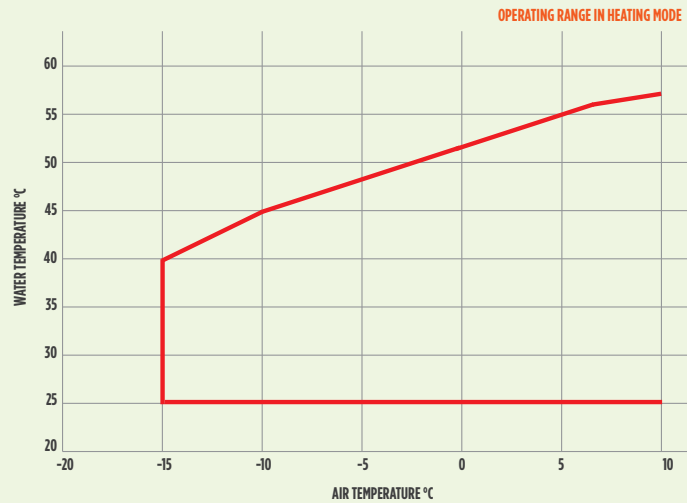
At the same power level, the micro-channel coil makes it possible to reduce the refrigerant charge by more than 50%.



EXTENDED OPERATING RANGE

PRODUCTION
OF WATER
UP TO 57 °C

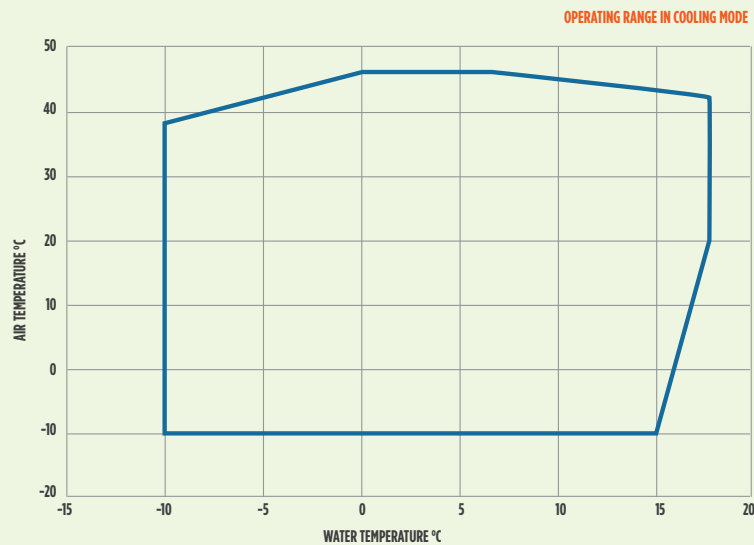
OPERATION
AT FULL LOAD
WITH AIR AT -15 °C



The Hydro Smart Flow kit optimizes operation in the winter season by maintaining reverse-flow exchange between refrigerant and water. The system is installed on the hydronic side of the unit without modifying its dimensions.

