

Reversible air-to-water heat pumps and water chillers

Aqualis 2

Advantages for installers

- Quick and easy to install
- Starting current limiter (single phase)
- Built-in isolated circulation pump + expansion vessel
- Water law according to outdoor temperature

Advantages for home-owners

- Sleek design
- Hot water production with SANI 300L



20HT - 28 HT available September 2008

SPECIFICATIONS (see technical manual N 08.623 A)

AQUALIS 2 Reversible		20H	28H	35H	50H	20HT	28HT	35HT	50HT	65HT	75HT
Heating capacity *	kW	6.1	8.3	10.2	13.1	6.1	8.4	10.2	13.8	17.2	19.4
Absorbed power *	kW	1.7	2.2	2.8	2.9	1.6	2.0	2.6	3.5	4.2	4.8
COP		3.6	3.8	3.6	4.2	3.8	4.1	3.9	4.0	4.1	4.1
AQUALIS 2 cooling only		-	-	-	-	-	-	35T	50T	65T	75T
Cooling capacity *	kW	5.3	7.1	8.5	13.7	5.1	7.0	8.5	11.8	14.7	17.5
Absorbed power *	kW	2.0	2.7	3.7	4.0	2.6	2.5	3.4	4.4	5.0	6.4
Energy efficiency rating (EER)		2.65	2.67	2.32	3.43	2.0	2.8	2.5	2.62	2.95	2.74
Expansion vessel - capacity	L	5			8	5			8		
Minimum water capacity of system	L	35	48	61	82	35	48	61	82	95	123
Maximum water capacity of system: pure water / 40% glycol solution **	L	294 / 150			470 / 240	294 / 150			470 / 240		
Circulation pump - number of speeds / available pressure	kPa	3 / 52	3 / 42	3 / 47	3 / 63	3/52	3/42	3 / 47	3 / 62	3 / 84	3 / 80
Operating limits, heating and DHW	Winter	-15°C									
	Summer	45°C									
Sound pressures ***	dB(A)	41	46	47	45	41	46	47	45	48	50
Current of entire unit	A	14	19	24	31.8	8.1	10.9	9.3	13.3	14.7	17.8
Electrical power supply		230 V - single-phase - 50 Hz					400 V - three-phase - 50 Hz				
Electrical wiring (not supplied)	mm ²	3G4		3G6	3G6 (1)	5G1.5			5G4		

* Based on EUROVENT conditions - Water 7/12°C air 35°C - Water 35/30°C air 7°DB/6°WB

Heating capacities not including defrosting cycles.

** If a larger capacity is needed, install an additional or larger expansion vessel.

*** 5 m from unit, 1.5 m from floor, free field, directivity 2

(1) Use high temperature cables, type PVC-V2-K or PR (maximum length = 50 m)

PRICES EXC. VAT

Aqualis 2 reversible - Single-phase 230 V			Aqualis 2 reversible - Three-phase 400 V		
	Code	Code		Code	€
20H	7135702	4 176	20HT	7186001	4 206
28H	7135704	4 848	28HT	7186005	4 879
35H	7135707	5 231	35HT	7135712	5 256
50H	7135716	6 252	50HT	7135718	5 882
			65HT	7135720	7 197
			75HT	7135722	7 821
AQUALIS 2 cooling only - Three-phase 400 V					
			35T	7135709	4 212
			50T	7135717	4 973
			65T	7135719	5 733
			75T	7135721	6 417

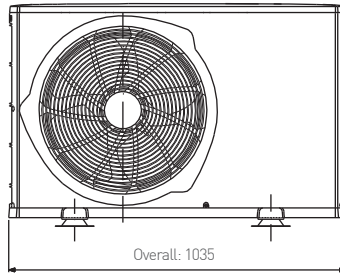
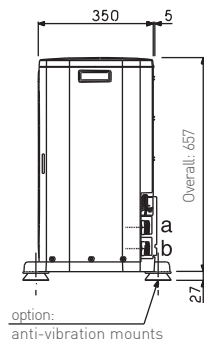
ACCESSORIES (DESCRIPTION INSIDE COVER)

