

# ALL-IN-ONE HEAT PUMPS

## MAIN FEATURES



(Standard on the indoor unit)

Touch-screen control panel installed on the indoor unit

- All in one Air/Water heat pump with integrated tank for the production of domestic hot water.
- New-generation DC Inverter technology.
- Equipped with the heating, cooling and domestic hot water production functions.
- Single-phase version with 6-8-10 kW heating capacity.
- Achieves very high efficiency levels in heating mode, up to 5 COP.
- It uses R32, a refrigerant with low impact on global warming and ozone layer, characterised by high energy efficiency and a 30% lower charge compared to R410A.
- The vapour-injection compressor, thanks to its special technology, guarantees exceptional performances within a wide operating range.
- The leaving water temperature range is 20 °C-60 °C: this means that the heat pump can be used with radiant floor systems, fan coil units and also medium-temperature radiators.
- The DC brushless axial fans are designed to ensure aerodynamic optimisation: they guarantee low noise levels coupled with high efficiency and a high air flow rate.
- It is equipped with a heating element on the base to prevent ice build-up during winter operation.
- The outdoor unit is equipped with an electronic expansion valve, while the indoor unit contains - besides the tank - all the hydraulic components: inverter pump, plate heat exchanger, expansion vessel, safety valve, flow switch and water filter supplied (installation mandatory).





Internal copper groove	Quiet mode	Weekly timer	Heating down to low temperatures	Door control	Full protection	Timer	Child lock	Wide operating range	Wide voltage range	Auto diagnosis	Low-voltage start-up
Auto restart memory	Intelligent defrosting	°C / °F switching	Long-distance monitoring	Exch. condenser gold fin treatment	-25 °C Min. outdoor temp. heating	+35 °C Max. outdoor temp. heating	+10 °C Min. outdoor temp. cooling	+48 °C Max. outdoor temp. cooling	-25 °C Min. outdoor temp. DHW	+45 °C Max. outdoor temp. DHW	60 °C Max. output temp. DHW

**A+++** Heating mode 35 °C

**A++** Heating mode 55 °C

**A** DHW

# THE RANGE

	Model	Code		Rated capacity according to EN14511 (kW)		Integrated DHW tank capacity (l)
				1PH	 Heating (1)	
OUTDOOR UNIT - 1PH 	AGHPSA061SH	398600012	●	6.0	5.8	
	AGHPSA081SH	398600013	●	8.0	7.0	
	AGHPSA101SH	398600014	●	9.5	8.5	
HYDRONIC INDOOR UNIT 	AGHPA061F	398600028	●	6.0	5.8	185
	AGHPA081F	398600029	●	8.0	7.0	185
	AGHPA101F	398600030	●	9.5	8.5	185

(1) Water temperature 30 °C/35 °C, outdoor air temperature 7 °C D.B./6 °C W.B.

(2) Water temperature 23 °C/18 °C, outdoor air temperature 35 °C

## INCLUDED ACCESSORIES

Ambient air temperature sensor
Y-shaped filter
Control panel (integrated into the indoor unit)

# TECHNICAL DATA FOR 6 kW

MODEL				AGHPSA061					
Outdoor unit model				AGHPSA061SH					
Hydronic indoor unit model				AGHPA061F					
Matchable units for domestic hot water production (DHW)				Tank integrated into the indoor unit 185 liters - diverting valve included in the indoor unit					
				Cooling	Heating				
COMFORT IN ENVIRONMENT	Performance according to EN 14511	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated capacity	kW	5.80	6.00			
			Rated electrical power input	kW <sub>el</sub>	1.32	1.20			
			EER/COP		4.39	5.00			
	Performance according to Ecodesign (ERP) EN 14825	LOW TEMPERATURE (35 °C) AVERAGE climate	Air +35 °C - Water 12/7 °C Air +7 °C - Water 40/45 °C	Rated capacity	kW	4.09	5.90		
				Rated electrical power input	kW <sub>el</sub>	1.28	1.51		
				EER/COP		3.20	3.91		
Performance according to Ecodesign (ERP) EN 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate		Design thermal load (P <sub>design,h</sub> )	kW	6.00				
			Seasonal energy efficiency η <sub>s</sub>	%	179				
			Energy efficiency class		A+++				
DHW	DHW performance according to EN 16147	AVERAGE climate	Load profile		L				
			Energy efficiency class		A				
			Water heating efficiency - ERP η <sub>wh</sub>	%	101				
Indoor unit			Nominal water flow rate	m <sup>3</sup> /h	at 35 °C	1.03			
					at 45 °C	1.02			
					at 7 °C	0.70			
					at 18 °C	1.00			
			Minimum efficient water volume of the system	liters	40				
			Maximum delivery water temperature	°C	Up to 60				
			Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	220-240/1/50				
			Electrical power input	kW	3.10				
			Heating element	n x kW	2 x 1.5				
			Expansion vessel	liters	10				
			Maximum circulator pump head	kPa	see H/Q graph				
			Hydraulic connections	inches	G1" female				
			Safety valve	bar	3				
			Indoor unit sound pressure	dB(A)	29	29			
			Net weight	kg	210				
			Dimensions (H/W/D)	mm	1756/600/600				
DHW integrated capacity tank	liters	185							
Outdoor unit			Outdoor temperature range (heating)	°C	-25/+35				
			Outdoor temperature range (cooling)	°C	+10/+48				
			Electrical power supply	V/Ph/Hz	220-240~/1/50				
			Maximum power input (cooling)	kW	2.30				
			Maximum power input (heating)	kW	2.30				
			Maximum current draw (cooling)	A	10				
			Maximum current draw (heating)	A	10				
			Liquid cooling pipe diameter	mm (inches)	6.35 (1/4)				
			Gas cooling pipe diameter	mm (inches)	12.7 (1/2)				
			Outdoor unit sound pressure	dB(A)	52	52			
			Fan air flow rate	m <sup>3</sup> /h	3200				
			Net weight	kg	55				
			Dimensions (H/W/D)	mm	702/975/396				
			Compressor type		Twin Rotary with vapour injection				
			Refrigerant			Type and GWP		R32/675 kg CO <sub>2</sub> eq.	
						Quantity		1 kg/0.675 tons CO <sub>2</sub> eq.	