PRODUCTION
OF WATER
UP TO -10°C

OPERATION
AT FULL LOAD
WITH AIR AT 46°C



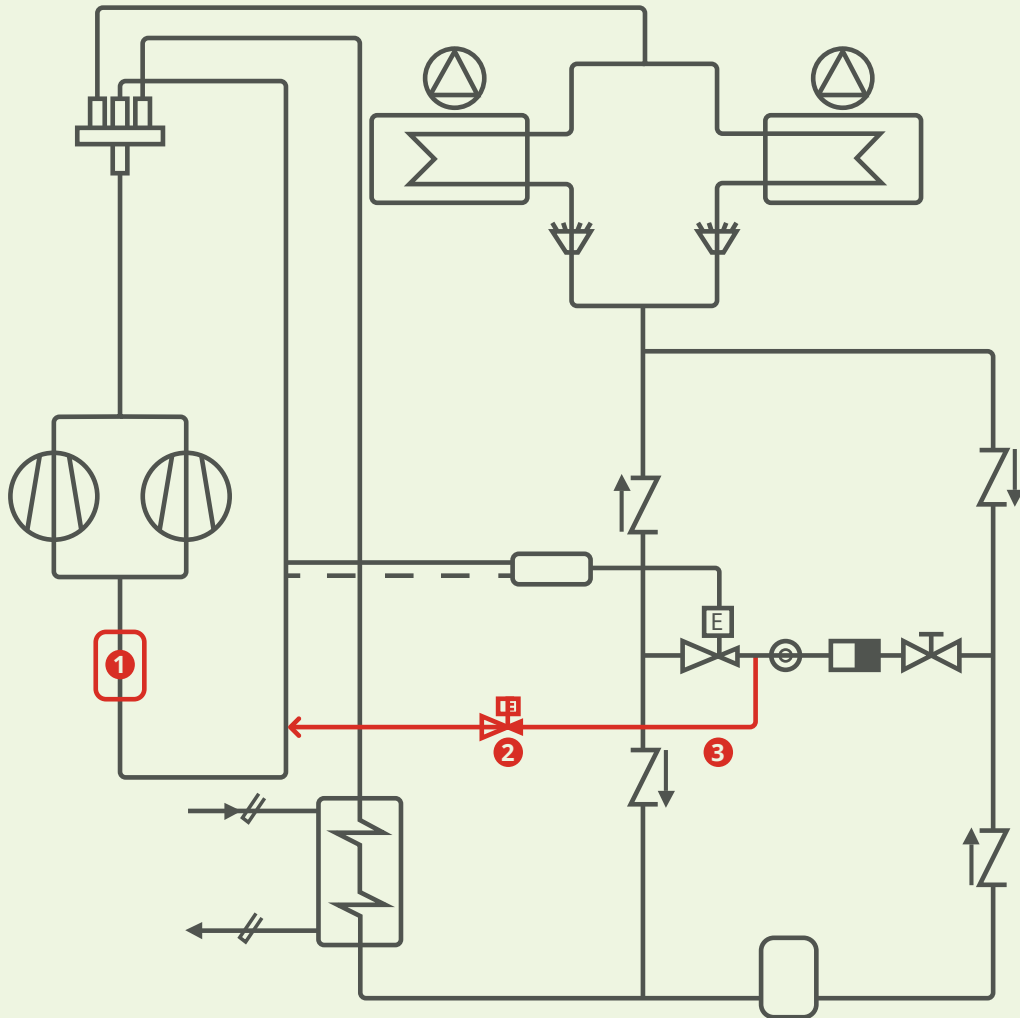
For installations requiring low noise impact, VLS offers 3 different acoustic configurations.

S
STANDARD

-6 dB(A)
WITH SOUNDPROOFING
OF THE COMPRESSORS

-8 dB(A)
WITH THE ADDITION
OF LOW-NOISE EC FANS

Thanks to the Low Air Temperature option, the VLS range is able to operate at full load with external temperatures down to -15 °C and produce hot water up to 57 °C.