AQUALIS 2	20H - 28H - 35H		20HT - 28HT 35T - 35HT		50H		50T - 50HT - 65T 65HT - 75T - 75HT	
ACCESSORIES	Code	€	Code	€	Code	€	Code	€
Flexible connections kit (compulsory)	7187601	95	7187601	95	7187604	133	7187604	133
Anti-vibration mount kit (compulsory)	7147010	53	7147010	53	7147010	53	7147010	53
Screen filter (compulsory)	7166295	80	7166295	80	7166293	100	7166293	100
Soft starter kit	included	-	7153216	368	included	-	7153216	368
Charging kit	7013876	90	7013876	90	7013877	104	7013877	104
5 kW loop heater (single-phase)	7148641	835	-	-	7148641	835	-	-
9 kW loop heater (three-phase)	-	-	7148642	1 014	-	-	7148642	1 014
DUO hydraulic module (Note: possible if floor < 11 kW)	3911008	1 532	3911008	1 532	3911008	1 532	3911008	1 532
80 L wall-mounted mixing tank	7144746	746	7144746	746	-	-	-	-
150 L ground-level mixing tank	-	-	-	-	7144747	842	7144747	842
Additional board	7110681	136	7110681	136	7110681	136	7110681	136
* Pool heating kit (1)	7111122	498	7111122	498	7111122	498	7111122	498
* Sani 300L mixed water heater (3-way valve included)	7144718	2 080	7144718	2 080	7144718	2 080	7144718	2 080
* Humidity sensor for underfloor heating system	7076818	215	7076818	215	7076818	215	7076818	215
Underfloor heating system limiter thermostat (60°C)	7077396	75	7077396	75	7077396	75	7077396	75
Blygold kit	0011023	287	0011023	287	0011023	287	0011023	287
Wall-mounting kit	7022011	98	7022011	98	Incompatible		Incompatible	
Housing heater kit	7023248	70	7023248	70	7023248	70	7023248	70
Extended warranty including commissioning	7123680	308	7123680	308	C013447	441	C013447	441
Transport on tailgate truck	-	62	-	62	-	62	-	62

* Options controlled by a single additional board
 (1) Pool heat exchanger selection and prices on page 82

DIMENSIONS

AQUALIS 2 - 20 to 35



1" G male water connections

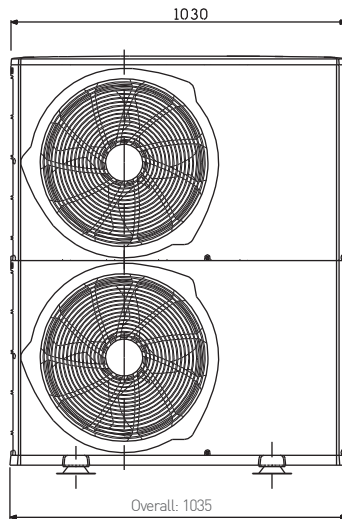
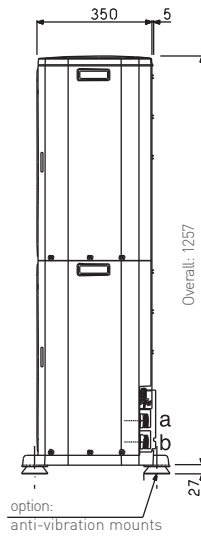
Cooling only:

a - inlet
b - outlet

Reversible

a - outlet
b - inlet

AQUALIS 2 - 50 to 75



1 1/4" G male water connections

Cooling only:

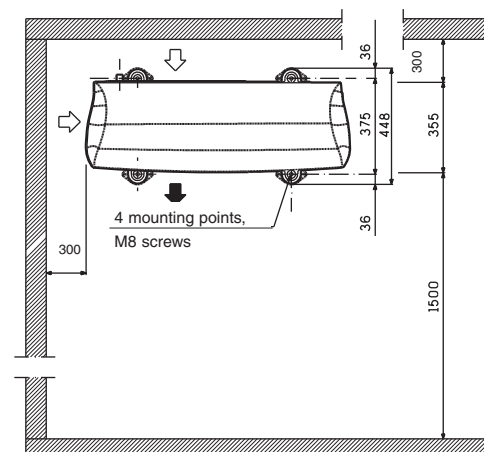
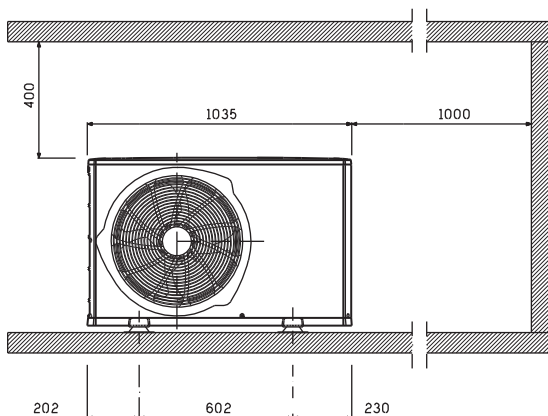
a - inlet
b - outlet