The equipments described in this catalogue contain HFC R32-type fluorinated greenhouse gases.  
These products must be fitted by qualified staff pursuant to European regulations 303/2008 and 517/2014.

Data declared in accordance with REGULATION (EU) No. 811/2013 of 18 February 2013 with regard to the energy labelling of space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar devices, packages of combination heater, temperature control and solar devices, and with COMMISSION REGULATION (EU) No. 813/2013 of 2 August 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for space heaters and combination heaters.

## CAPACITY AND EFFICIENCY DATA IN RELATION TO THE OUTDOOR TEMPERATURE ACCORDING TO THE EN14511-3:2013 STANDARD

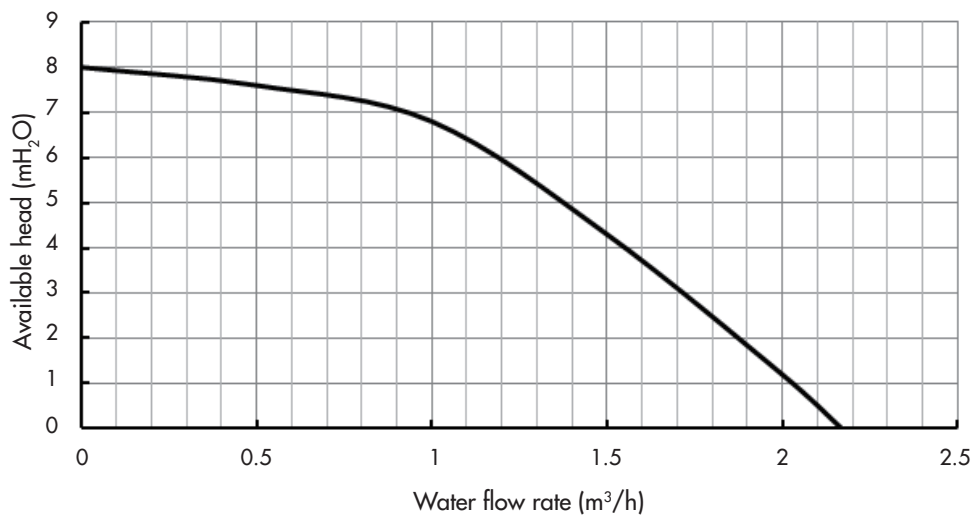
LWT [°C]	COOLING - Dry bulb outdoor air temperature in °C - (AGHP5A061)																	
	10		15		20		25		30		35		40		45		48	
	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER
7	3.35	4.35	3.72	4.19	3.93	4.06	4.17	3.87	4.25	3.55	4.09	3.20	3.72	2.65	2.90	1.95	2.45	1.57
8	3.48	4.47	3.89	4.31	4.09	4.19	4.34	3.99	4.42	3.64	4.25	3.29	3.89	2.75	3.03	2.01	2.54	1.63
9	3.64	4.67	4.01	4.47	4.21	4.35	4.46	4.12	4.54	3.80	4.38	3.42	4.01	2.84	3.15	2.08	2.66	1.66
10	3.72	4.79	4.13	4.60	4.38	4.47	4.62	4.25	4.70	3.90	4.54	3.51	4.13	2.91	3.23	2.17	2.74	1.73
11	3.84	4.92	4.29	4.76	4.50	4.60	4.79	4.41	4.91	4.06	4.70	3.64	4.29	3.00	3.31	2.20	2.82	1.76
12	3.97	5.08	4.42	4.92	4.66	4.76	4.95	4.54	5.07	4.15	4.87	3.74	4.42	3.10	3.44	2.30	2.90	1.85
13	4.13	5.24	4.58	5.05	4.79	4.89	5.11	4.67	5.19	4.28	4.99	3.87	4.58	3.20	3.56	2.33	2.99	1.89
14	4.25	5.40	4.66	5.21	4.95	5.05	5.28	4.79	5.36	4.41	5.15	3.96	4.66	3.29	3.68	2.43	3.07	1.95
15	4.34	5.53	4.83	5.34	5.11	5.18	5.44	4.92	5.52	4.51	5.32	4.09	4.83	3.39	3.76	2.49	3.19	1.98
18	4.74	5.98	5.24	5.75	5.52	5.59	5.89	5.34	6.01	4.89	5.77	4.41	5.24	3.64	4.09	2.68	3.48	2.17
20	4.95	6.29	5.52	6.07	5.85	5.88	6.18	5.59	6.30	5.14	6.05	4.63	5.52	3.83	4.34	2.84	3.64	2.27
23	5.36	6.74	5.93	6.49	6.26	6.33	6.67	6.01	6.79	5.50	6.54	4.95	5.93	4.12	4.62	3.00	3.93	2.43
25	5.60	7.03	6.22	6.77	6.54	6.58	6.95	6.29	7.12	5.75	6.83	5.18	6.22	4.31	4.87	3.16	4.09	2.56

LWT [°C]	HEATING - Dry bulb outdoor air temperature in °C																											
	-25		-20		-15		-10		-7		-2		2		7		10		15		20		25		30		35	
	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP
25	2.94	4.34	3.12	4.57	3.72	4.88	4.26	5.08	5.16	5.39	5.76	5.63	6.36	5.86	6.24	6.10	6.42	6.37	6.78	6.95	6.72	7.38	6.12	7.31	5.34	7.97	4.20	8.44
30	2.70	3.52	3.06	3.79	3.60	4.06	4.14	4.30	4.74	4.53	5.22	4.77	5.82	5.00	6.18	5.55	6.36	5.90	6.72	6.29	6.66	6.72	6.06	6.72	5.34	7.27	4.14	7.78
35	2.52	2.97	2.88	3.13	3.36	3.32	3.90	3.59	4.26	3.83	4.80	4.06	5.22	4.18	6.00	5.00	6.30	5.27	6.66	5.74	6.60	5.98	6.00	5.98	5.28	6.64	4.08	7.03
40	2.46	2.54	2.88	2.81	3.36	3.05	3.90	3.24	4.26	3.40	4.74	3.67	5.16	3.91	6.00	4.45	6.24	4.69	6.60	5.08	6.54	5.35	5.94	5.31	5.22	5.86	4.08	6.25
45			2.88	2.46	3.36	2.70	3.90	2.93	4.20	3.05	4.68	3.24	5.10	3.44	6.00	3.91	6.18	4.10	6.54	4.45	6.48	4.69	5.88	4.92	5.16	5.16	4.02	5.47
50					3.24	2.27	3.78	2.46	4.14	2.58	4.62	2.77	5.04	2.85	5.94	3.36	6.12	3.52	6.48	3.87	6.42	4.02	5.82	4.22	5.10	4.42	3.96	4.73
55							3.60	2.03	4.14	2.11	4.56	2.31	4.98	2.42	5.88	2.81	6.06	2.97	6.42	3.20	6.36	3.40	5.76	3.52	5.04	3.71	3.96	3.99
60									4.08	1.72	4.56	1.80	4.92	1.91	5.82	2.27	6.00	2.34	6.36	2.50	6.30	2.62	5.70	2.77	4.98	2.89	3.90	3.09