1

Gas/Liquid separator

2

Additional electronic thermostatic valve

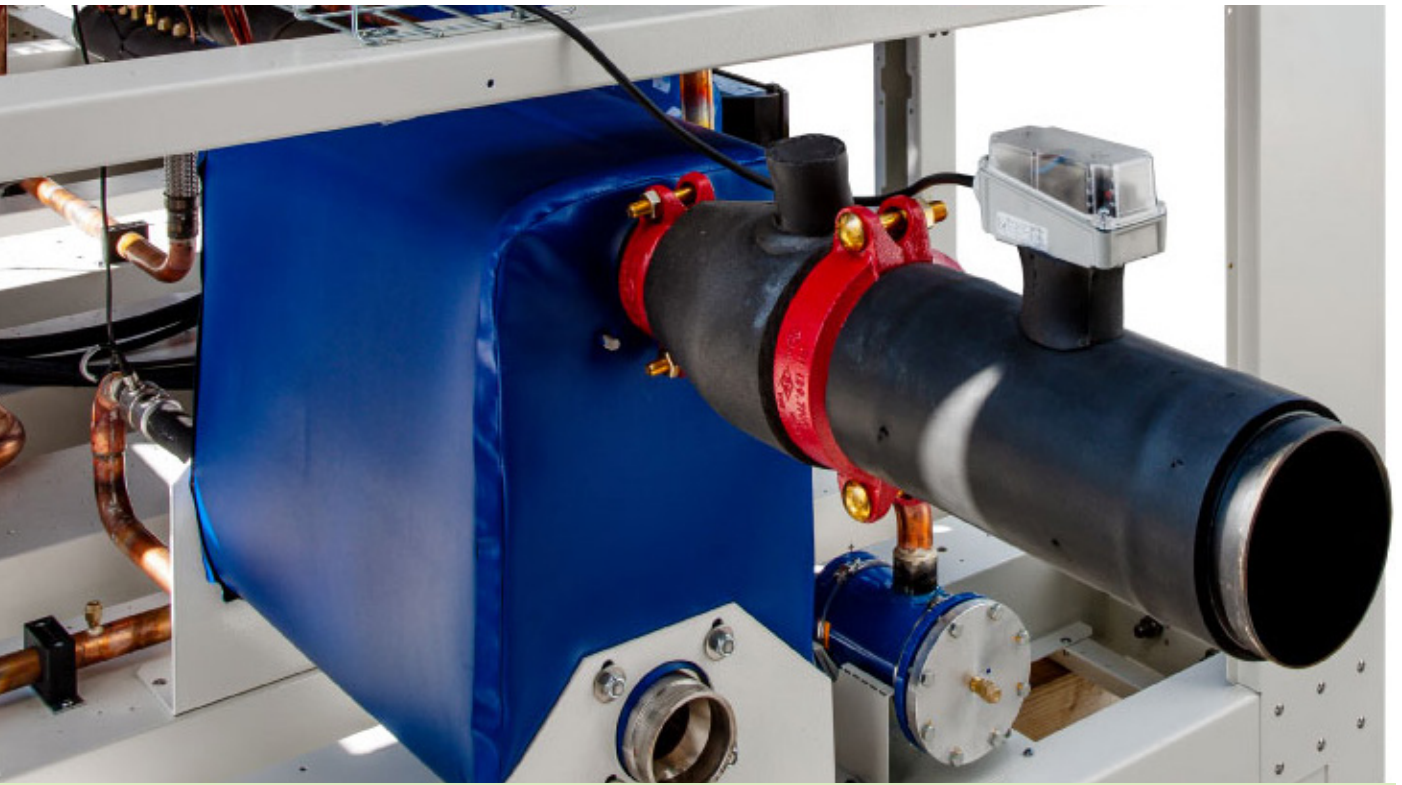
3

Refrigerant liquid by-pass

The actuator of the additional electronic valve is controlled on the basis of the compressor discharge temperature.

The higher this temperature, the greater the refrigerant flow rate that will cross the by-pass branch. The liquid fraction of the bypassed bi-phase mixture cools the superheated gas at the compressor intake, keeping the end compression temperature under control.

The separator protects the compressor against the possible aspiration of liquid during the injection phases.



VLS is equipped with a water flow rate control system on the primary circuit that is designed to achieve 5 main objectives.

1

Reduce pumping costs

2

Increase the efficiency of the cooling cycle at partial loads

3

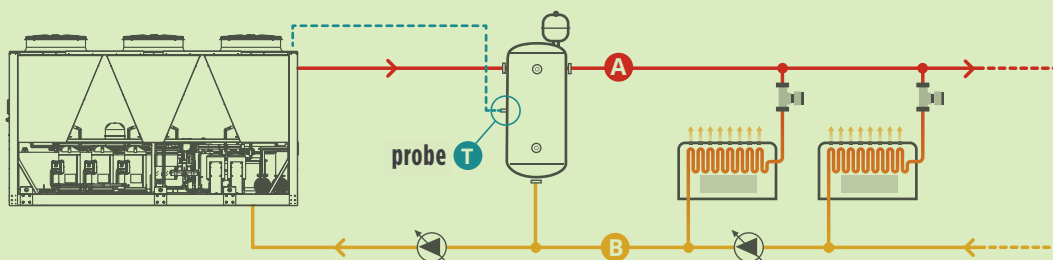
Offer greater stability of the flow temperature to the system

