

# DATATECH

Precision air conditioners for technological environments 6÷220



## General

Precision air-conditioners that guarantee safe working conditions for data centres, computer rooms and other technological applications that require a high level of sensible heat elimination and precise temperature and humidity control.

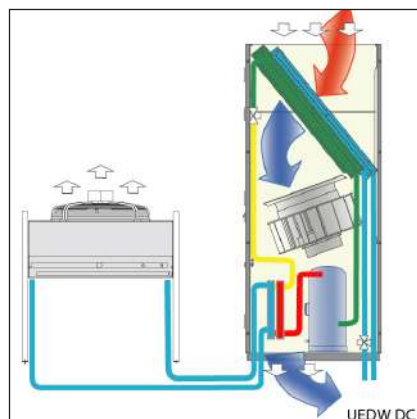
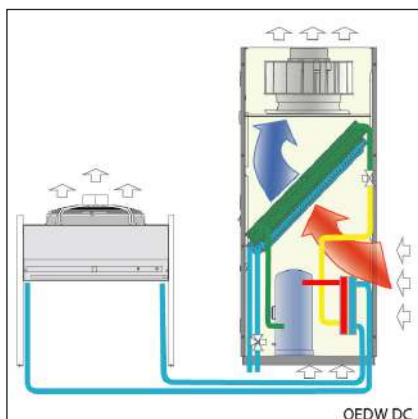
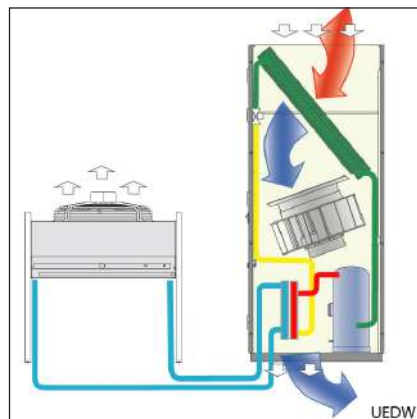
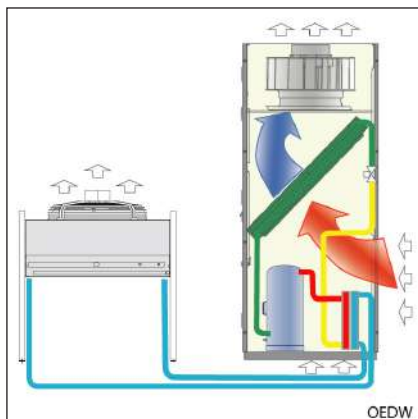
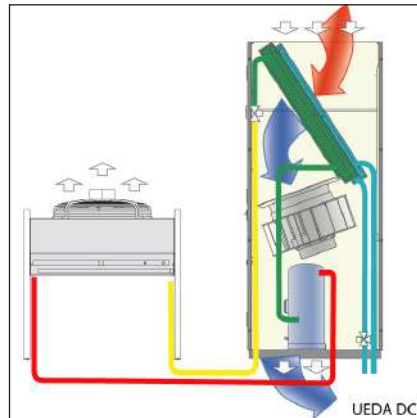
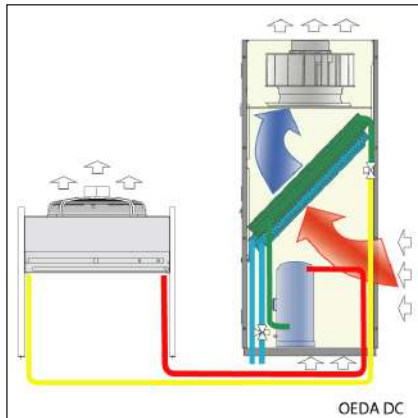
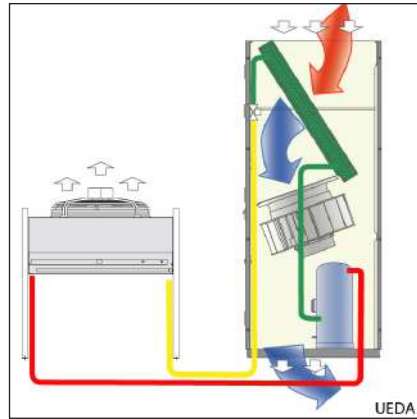
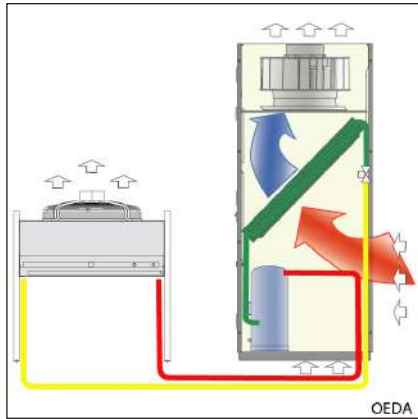
## Quick facts

- ▶ Eco-compatible cooling
- ▶ Long-lasting reliability
- ▶ Extensive configurability
- ▶ Maximum accessibility
- ▶ Highly evolved structure
- ▶ Total connectivity
- ▶ Energy efficient performance

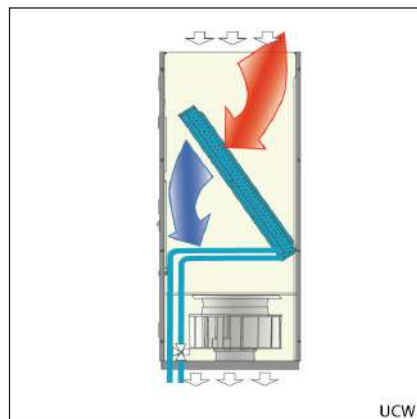
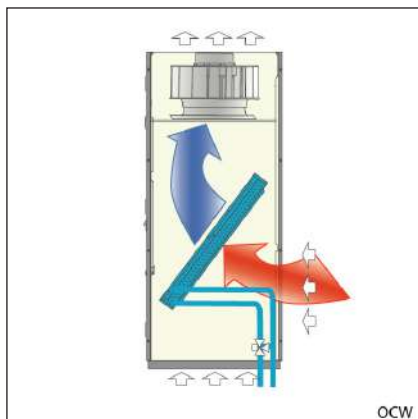
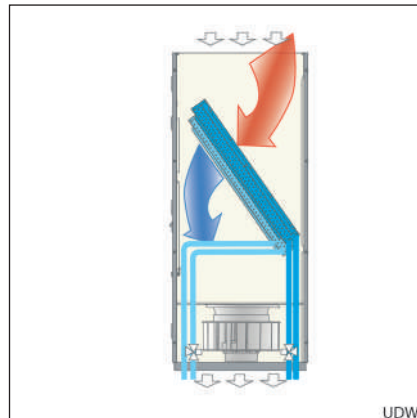
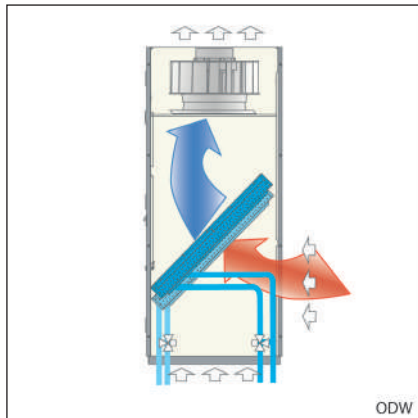
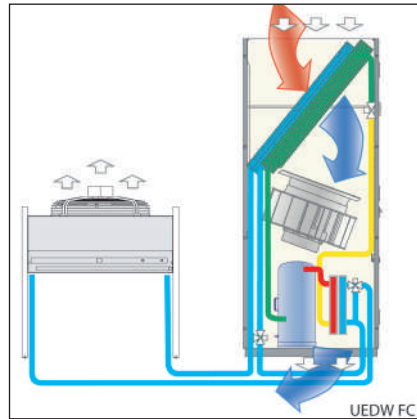
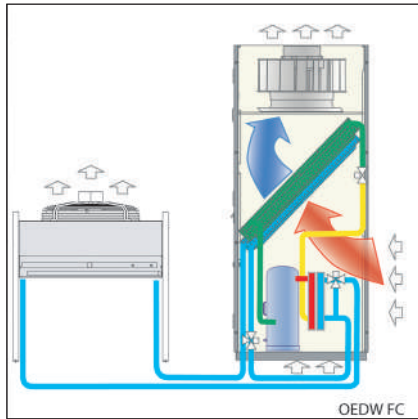
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EXAMPLE IMAGE