Reversible

a - outlet
b - inlet

AQUALIS 2	20H - 20HT	28H - 28HT	35H - 35HT	50H - 50HT	65HT	75HT
Weight (kg)	73	79	82	120	145	150

ALLOW CLEARANCE AROUND THE UNIT



SELECTION TABLE

Heating capacities

AQUALIS 2	Outdoor air temp. °C	Hot water outlet temp. (°C)													
		Underfloor heating						Fan coil units				Radiators			
		25		30		35		40		45		50		55	
	Pi kW	Hc kW	Pi kW	Hc kW	Pi kW	Hc kW	Pi kW	Hc kW	Pi kW	Hc kW	Pi kW	Hc kW	Pi kW	Hc kW	
20H	-15	1.4	3.3	1.5	3.3	1.7	3.1	1.9	3.0						
	-10	1.3	3.7	1.5	3.7	1.7	3.7	1.9	3.7	2.1	3.6				
	-5	1.3	4.4	1.5	4.3	1.7	4.3	1.9	4.2	2.1	4.2	2.4	4.0		
	0	1.3	5.0	1.5	4.9	1.7	4.9	1.9	4.8	2.1	4.7	2.4	4.5	2.5	4.3
	5	1.3	5.9	1.5	5.8	1.7	5.7	1.9	5.6	2.1	5.6	2.3	5.5	2.5	5.2
	10	1.3	6.7	1.5	6.6	1.6	6.5	1.8	6.4	2.1	6.2	2.3	6.1	2.5	5.9
	15	1.3	7.6	1.5	7.4	1.6	7.3	1.8	7.1	2.0	7.0	2.3	6.8	2.5	6.6
20	1.3	8.4	1.4	8.3	1.6	8.1	1.8	7.9	2.0	7.7	2.3	7.5	2.5	7.3	
28H	-15	1.7	4.3	2.0	4.3	2.2	4.3	2.5	4.1						
	-10	1.7	5.0	1.9	4.9	2.1	4.9	2.4	4.8	2.9	4.5				
	-5	1.7	5.7	1.9	5.6	2.1	5.6	2.4	5.6	2.9	5.5	3.0	5.2		
	0	1.7	6.5	1.9	6.1	2.1	6.3	2.3	6.2	2.7	6.1	3.0	6.3	3.2	6.1
	5	1.7	8.1	1.9	8.0	2.1	7.9	2.3	7.8	2.6	7.8	2.8	7.5	3.1	7.3
	10	1.7	9.2	1.9	9.0	2.1	8.9	2.3	8.7	2.5	8.6	2.8	8.3	3.1	7.9
	15	1.6	10.3	1.9	10.1	2.1	9.9	2.2	9.7	2.5	9.6	2.8	9.4	3.1	9.26
20	1.6	11.5	1.8	11.3	2.1	11.0	2.2	10.8	2.5	10.6	2.8	10.3	3.1	10.2	
35H	-15	2.3	5.6	2.5	5.5	2.8	5.2	3.1	5.1						
	-10	2.2	6.1	2.5	6.1	2.8	6.0	3.1	6.0	3.6	5.6				
	-5	2.2	6.9	2.5	6.9	2.8	6.6	3.1	6.4	3.5	6.1	4.0	6.0		
	0	2.2	7.9	2.5	7.8	2.8	7.8	3.1	7.5	3.5	7.4	4.0	7.2	4.3	7.1
	5	2.2	10.1	2.5	10.0	2.8	9.9	3.1	9.8	3.5	9.8	4.0	9.7	4.3	9.5
	10	2.2	11.4	2.4	11.3	2.7	11.1	3.1	11.0	3.5	10.9	3.9	10.7	4.3	10.2
	15	2.2	12.9	2.4	12.6	2.7	12.4	3.0	12.2	3.4	12.0	3.8	11.8	4.1	11.2
20	2.1	14.3	2.4	14.1	2.7	13.8	3.0	13.5	3.3	13.2	3.8	13.0	4.1	12.5	
35HT	-15	2.1	5.6	2.3	5.4	2.6	5.1	2.9	5.0						
	-10	2.0	6.1	2.3	6.1	2.5	6.0	2.9	5.8	3.4	5.6				
	-5	2.0	6.9	2.3	6.8	2.5	6.6	2.8	6.4	3.3	6.1	3.7	6.0		
	0	2.0	7.9	2.3	7.8	2.5	7.8	2.8	7.5	3.3	7.3	3.6	7.2	4.1	7.0
	5	2.0	10.1	2.3	10.0	2.6	9.9	2.8	9.9	3.3	9.7	3.6	9.7	4.0	9.5