4

Reduce pressure drops through the plate heat exchanger

5

Increase the system's seasonal efficiency

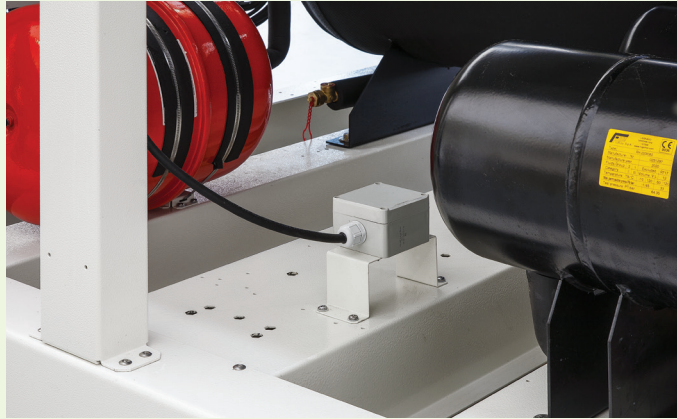


PROBE T | Probe T makes it possible to switch off the pump on the primary circuit contemporaneously with the switching off of all the compressors and upon reaching a set temperature, inside the tank, set by the user.

-8%
IN COMPARISON TO THE SAME SYSTEM
CONFIGURATION
WITHOUT PROBE

SAFETY PROCEDURES IN CASE OF REFRIGERANT LEAKAGE

As a standard feature, the units are equipped with leak detection sensors in the electrical control board and near the cooling circuit.



The RS485 serial card (available as an option) makes it possible to interface the VLS units with the Garda monitoring system to ensure continuous monitoring of the main operating parameters, even remotely.

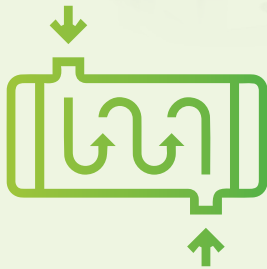


HIGH CONFIGURABILITY



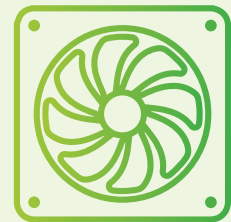
HYDRO SMART FLOW

optimizes operation in the winter season by maintaining reverse-flow exchange between refrigerant and water



SHELL AND TUBE HEAT EXCHANGER

for cooling-only and heat pumps models with capacities higher than 200 kW



HIGH-HEAD EC FANS

(available head greater than 50 Pa)



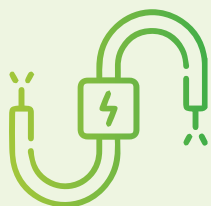
ELECTRONIC VALVE AS A STANDARD FEATURE



CENTRIFUGAL PUMPS WITH VITON SEALS

for operation with propylene and ethylene glycol. Available in ON/OFF or inverter versions with available heads of up to 150 kPa (LP version) or up to 230 kPa (HP version)