EXAMPLE IMAGE



## TECHNICAL FEATURES

### DATATECH

The electronic appliances are products of a developing technology that generates constant changes. This leads to continuously more advanced and compact technological devices, which however need a precise control of environmental conditions in order to work.

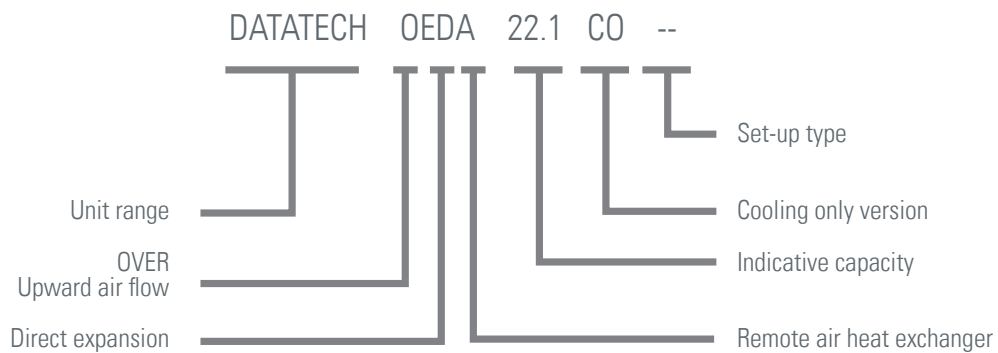
The DATATECH air conditioners have been expressly designed to create “an ideal atmosphere” for electronic systems, removing the excess heat and maintaining humidity within the tolerance limits with higher levels of reliability and safety.

#### CONFIGURATIONS

DATATECH	O	LED	A	22.1	CO	--
1	2	3	4	5	6	7

- **1. Series**
- **2. Air flow direction**  
O = OVER upward  
U = UNDER downward
- **3. Type of unit**  
ED = expansion  
CW = cooled water  
DW = double coil with cooled water
- **4. Type of condenser**  
A = remote air  
W = incorporated water
- **5. Indicative capacity**
- **6. Version**  
CO = cooling  
CH = cooling + heating  
HH = cooling + heating + humidification + dehumidification
- **7. Set-ups**  
DC = Dual Cooling  
FC = Free Cooling

### EXAMPLE OF UNIT NAME



## STRUCTURE

The cabinet is realised with galvanised steel sandwich panels that are painted with epoxy powder. The panels are insulated internally with glass wool in order to obtain fire insulation class of "0". This type of panel allows good heat and acoustic isolation. Air tightness is realised using adhesive gaskets positioned along the entire perimeter of the panels. The colour is RAL7016 anthracite grey with wrinkled finishing. The internal uprights and buffers are in galvanised sheet steel.

The electric control board closure panel on the front side can be opened using the handle so that internal inspection can be performed easily. Access to all cooling and electric unit components only takes place from the front of the machine. This solution means that no lateral intervention is necessary and there is no need to consider "technical spaces" around the air conditioning unit. All materials making up the structure can be recycled and are CFC free.

## FANS

The units are fitted with 1, 2 or 3 radial fans with backward bent blades, without auger. The 4-pole electric engine is directly coupled to the fan and the rotation speed can be varied with an autotransformer in order to adapt the useful static pressure supplied by the fan to the system features. In this way it is possible to make the unit function with maximum efficiency. The useful static pressure is of 20 Pa but it is possible to have up to 200-300 Pa, depending on the size and with G4 filters, moving the electric cables to the autotransformer, also during installation. With this type of fan, belts and pulleys are avoided, which require greater maintenance.

With greater efficiency filtering (F5) and double coil versions (direct expansion plus cooled water) the static pressures can be subject to limitations.

The average air flow rate value is 82 l/s per kW of sensitive cooling capacity.

Energy saving option with ECfans with electronic switch-over - they allow stepless flow rate/static pressure regulation.

The fan intake air flow is controlled constantly by a differential pressure switch and activates an alarm in the no air flow condition.

## FILTERS

The filters have filtering class ISO Coarse 75% (ISO 16890-3; G4 - EN779), studied to minimise pressure drops and to have a high degree of filtering, the same for the UNDER and OVER versions. The thickness of the filters can be 50 or 100 mm depending on the sizes or set-ups. The filters are removed from the front of the unit. On request, ISO ePM10 (M5), ISO ePM10 75% (M6), ISO ePM1 50% (F7) filters can be supplied.

## COMPRESSORS (ED direct expansion unit)

The compressors are the scroll type functioning with R410A and 400V/3~/50Hz power supply. For models up to 8kW with nominal performance it will be 230V/1~/50Hz (optional 400V three-phase).

The compressors, the humidifier and the plate heat exchanger (if present) are in the technical compartment isolated from the air flow in the downward flow version, while they are in the

air flow in the versions with flow from above.

## REFRIGERANT CIRCUIT (ED direct expansion unit)

- The refrigerant circuit includes:
  - Liquid receiver;
  - Thermostatic expansion valve complete with external equaliser;
  - Solenoid valve for refrigerant liquid cut-off (only in the versions with remote condenser or electronic valve);
  - Refrigerant liquid passage indicator;
  - Solid cartridge freon filter;
  - Safety valve;
  - High pressure safety pressure switch with manual reset;
  - Low pressure switch with automatic reset;
  - Cut-off cocks for external connections (versions with remote condenser);
  - Copper refrigerant pipes with anti-condensate isolation on the intake line.

## EVAPORATING COILS (ED direct expansion unit)

The evaporating coils are with finned core, copper pipes and aluminium fins with corrugated profile with water-based treatment. The sensitive heat ratio is nearly 1. The average speed of the air through the finned core is 2.4 m/s. The stainless steel condensate collection bowl, complete with fitting for drain and siphon, is installed at the base of the coil.

## CONDENSER (ED direct expansion unit)

- Unit with "EDA" remote condensate

For air cooled units, remote condensers with axial fans are envisioned. Remote condensers are supplied as accessory, and they always have to be powered with 230V/1~/50. They are available as: standard, low noise, oversized, oversized low noise and High Temperatures (HT). Their fan motors can be AC or, as accessory, EC brushless type (not for HT). Protections and speed regulation for remote condensers are located inside the indoor unit (not for some HT models).

The speed regulation allows correct condensing with external environment temperature up to -20°C. For beyond that limit, and down to -35°C, a low temperature kit is available with flooding condensation control.

- Unit with "EDW" water condenser

The condensers, for the water-cooled units, are the braze-welded type in AISI 316 stainless steel, mounted as per standard inside the unit.