	10	2.0	11.4	2.3	11.2	2.5	11.1	2.8	11.0	3.3	10.8	3.6	10.7	3.9	10.2
	15	2.0	12.8	2.2	12.6	2.5	12.4	2.7	12.2	3.2	12.0	3.6	11.8	3.9	11.1
20	1.9	14.3	2.2	14.0	2.5	13.7	2.7	13.5	3.1	13.2	3.6	13.0	3.9	12.4	
50H	-15	2.7	7.4	3.1	7.3	3.7	6.9	4.0	6.5						
	-10	2.7	8.4	3.1	8.3	3.6	7.2	4.0	7.1	4.6	7.1				
	-5	2.7	9.6	3.1	9.6	3.5	9.2	3.8	9.2	4.5	8.9	4.9	8.6		
	0	2.7	11.0	3.0	10.9	3.5	10.8	3.7	10.7	4.5	10.6	4.8	10.3	5.3	9.7
	5	2.7	13.6	3.0	13.3	3.5	13.0	3.7	12.7	4.2	12.4	4.7	12.1	5.3	11.1
	10	2.7	15.6	3.0	15.2	3.4	14.9	3.7	14.4	4.1	14.0	4.6	13.6	5.2	12.6
	15	2.6	17.8	3.0	17.4	3.3	16.9	3.6	16.3	4.1	15.8	4.6	15.3	5.1	14.8
20	2.6	20.2	2.9	19.8	3.3	19.2	3.6	18.4	4.0	17.7	4.5	17.1	5.0	16.5	
50HT	-15	2.8	7.6	3.2	7.5	3.7	7.4	4.0	7.1						
	-10	2.8	8.6	3.1	8.5	3.6	8.4	4.0	8.1	4.6	7.1				
	-5	2.8	9.9	3.1	9.8	3.5	9.8	3.8	9.3	4.5	9.1	5.0	8.9		
	0	2.8	11.3	3.1	11.2	3.5	11.0	3.7	10.6	4.2	10.5	4.9	10.0	5.1	9.8
	5	2.8	13.3	3.1	13.1	3.5	13.0	3.7	12.8	4.2	12.3	4.8	12.1	5.0	11.8
	10	2.7	15.0	3.1	14.7	3.4	14.5	3.7	14.3	4.2	13.7	4.8	13.5	5.0	13.2
	15	2.7	16.8	3.1	16.5	3.4	16.2	3.6	15.9	4.2	15.2	4.8	14.9	5.0	14.5
20	2.7	18.7	3.1	18.3	3.4	17.9	3.6	17.6	4.2	16.7	4.8	16.3	5.0	15.4	
65HT	-15	3.3	8.8	3.7	8.7	4.2	8.6	4.6	7.9						
	-10	3.3	10.0	3.7	9.7	4.2	9.3	4.5	9.1	5.1	9.0				
	-5	3.3	11.6	3.7	11.4	4.1	10.5	4.5	10.5	5.0	10.3	5.3	10.1		
	0	3.2	13.1	3.7	13.2	4.1	12.8	4.5	12.5	5.0	12.5	5.2	12.0	5.6	10.1
	5	3.2	17.1	3.7	16.7	4.1	16.2	4.5	15.8	4.8	15.1	5.2	14.4	5.6	13.1
	10	3.2	19.4	3.6	19.0	4.1	18.6	4.4	17.8	4.7	17.2	5.2	16.6	5.6	15.8
	15	3.2	21.8	3.6	21.3	4.1	20.8	4.4	19.9	4.7	19.4	5.2	18.0	5.6	17.5
20	3.2	24.2	3.6	23.7	4.1	23.1	4.4	22.1	4.7	21.5	5.2	19.3	5.6	19.2	
75HT	-15	4.0	10.7	4.5	10.3	4.9	10.3	5.3	10.0						
	-10	4.0	12.1	4.5	11.9	4.9	11.7	5.3	11.4	5.9	10.2				
	-5	4.0	13.8	4.5	13.5	4.8	13.3	5.2	13.1	5.9	12.8	6.7	12.4		
	0	4.0	15.8	4.5	15.5	4.8	15.2	5.2	14.9	5.8	14.6	6.6	14.3	6.9	13.8
	5	4.0	19.1	4.3	18.8	4.8	18.6	5.2	18.5	5.7	18.4	6.4	17.7	6.9	17.0
	10	3.9	21.6	4.3	21.2	4.8	20.8	5.1	20.6	5.7	20.5	6.3	19.9	6.9	19.3
	15	3.9	24.2	4.3	23.8	4.8	23.2	5.1	22.8	5.7	22.7	6.3	22.2	6.8	21.7
20	3.9	26.9	4.3	26.3	4.7	25.8	5.1	25.2	5.7	25.1	6.3	24.4	6.8	24.2	