KIT FOR POWER METERING



with the possibility of data monitoring via an external BMS system

HOT-WIRE ELECTRONIC FLOW SWITCH



VLS C TECHNICAL DATA*

VLS C			162	202	234	243	254	274	314
Power supply		V-ph-Hz	400 - 3N - 50						
Cooling capacity	(1)	kW	160	210	232	238	250	274	315
Total power input	(1)	kW	58,3	67,3	73,9	80,5	85,0	102	116
EER	(1)		2,74	3,12	3,14	2,96	2,94	2,69	2,72
SEER			4,11	4,30	4,57	4,21	4,46	4,15	4,13
Water flow	(1)	l/h	27520	36120	39904	40936	43000	47129	54181
Water pressure drop	(1)	kPa	26	28	45	31	50	47	52
Available pressure head - LP pump	(1)	kPa	149	180	175	172	165	162	140
Available pressure head - HP pump	(1)	kPa	221	220	187	204	180	208	188
Maximum current absorption		A	123	156	176	181	192	214	244
Start up current		A	387	422	396	439	404	476	512
Start up current with soft starter		A	301	335	331	359	339	393	425
Compressors / Circuits			2/1	2/1	4/2	3/1	4/2	4/2	4/2
Buffer tank volume		l	250	350	350	350	350	350	350
Sound power level	(2)	dB(A)	89	91	89	92	90	91	91
Sound power level low noise version	(2)	dB(A)	85	85	84	85	84	84	85
Weight without options		kg	1020	1850	1900	2170	1910	2160	2200

VLS C			344	374	414	456	546	576	
Power supply		V-ph-Hz	400 - 3N - 50						
Cooling capacity	(1)	kW	344	370	420	475	545	590	
Total power input	(1)	kW	118	125	126	162	179	201	
EER	(1)		2,92	2,96	3,33	2,93	3,04	2,94	
SEER			4,35	4,33	4,71	4,61	4,64	4,62	
Water flow	(1)	l/h	59169	63641	72241	81701	93741	101481	
Water pressure drop	(1)	kPa	36	39	30	35	41	46	
Available pressure head - LP pump	(1)	kPa	178	158	195	175	220	200	
Available pressure head - HP pump	(1)	kPa	247	231	226	210	224	200	
Maximum current absorption		A	263	278	312	362	415	460	
Start up current		A	537	550	585	624	642	734	
Start up current with soft starter		A	447	462	496	544	548	648	
Compressors / Circuits			4/2	4/2	4/2	6/2	6/2	6/2	
Buffer tank volume		l	550	550	700	700	800	800	
Sound power level	(2)	dB(A)	93	93	94	94	95	95	
Sound power level low noise version	(2)	dB(A)	87	87	88	87	89	89	
Weight without options		kg	2370	2400	3030	3270	3950	4010	

*The declared performances are the result of thermodynamic simulations and therefore affected by tolerances.

(1) Outdoor air temperature 35°C, water temperature 12°C / 7°C (EN14511:2018)
 (2) Sound power level measured according to ISO 9614

VLS H TECHNICAL DATA*

VLS H			162	202	234	243	254	274	314
Power supply		V-ph-Hz	400 - 3N - 50						
Cooling capacity	(1)	kW	160	210	232	236	250	274	310
Total power input	(1)	kW	58,5	67,7	73,9	80,5	85,0	102	116
EER	(1)		2,74	3,10	3,14	2,93	2,94	2,69	2,67
SEER			4,11	4,30	4,41	4,21	4,29	4,15	4,13
Water flow	(1)	l/h	27520	36120	39904	40592	43000	47129	53321
Water pressure drop	(1)	kPa	26	28	45	30	50	47	50
Heating capacity	(2)	kW	167	224	256	249	264	290	330
Total power input	(2)	kW	56,4	68,2	77,9	83,5	82,5	99,4	112
COP	(2)		2,96	3,28	3,29	2,98	3,20	2,92	2,95
SCOP			3,56	3,50	4,01	3,44	4,04	3,71	3,87
Energy efficiency class			A+	A+	A++	A+	A++	A+	A++
Water flow	(2)	l/h	28724	38528	44032	42828	45409	49881	56761
Water pressure drop	(2)	kPa	29	32	55	34	56	53	57
Available pressure head - LP pump	(2)	kPa	108	145	117	133	101	94	66
Available pressure head - HP pump	(2)	kPa	206	199	161	187	155	192	164
Maximum current absorption		A	123	156	176	181	192	214	244
Start up current		A	387	422	396	439	404	476	512
Start up current with soft starter		A	301	335	331	359	339	393	425
Compressors / Circuits			2/1	2/1	4/2	3/1	4/2	4/2	4/2
Buffer tank volume		l	250	350	350	350	350	350	350
Sound power level	(3)	dB(A)	89	91	89	92	90	91	91
Sound power level low noise version	(3)	dB(A)	85	85	84	85	84	84	85
Weight without options		kg	1160	2030	2180	2450	2185	2420	2460