- WATER COILS (CW cooled water unit)

The coils are finned core type with copper pipes and aluminium fins with corrugated profile with water-based treatment.

The stainless steel condensate collection bowl, complete with fitting for drain and siphon, is installed at the base of the coil.

- HYDRAULIC CIRCUIT (CW cooled water unit)

It includes a floating 3-way valve (with three point servo-motor), controls the environmental conditions by dosing the flow

of water that passes through the exchange coil.

**COOLED WATER UNIT**

The cooled water units include:

- Coil with copper pipes and integral aluminium fins with water-based

treatment.

- Microprocessor-controlled motorised regulation valve.
- Stainless steel condensate collection bowl with fitting for condensate drain

and siphon.

The versions with double water coil also include double regulation valve with possibility of switch-over in automatic and manual modes.

**ELECTRIC CONTROL BOARD**

The board includes:

- Main isolating switch;
- Automatic switches and fuses to protect the auxiliary and power circuits;
- Compressors , fans (AC versions), resistances and humidifier remote control switches;
- Microprocessor for control of the following functions:
  - Environment temperature;
  - Humidity (HH versions);
  - Flow fans speed (EC);
  - Compressors timing with automatic rotation;
  - Alarms signals on two levels;
  - High and low pressure alarms controlled automatic reset
  - Alarms history record;
  - Management of several units in local network with automatic rotation logic and non-interference;
  - Connection via serial line to supervision systems.
- Display of:
  - Environment temperature;
  - Humidity (HH versions);
  - Description of the alarms;
  - Functioning timer;
  - State of controlled devices

Electric power supply [V/f/Hz]: 230/1~/50 ±5% for sizes 6.1, 8.1, 400/3~/50 ±5% for the remaining models.

**CHECKS AND SAFETY DEVICES**

- High pressure safety electro-mechanical pressure switch with manual reset;
- High pressure transducer;
- Low pressure switch with controlled automatic re-insertion;
- High pressure safety valve;
- Fans and compressors motor circuit breaker protection.

**INSPECTION**

Functioning tests performed in factory.

The direct expansion units are delivered:

- Unit with “EDA” remote condenser
  - With refrigerant circuit loaded with nitrogen, oil load in the compressor.
- Unit with “EDW” water condenser
  - Complete with oil and refrigerant fluid.

**ELECTRIC POST-HEATING**

The CH and HH versions are supplied with electric post-heating made up from set of electric resistances with low surface temperature heating elements in inoxidisable material.

In the event of over-heating, a safety thermostat intervenes blocking the electric power supply to the resistances and activating an alarm.

**HUMIDIFICATION (HH versions);**

Immersed electrodes humidifier powered by mains electricity and microprocessor controlled, for the production of steam with continuous modulation.

**SET-UPS**

- DATATECH DC: Dual Cooling unit

The units with Dual Cooling set-up have two coils. One direct expansion type connected to a compressor inside the machine and one with cooled water, normally connected to an external water chiller. The cooled water coil is the one that normally functions. A flow meter and a temperature probe positioned at coil inlet establish when functioning must be passed to the direct expansion coil. The conditions that make the direct expansion coil activate (and therefore the compressor) are the following:

- No cooled water flow;
- Temperature of the cooled water over a value that can be set;
- Environment heat load not satisfied just by the water coil.

The direct expansion coil acts as an additional cold step.

This function can be disabled via software.

With respect to the \*ED\* unit with basic set-up, the following additional components are present:

- Cooled water coil;
- Modulating 3-way valve via 0 ÷ 10 Vdc electric signal;
- Mechanical blade flow meter;
- NTC temperature probe for the water;
- NTC temperature probe for the output air;

- DATATECH FC: Free Cooling unit

The Free Cooling units are coupled to a drycooler that makes use of the external air to freely cool the glycoled water mixture that is made to circulate in closed circuit, thus allowing to maximise energy saving. They have two coils: one with water (upstream with respect to the air flow) and one with direct expansion. The free cooling water coil is positioned in series with the plate condenser and the “RAC” liquid cooler. A 0-10V 3-way valve allows the water flow to pass through the free cooling coil or not. The microprocessor control detects the temperature of the water using a probe positioned at the input to the coil and if lower than the the return temperature of the

air makes the mixture pass first in the free cooling coil and then through the condenser and the drycooler.

Given that the compressors could function with low temperature water, the condensation pressure must be controlled, actuated via the 3-way water valve.

**REFRIGERANT CIRCUIT ACCESSORIES**

Electronic expansion valve

The ED direct expansion version is also available with electronic thermostatic valve. The use of this component leads to a range of advantages such as:

- Rapid and precise regulation for the refrigerant flow:
- Speed in reaching machine stability:
- Maintaining the overheating value constant in variable heat load condition;
- Efficient compressor work conditions especially in the cases of low external temperatures;
- Extended work range with consequent enlargement of unit operating limits.

These properties allow an increase of unit performance and allow great energy savings.

**AERAILIC CIRCUIT ACCESSORIES**

Fouled filters alarm.

The fan intake air flow is controlled constantly by a differential pressure switch and activates an alarm in the no air flow condition.



EC Fans

The DATATECH units can be coupled with the innovative EC radial fans with electronic switchover brushless motor. The technology of these motors allows simple regulation of fan speed via the electronic control in order to obtain continuous variation of the air flow rate and static pressure, ensuring the correct distribution of the air.

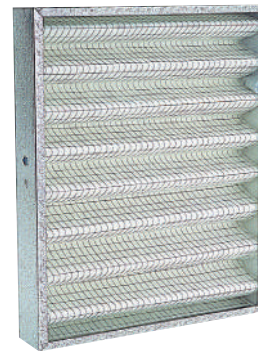
The flexibility of this component thus allows to adapt the DATATECH conditioners through time to any development of the system.

Moreover, the high efficiency of the motor allows lower absorption of energy especially at partial loads and in the start-up phase (reduction of peak current). This leads to a 30% reduction of energy with respect to CA motors.



- Forced dehumidification

To accentuate the quantity of condensate removed from the environment it is possible to reduce the air flow rate in the environment during the dehumidifying phase using the EC fans.



- High efficiency filters with ISO ePM10 (M5), ISO ePM10 75% (M6), ISO ePM1 50% (F7) degree of filtering
- Air flow and return plenum

Metal structure with sandwich panelling, for the flow of air upwards in the vertical OVER flow versions or for air return from above for the UNDER versions.

- Flow plenum in environment in grid

Metal structure with sandwich panelling, complete with front grid for the distribution of air in the environment for the OVER versions.

- Base frame with height-adjustable feet

For installations on raised modular floor; made up from black painted steel tubular complete with anti-vibration feet.

Adjustable ± 25 mm in the versions from 300 and 500 mm.

- Deflectors for base frame
- Non-return air motorised dampers

Positioned in the air flow, during the machine standstill phase, they close preventing the recirculation of the air.

**HYDRAULIC CIRCUIT ACCESSORIES**

- Post-heating with hot water coil.

Made up from coil realised with copper pipes and aluminium fins supplied with pre-assembled on/off 3-way valve.

- 2-way pressostatic valve

To regulate the condensation pressure in the condensate unit with water.

**ELECTRIC ACCESSORIES**

- Humidity signal probe



- Serial boards for supervision and tele-assistance

By means of the installation of a serial board, it is possible to connect the unit to supervision and tele-assistance systems.