Pi = Power input for compressor + control + fan(s) - Power consumption level calculations include defrosting cycles.

SELECTION TABLE

Cooling capacities

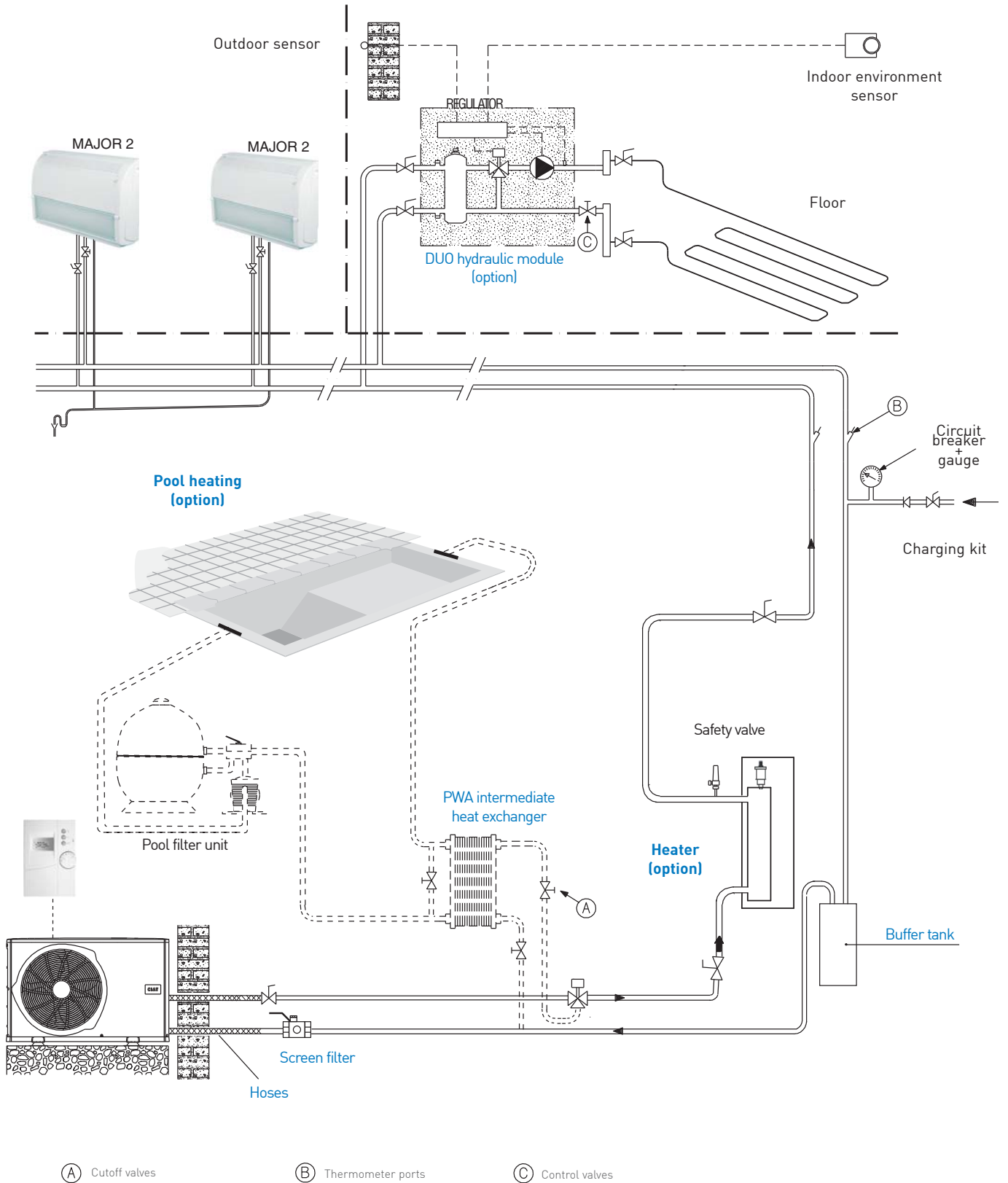
AQUALIS 2	Cold water outlet temp. (°C)	Outdoor air temperature (°C)									
		28		32		36		40		45	
		Cc kW	Pi kW	Cc kW	Pi kW	Cc kW	Pi kW	Cc kW	Pi kW	Cc kW	Pi kW
35T	5	8.4	2.9	8.3	3.1	7.9	3.4	7.5	3.7	6.9	4.1
	6	8.7	2.9	8.4	3.2	8.1	3.4	7.7	3.7	7.1	4.1
	7	9.0	3.0	8.9	3.2	8.4	3.5	7.9	3.7	7.4	4.1
	8	9.3	3.0	9.2	3.2	8.7	3.5	8.2	3.8	7.7	4.2
	12	10.5	3.1	10.4	3.3	9.8	3.6	9.3	3.9	8.7	4.3
	16	11.8	3.2	11.6	3.4	11.0	3.7	10.5	4.0		
	18	12.5	3.3	12.3	3.5	11.7	3.8	11.1	4.1		
	20	13.1	3.3	13.0	3.6	12.3	3.9	11.6	4.2		
50T	5	11.9	3.8	11.8	4.1	11.2	4.5	10.6	4.9	9.8	5.5
	6	12.3	3.8	12.2	4.1	11.6	4.5	10.9	5.0	10.1	5.5
	7	12.7	3.8	12.5	4.2	11.9	4.5	11.3	5.0	10.4	5.5
	8	13.1	3.9	12.9	4.2	12.3	4.6	11.7	5.0	10.6	5.6
	12	14.6	4.0	14.5	4.3	13.8	4.7	13.1	5.2	12.2	5.7
	16	16.3	4.2	16.3	4.5	15.5	4.9	14.6	5.3		
	18	17.2	4.3	17.1	4.6	16.3	5.0	15.5	5.4		