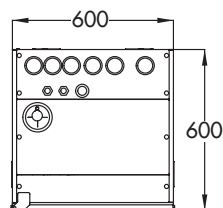
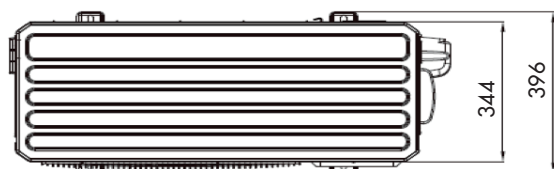
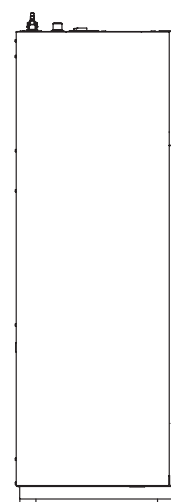
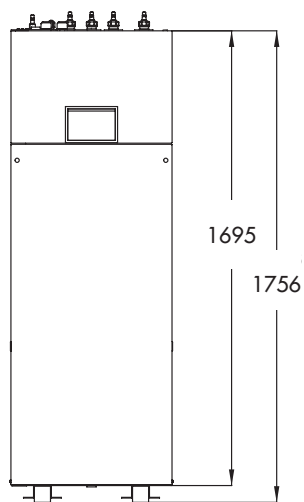
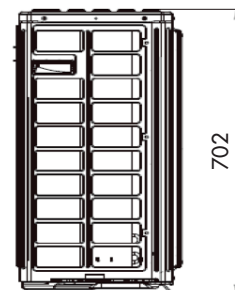
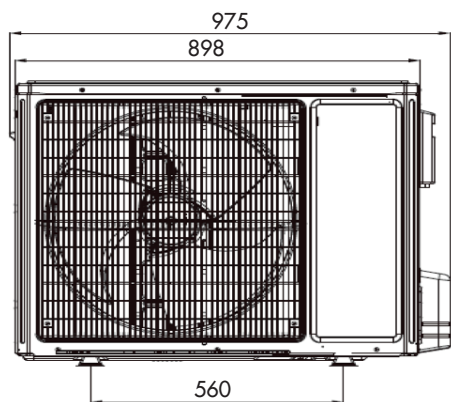
LWT: Leaving water temperature  
 Qh: Heating capacity  
 COP: Coefficient of performance

LWT: Leaving water temperature  
 Qc: Cooling capacity  
 EER: Energy efficiency ratio

# FLOW RATE CURVES 6 kW



# DIMENSIONAL DRAWINGS 6 kW



OUTDOOR UNIT 6 kW

INDOOR UNIT 6 kW

# TECHNICAL DATA FOR 8-10 kW

MODEL				AGHPSA081			
Outdoor unit model				AGHPSA081SH			
Hydronic indoor unit model				AGHPA081F			
Matchable units for domestic hot water production (DHW)				Tank integrated into the indoor unit 185 liters - diverting valve included in the indoor unit			
				Cooling	Heating		
COMFORT IN ENVIRONMENT	Performance according to EN 14511	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated capacity	kW	7.00	8.00	
			Rated electrical power input	kW <sub>el</sub>	1.75	1.70	
			EER/COP		4.00	4.71	
	Performance according to Ecodesign (ERP) EN 14825	LOW TEMPERATURE (35 °C) AVERAGE climate	Air +35 °C - Water 12/7 °C Air +7 °C - Water 40/45 °C	Rated capacity	kW	5.30	8.00
				Rated electrical power input	kW <sub>el</sub>	1.73	2.14
				EER/COP		3.06	3.74
COMFORT IN ENVIRONMENT	Performance according to Ecodesign (ERP) EN 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Design thermal load (P <sub>design,h</sub> )	kW	7.00		
			Seasonal energy efficiency η <sub>s</sub>	%	181		
			Energy efficiency class		A+++		
	Performance according to Ecodesign (ERP) EN 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Air +35 °C - Water 12/7 °C Air +7 °C - Water 40/45 °C	Design thermal load (P <sub>design,h</sub> )	kW	7.00	
				Seasonal energy efficiency η <sub>s</sub>	%	129	
				Energy efficiency class		A++	
DHW performance according to EN 16147	AVERAGE climate		Load profile		L		
			Energy efficiency class		A		
			Water heating efficiency - ERP η <sub>wh</sub>	%	89		
Indoor unit			Nominal water flow rate	m <sup>3</sup> /h	at 35 °C	1.38	
					at 45 °C	1.38	
					at 7 °C	0.91	
					at 18 °C	1.20	
			Minimum efficient water volume of the system	liters	40		
			Maximum delivery water temperature	°C	Up to 60		
			Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	220-240/1/50		
			Electrical power input	kW	3.10		
			Heating element	nxkW	2x3		
			Expansion vessel	v	10		
			Maximum circulator pump head	kPa	see H/Q graph		
			Hydraulic connections	inches	G1" female		
			Safety valve	bar	3		
			Indoor unit sound pressure	dB(A)	29	29	
			Net weight	kg	210		
Dimensions (H/W/D)	mm	1756/600/600					
DHW integrated capacity tank	liters	185					
Outdoor unit			Outdoor temperature range (heating)	°C	-25/+35		
			Outdoor temperature range (cooling)	°C	+10/+48		
			Electrical power supply	V/Ph/Hz	220-240~/1/50		
			Maximum power input (cooling)	kW	4.32		
			Maximum power input (heating)	kW	3.00		
			Maximum current draw (cooling)	A	19		
			Maximum current draw (heating)	A	13		
			Liquid cooling pipe diameter	mm (inches)	6.35 (1/4)		
			Gas cooling pipe diameter	mm (inches)	12.7 (1/2)		
			Outdoor unit sound pressure	dB(A)	55	55	
			Fan air flow rate	m <sup>3</sup> /h	3300		
			Net weight	kg	82		
			Dimensions (H/W/D)	mm	787/982/427		
			Compressor type		Twin Rotary with vapour injection		
			Refrigerant			Type and GWP	
Quantity		1.6 kg/1.08 tons CO <sub>2</sub> eq.					

