Technical bulletin

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ARGO NEWS

1.02 rev.01

X3 air/water heat pumps

6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

Main features

Range of models

Dimensions and installation

Technical data



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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

Main features

The air to water heat pump **X3**, equipped with the latest DC Inverter technology, is a complete comfort system, highly flexible and efficient from an energetic perspective, besides being environmentally friendly, thanks to the use of a low-impact refrigerant.

It can fulfill all the comfort needs:

- Heating with a radiant floor, indoor units, but also traditional high-temperature radiators
- Cooling with a radiant floor or indoor units
- Domestic Hot Water supply

The system is suitable both for new constructions and for renovations: it can replace traditional boilers since it can reach 65 °C otlet water temperature.

The installation of the MONOBLOC version is simplified since the unit is already internally equipped with all the hydraulic components:

- inverter water pump
- Plate heat exchanger
- expansion vessel
- safety valve
- Flow-switch
- Water filter (only supplied, must be installed)

The two stage compressor, thanks to its technology, can yield excellent performances in a very wide operation range.

The DC brushless axial fans are designed for aerodinamic optimization: they ensure a low noise level, but high efficiency and high air flow. The heat exchangers have a special Anti-corrosion treatment: the fins, made in Aluminnium-Manganese alloy, are coated with a special layer of epoxy resin, with a typical golden color, and with an additional hydrofilic layer.

Technical features new AG4HP models vs. AGHP air/water heat pumps

Performances:

- 14 kW/16 kW models now achieve A+++ for low-temperature application in average climate conditions
- Heating and cooling capacities improved or equivalent
- COP/EER improved or equivalent
- Max water temperature for heating is 65 °C (was 60 °C)
- min water temperature for cooling is 5 °C (was 7 °C)

Physical features:

- Modified external chassis (slightly larger but less deep)
- Water pump on the water return
- WILO pump replaced by SHINHOO pump
- ALFA LAVAL heat exchanger replaced by DANFOSS heat exchanger
- Reduced weight (10 kg in average)

Software:

- Password for commissioning
- Child lock

6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

Main features

Code	M. 1.1				
Code	Model	Capacity (kW)	Power input (kW)	COP, W/W	Power supply
398600069	AG4HP061PH	6.0	1.11	5.40	
398600071	AG4HP081PH	8.2	1.54	5.32	
398600072	AG4HP101PH	10.2	2.02	5.05	230 VAC,
398600073	AG4HP121PH	12.0	2.43	4.94	monophase, 50 Hz
398600074	AG4HP141PH	14.2	2.99	4.75	
398600075	AG4HP161PH	15.7	3.45	4.55	
398600076	AG4HP103PH	10.2	2.06	4.95	
398600077	AG4HP123PH	12.0	2.49	4.82	400 VAC,
398600078	AG4HP143PH	14.2	3.09	4.60	three-phase, 50 Hz
398600079	AG4HP163PH	15.7	3.57	4.40	

Code	M. 11				
Code	Model	Capacity (kW)	Power input (kW)	EER, W/W	Power supply
398600069	AG4HP061PH	6.5	1.27	5.10	
398600071	AG4HP081PH	8.3	1.56	5.32	
398600072	AG4HP101PH	10.2	2.00	5.10	230 VAC,
398600073	AG4HP121PH	12.0	2.45	4.90	monophase, 50 Hz
398600074	AG4HP141PH	13.7	3.00	4.57	
398600075	AG4HP161PH	15.5	3.60	4.31	
398600076	AG4HP103PH	10.2	2.13	4.79	
398600077	AG4HP123PH	12.0	2.61	4.60	400 VAC,
398600078	AG4HP143PH	13.9	3.32	4.19	three-phase, 50 Hz
398600079	AG4HP163PH	15.4	4.05	3.80	

 $^{^1}$ Capacities and power inputs are based on the following conditions: Indoor Water Temperature 30 °C/35 °C, Outdoor Air Temperature 7 °C DB/6 °C WB;

