

Precision conditioners for technologic environments

6 ÷ 95 kW



DATATECH

Precision conditioners.

CONFIGURATION

Air direction:

O : OVER upwards

U : UNDER downwards

Type of unit:

ED : direct expansion

CW : cooled water

Type condenser:

A : remote air condenser

W : incorporated water

Version:

CO : cooling

CH : cooling + heating

HH : cooling + heating + humidification + dehumidification

Structure

Galvanized sheet painted with epoxy-polyester powder (colour: RAL 7016). Sandwich panels with glass wool internal insulation (fire insulation class: 0).

Filters

Made of synthetic fibre with pleated profile, with G4 filtering capacity (corresponding to Eurovent EU4).

Fans

Radial, with inverted blades, with a 4-pole motor directly coupled (AC) to direct current with electronic commutating (EC), equipped with thermal protection and lack of air flow sensor).

Switchboard

Including main switch, protection of power and auxiliary circuits, phase sequence relay (for the versions with three-phase compressors). Microprocessor managing of the unit with functions on the display. Electric supply: 230V/1~/50Hz for 6 and 8, 400V/3~/50Hz for the remaining models.

Post-heating (CH and HH versions)

Batteries with armoured electric resistances with safety thermostat, with hot water battery on demand.

Humidifier (HH version)

Electrode humidifier supplied with water from the mains, controlled by microprocessor, for the production of steam with continuous modulation.

FOR DIRECT EXPANSION UNITS ONLY:

Compressors

Hermetic, of the scroll type, equipped with thermal protection and electric resistance assembled on rubber anti-vibration devices.

Refrigeration circuit

Includes: charge socket, dehydration filter, thermostatic expansion valve, high- and low-pressure pressure meters, safety valve, liquid inspection window, liquid receiver, solenoid valve (only for the versions with remote air condenser), tap on the liquid line. Versions with remote condenser are also complete with taps for gas interception.

Evaporator

Finned battery with copper pipes and aluminium fins and hydrophilic coating, complete with a tray to collect condensation water made of stainless steel, and siphon discharge.

Condenser

EDA version – remote with finned battery and axial fans, supplied as optional. EDW version – with braze welded plates for tower water, made of AISI 316 steel.

FOR REFRIGERATED WATER VERSIONS ONLY:

Air treatment battery

Finned battery with copper pipes, aluminium fins and hydrophilic coating, complete with a tray to collect condensation water made of stainless steel, and siphon discharge.

Testing

Operation tests carried out in the factory. The direct expansion units are delivered as follows:

- with nitrogen in the refrigerating circuit and oil in the compressor, in version *EDA;
- complete with oil and refrigerating fluid in version *EDW.

OUTFITS

Dual cooling DC

Units equipped with double cooling battery with refrigerated water for primary cooling and direct expansion for emergency or integration. Equipped with flow meter and water temperature probe for the automatic management of the operation mode.

Free cooling FC

Direct expansion unit with water condensation, with an integrative water battery to exploit a free source. Designed to be connected to an external water cooler which supplies both water for the condensation and, when cool enough, for the integrative battery.

MAIN ACCESSORIES

- Electronic expansion valve
- Post-heating battery with hot water and a three-way valve
- Two-way pressostatic valve
- Remote condenser with electric protections and speed regulator
- Forced dehumidification
- Fire detector
- Smoke detector
- Sensors for the detection of flooding beneath the floor
- Dirty filter alarm
- Base frame with adjustable feet
- Input and output plenum
- High-efficiency filters with EU5 filtering capacity
- Serial communication board for supervision systems

DATATECH - R410A TECHNICAL DATA

Version ED - Direct expansion

Unit size		6.1	8.1	11.1	15.1	18.1	17.1	22.1	26.1	30.2	32.1	36.1
Total cooling capacity (1)	kW	6,4	8,4	11,4	14,8	18,5	17,4	22,0	25,5	29,7	32,0	36,0
Sensible cooling capacity (1)	kW	6,1	7,7	11,1	13,7	15,5	17,4	20,8	24,2	27,0	28,0	32,3
Compressor												
Quantity	n°	1	1	1	1	1	1	1	1	1	1	1
Potenza assorbita (1)	kW	1,64	2,08	2,93	3,74	4,59	3,81	5,39	5,98	7,49	8,00	8,80
Fans												
Air flow	m³/h	1870	2140	3600	3960	4120	6000	6500	7000	7650	7650	8400
Quantity	n°	1	1	1	1	1	1	1	1	2	1	1
Power consumption (2)	kW	0,29	0,32	0,44	0,52	0,55	0,9	1,00	1,20	1,35	1,35	1,85
Max available pressure	Pa	375	320	260	180	145	545	510	440	380	380	175
Noise level (3)	dB(A)	47,2	48,0	50,2	51,0	52,1	52,2	53,4	54,6	55,3	55,3	55,6
Power supply	V/f/Hz	230/1~/50 ±5%					400/3~/50 ±5%					
Dimensions and weight												
Frame size		XS	XS	XS	XS	XS	S	S	S	S	S	S
Width	mm	750	750	750	750	750	1100	1100	1110	1110	1110	1110
Depth	mm	550	550	550	550	550	850	850	850	850	850	850
Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
Operating weight U/O_EDA HH	kg	0	0	0	0	0	0	0	0	0	0	0
Operating weight U/O_EDW HH	kg	0	0	0	0	0	0	0	0	0	0	0