The equipments described in this catalogue contain HFC R32-type fluorinated greenhouse gases.  
These products must be fitted by qualified staff pursuant to European regulations 303/2008 and 517/2014.

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# TECHNICAL DATA FOR 8-10 kW

MODEL				AGHPSA101					
Outdoor unit model				AGHPSA101SH					
Hydronic indoor unit model				AGHPA101F					
Matchable units for domestic hot water production (DHW)				Tank integrated into the indoor unit 185 liters - diverting valve included in the indoor unit					
				Cooling	Heating				
COMFORT IN ENVIRONMENT	Performance according to EN 14511	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated capacity	kW	8.50	9.50			
			Rated electrical power input	kW <sub>el</sub>	2.24	2.07			
			EER/COP		3.79	4.59			
	Performance according to Ecodesign (ERP) EN 14825	LOW TEMPERATURE (35 °C) AVERAGE climate	Air +35 °C - Water 12/7 °C Air +7 °C - Water 40/45 °C	Rated capacity	kW	6.50	9.50		
				Rated electrical power input	kW <sub>el</sub>	2.27	2.64		
				EER/COP		2.86	3.60		
COMFORT IN ENVIRONMENT	Performance according to Ecodesign (ERP) EN 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Design thermal load (P <sub>design,h</sub> )	kW	9.00				
			Seasonal energy efficiency η <sub>s</sub>	%	181				
			Energy efficiency class		A+++				
	DHW performance according to EN 16147	AVERAGE climate		Design thermal load (P <sub>design,h</sub> )	kW	8.00			
				Seasonal energy efficiency η <sub>s</sub>	%	127			
				Energy efficiency class		A++			
DHW performance according to EN 16147	AVERAGE climate		Load profile		L				
			Energy efficiency class		A				
			Water heating efficiency - ERP η <sub>wh</sub>	%	89				
Indoor unit			Nominal water flow rate	m <sup>3</sup> /h	at 35 °C	1.63			
					at 45 °C	1.63			
					at 7 °C	1.12			
					at 18 °C	1.46			
			Minimum efficient water volume of the system	liters	80				
			Maximum delivery water temperature	°C	Up to 60				
			Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	220-240/1/50				
			Electrical power input	kW	3.10				
			Heating element	n×kW	2×3				
			Expansion vessel	liters	10				
			Maximum circulator pump head	kPa	see H/Q graph				
			Hydraulic connections	inches	G1" female				
			Safety valve	bar	3				
			Indoor unit sound pressure	dB(A)	29	29			
			Net weight	kg	210				
			Dimensions (H/W/D)	mm	1756/600/600				
DHW integrated capacity tank	liters	185							
Outdoor unit			Outdoor temperature range (heating)	°C	-25/+35				
			Outdoor temperature range (cooling)	°C	+10/+48				
			Electrical power supply	V/Ph/Hz	220-240~/1/50				
			Maximum power input (cooling)	kW	5.06				
			Maximum power input (heating)	kW	3.40				
			Maximum current draw (cooling)	A	22				
			Maximum current draw (heating)	A	15				
			Liquid cooling pipe diameter	mm (inches)	6.35 (1/4)				
			Gas cooling pipe diameter	mm (inches)	12.7 (1/2)				
			Outdoor unit sound pressure	dB(A)	55	55			
			Fan air flow rate	m <sup>3</sup> /h	3300				
			Net weight	kg	82				
			Dimensions (H/W/D)	mm	787/982/427				
			Compressor type		Twin Rotary with vapour injection				
			Refrigerant			Type and GWP		R32/675 kg CO <sub>2</sub> eq.	
						Quantity		1.6 kg/1.08 tons CO <sub>2</sub> eq.	

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# CAPACITY AND EFFICIENCY DATA IN RELATION TO THE OUTDOOR TEMPERATURE ACCORDING TO THE EN14511-3:2013 STANDARD

		COOLING - Dry bulb outdoor air temperature in °C - (AGHPSA081)																	
		10		15		20		25		30		35		40		45		48	
LWT [°C]		Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER
7		4.35	4.17	4.82	4.01	5.09	3.89	5.41	3.71	5.51	3.40	5.30	3.06	4.82	2.54	3.76	1.87	3.18	1.50
8		4.51	4.26	4.98	4.11	5.25	4.01	5.57	3.80	6.04	3.49	5.46	3.16	4.98	2.60	3.87	1.90	3.29	1.53
9		4.56	4.41	5.09	4.23	5.35	4.11	5.72	3.92	6.20	3.58	5.62	3.25	5.09	2.70	3.98	1.96	3.34	1.56
10		4.72	4.50	5.25	4.35	5.51	4.23	5.88	4.01	6.36	3.68	5.78	3.31	5.25	2.76	4.08	1.99	3.45	1.62
11		4.88	4.63	5.41	4.47	5.72	4.35	6.04	4.14	6.57	3.80	5.94	3.40	5.41	2.85	4.19	2.08	3.55	1.68
12		4.98	4.75	5.57	4.56	5.88	4.44	6.25	4.20	6.73	3.89	6.10	3.49	5.57	2.91	4.35	2.14	3.66	1.72
13		5.09	4.87	5.67	4.72	5.99	4.56	6.31	4.35	6.89	3.98	6.20	3.58	5.67	3.00	4.40	2.18	3.71	1.75
14		5.25	4.99	5.83	4.81	6.10	4.66	6.47	4.44	7.05	4.07	6.36	3.68	5.83	3.06	4.51	2.24	3.82	1.78
15		5.35	5.15	5.99	4.93	6.25	4.78	6.68	4.53	7.21	4.17	6.52	3.77	5.99	3.12	4.66	2.30	3.92	1.84
18		5.78	5.45	6.36	5.27	6.73	5.12	7.16	4.84	7.69	4.44	7.00	4.01	6.36	3.31	4.98	2.45	4.24	1.96
20		5.99	5.70	6.63	5.48	7.00	5.33	7.42	5.09	8.06	4.66	7.31	4.20	6.63	3.46	5.14	2.54	4.40	2.05
23		6.41	6.04	7.10	5.79	7.47	5.64	7.90	5.39	8.53	4.93	7.79	4.44	7.10	3.68	5.51	2.73	4.66	2.18
25		6.63	6.28	7.37	6.07	7.79	5.85	8.22	5.58	8.85	5.12	8.06	4.63	7.37	3.83	5.72	2.82	4.82	2.27