Depending on the requested communication protocol, different options are available:

- RS485 serial board allows the communication with Carel and Modbus networks.
- Serial board for the communication to LonWorks® networks (FTT10 interface).
- Connection board to BACnet™ RS485 type networks.
- RS232 serial board that allows to connect the control to a modem

both for standard PSTN and GSM telephone connections to send SMS messages.

- pCO Web board for the connection to Ethernet networks with SNMP protocol, http, BACnet™ over IP.

nected on request to allow the control of several areas.

- Stainless steel unit containment tank



RS485 Serial board  
PCOS004850



Serial board  
PCO100MDM0



LonWorks® serial board  
PCO1000F0



pCO Web board  
PCO1000WB0



BacNet™  
Serial board

- Arrangement for AIR remote condenser

This accessory is mandatory if the unit is coupled with the remote condenser we supply.

The set-up consists in the electric protection for the power circuit, for the condenser and revs regulation. These components are located inside the unit.

## VARIOUS ACCESSORIES

- Fire detection sensors

For the detection of fire with sensors located on the unit. The sensor is the heat differential type and can perceive the speed with which the temperature increases in a way to react rapidly to the currents of hot air of a fire. It can protect an area of 49 m<sup>2</sup> (7x7).

- Smoke detection sensors

For the detection of smoke with sensors located on the unit. The sensor is the optical type and is approved at national level by the Home Office while at international level it is has been type-approved in compliance with CEN EN 54 part 7 and 8 Harmonised European Standards. It can protect an area of 81 m<sup>2</sup> (9x9).

- Under floor flooding sensor

For the detection of water leaks, complete with sensor to be positioned in the zone to control. Further sensors can be con-

# DATATECH - TECHNICAL DATA

## ED UNIT - DIRECT EXPANSION

Unit size		6.1	8.1	11.1	15.1	18.1	17.1
Total refrigerant power	(1) kW	6,4	8,7	11,4	14,9	18,7	17,4
Sensible cooling capacity	(1) kW	6,1	7,3	11,2	13,9	16,0	17,4
SHR		0,95	0,84	0,98	0,93	0,86	1,00
EER	(1),(2)	3,44	3,58	3,37	3,47	3,60	3,69
<b>Compressors</b>							
Number	n°	1	1	1	1	1	1
Power input	(1) kW	1,7	2,2	2,9	3,7	4,6	3,8
<b>Fans</b>							
Number	n°	1	1	1	1	1	1
Nominal air capacity	m3/h	1.870	1.870	3.640	4.000	4.000	6.000
AC fan power input	(2) kW	0,2	0,2	0,5	0,6	0,6	0,9
EC fan power input	(2) kW	0,2	0,2	0,3	0,4	0,5	0,4
Maximum available static pressure - AC fans & G4 filters	(5) Pa	90	70	230	135	100	545
Maximum available static pressure - EC fans & G4 filters	(5) Pa	360	310	400	340	300	545
Maximum available static pressure - AC fans & F5 filters	(5) Pa	-	-	110	-	-	460
Maximum available static pressure - EC fans & F5 filters	(5) Pa	260	220	280	200	165	460
<b>Refrigerant connections (EDA unit)</b>							
Gas discharge	n°xmm	1 x 12	1 x 12	1 x 12	1 x 16	1 x 16	1 x 16
Liquid	n°xmm	1 x 10	1 x 10	1 x 10	1 x 12	1 x 12	1 x 12
<b>Plate condenser (EDW unit)</b>							
Number	n°	1	1	1	1	1	1
In/out connections		G1"	G1"	G1"	G1"	G1"	G1"
Pressure drop	kPa	31	32	31	35	33	37
<b>Electric heating (vers. CH-HH)</b>							
Standard capacity	kW	3	3	5	5	5	5
Enhanced capacity		4	4	7	7	7	7
Operation stages	n°	1	1	1	1	1	1
<b>Hot water coil (CH-HH version)</b>							
Potential	(3) kW	6,0	6,0	10,1	10,6	10,6	23,1
Total pressure drop	kPa	22,0	22,0	10,0	11,0	11,0	25,0
<b>Humidifier (HH version)</b>							
Standard steam production	kg/h	1,5	1,5	3,0	3,0	3,0	5,0
Maximum steam production	(4) kg/h	3,0	3,0	3,0	3,0	3,0	8,0
<b>Sound level</b>							
Sound pressure levels	(4) dB(A)	47	47	50	51	51	52
<b>Matching with remote condensers (EDA units)</b>							
Number	n°	1	1	1	1	1	1
Standard model		NHNM 1135.5	NHNM 1145.2	NHNM 1145.2	NHNM 1145.3	NHNM 1245.2	NHNM 1145.4
Low noise model		NHLM 1145.2	NHLM 1145.2	NHLM 1145.4	NHLM 1245.2	NHLM 1245.2	NHLM 1245.2
Oversized model		NHNM 1145.2	NHNM 1145.3	NHNM 1145.3	NHNM 1145.4	NHNM 1245.3	NHNM 1245.2
Oversized - low noise model		NHLM 1145.2	NHLM 1145.4	NHLM 1150.4	NHLM 1245.3	NHLM 1245.3	NHLM 1245.3
HT model		NHNM 1145.2	NHNM 1145.4	NHNM 1245.2	NHNM 1245.2	NHNM 1245.4	NHNM 1245.3
<b>Matching with remote drycoolers (EDW units)</b>							
Number	n°	1	1	1	1	1	1
Standard model		DGS501AS	DGS501AS	DGS501CS	DGS502AS	DGS502BS	DGS502AS
Low noise model		DGL501AS	DGL501BS	DGL502AS	DGL502BS	DGL503BS	DGL502CS
<b>Dimensions and base unit weights</b>							
Structure size		SXS	SXS	XS	XS	XS	S
Length	mm	607	607	705	705	705	1.100
Depth	mm	500	500	650	650	650	850
Height	mm	1.850	1.850	1.990	1.990	1.990	1.990
Working weight U/O_EDA HH	kg	164/156	165/158	227	230	237	388
Working weight U/O_EDW HH	kg	167/160	170/163	232	236	255	395

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature  
 (2) 20Pa available pressure, ISO Coarse 75% (G4) filters  
 (3) Inlet air temperature 20 °C water in/out 80/70 °C.  
 (4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return  
 (5) Static pressure obtainable at reduced air flow  
 Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