Unit size		34.2	38.1	38.2	46.2	49.1	56.2	66.2	72.2	85.2	95.2	
Total cooling capacity (1)	kW	33,7	37,0	38,1	45,0	49,0	55,0	66,7	73,2	86,4	94,6	
Sensible cooling capacity (1)	kW	33,5	33,5	35,9	36,3	44,7	46,3	49,7	58,1	67,2	76,5	82,8
Compressor												
Quantity	n°	2	1	2	2	1	2	2	2	2	2	
Potenza assorbita (1)	kW	7,64	8,80	9,18	10,76	10,90	13,90	16,00	17,60	19,90	21,80	
Fans												
Air flow	m³/h											
Quantity	n°	1	1	1	1	1	1	1	1	1	1	
Power consumption (2)	kW	1,60	1,70	1,70	2,40	2,40	2,60	3,30	3,30	3,85	4,20	
Max available pressure	Pa	580	550	550	440	440	405	300	495	420	350	
Noise level (3)	dB(A)	58,8	59,9	59,0	60,6	60,6	61,5	62,0	63,4	64,0	64,4	
Power supply	V/f/Hz	400/3~/50 ±5%										
Dimensions and weight												
Frame size		M	M	M	M	M	M	M	L	L	L	
Width	mm	1750	1750	1750	1750	1750	1750	1750	1750	2650	2650	
Depth	mm	850	850	850	850	850	850	850	850	850	850	
Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	
Operating weight U/O_EDA HH	kg	570/553	570/540	585/555	653/624	574/544	654/624	687/657	0	0	0	
Operating weight U/O_EDW HH	kg	585/567	586/556	601/571	675/645	593/563	679/649	717/687	0	0	0	

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

(1) Data referred to inlet air at 24 °C with 50 % RH, condensing temperature 45 °C.

(2) 20 Pa useful head, EU4 filters, AC fans

(3) Sound pressure levels measured at 2 m from the unit in free field conditions.

DATATECH - R410A TECHNICAL DATA

Version ED DC - Direct expansions with dual cooling

Unit size		17.1	22.1	26.1	32.1	34.2	38.1	38.2
Total cooling capacity (1)	kW	17,4	22,0	25,5	32,0	33,7	37,0	38,1
Sensible cooling capacity (1)	kW	17,4	20,8	24,2	28,0	33,5	35,9	36,3
Total cooling capacity (4)	kW	22,3	23,3	24,3	30,9	38,6	39,9	39,9
Sensible cooling capacity (4)	kW	19,9	21,1	22,3	27,3	35,3	36,8	36,8
Compressor								
Quantity	n°	1	1	1	1	2	1	2
Potenza assorbita (1)	kW	3,81	5,39	5,98	8	7,64	8,8	9,18
Fans								
Air flow	m³/h	6000	6500	7000	7650	10800	11450	11450
Quantity	n°	1	1	1	1	2	2	2
Power consumption (2)	kW	1,12	1,27	1,48	1,81	2,12	2,31	2,31
Max available pressure (5)	Pa	480	440	360	255	520	480	480
Noise level (3)	dB(A)	52,2	53,4	54,6	55,3	58,8	59,9	59
Power supply	V/f/Hz	400/3~/50 ±5%						
Dimensions and weight								
Frame size		S	S	S	S	M	M	M
Width	mm	1100	1100	1100	1100	1750	1750	1750
Depth	mm	850	850	850	850	850	850	850
Height	mm	1990	1990	1990	1990	1990	1990	1990
Operating weight U/O_EDA HH	kg					606/589	606/576	621/591
Operating weight U/O_EDW HH	kg					621/603	623/593	637/607