	20	18.0	4.4	17.9	4.7	17.1	5.1	16.3	5.5		
65T	5	14.4	4.4	14.3	4.6	13.6	5.0	12.9	5.4	11.8	6.0
	6	14.9	4.4	14.8	4.7	14.1	5.0	13.3	5.4	12.4	6.0
	7	15.4	4.4	15.2	4.7	14.6	5.1	13.8	5.5	12.7	6.0
	8	15.9	4.5	15.7	4.7	14.9	5.1	14.2	5.5	13.2	6.0
	12	18.0	4.6	17.8	4.9	17.0	5.3	16.2	5.7	15.0	6.3
	16	20.2	4.8	20.0	5.1	19.1	5.5	18.2	5.9		
	18	21.6	4.9	21.3	5.2	20.4	5.6	19.4	6.0		
	20	22.8	5.0	22.5	5.2	21.5	5.6	20.5	6.1		
75T	5	17.3	5.7	17.0	5.9	16.2	6.4	15.3	6.9	14.3	7.6
	6	17.8	5.7	17.6	5.9	16.7	6.5	15.8	7.0	14.8	7.7
	7	18.4	5.8	18.1	6.0	17.3	6.5	16.4	7.0	15.2	7.8
	8	19.0	5.8	18.7	6.1	17.8	6.6	16.9	7.1	15.8	7.8
	12	21.4	6.1	21.2	6.3	20.2	6.8	19.2	7.4	17.9	8.1
	16	24.1	6.4	23.9	6.6	22.7	7.2	21.7	7.7		
	18	25.6	6.6	25.3	6.8	24.2	7.3	23.0	7.9		
	20	27.0	6.8	26.6	7.0	25.5	7.5	24.4	8.0		

Pi = Power input for compressor + control + fan(s)
 Cc = Cooling capacity
 The power input values allow for fan speed variation

SCHEMATIC INSTALLATION DIAGRAM

RESIDENTIAL TERMINAL UNITS AND/OR UNDERFLOOR HEATING AND COOLING SYSTEM

AQUALIS 2



See page Heat exchangers.