# DATATECH - TECHNICAL DATA

## ED UNIT - DIRECT EXPANSION

Unit size			22.1	26.1	30.2	32.1	36.1	34.2
Total refrigerant power	(1)	kW	22,0	25,5	29,7	32,0	36,0	33,7
Sensible cooling capacity	(1)	kW	20,8	24,2	27,0	28,0	32,3	33,5
SHR			0,95	0,95	0,91	0,88	0,90	0,99
EER	(1)(2)		3,44	3,55	3,36	3,42	3,38	3,65
<b>Compressors</b>								
Number		n°	1	1	2	1	1	2
Power input	(1)	kW	5,4	6,0	7,5	8,0	8,8	7,6
<b>Fans</b>								
Number		n°	1	1	1	1	1	2
Nominal air capacity		m3/h	6.500	7.000	7.650	7.650	8.400	10.800
AC fan power input	(2)	kW	1,0	1,2	1,4	1,4	1,9	1,6
EC fan power input	(2)	kW	0,5	0,6	0,8	0,8	1,3	0,6
Maximum available static pressure - AC fans & G4 filters	(5)	Pa	510	440	380	380	175	580
Maximum available static pressure - EC fans & G4 filters	(5)	Pa	520	460	390	390	225	560
Maximum available static pressure - AC fans & F5 filters	(5)	Pa	415	340	265	265	-	495
Maximum available static pressure - EC fans & F5 filters	(5)	Pa	425	360	280	280	65	475
<b>Refrigerant connections (EDA unit)</b>								
Gas discharge		n°xmm	1 x 16	1 x 18	2 x 16	1 x 18	1 x 18	2 x 16
Liquid		n°xmm	1 x 12	1 x 16	2 x 12	1 x 16	1 x 16	2 x 12
<b>Plate condenser (EDW unit)</b>								
Number		n°	1	1	2	1	1	2
In/out connections			G1"	G1 1/4"	G1"	G1 1/4"	G1 1/4"	G1"
Pressure drop		kPa	36	36	35	34	35	35
<b>Electric heating (vers. CH-HH)</b>								
Standard capacity		kW	5	9	9	9	9	9
Enhanced capacity			7	13	13	13	13	14
Operation stages		n°	1	2	2	2	2	2
<b>Hot water coil (CH-HH version)</b>								
Potential	(3)	kW	24,2	25,3	26,6	26,6	28,0	37,4
Total pressure drop		kPa	28,0	30,0	33,0	33,0	37,0	22,0
<b>Humidifier (HH version)</b>								
Standard steam production		kg/h	5,0	5,0	5,0	5,0	5,0	5,0
Maximum steam production	(4)	kg/h	8,0	8,0	8,0	8,0	8,0	8,0
<b>Sound level</b>								
Sound pressure levels	(4)	dB(A)	53	55	55	55	57	59
<b>Matching with remote condensers (EDA units)</b>								
Number		n°	1	1	2	1	1	2
Standard model			NHNM 1245.2	NHNM 1245.3	NHNM 1145.3	NHNM 1245.4	NHNM 2335.3	NHNM 1145.4
Low noise model			NHLM 1245.4	NHLM 1245.4	NHLM 1245.2	NHLM 2245.2	NHLM 2245.2	NHLM 1245.2
Oversized model			NHNM 1245.3	NHNM 1245.4	NHNM 1145.4	NHNM 2335.3	NHNM 2245.2	NHNM 1245.2
Oversized - low noise model			NHLM 1250.5	NHLM 1250.5	NHLM 1245.3	NHLM 2245.3	NHLM 2245.3	NHLM 1245.3
HT model			NHNM 2245.2	NHNM 2245.2	NHNM 1245.3	NHNM 2245.4	NHNM 2245.3	NHNM 1245.3
<b>Matching with remote drycoolers (EDW units)</b>								
Number		n°	1	1	1	1	1	1
Standard model			DGS502CS	DGS502CS	DGS503BS	DGS503BS	DGS504BS	DGS503BS
Low noise model			DGL503BS	DGL503BS	DGL504BS	DGL504BS	DGL504CS	DGL504CS
<b>Dimensions and base unit weights</b>								
Structure size			S	S	S	S	S	M
Length		mm	1.100	1.100	1.100	1.100	1.100	1.750
Depth		mm	850	850	850	850	850	850
Height		mm	1.990	1.990	1.990	1.990	1.990	1.990
Working weight U/O_EDA HH		kg	388	432	432	434	440	570 / 553
Working weight U/O_EDW HH		kg	398	443	447	447	457	585 / 567

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature  
 (2) 20Pa available pressure, ISO Coarse 75% (G4) filters  
 (3) Inlet air temperature 20 °C water in/out 80/70 °C.  
 (4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return  
 (5) Static pressure obtainable at reduced air flow  
 Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

# DATATECH - TECHNICAL DATA

## ED UNIT - DIRECT EXPANSION

Unit size		38.1	38.2	46.2	49.1	56.2	66.2
Total refrigerant power	(1) kW	37,0	38,1	45,0	50,0	55,0	66,7
Sensible cooling capacity	(1) kW	35,9	36,3	44,7	46,7	49,7	58,1
SHR		0,97	0,95	0,99	0,93	0,90	0,87
EER	(1),(2)	3,52	3,50	3,42	3,65	3,33	3,46
<b>Compressors</b>							
Number	n°	1	2	2	1	2	2
Power input	(1) kW	8,8	9,2	10,8	11,3	13,9	16,0
<b>Fans</b>							
Number	n°	2	2	2	2	2	2
Nominal air capacity	m3/h	11.450	11.450	13.500	13.500	14.040	14.750
AC fan power input	(2) kW	1,7	1,7	2,4	2,4	2,6	3,3
EC fan power input	(2) kW	0,8	0,8	1,2	1,2	1,4	2,2
Maximum available static pressure - AC fans & G4 filters	(5) Pa	550	550	440	440	405	300
Maximum available static pressure - EC fans & G4 filters	(5) Pa	540	540	455	455	425	310
Maximum available static pressure - AC fans & F5 filters	(5) Pa	460	455	330	325	290	135
Maximum available static pressure - EC fans & F5 filters	(5) Pa	450	445	345	340	310	150
<b>Refrigerant connections (EDA unit)</b>							
Gas discharge	n°xmm	1 x 18	2 x 16	2 x 16	1x22	2 x 18	2 x 18
Liquid	n°xmm	1 x 16	2 x 12	2 x 12	1x18	2 x 16	2 x 16
<b>Plate condenser (EDW unit)</b>							
Number	n°	1	2	2	1	2	2
In/out connections		G1 1/4"	G1"	G1"	G1 1/4"	G1 1/4"	G1 1/4"
Pressure drop	kPa	36	34	36	38	37	33
<b>Electric heating (vers. CH-HH)</b>							
Standard capacity	kW	9	9	9	9	9	9
Enhanced capacity		14	14	14	14	14	14
Operation stages	n°	2	2	2	2	2	2
<b>Hot water coil (CH-HH version)</b>							
Potential	(3) kW	38,6	38,6	42,4	42,4	43,2	48,7
Total pressure drop	kPa	24,0	24,0	28,0	28,0	29,0	31,0
<b>Humidifier (HH version)</b>							
Standard steam production	kg/h	5,0	5,0	5,0	5,0	5,0	5,0
Maximum steam production	(4) kg/h	8,0	8,0	8,0	8,0	8,0	8,0
<b>Sound level</b>							
Sound pressure levels	(4) dB(A)	60	59	61	61	62	62
<b>Matching with remote condensers (EDA units)</b>							
Number	n°	1	2	2	1	2	2
Standard model		NHNM 2335.3	NHNM 1245.2	NHNM 1245.2	NHNM 2245.2	NHNM 1245.3	NHNM 1245.4
Low noise model		NHLM 2245.2	NHLM 1245.3	NHLM 1245.3	NHLM 2245.4	NHLM 1250.5	NHLM 2245.2
Oversized model		NHNM 2245.2	NHNM 1245.3	NHNM 1245.3	NHNM 2245.3	NHNM 1245.4	NHNM 2335.3
Oversized - low noise model		NHLM 2245.3	NHLM 1245.4	NHLM 1245.4	NHLM 2245.4	NHLM 2245.2	NHLM 2245.3
HT model		NHNM 2245.4	NHNM 1245.4	NHNM 2245.2	KA4M 2250.4	NHNM 2245.2	NHNM 2245.3
<b>Matching with remote drycoolers (EDW units)</b>							
Number	n°	1	1	1	1	1	1
Standard model		DGS504BS	DGS504BS	DGS504CS	DGS504CS	DGS634CT	DGS634CT
Low noise model		DGL504CS	DGL634BT	DGL634BT	BDML802CT	BDML802CT	BDML803BT
<b>Dimensions and base unit weights</b>							
Structure size		M	M	M	M	M	M
Length	mm	1.750	1.750	1.750	1.750	1.750	1.750
Depth	mm	850	850	850	850	850	850
Height	mm	1.990	1.990	1.990	1.990	1.990	1.990
Working weight U/O_EDA HH	kg	570 / 540	585 / 555	653 / 624	574 / 544	654 / 624	687 / 657
Working weight U/O_EDW HH	kg	586 / 556	601 / 571	675 / 645	593 / 563	679 / 649	717 / 687