Unit size		46.2	49.1	56.2	72.2	85.2	95.2
Total cooling capacity (1)	kW	45,0	49,0	55,0	73,2	86,4	94,6
Sensible cooling capacity (1)	kW	44,7	46,3	49,7	67,2	76,5	82,8
Total cooling capacity (4)	kW	52,7	52,7	54,2	72,3	90,7	95
Sensible cooling capacity (4)	kW	47,5	47,5	48,9	63,6	77,7	82,3
Compressor							
Quantity	n°	2	1	2	2	2	2
Potenza assorbita (1)	kW	10,76	10,9	13,9	17,6	19,9	21,8
Fans							
Air flow	m³/h	13500	13500	14040	19000	21150	22850
Quantity	n°	2	2	2	3	3	3
Power consumption (2)	kW	3,23	3,23	3,47	4,24	5,06	5,73
Max available pressure (5)	Pa	320	320	280	390	295	215
Noise level (3)	dB(A)	60,6	60,6	61,5	63,4	64	64,4
Power supply	V/f/Hz	400/3~/50 ±5%					
Dimensions and weight							
Frame size		M	M	M	L	L	L
Width	mm	1750	1750	1750	2650	2650	2650
Depth	mm	850	850	850	850	850	850
Height	mm	1990	1990	1990	1990	1990	1990
Operating weight U/O_EDA HH	kg	700/670	620/590	700/670			
Operating weight U/O_EDW HH	kg	721/691	639/609	725/695			

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

(1) Data referred to inlet air at 24 °C with 50 % RH, condensing temperature 45 °C.

(2) 20 Pa useful head, EU4 filters, AC fans

(3) Sound pressure levels measured at 2 m from the unit in free field conditions.

(4) Inlet air temperature 24 °C 50% UR, cooled water 7/12 °C.

(5) AC fans, G4 filters.

DATATECH - R410A TECHNICAL DATA

Version CW - Cooled water

Unit size		6	9	14	18	22	30	35
Total cooling capacity (1)	kW	6,87	9,09	14,4	18,2	22,2	30	35,9
Sensible cooling capacity (1)	kW	6,22	7,9	12,5	15,3	17,6	26,5	30,4
Fans								
Air flow	m ³ /h	1870	2140	3600	3960	3960	8000	8000
Quantity	n°	1	1	1	1	1	1	1
Power consumption - UNDER (2)	kW						1,43	1,5
Power consumption - OVER (2)	kW						1,24	1,32
Max available pressure - UNDER	Pa	375	315	240	155	130	345	330
Max available pressure - OVER	Pa						390	375
Noise level (3)	dB(A)	47	47,7	49,9	50,2	50,2	55,4	55,4
Power supply	V/f/Hz	230/1~/50 ±5%			400/3~/50 ±5%			
Dimensions and weight								
Frame size		XS	XS	XS	XS	XS	S	S
Width	mm	750	750	750	750	750	1100	1100
Depth	mm	550	550	550	550	550	850	850
Height	mm	1990	1990	1990	1990	1990	1990	1990
Operating weight U/O_CW HH	kg							

Unit size		45	55	65	85	100	130
Total cooling capacity (1)	kW	45,8	56	67	83,6	97,2	131
Sensible cooling capacity (1)	kW	36,6	50	57,4	66,9	81,1	104
Fans							
Air flow	m ³ /h	8400	15500	15500	15500	21000	24000
Quantity	n°	1	2	2	2	3	3
Power consumption - UNDER (2)	kW	1,7	3,16	3,3	3,57	4,08	5,57
Power consumption - OVER (2)	kW	1,51	2,66	2,82	3,15	3,47	4,9
Max available pressure - UNDER	Pa	215	325	305	260	395	225
Max available pressure - OVER	Pa	265	390	370	325	450	295
Noise level (3)	dB(A)	56,2	62,7	62,7	62,7	63,9	64,6
Power supply	V/f/Hz	400/3~/50 ±5%					
Dimensions and weight							
Frame size		S	M	M	M	L	L
Width	mm	1100	1750	1750	1750	2650	2650
Depth	mm	850	850	850	850	850	850
Height	mm	1990	1990	1990	1990	1990	1990
Operating weight U/O_CW HH	kg	474/477	485/489	508/511			

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

(1) Data referred to inlet air at 24 °C with 50 % RH, inlet air temperature 24 °C 50% UR, cooled water 7/12 °C.

(2) 20 Pa useful head, EU4 filters, AC fans

(3) Sound pressure levels measured at 2 m from the unit in free field conditions.