VLS H			344	374	414	456	546	576
Power supply		V-ph-Hz	400 - 3N - 50					
Cooling capacity	(1)	kW	343	366	418	472	543	585
Total power input	(1)	kW	118	126	128	162	179	205
EER	(1)		2,91	2,90	3,27	2,91	3,03	2,85
SEER			4,35	4,33	4,69	4,55	4,55	4,57
Water flow	(1)	l/h	58997	62953	71897	81185	93397	100621
Water pressure drop	(1)	kPa	36	38	30	35	41	45
Heating capacity	(2)	kW	370	391	443	505	572	627
Total power input	(2)	kW	115	125	129	164	178	196
COP	(2)		3,21	3,13	3,42	3,08	3,21	3,20
SCOP			3,68	3,72	3,65	3,42	3,65	3,80
Energy efficiency class			A+	A+	A+	A+	A+	A+
Water flow	(2)	l/h	63641	67253	76197	86861	98385	107845
Water pressure drop	(2)	kPa	42	44	34	40	46	52
Available pressure head - LP pump	(2)	kPa	115	98	143	117	160	125
Available pressure head - HP pump	(2)	kPa	223	216	206	186	194	169
Maximum current absorption		A	263	278	312	362	415	460
Start up current		A	537	550	585	624	642	734
Start up current with soft starter		A	447	462	496	544	548	648
Compressors / Circuits			4/2	4/2	4/2	6/2	6/2	6/2
Buffer tank volume		l	550	550	700	700	800	800
Sound power level	(3)	dB(A)	93	93	94	94	95	95
Sound power level low noise version	(3)	dB(A)	87	87	88	87	89	89
Weight without options		kg	2780	2800	3560	3800	4600	4660

*The declared performances are the result of thermodynamic simulations and therefore affected by tolerances.

(1) Outdoor air temperature 35°C, water temperature 12°C / 7°C (EN14511:2018)

(2) Outdoor air temperature 7°C D.B. / 6,2°C W.B., water temperature 40°C / 45°C (EN14511:2018)

(3) Sound power level measured according to ISO 9614

GALLETTI'S LOW-GWP COMPLETE OFFER



PLI AIR COOLED CHILLER AND HEAT PUMPS WITH INVERTER DRIVEN COMPRESSOR

- Capacity range 35-55 kW
- R454B refrigerant
- 4 packaged models for outdoor installation
- Max water temperature at 60°C at full load
- Incorporable hydronic kits
- Electronic expansion valve as a standard feature
- 2 acoustic arrangements available
- High seasonal efficiency



PLE AIR COOLED CHILLER AND HEAT PUMPS WITH MULTI-SCROLL SOLUTIONS

- Capacity range 50-160 kW
- R454B refrigerant
- 10 packaged models for outdoor installation
- Incorporable hydronic kits
- Electronic expansion valve as a standard feature
- Extremely compact size
- 2 acoustic arrangements available
- Eurovent A Class A in heating mode



GLE AIR COOLED CHILLER AND HEAT PUMPS WITH MULTI-SCROLL SOLUTIONS

- Capacity range 680-1080 kW
- R454B refrigerant
- 6 packaged models for outdoor installation
- Incorporable hydronic kits
- Electronic expansion valve as a standard feature
- Extremely compact size
- 3 acoustic versions available
- High seasonal efficiency



WLE WATER COOLED CHILLER AND HEAT PUMPS WITH MULTI-SCROLL SOLUTIONS

- Capacity range 40-720 kW
- R454B refrigerant
- 25 packaged models for indoor installation
- Electronic expansion valve as a standard feature
- Extremely compact size
- 3 acoustic versions available
- High seasonal efficiency
- Execution for outdoor installation with IP54 electrical panel



GABCBX222A



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**Galletti**
AIR CONDITIONING