

EPSILON CF

**Air/Water chillers and heat pumps
with centrifugal fans
and scroll compressor**

5 ÷ 39 kW



EPSILON CF

Water chiller

Unit frame

In galvanised sheet steel with baked-on polyester powder coating RAL 5014.

Compressors

Single-phase rotary vane type compressor (mod. 5 and 7) with suction line separator and three-phase hermetic 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 and safety valve.

Evaporator

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

Condenser

High efficiency finned coil, with metal protection grille mod. 5 to 25, with metal protection grille and metal mesh filter mod. 30 and 35.

Centrifugal fan

Directly coupled to electrical motor, mod. 5 to 15, with belt/pulley transmission mod. 20 to 35. Safety mesh grille on delivery outlet.

Electrical panel

With main switch, power and control circuit protection, compressor contactors, pump relay (ST 1PS version). Microprocessor controlled unit with main function display.

230V/1~/50Hz power supply (models 5 and 7); 400V/3N~/50Hz (remaining models).

Testing

Units are factory-tested and supplied with refrigerant charge and oil.

EPSILON CF/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 CF/ST1PS

In addition to the components featured on EPSILON CF, 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 anti-corrosion treatment
- automatic filling kit (version ST 1PS only)
- no-frost kit
- additional heaters
- RS485 serial interface
- remote user terminal panel (in addition to the standard terminal).
- expansion vessel (standard on HP versions)

EPCILON CF - 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 input (**)	kW	1,3	2,1	3,1	3,6	4,4
Capacity steps	%	100	100	100	100	100
Fans						
Air flow	m³/s	1,042	1,042	1,042	1,667	1,667
No. x installed power	n° x kW	1x0,515	1x0,515	1x0,515	1x1,1	1x1,1
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	0,48	0,583
Available pump pressure	kPa	77	71	74	149	136
Storage tank capacity	l	40	40	40	60	60
Expansion vessel	l	2	2	2	2	2
Noise level (***)	dB(A)	61	61	61	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	1150	1150	1150	1250	1250
Depth	mm	602	602	602	778	778
Height	mm	1102	1102	1102	1102	1102
Operating weight	kg	106	118	133	179	182

Unit size		15	20	25	30	35
Nominal cooling capacity (*)	kW	14,5	19,1	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 input (**)	kW	5,1	6,4	8,9	11,3	13,3
Capacity steps	%	100	100	100	100	100
Fans						
Air flow	m³/s	1,667	2,222	2,222	4,028	4,722
No. x installed power	n° x kW	1x1,1	1x1,1	1x1,1	1x3	1x5,5
Evaporator characteristics						
Pressure drop	kPa	32,9	49,8	43,8	39,8	36,9
Hydraulic module characteristics						
Water flow rate	l/s	0,693	0,913	1,221	1,615	1,854
Available pump pressure	kPa	125	117	90	170	161
Storage tank capacity	l	60	60	60	165	165
Expansion vessel	l	2	2	2	5	5
Noise level (***)	dB(A)	62	65	65	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	1250	1550	1550	1750	1750
Depth	mm	778	795	795	1025	1025
Height	mm	1102	1102	1102	1270	1270
Operating weight	kg	190	233	279	496	509

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

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

(***) Sound pressure levels measured in free field conditions at 1m from the unit, according to ISO 3746.

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