		HEATING - Dry bulb outdoor air temperature in °C																											
		-25		-20		-15		-10		-7		-2		2		7		10		15		20		25		30		35	
LWT [°C]		Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP
25		3.44	4.04	4.16	4.26	4.96	4.56	5.68	4.75	6.08	5.05	6.80	5.27	7.52	5.46	7.36	5.72	7.60	5.94	8.00	6.50	7.92	6.88	7.20	6.84	6.32	7.44	4.96	7.89
30		3.36	3.29	4.08	3.59	4.80	3.81	5.52	4.04	5.92	4.26	6.56	4.49	7.28	4.71	7.76	5.23	8.00	5.53	8.48	5.94	8.40	6.32	7.60	6.32	6.64	6.84	5.20	7.29
35		3.28	2.77	3.84	2.92	4.48	3.10	5.20	3.40	5.60	3.59	6.24	3.81	6.80	3.93	8.00	4.71	8.24	4.97	8.72	5.38	8.64	5.61	7.84	5.61	6.88	6.24	5.36	6.62
40		3.28	2.39	3.84	2.65	4.48	2.92	5.20	3.10	5.60	3.25	6.24	3.51	6.80	3.70	8.00	4.22	8.24	4.45	8.72	4.86	8.64	5.08	7.84	5.05	6.88	5.57	5.36	5.94
45				3.84	2.36	4.48	2.58	5.20	2.80	5.60	2.92	6.24	3.10	6.80	3.29	8.00	3.74	8.24	3.93	8.72	4.26	8.64	4.49	7.84	4.71	6.88	4.93	5.36	5.23
50						4.32	2.21	5.04	2.39	5.44	2.50	6.08	2.69	6.56	2.77	7.76	3.25	8.00	3.40	8.48	3.74	8.40	3.93	7.60	4.11	6.64	4.30	5.20	4.60
55								4.80	1.98	5.12	2.09	5.76	2.28	6.24	2.39	7.36	2.77	7.60	2.92	8.00	3.18	7.92	3.33	7.20	3.48	6.32	3.66	4.96	3.93
60										4.88	1.72	5.44	1.79	5.92	1.91	6.96	2.28	7.20	2.32	7.60	2.50	7.52	2.62	6.80	2.77	6.00	2.88	4.64	3.10

		COOLING - Dry bulb outdoor air temperature in °C - (AGHPSA101)																	
		10		15		20		25		30		35		40		45		48	
LWT [°C]		Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER	Qc [kW]	EER
7		5.33	3.89	5.92	3.75	6.24	3.64	6.63	3.46	6.76	3.18	6.50	2.86	5.92	2.38	4.62	1.75	3.90	1.40
8		5.46	4.01	6.11	3.87	6.44	3.75	6.83	3.58	6.96	3.26	6.70	2.95	6.11	2.43	4.75	1.78	4.03	1.46
9		5.66	4.15	6.24	4.01	6.57	3.87	7.02	3.69	7.15	3.38	6.89	3.04	6.24	2.52	4.94	1.86	4.10	1.52
10		5.79	4.24	6.37	4.09	6.70	3.95	7.22	3.81	7.35	3.46	7.02	3.12	6.37	2.58	5.01	1.92	4.23	1.52
11		5.92	4.35	6.57	4.21	6.96	4.07	7.35	3.87	7.54	3.58	7.22	3.21	6.57	2.66	5.07	1.95	4.36	1.57
12		6.11	4.47	6.70	4.30	7.15	4.18	7.54	3.98	7.67	3.67	7.41	3.29	6.70	2.72	5.27	2.00	4.49	1.60
13		6.24	4.61	6.89	4.44	7.35	4.30	7.74	4.09	7.87	3.78	7.61	3.38	6.89	2.83	5.40	2.09	4.55	1.66
14		6.44	4.70	7.15	4.52	7.48	4.41	7.93	4.21	8.13	3.84	7.80	3.46	7.15	2.89	5.53	2.12	4.68	1.72
15		6.57	4.84	7.28	4.64	7.67	4.50	8.19	4.30	8.32	3.92	8.00	3.55	7.28	2.95	5.72	2.15	4.81	1.75
18		7.02	5.18	7.74	5.01	8.13	4.84	8.65	4.61	8.91	4.24	8.52	3.81	7.74	3.15	6.05	2.32	5.14	1.86
20		7.35	5.44	8.13	5.21	8.58	5.10	9.10	4.84	9.30	4.44	8.91	3.98	8.13	3.32	6.31	2.43	5.33	1.98
23		7.74	5.76	8.58	5.53	9.04	5.38	9.62	5.13	9.82	4.70	9.43	4.24	8.58	3.49	6.63	2.58	5.66	2.06
25		8.00	5.98	8.91	5.78	9.36	5.58	10.01	5.33	10.21	4.90	9.82	4.41	8.91	3.67	6.96	2.69	0.00	2.18