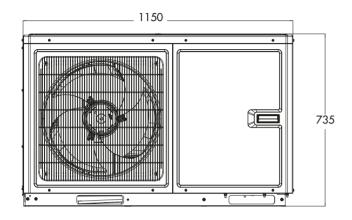
Operating conditions

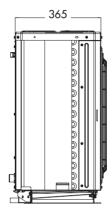
Mode	Outdoor temperature (°C)	Water temperature (°C)
Heating	-25 ~ 35	20 ~ 65
Cooling	-15 ~ 48	5 ~ 25
Water heating DHW	-25 ~ 45	40 ~ 55 / 80

 $^{^2}$ Capacities and power inputs are based on the following conditions: Indoor Water Temperature 23 $^{\circ}$ C/18 $^{\circ}$ C, Outdoor Air Temperature 35 $^{\circ}$ C DB/24 $^{\circ}$ C WB

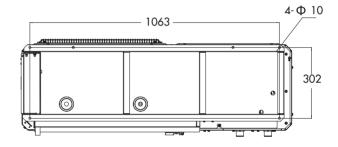
6-8 kVV (1ph) 10-12-14-16 kVV (1ph/3ph)

Dimensions 6 kW and installation

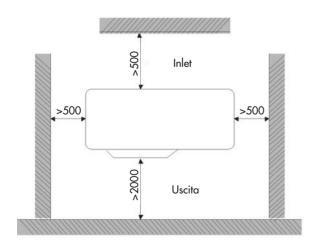


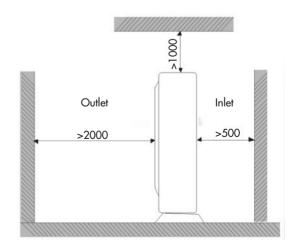






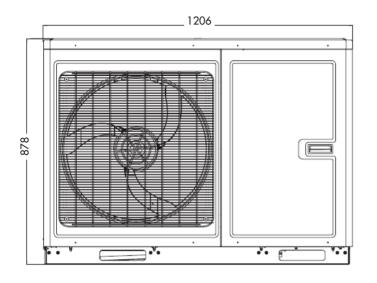
Space requirements for installation

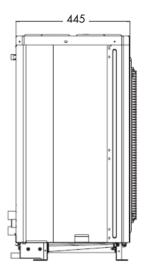


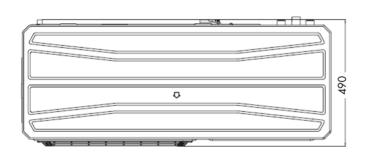


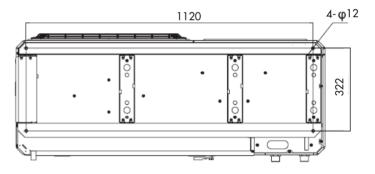
6-8 kVV (1ph) 10-12-14-16 kVV (1ph/3ph)