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature  
 (2) 20Pa available pressure, ISO Coarse 75% (G4) filters  
 (3) Inlet air temperature 20 °C water in/out 80/70 °C.  
 (4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return  
 (5) Static pressure obtainable at reduced air flow  
 Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

# DATATECH - TECHNICAL DATA

## ED UNIT - DIRECT EXPANSION

Unit size			72.2	85.2	95.2	104.2
Total refrigerant power	(1)	kW	73,2	84,1	95,4	104,0
Sensible cooling capacity	(1)	kW	67,2	75,4	83,0	89,8
SHR			0,92	0,90	0,87	0,86
EER	(1),(2)		3,50	3,75	3,56	3,73
<b>Compressors</b>						
Number		n°	2	2	2	2
Power input	(1)	kW	17,6	18,6	22,6	22,6
<b>Fans</b>						
Number		n°	3	3	3	3
Nominal air capacity		m <sup>3</sup> /h	19.000	21.150	22.850	22.850
AC fan power input	(2)	kW	3,3	3,9	4,2	5,3
EC fan power input	(2)	kW	1,7	2,0	2,5	3,8
Maximum available static pressure - AC fans & G4 filters	(5)	Pa	495	420	350	240
Maximum available static pressure - EC fans & G4 filters	(5)	Pa	495	440	375	260
Maximum available static pressure - AC fans & F5 filters	(5)	Pa	395	300	230	105
Maximum available static pressure - EC fans & F5 filters	(5)	Pa	395	325	250	125
<b>Refrigerant connections (EDA unit)</b>						
Gas discharge		rxmm	2 x 18	2 x 22	2 x 22	2 x 22
Liquid		rxmm	2 x 16	2 x 18	2 x 18	2 x 18
<b>Plate condenser (EDW unit)</b>						
Number		n°	2	2	2	2
In/out connections			G1 1/4"	G1 1/4"	G1 1/4"	G1 1/4"
Pressure drop		kPa	35	59	35	42
<b>Electric heating (vers. CH-HH)</b>						
Standard capacity		kW	14	14	14	14
Enhanced capacity			21	21	21	21
Operation stages		n°	3	3	3	3
<b>Hot water coil (CH-HH version)</b>						
Potential	(3)	kW	61,8	65,8	68,7	68,7
Total pressure drop		kPa	51,0	57,0	62,0	62,0
<b>Humidifier (HH version)</b>						
Standard steam production		kg/h	8,0	8,0	8,0	8,0
Maximum steam production	(4)	kg/h	8,0	8,0	8,0	8,0
<b>Sound level</b>						
Sound pressure levels	(4)	dB(A)	63	64	64	64
<b>Matching with remote condensers (EDA units)</b>						
Number		n°	2	2	2	2
Standard model			NHNM 2235.3	NHNM 2245.2	NHNM 2245.2	NHNM 2245.3
Low noise model			NHLM 2245.2	NHLM 2245.3	NHLM 2245.3	NHLM 2245.4
Oversized model			NHNM 2245.2	NHNM 2245.3	NHNM 2245.3	NHNM 2245.4
Oversized - low noise model			NHLM 2245.3	NHLM 2245.4	NHLM 2245.4	NHLM 2245.4
HT model			NHNM 2245.4	NHNM 2245.4	KA4M 2250.4	KA4M 2250.4
<b>Matching with remote drycoolers (EDW units)</b>						
Number		n°	1	1	1	1
Standard model			BDMS802DT	BDMS802DT	BDMS803BT	BDMS803BT
Low noise model			BDML803BT	BDML803BT	BDML803DT	BDML803DT
<b>Dimensions and base unit weights</b>						
Structure size			L	L	L	L
Length		mm	2.650	2.650	2.650	2.650
Depth		mm	850	850	850	850
Height		mm	1.990	1.990	1.990	1.990
Working weight U/O_EDA HH		kg	896/874	896/874	898/876	938/916
Working weight U/O_EDW HH		kg	923/946	923/946	926/948	988/966

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature  
 (2) 20Pa available pressure, ISO Coarse 75% (G4) filters  
 (3) Inlet air temperature 20 °C water in/out 80/70 °C.  
 (4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return  
 (5) Static pressure obtainable at reduced air flow  
 Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

## DATATECH - ELECTRICAL DATA

### ED UNIT - DIRECT EXPANSION

Unit size			6.1	8.1	11.1	15.1	18.1	17.1
COMPRESSOR' S MAXIMUM POWER INPUT		kW	2,8	3,9	4,8	6,0	7,6	6,2
AC fan maximum power input		kW	0,3	0,3	0,8	0,8	0,8	2,4
EC fan maximum power input		kW	0,4	0,4	1,0	1,0	1,0	2,3
Standard electrical heaters maximum power input		kW	3,0	3,0	4,5	4,5	4,5	4,5
Enhanced electrical heaters maximum power input		kW	4,0	4,0	7,0	7,0	7,0	7,0
Humidifier maximum power requirement		kW	2,3	2,3	2,3	2,3	2,3	6,0
Maximum compressor absorbed current	(1)	A	12,9	19,1	7,7	9,4	12,0	9,8
Compressor in-rush current	(3)	A	58,0	97,0	48,0	66,0	69,0	63,0
Maximum AC fan absorbed current	(1)	A	1,1	1,1	1,5	1,5	1,5	5,0
Maximum EC fan absorbed current	(1)		2,6	2,6	2,2	2,2	2,2	3,6
Standard electrical heaters maximum absorbed current	(1)		13,0	13,0	6,5	6,5	6,5	6,5
Enhanced electrical heaters maximum absorbed current	(1)		17,4	17,4	10,1	10,1	10,1	10,1
Humidifier maximum absorbed current	(1)	A	9,8	9,8	3,2	3,2	3,2	8,7
Power supply	(2)	Vphz	230/1~/50 ±5%			400/3~/50 ±5%		

Unit size			22.1	26.1	30.2	32.1	36.1	34.2
COMPRESSOR' S MAXIMUM POWER INPUT		kW	8,9	9,4	12,0	12,5	13,8	12,4
AC fan maximum power input		kW	2,4	2,4	2,4	2,4	2,4	4,8
EC fan maximum power input		kW	2,3	2,3	2,3	2,3	2,3	4,6
Standard electrical heaters maximum power input		kW	4,5	9,0	9,0	9,0	9,0	9,0
Enhanced electrical heaters maximum power input		kW	7,0	13,0	13,0	13,0	13,0	14,0
Humidifier maximum power requirement		kW	6,0	6,0	6,0	6,0	6,0	6,0
Maximum compressor absorbed current	(1)	A	14,2	15,9	18,8	20,5	22,2	19,6
Compressor in-rush current	(3)	A	73,0	100,0	75,4	100,0	100,0	72,8
Maximum AC fan absorbed current	(1)	A	5,0	5,0	5,0	5,0	5,0	10,0
Maximum EC fan absorbed current	(1)		3,6	3,6	3,6	3,6	3,6	7,2
Standard electrical heaters maximum absorbed current	(1)		6,5	13,0	13,0	13,0	13,0	13,0
Enhanced electrical heaters maximum absorbed current	(1)		10,1	18,8	18,8	18,8	18,8	20,2
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7	8,7	8,7
Power supply	(2)	Vphz	230/1~/50 ±5%			400/3~/50 ±5%		

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

(2) With remote condenser arrangement, mains supply MUST comprise neutral.