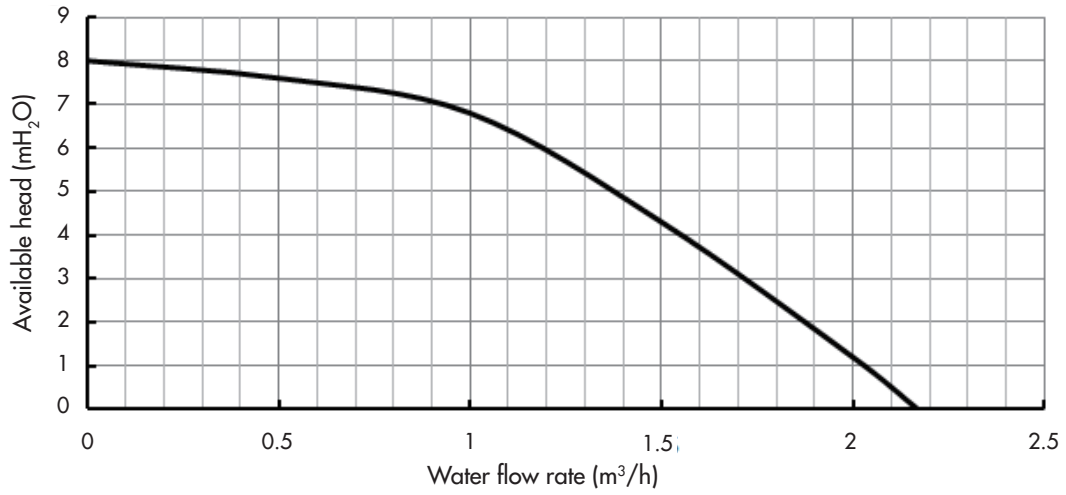
LWT: Leaving water temperature  
Qh: Heating capacity  
COP: Coefficient of performance

LWT: Leaving water temperature  
Qc: Cooling capacity  
EER: Energy efficiency ratio

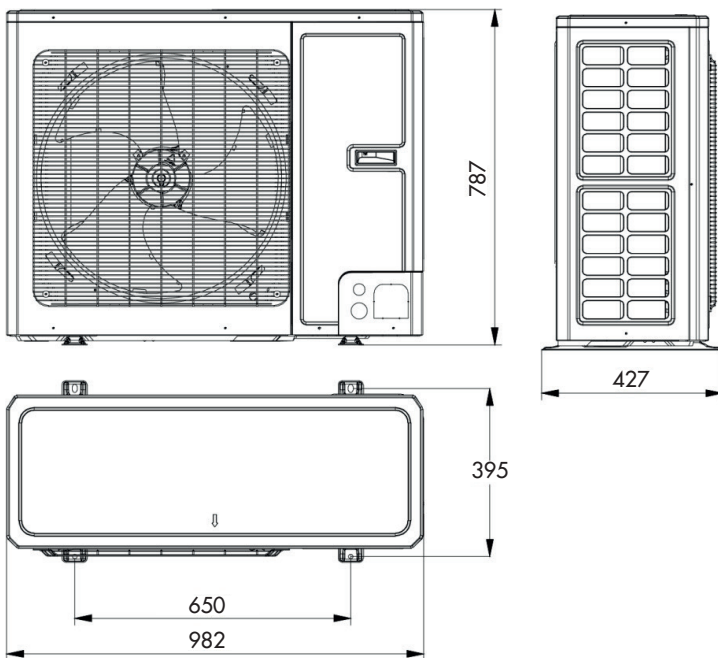
		HEATING - Dry bulb outdoor air temperature in °C																											
		-25		-20		-15		-10		-7		-2		2		7		10		15		20		25		30		35	
LWT [°C]		Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP	Qh [kW]	COP
25		4.09	3.99	4.94	4.21	5.89	4.50	6.75	4.68	7.22	4.97	8.08	5.18	8.93	5.40	8.74	5.61	9.03	5.87	9.50	6.41	9.41	6.80	8.55	6.73	7.51	7.34	5.89	7.77
30		3.99	3.24	4.85	3.49	5.70	3.74	6.56	3.96	7.03	4.17	7.79	4.39	8.65	4.61	9.22	5.11	9.50	5.43	10.07	5.79	9.98	6.19	9.03	6.19	7.89	6.69	6.18	7.16
35		3.90	2.73	4.56	2.88	5.32	3.06	6.18	3.31	6.65	3.53	7.41	3.74	8.08	3.85	9.50	4.61	9.79	4.86	10.36	5.29	10.26	5.51	9.31	5.51	8.17	6.12	6.37	6.48
40		3.90	2.34	4.56	2.59	5.32	2.81	6.18	2.99	6.65	3.13	7.41	3.38	8.08	3.60	9.50	4.10	9.79	4.32	10.36	4.68	10.26	4.93	9.31	4.89	8.17	5.40	6.37	5.76
45				4.56	2.27	5.32	2.48	6.18	2.70	6.65	2.81	7.41	2.99	8.08	3.17	9.50	3.60	9.79	3.78	10.36	4.10	10.26	4.32	9.31	4.53	8.17	4.75	6.37	5.04
50						5.13	2.09	5.99	2.27	6.46	2.38	7.22	2.55	7.79	2.63	9.22	3.09	9.50	3.24	10.07	3.56	9.98	3.71	9.03	3.89	7.89	4.07	6.18	4.35
55								5.70	1.87	6.08	1.94	6.84	2.12	7.41	2.23	8.74	2.59	9.03	2.73	9.50	2.95	9.41	3.13	8.55	3.24	7.51	3.42	5.89	3.67
60										5.80	1.58	6.46	1.66	7.03	1.76	8.27	2.09	8.55	2.16	9.03	2.30	8.93	2.41	8.08	2.55	7.13	2.66	5.51	2.84