Dimensions 8-10-12-14-16 kW and installation

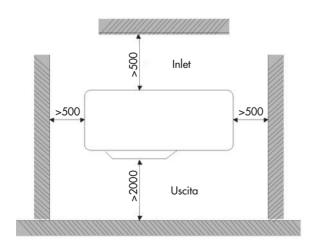


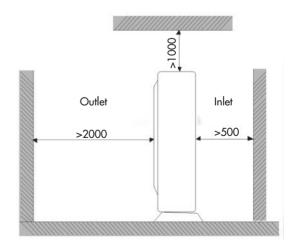






Space requirements for installation





6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	061PH	
				200/300 litres with diver		
				Cooling	Heating	
		Rated capacity	kW	6.50	6.00	
Performance	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	1.27	1.11	
		EER/COP		5.10	5.40	
ccording to N 14511		Rated capacity	kW	5.70	6.80	
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	1.75	1.66	
	7 11 17 6 77 10 10 10 7 10 6	EER/COP		3.25	4.10	
		Design thermal load (Pdesign _h)	kW	ć	5	
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency ης	%	19	9	
according to	AVENAGE CITIBLE	Energy efficiency class		A+	++	
codesign ERP)		Design thermal load (Pdesign _h)	kW	5	5	
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η _s	%	13	35	
	7 IT LIVACE CHINGIE	Energy efficiency class		A	++	
Domestic Hot	With 300 litres tank	Load profile		Х	L	
Vater	and diverting valve;	Energy efficiency class		A+		
production	MEDIUM climate	ERP efficiency	%	12	127	
		Maximum delivery water temperature	°C	65		
		Outdoor temperature range (heating)	°C	-25 / +35		
		Outdoor temperature range (cooling)	°C	-15 / +48		
				a 35 °C	tbd	
			m³/h	a 45 °C	tbd	
		Nominal water flow rate		a 55 °C	tbd	
Jnit operation	data			a 7 °C	tbd	
•				a 18 °C	tbd	
		Minimum efficient water volume of the system	litri	tb	d	
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	230/	1/50	
		Maximum electricity consumption	А	2	5	
		Sound pressure level (cooling mode)	dB(A)	5	6	
		Sound pressure level (heating mode)	dB(A)	5	8	
		Expansion vessel	litri	2	2	
		Maximum circulator pump head	kPa	(see H/G	graphs)	
Components and dimensions		Hydraulic connections	pollici	G	1"	
		Safety valve	bar	3	}	
-		Weight	kg	9	0	
		Dimensions (H./W./D.)	mm	733/11	50/372	
		Compressor type		Twin Rotary with		
		Type and GWP		R32/675 l		
Refrigerant		Quantity	kg	0.9		

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

6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	081PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	8.30	8.20
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	1.56	1.54
Performance	All +/ C Walel 50/55 C	EER/COP		5.32	5.32
according to N 14511		Rated capacity	kW	7.40	8.30
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	2.00	1.90
	All +7 C Walei 40/45 C	EER/COP		3.70	4.36
		Design thermal load (Pdesign _b)	kW	8	}
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	18	37
according to	AVERAGE CIIIIQTE	Energy efficiency class		A+	++
codesign :RP)		Design thermal load (Pdesign _h)	kW	9)
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η,	%	14	16
	AVERAGE CIIMATE	Energy efficiency class		Aı	-+
Domestic Hot	With 300 litres tank	Load profile		XL	
Vater	and diverting valve;	Energy efficiency class		A	
production	MEDIUM climate	ERP efficiency	%	123	
		Maximum delivery water temperature	°C	6.	5
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
			m³/h	a 35 °C	tbd
				a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Jnit operation	data			a 7 °C	tbd
•				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	d
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	230/	1/50
		Maximum electricity consumption	Α	2.	5
		Sound pressure level (cooling mode)	dB(A)	60	0
		Sound pressure level (heating mode)	dB(A)	6	2
		Expansion vessel	litri	2)
		Maximum circulator pump head	kPa	(see H/G	graphs)
Components and dimensions		Hydraulic connections	pollici	G	
		Safety valve	bar	3	}
		Weight	kg	12	20
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary with	
		Type and GWP		R32/675	
Refrigerant		Quantity	kg	1.	

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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	101PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	10.20	10.20
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	2.00	2.02
Performance		EER/COP		5.10	5.05
ccording to N 14511		Rated capacity	kW	9.00	10.20
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	2.65	2.5
	7 11 17 C 77 alor 407 40 C	EER/COP		3.40	4.08
		Design thermal load (Pdesign _h)	kW	ç)
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	17	78
according to	AVENAGE CHITIQUE	Energy efficiency class		A+	++
codesign ERP)		Design thermal load (Pdesign _h)	kW	1	0
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η _s	%	13	36
	AVENAGE CHITIQUE	Energy efficiency class		A++	
Domestic Hot	With 300 litres tank	Load profile		X	L
Vater	and diverting valve;	Energy efficiency class		A	
production	MEDIUM climate	ERP efficiency	%	123	
		Maximum delivery water temperature	°C	65	
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
				a 35 °C	tbd
			m³/h	a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Jnit operation	data			a 7 °C	tbd
•				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	d
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	230/	1/50
		Maximum electricity consumption	А	2	5
		Sound pressure level (cooling mode)	dB(A)	6	0
		Sound pressure level (heating mode)	dB(A)	6	2
		Expansion vessel	litri	2	2
		Maximum circulator pump head	kPa	(see H/G	graphs)
		Hydraulic connections	pollici	G	
Components and dimensions		Safety valve	bar	3	3
-		Weight	kg	12	20
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary with	
		Type and GWP		R32/675	
Refrigerant		Quantity	kg	1.	

