

Air/water chillers and heat pumps with axial fans

5 ÷ 39 kW



EPSILON

Water chiller

Unit frame

Galvanized steel frame with baked-on polyester powder coating, colour RAL 5014.

Compressor

Single-phase rotary vane type compressor (sizes 5 and 7) with suction line separator and three-phase semihermetic scroll type for the remaining sizes; equipped with internal thermal protection, electric crankcase heater (except mod. 5 and 7), and installed on rubber antivibration mounts.

Refrigerant circuit

Comprises : charge connection on liquid and suction line, sight glass, filter dryer, thermostatic expansion valve with external pressure equalisation, high and low pressure switches with automatic reset and limited thresholds, and safety valve.

Evaporator

Braze-welded plate type with anticondensate insulation, antifreeze protection and mechanical flow switch supplied as part of the standard equipment.

Condenser

High efficiency, finned coil protected by a grille with metal mesh filter.

Fans

Axial fans directly coupled to a single-phase 6-pole motor. Protection against accidental contact is ensured by a safety grill.

Electrical Panel

With main power switch, power and control circuits protection, contactors for compressors and pump (ST version). Microprocessor controlled unit with main function display. 230V/1~/50Hz power supply (model 5 and 7), or 400V/3~/50Hz (remaining models).

Testing

The units are subjected to a factory test and supplied complete with oil and refrigerant.

EPSILON/HP

Reversible heat pump

In addition to the components featured on the cooling-only version, this model includes: 4-way reversing valve, liquid receiver, and second thermostatic expansion valve; microprocessor enabled for: summer/winter changeover, automatic defrosting, digital input for remote summer/winter changeover function.

HYDRAULIC MODULE OPTIONS

EPSILON/ST 1PS

In addition to the components featured on EPSILON, this model includes an insulated storage tank, pump with gate valve, safety valve, air bleed valve, water circuit drain valve, and expansion vessel (for HP version only).

MAIN ACCESSORIES

- Rubber antivibration mounts
- Coils with special treatments
- Automatic filling kit with pressure gauge (ST version only)
- No-frost heater
- Additional heaters
- RS485 serial interface
- Remote control terminal (in addition to standard terminal)
- Expansion vessel (standard on HP versions)

EPSILON - R407C TECHNICAL DATA

Unit size		5	7	8.5	10	12.5
Nominal cooling capacity (*)	kW	4,6	6,4	8,1	10,1	12,3
Nominal heating capacity (**)	kW	4,9	7,0	9,2	11,3	13,4
Compressor						
Quantity/Refrigerant circuits	n°	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	1,7	2,3	2,9	3,3	4,1
Heating power (**)	kW	1,3	2,1	3,1	3,6	4,4
Capacity steps	%	100	100	100	100	100
Fans						
Air flow	m³/s	0,861	0,778	0,778	1,611	1,611
No. x installed power	n° x kW	1x0,14	1x0,14	1x0,14	1x0,36	1x0,36
Evaporator characteristics						
Pressure drop	kPa	34,1	36,4	28,8	35,9	36,6
Hydraulic module characteristics						
Water flow rate	l/s	0,221	0,305	0,389	0,481	0,587
Available pump pressure	kPa	77	71	73	149	136
Storage tank capacity	l	40	40	40	60	60
Expansion vessel	l	2	2	2	2	2
Noise level (***)	dB(A)	56	57	57	62	62
Power supply	V/ph/Hz	230/1~/50	230/1~/50	400/3N~/50	400/3N~/50	400/3N~/50
Dimensions and weight						
Width	mm	1121	1121	1121	1221	1221
Depth	mm	418	418	418	538	538
Height	mm	1102	1102	1102	1102	1102
Operating weight	kg	88	100	114	139	140

Unit size		15	20	25	30	35
Nominal cooling capacity (*)	kW	14,5	19,2	25,6	33,9	38,8
Nominal heating capacity (**)	kW	16,4	19,9	28,5	37,2	43,2
Compressor						
Quantity/Refrigerant circuits	n°	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	4,9	6,2	8,7	10,9	12,8
Heating power (**)	kW	5,1	6,4	8,9	11,3	13,3
Capacity steps	%	100	100	100	100	100
Fans						
Air flow	m³/s	1,444	2,306	2,167	4,167	4,167
No. x installed power	n° x kW	1x0,36	1x0,40	1x0,40	1x0,40	2x0,40
Evaporator characteristics						
Pressure drop	kPa	32,9	49,8	43,8	39,8	36,9
Hydraulic module characteristics						
Water flow rate	l/s	0,694	0,915	1,224	1,619	1,854
Available pump pressure	kPa	125	117	90	90	90
Storage tank capacity	l	60	75	75	165	165
Expansion vessel	l	2	2	2	5	5
Noise level (***)	dB(A)	63	64	64	65	65
Power supply	V/ph/Hz	400/3N~/50	400/3N~/50	400/3N~/50	400/3N~/50	400/3N~/50
Dimensions and weight						
Width	mm	1221	1521	1521	1750	1750
Depth	mm	538	661	661	1003	1003
Height	mm	1102	1102	1102	1400	1400
Operating weight	kg	148	174	221	410	423

(*) Ambient air temperature 35 °C; evaporator inlet/outlet water temperature 12/7°C.

(**) Ambient air temperature 8°C BS, 70% RH; condenser inlet/outlet water temperature 40/45°C.

(***) Sound pressure levels measured at 1m from the unit and 1.5 m from the ground on the condensing coil side.

This datasheet gives the characteristic data of the basic and standard versions of the series; for details refer to the specific documentation