(3) For twin compressor unit: one compressor at maximum load and one at startup

## DATATECH - ELECTRICAL DATA

### ED UNIT - DIRECT EXPANSION

Unit size			38.1	38.2	46.2	49.1	56.2	66.2
COMPRESSOR' S MAXIMUM POWER INPUT		kW	13,8	15,3	17,9	16,9	21,8	25,0
AC fan maximum power input		kW	4,8	4,8	4,8	4,8	4,8	4,8
EC fan maximum power input		kW	4,6	4,6	4,6	4,6	4,6	4,6
Standard electrical heaters maximum power input		kW	9,0	9,0	9,0	9,0	9,0	9,0
Enhanced electrical heaters maximum power input		kW	14,0	14,0	14,0	14,0	14,0	14,0
Humidifier maximum power requirement		kW	6,0	6,0	6,0	6,0	6,0	6,0
Maximum compressor absorbed current	(1)	A	22,2	24,0	28,4	30,6	36,2	41,0
Compressor in-rush current	(3)	A	100,0	81,0	87,2	174,0	118,1	120,5
Maximum AC fan absorbed current	(1)	A	10,0	10,0	10,0	10,0	10,0	10,0
Maximum EC fan absorbed current	(1)		7,2	7,2	7,2	7,2	7,2	7,2
Standard electrical heaters maximum absorbed current	(1)		13,0	13,0	13,0	13,0	13,0	13,0
Enhanced electrical heaters maximum absorbed current	(1)		20,2	20,2	20,2	20,2	20,2	20,2
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7	8,7	8,7
Power supply	(2)	V <sub>ph</sub> /Hz	400/3~/50 ±5%					

Unit size			72.2	85.2	95.2	104.2
COMPRESSOR' S MAXIMUM POWER INPUT		kW	27,6	29,4	33,8	33,8
AC fan maximum power input		kW	7,2	7,2	7,2	7,2
EC fan maximum power input		kW	6,9	6,9	6,9	6,9
Standard electrical heaters maximum power input		kW	13,5	13,5	13,5	13,5
Enhanced electrical heaters maximum power input		kW	21,0	21,0	21,0	21,0
Humidifier maximum power requirement		kW	6,0	6,0	6,0	6,0
Maximum compressor absorbed current	(1)	A	44,4	50,9	61,2	61,2
Compressor in-rush current	(3)	A	122,2	165,4	204,6	204,6
Maximum AC fan absorbed current	(1)	A	15,0	15,0	15,0	15,0
Maximum EC fan absorbed current	(1)		10,8	10,8	10,8	10,8
Standard electrical heaters maximum absorbed current	(1)		19,5	19,5	19,5	19,5
Enhanced electrical heaters maximum absorbed current	(1)		30,3	30,3	30,3	30,3
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7
Power supply	(2)	V <sub>ph</sub> /Hz	400/3~/50 ±5%			

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

(2) With remote condenser arrangement, mains supply MUST comprise neutral.

(3) For twin compressor unit: one compressor at maximum load and one at startu

## DATATECH - TECHNICAL DATA

### ED DC VERSION (DIRECT EXPANSION + CHILLED WATER COIL)

Unit size			17.1	22.1	26.1	32.1	34.2	38.1
Total cooling capacity	(1)	kW	17,4	22,0	25,5	32,0	33,7	37,0
Sensible cooling capacity	(1)	kW	17,4	20,8	24,2	28,0	33,5	35,9
SHR			1,00	0,95	0,95	0,88	0,99	0,97
EER	(1),(3)		3,53	3,30	3,42	3,26	3,45	3,33
Total cooling capacity	(2)	kW	22,3	23,3	24,3	30,9	38,6	39,9
Sensible cooling capacity	(2)	kW	19,9	21,1	22,3	27,3	35,3	36,8
SHR			0,89	0,91	0,92	0,88	0,91	0,92
Pressure drop			43	46	50	59	43	46
<b>Compressors</b>								
Number		n°	1	1	1	1	2	1
Power input	(1)	kW	3,81	5,39	5,98	8,00	7,64	8,80
<b>Fans</b>								
Number		n°	1	1	1	1	2	2
Nominal air capacity		m <sup>3</sup> /h	6.000	6.500	7.000	7.650	10.800	11.450
AC fan power input	(3)	kW	1,1	1,3	1,5	1,8	2,1	2,3
EC fan power input	(3)	kW	0,6	0,7	0,9	1,2	1,0	1,2
Maximum available static pressure - AC fans & G4 filters	(5)	Pa	480	440	360	255	520	480
Maximum available static pressure - EC fans & G4 filters	(5)	Pa	480	450	380	270	500	470
Maximum available static pressure - AC fans & F5 filters	(5)	Pa	370	315	225	110	400	355
Maximum available static pressure - EC fans & F5 filters	(5)	Pa	370	325	245	125	380	345
<b>Refrigerant connections (EDA units)</b>								
Gas discharge		rxmm	1 x 16	1 x 16	1 x 18	1 x 18	2 x 16	1 x 18
Liquid		rxmm	1 x 12	1 x 12	1 x 16	1 x 16	2 x 12	1 x 16
<b>Plate condenser (EDW unit)</b>								
Number		n°	1	1	1	1	2	1
In/out connections		Pollici	G1"	G1"	G1 1/4"	G1 1/4"	G1"	G1 1/4"
Pressure drop		kPa	37	36	36	34	35	36
<b>Electric heating (CH-HH version)</b>								
Standard capacity		kW	4,5	4,5	9,0	9,0	9,0	9,0
Enhanced capacity		kW	7,0	7,0	13,0	13,0	14,0	14,0
Operation stages		n°	1	1	2	2	2	2
<b>Humidifier (HH version)</b>								
Standard steam production		kg/h	5	5	5	5	5	5
Maximum steam production		kg/h	8	8	8	8	8	8
<b>Sound level</b>								
Sound pressure levels	(4)	dB(A)	52	53	55	55	59	60
<b>Matching with remote condensers (EDA units)</b>								
Number			1	1	1	1	2	1
Standard model			NHNM 1145.4	NHNM 1245.2	NHNM 1245.3	NHNM 1245.4	NHNM 1145.4	NHNM 2335.3
Low noise model			NHLM 1245.2	NHLM 1245.4	NHLM 1245.4	NHLM 2245.2	NHLM 1245.2	NHLM 2245.2
<b>Matching with remote drycoolers (EDW units)</b>								
Number			1	1	1	1	1	1
Standard model			DGS502AS	DGS502CS	DGS502CS	DGS503BS	DGS503BS	DGS504BS
Low noise model			DGL502CS	DGL503BS	DGL503BS	DGL504BS	DGL504CS	DGL504CS
<b>Dimensions and weight of basic unit</b>								
Cabinet size			S	S	S	S	M	M
Length		mm	1.100	1.100	1.100	1.100	1.750	1.750
Depth		mm	850	850	850	850	850	850
Height		mm	1.990	1.990	1.990	1.990	1.990	1.990
Operating weight U/O_EDA HH		kg	425	425	468	478	606 / 589	606 / 576
Operating weight U/O_EDW HH		kg	432	434	480	493	621 / 603	623 / 593

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature  
 (2) Air inlet 24°C 50% UR. water in/out 7/12 °C.  
 (3) 20Pa available pressure, ISO Coarse 75% (G4) filters  
 (4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return  
 (5) Static pressure obtainable at reduced air flow  
 Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.