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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	103PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	10.20	10.20
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	2.13	2.06
Performance	7 11 17 C 77 alor 007 00 C	EER/COP		4.79	4.95
ccording to N 14511		Rated capacity	kW	9.10	10.20
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	2.80	2.6
	711 17 C Walet 40/45 C	EER/COP		3.25	3.92
		Design thermal load (Pdesign _h)	kW	ç)
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	19	90
according to	AVERAGE Cliffidle	Energy efficiency class		A+	++
codesign :RP)		Design thermal load (Pdesign,)	kW	1	0
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η	%	14	41
	AVERAGE cliffidie	Energy efficiency class		A	+ +
Oomestic Hot	With 300 litres tank	Load profile		X	L
Vater	and diverting valve;	Energy efficiency class			4
production	MEDIUM climate	ERP efficiency	%	123	
		Maximum delivery water temperature	°C	6	 5
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
				a 35 °C	tbd
			m³/h	a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Jnit operation	data			a 7 °C	tbd
				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	d
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	400/	3/50
		Maximum electricity consumption	Α	9)
		Sound pressure level (cooling mode)	dB(A)	5	7
		Sound pressure level (heating mode)	dB(A)	6	0
		Expansion vessel	litri	3	3
		Maximum circulator pump head	kPa	(see H/G	graphs)
		Hydraulic connections	pollici	G	
Components and dimensions		Safety valve	bar	3	
		Weight	kg	13	34
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary with	
		Type and GWP		R32/675	
Refrigerant		Quantity	kg	1.	

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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	121PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	12.00	12.00
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	2.45	2.43
erformance	7 11 17 C 77 alor 007 00 C	EER/COP		4.90	4.94
ccording to N 14511		Rated capacity	kW	11.10	13.00
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	3.58	3.45
	All +7 C Walei 40/43 C	EER/COP		3.10	3.77
		Design thermal load (Pdesign _h)	kW	1:	2
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	18	88
according to	AVERAGE Cliffidle	Energy efficiency class		A+	++
codesign :RP)		Design thermal load (Pdesign _b)	kW	1:	2
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η,	%	14	14
	AVERAGE cliffidie	Energy efficiency class		A	-+
Oomestic Hot	With 300 litres tank	Load profile		X	L
Vater	and diverting valve;	Energy efficiency class		A	
roduction	MEDIUM climate	ERP efficiency	%	11	0
		Maximum delivery water temperature	°C	6.	5
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
				a 35 °C	tbd
			m³/h	a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Init operation	data			a 7 °C	tbd
				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	d
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	230/	1/50
		Maximum electricity consumption	Α	2	9
		Sound pressure level (cooling mode)	dB(A)	6	1
		Sound pressure level (heating mode)	dB(A)	6	3
		Expansion vessel	litri	3	}
		Maximum circulator pump head	kPa	(see H/G	graphs)
Components and dimensions		Hydraulic connections	pollici	G	
		Safety valve	bar	3	
		Weight	kg	13	18
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary with	
		Type and GWP		R32/675 l	
Refrigerant		Quantity	kg	2.	

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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	123PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	12.00	12.00
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	2.61	2.49
erformance	7 11 17 C 77 alor 007 00 C	EER/COP		4.60	4.82
ccording to N 14511		Rated capacity	kW	11.10	13.00
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	3.58	3.45
	711 17 C Walet 40/45 C	EER/COP		3.10	3.77
		Design thermal load (Pdesign _h)	kW	1:	2
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	18	30
according to	AVERAGE Cliffidle	Energy efficiency class		A+	++
codesign :RP)		Design thermal load (Pdesign _b)	kW	1:	2
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η,	%	13	37
	AVERAGE cliffidie	Energy efficiency class		A	-+
Oomestic Hot	With 300 litres tank	Load profile		X	L
Vater	and diverting valve;	Energy efficiency class		A	
roduction	MEDIUM climate	ERP efficiency	%	110	
		Maximum delivery water temperature	°C	6.	5
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
				a 35 °C	tbd
			m³/h	a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Jnit operation	data			a 7 °C	tbd
•				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	d
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	400/	3/50
		Maximum electricity consumption	Α	11	,5
		Sound pressure level (cooling mode)	dB(A)	6	1
		Sound pressure level (heating mode)	dB(A)	6	3
		Expansion vessel	litri	3	}
		Maximum circulator pump head	kPa	(see H/G	graphs)
		Hydraulic connections	pollici	G	• .
Components and dimensions		Safety valve	bar	3	
		Weight	kg	14	
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary with	
		Type and GWP		R32/675 l	<u> </u>
Refrigerant		Quantity	kg	2.	