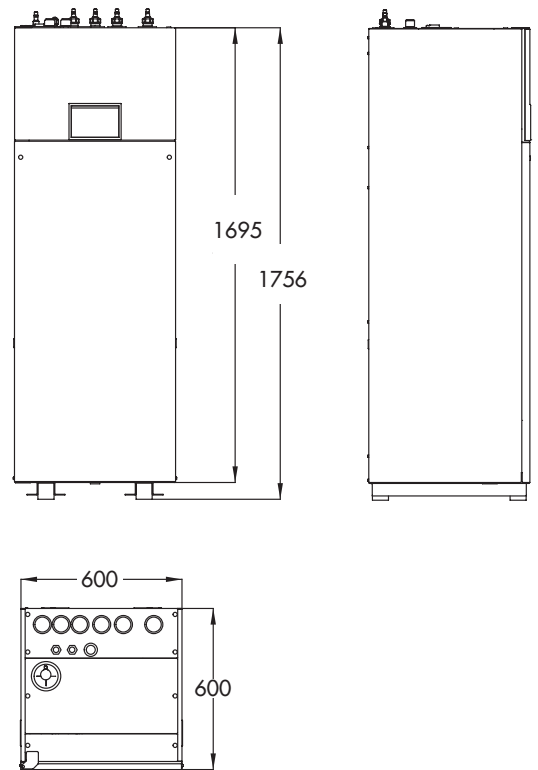
# FLOW RATE CURVES 8-10 kW



# DIMENSIONAL DRAWINGS 8-10 kW

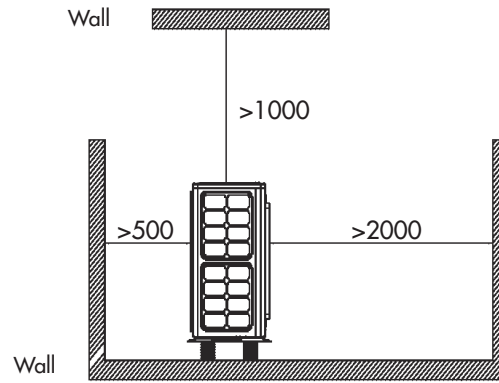
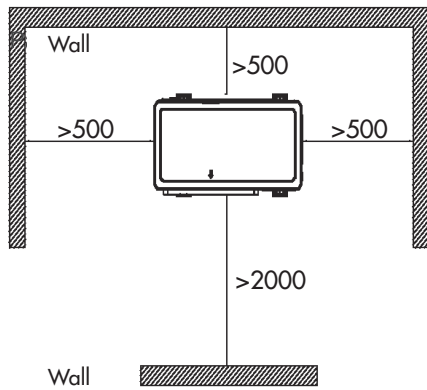


OUTDOOR UNIT 8-10 kW

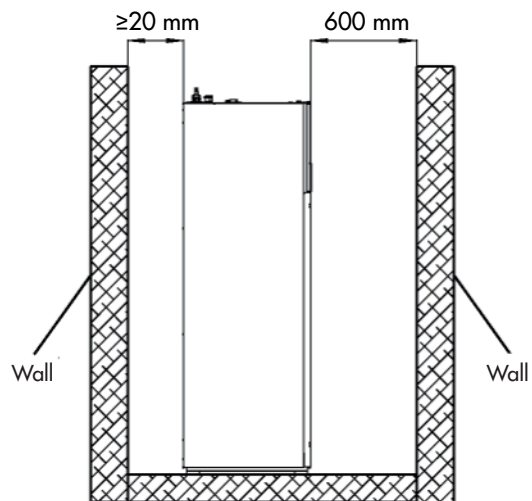
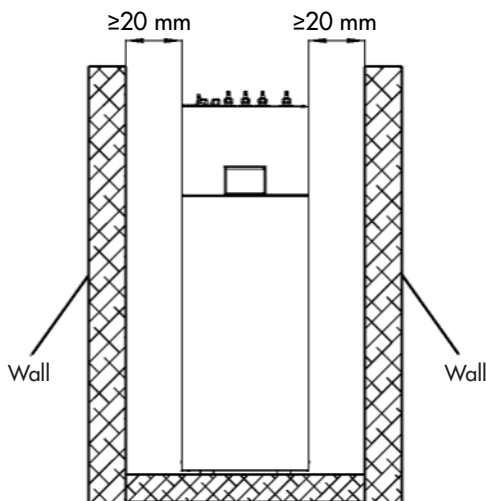


INDOOR UNIT 8-10 kW

# SPACE REQUIRED FOR OUTDOOR UNIT INSTALLATION 6-8-10 kW



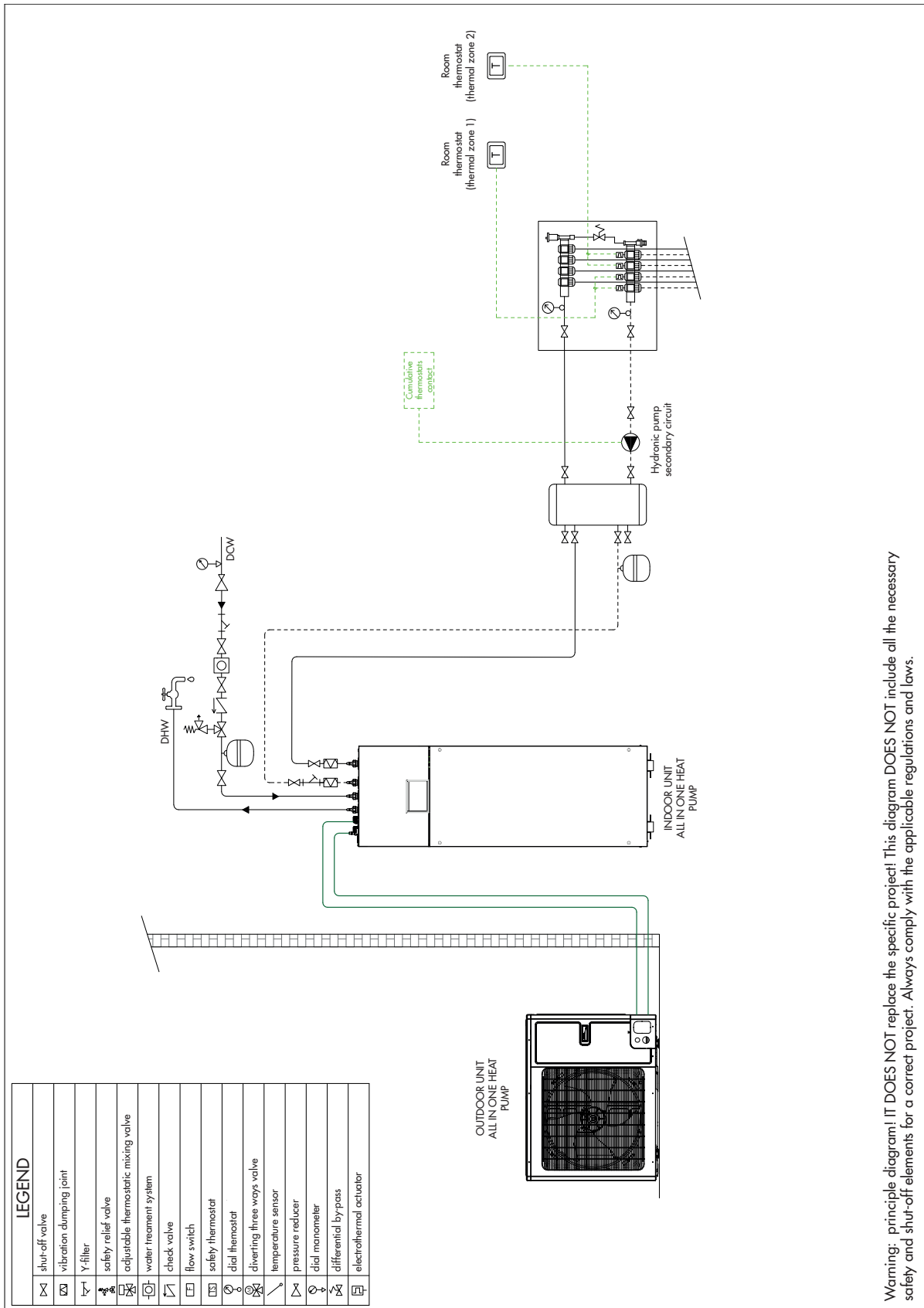
# SPACE REQUIRED FOR INDOOR UNIT INSTALLATION 6-8-10 kW