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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	141PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	13.7	14.2
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	3.00	2.99
Performance	7 til 17 C Yvaler 00/03 C	EER/COP		4.57	4.75
according to EN 14511		Rated capacity	kW	13.30	14.20
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	4.75	3.84
	All +7 C VValet 40/45 C	EER/COP		2.80	3.70
		Design thermal load (Pdesign _b)	kW	1	3
Performance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	18	35
according to	AVERAGE climate	Energy efficiency class		A+	++
codesign ERP)		Design thermal load (Pdesign _b)	kW	1	3
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η,	%	14	45
	AVERAGE climate	Energy efficiency class		A-	++
Domestic Hot	With 300 litres tank	Load profile		XL	
Vomestic not Water	with 300 litres tank and diverting valve;	Energy efficiency class		A	
production	MEDIUM climate	ERP efficiency	%	110	
		Maximum delivery water temperature	°C	6	5
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
		, , , , , , , , , , , , , , , , , , ,		a 35 °C	tbd
			m³/h	a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Unit operation	data			a 7 °C	tbd
				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	d
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	230/	1/50
		Maximum electricity consumption	Α	3	0
		Sound pressure level (cooling mode)	dB(A)	6	1
		Sound pressure level (heating mode)	dB(A)	6	3
		Expansion vessel	litri	3	3
		Maximum circulator pump head	kPa	(vedi gra	fici H/Q)
Components and dimensions		Hydraulic connections	pollici	G	
		Safety valve	bar		
		Weight	kg	13	
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary ad in	
		Type and GWP		R32/675	
Refrigerant		Quantity	kg	2.	

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

6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	143PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	13.90	14.20
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	3.32	3.09
Performance	All +7 C Waler 507 55 C	EER/COP		4.19	4.60
iccording to N 14511		Rated capacity	kW	13.30	14.20
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	4.75	3.84
	All +7 C Walei 40/45 C	EER/COP		2.80	3.70
		Design thermal load (Pdesign _b)	kW	1	3
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	17	79
ccording to	AVERAGE clinidle	Energy efficiency class		A+	++
codesign RP)		Design thermal load (Pdesign _b)	kW	1	3
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η,	%	13	38
	AVENAGE CIIIICIE	Energy efficiency class		A	++
omestic Hot	With 300 litres tank and diverting valve;	Load profile		XL	
Vater		Energy efficiency class		A	
roduction	MEDIUM climate	ERP efficiency	%	110	
		Maximum delivery water temperature	°C	65	
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
			m³/h	a 35 °C	tbd
				a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Init operation	data			a 7 °C	tbd
•				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	od
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	400/	3/50
		Maximum electricity consumption	Α	1	2
		Sound pressure level (cooling mode)	dB(A)	6	1
		Sound pressure level (heating mode)	dB(A)	6	3
		Expansion vessel	litri	3	3
		Maximum circulator pump head	kPa	(see H/G	graphs)
		Hydraulic connections	pollici	G	
Components and dimensions		Safety valve	bar	3	
		Weight	kg	14	14
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary with	
		Type and GWP		R32/675	
efrigerant		Quantity	kg	2.	

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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP	161PH
				200/300 litres with diver	
				Cooling	Heating
		Rated capacity	kW	15.50	15.70
	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated electrical power input	kW _{el}	3.60	3.45
Performance	All +7 C Waler 507 55 C	EER/COP		4.31	4.55
iccording to N 14511		Rated capacity	kW	13.80	16.20
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated electrical power input	kW _{el}	5.09	4.49
	All +/ C Walei 40/45 C	EER/COP		2.71	3.61
		Design thermal load (Pdesign _b)	kW	1	4
erformance	LOW TEMPERATURE (35 °C) AVERAGE climate	Seasonal energy efficiency η,	%	18	34
ccording to	AVERAGE cliffidie	Energy efficiency class		A+	++
codesign RP)		Design thermal load (Pdesign _b)	kW	1	4
N 14825	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Seasonal energy efficiency η,	%	14	14
	AVERAGE CIIMOTE	Energy efficiency class		A-	++
\\	With 300 litres tank and diverting valve;	Load profile		XL	
Oomestic Hot Vater		Energy efficiency class		A	
production	MEDIUM climate	ERP efficiency	%	110	
		Maximum delivery water temperature	°C	6	5
		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
		, , , , , , , , , , , , , , , , , , ,		a 35 °C	tbd
			m³/h	a 45 °C	tbd
		Nominal water flow rate		a 55 °C	tbd
Init operation	data			a 7 °C	tbd
				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tb	od
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	230/	1/50
		Maximum electricity consumption	Α	3	0
		Sound pressure level (cooling mode)	dB(A)	6	1
		Sound pressure level (heating mode)	dB(A)	6	3
		Expansion vessel	litri		3
		Maximum circulator pump head	kPa	(see H/G	graphs)
Components and dimensions		Hydraulic connections	pollici	G	<u> </u>
		Safety valve	bar		3
		Weight	kg		38
		Dimensions (H./W./D.)	mm	878/12	
		Compressor type		Twin Rotary with	
		Type and GWP		R32/675	
efrigerant		Quantity	kg	2.	

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6-8 kW (1ph) 10-12-14-16 kW (1ph/3ph)

MODEL				AG4HP163PH	
				200/300 litres external tank with diverting valve	
				Cooling	Heating
Performance according to EN 14511	Air +35 °C - Water 23/18 °C Air +7 °C - Water 30/35 °C	Rated capacity	kW	15.40	15.70
		Rated electrical power input	kW _{el}	4.05	3.57
		EER/COP		3.80	4.40
	Air +35 °C - Water 10/5 °C Air +7 °C - Water 40/45 °C	Rated capacity	kW	13.80	16.20
		Rated electrical power input	kW _{el}	5.09	4.49
		EER/COP		2.71	3.61
Performance according to Ecodesign (ERP) EN 14825	LOW TEMPERATURE (35 °C) AVERAGE climate	Design thermal load (Pdesign,)	kW	13	
		Seasonal energy efficiency η,	%	179	
		Energy efficiency class		A+++	
	MEDIUM TEMPERATURE (55 °C) AVERAGE climate	Design thermal load (Pdesign _h)	kW	14	
		Seasonal energy efficiency η,	%	138	
		Energy efficiency class		A++	
Domestic Hot Water production	With 300 litres tank and diverting valve; MEDIUM climate	Load profile		XL	
		Energy efficiency class		A	
		ERP efficiency	%	110	
		Maximum delivery water temperature	°C	65	
Unit operation data		Outdoor temperature range (heating)	°C	-25 / +35	
		Outdoor temperature range (cooling)	°C	-15 / +48	
		Nominal water flow rate	m³/h	a 35 °C	tbd
				a 45 °C	tbd
				a 55 °C	tbd
				a 7 °C	tbd
				a 18 °C	tbd
		Minimum efficient water volume of the system	litri	tbd	
		Power supply (Voltage/Phases/Frequency)	V/Ph/Hz	400/3/50	
		Maximum electricity consumption	Α	12,5	
		Sound pressure level (cooling mode)	dB(A)	61	
		Sound pressure level (heating mode)	dB(A)	63	
Components and dimensions		Expansion vessel	litri	3	
		Maximum circulator pump head	kPa	(see H/Q graphs)	
		Hydraulic connections	pollici	G1"	
		Safety valve	bar	3	
		Weight	kg	144	
		Dimensions (H./W./D.)	mm	878/1206/445	
		Compressor type		Twin Rotary with vapour injection	
Refrigerant		Type and GWP		R32/675 kg CO ₂ eq.	
		Quantity	kg		2.2

The equipments described in this catalogue contain HFC R32+ype fluorinated greenhouse gases. These products must be fitted by qualified staff pursuant to Regulations (EU) 303/2008 and 517/2014.

Data declared in accoordance 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 devices and packages of combination heater, temperature control and solar devices, packages of combination heater, temperature control and solar devices, and with COWMISSION 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.