# INSTALLATION EXAMPLES

## EXAMPLE 1

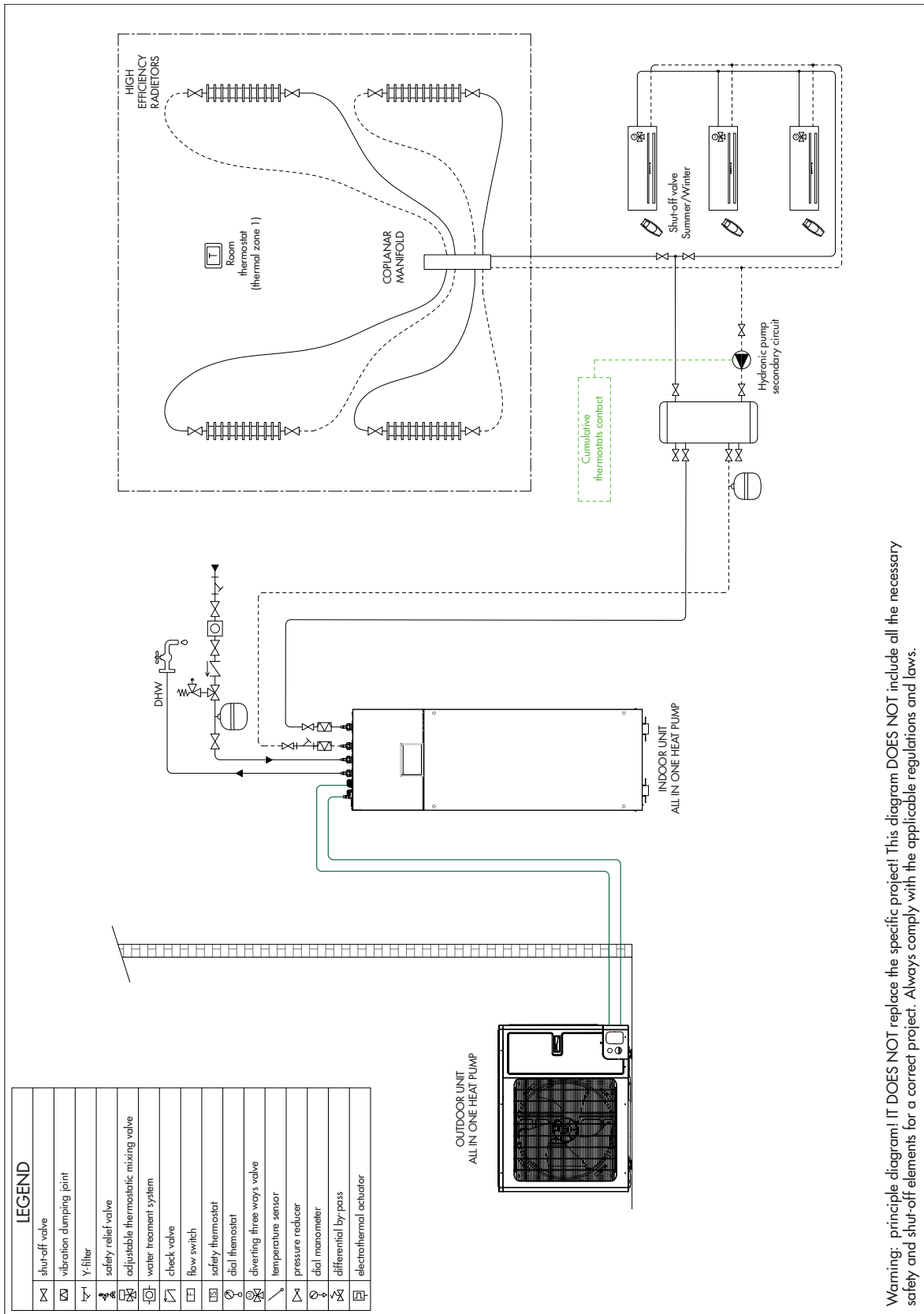
### Radiant heating and DHW integrated in the indoor unit



Warning: principle diagram! IT DOES NOT replace the specific project! This diagram DOES NOT include all the necessary safety and shut-off elements for a correct project. Always comply with the applicable regulations and laws.

## EXAMPLE 2

Heating by high efficiency radiators, cooling by FCU units and DHW integrated in the indoor unit



Warning: principle diagram! IT DOES NOT replace the specific project! This diagram DOES NOT include all the necessary safety and shut-off elements for a correct project. Always comply with the applicable regulations and laws.