# DATATECH - TECHNICAL DATA

## ED DC VERSION (DIRECT EXPANSION + CHILLED WATER COIL)

Unit size			38.2	46.2	49.1	56.2	72.2	85.2	95.2
Total cooling capacity	(1)	kW	38,1	45,0	50,0	55,0	73,2	84,1	95,4
Sensible cooling capacity	(1)	kW	36,3	44,7	46,7	49,7	67,2	75,4	83,0
SHR			0,95	0,99	0,93	0,90	0,92	0,90	0,87
EER	(1),(3)		3,32	3,22	3,47	3,17	3,35	3,55	3,44
Total cooling capacity	(2)	kW	39,9	52,7	52,7	54,2	84,7	90,7	95,0
Sensible cooling capacity	(2)	kW	36,8	47,5	47,5	48,9	71,6	77,7	82,3
SHR			0,92	0,90	0,90	0,90	0,85	0,86	0,87
Pressure drop			46	53	53	55	77	87	95
<b>Compressors</b>									
Number		n°	2	2	1	2	2	2	2
Power input	(1)	kW	9,18	10,76	11,30	13,90	17,60	18,60	22,60
<b>Fans</b>									
Number		n°	2	2	2	2	3	3	3
Nominal air capacity		m3/h	11.450	13.500	13.500	14.040	19.000	21.150	22.850
AC fan power input	(3)	kW	2,3	3,2	3,2	3,5	4,2	5,1	5,7
EC fan power input	(3)	kW	1,2	2,0	2,0	2,2	2,4	3,2	3,9
Maximum available static pressure - AC fans & G4 filters	(5)	Pa	480	320	320	280	390	295	215
Maximum available static pressure - EC fans & G4 filters	(5)	Pa	470	335	335	300	390	315	235
Maximum available static pressure - AC fans & F5 filters	(5)	Pa	355	175	170	125	265	150	55
Maximum available static pressure - EC fans & F5 filters	(5)	Pa	345	190	185	145	265	170	75
<b>Refrigerant connections (EDA units)</b>									
Gas discharge		n°xmm	2 x 16	2 x 16	1x22	2 x 18	2 x 18	2 x 22	2 x 22
Liquid		n°xmm	2 x 12	2 x 12	1x18	2 x 16	2 x 16	2 x 18	2 x 18
<b>Plate condenser (EDW unit)</b>									
Number		n°	2	2	1	2	2	2	2
In/out connections		Pollici	G1"	G1"	G1 1/4"	G1 1/4"	G1 1/4"	G1 1/4"	G1 1/4"
Pressure drop		kPa	34	36	38	37	35	59	35
<b>Electric heating (CH-HH version)</b>									
Standard capacity		kW	9,0	9,0	9,0	9,0	13,5	13,5	13,5
Enhanced capacity		kW	14,0	14,0	14,0	14,0	21,0	21,0	21,0
Operation stages		n°	2	2	2	2	3	3	3
<b>Humidifier (HH version)</b>									
Standard steam production		kg/h	5	5	5	5	8	8	8
Maximum steam production		kg/h	8	8	8	8	8	8	8
<b>Sound level</b>									
Sound pressure levels	(4)	dB(A)	59	61	61	62	63	64	64
<b>Matching with remote condensers (EDA units)</b>									
Number			2	2	1	2	2	2	2
Standard model			NHNM 1245.2	NHNM 1245.2	NHNM 2245.2	NHNM 1245.3	NHNM 2335.3	NHNM 2245.2	NHNM 2245.2
Low noise model			NHLM 1245.3	NHLM 1245.3	NHLM 2245.4	NHLM 1250.5	NHLM 2245.2	NHLM 2245.3	NHLM 2245.3
<b>Matching with remote drycoolers (EDW units)</b>									
Number			1	1	1	1	1	1	1
Standard model			DGS504BS	DGS504CS	DGS504CS	DGS634CT	BDMS802DT	BDMS802DT	BDMS803BT
Low noise model			DGL634BT	DGL634BT	BDML802CT	BDML802CT	BDML803BT	BDML803BT	BDML803DT
<b>Dimensions and weight of basic unit</b>									
Cabinet size			M	M	M	M	L	L	L
Length		mm	1.750	1.750	1.750	1.750	2.650	2.650	2.650
Depth		mm	850	850	850	850	850	850	850
Height		mm	1.990	1.990	1.990	1.990	1.990	1.990	1.990
Operating weight U/O_EDA HH		kg	621 / 591	700 / 670	620 / 590	700 / 670	983/955	983/955	985/957
Operating weight U/O_EDW HH		kg	637 / 607	721 / 691	639 / 609	725 / 695	1005/1032	1005/1032	1007/1035

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature  
 (2) Air inlet 24 °C 50% UR. water in/out 7/12 °C.  
 (3) 20Pa available pressure, ISO Coarse 75% (G4) filters  
 (4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return  
 (5) Static pressure obtainable at reduced air flow  
 Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

## DATATECH - ELECTRICAL DATA

### ED DC VERSION (DIRECT EXPANSION + CHILLED WATER COIL)

Unit size			17.1	22.1	26.1	32.1	34.2	38.1
COMPRESSOR'S MAXIMUM POWER INPUT		kW	6,2	8,9	9,4	12,5	12,4	13,8
AC fan maximum power input		kW	2,4	2,4	2,4	2,4	4,8	4,8
EC fan maximum power input		kW	2,3	2,3	2,3	2,3	4,6	4,6
Standard electrical heaters maximum power input		kW	4,5	4,5	9,0	9,0	9,0	9,0
Enhanced electrical heaters maximum power input		kW	7,0	7,0	13,0	13,0	14,0	14,0
Humidifier maximum power requirement		kW	7,0	7,0	13,0	13,0	14,0	14,0
Maximum compressor absorbed current	(1)	A	9,8	14,2	15,9	20,5	19,6	22,2
Compressor in-rush current	(3)	A	63,0	73,0	100,0	100,0	72,8	100,0
Maximum AC fan absorbed current	(1)	A	5,0	5,0	5,0	5,0	10,0	10,0
Maximum EC fan absorbed current	(1)		3,6	3,6	3,6	3,6	7,2	7,2
Standard electrical heaters maximum absorbed current	(1)		6,5	6,5	13,0	13,0	13,0	13,0
Enhanced electrical heaters maximum absorbed current	(1)		10,1	10,1	18,8	18,8	20,2	20,2
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7	8,7	8,7
Power supply	(2)	V <sub>ph-n</sub>	400/3~/50 ±5%					

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

(2) With remote condenser arrangement, mains supply MUST comprise neutral.

(3) For twin compressor unit: one compressor at maximum load and one at startup

## DATATECH - ELECTRICAL DATA

### ED DC VERSION (DIRECT EXPANSION + CHILLED WATER COIL)

Unit size			38.2	46.2	49.1	56.2	72.2	85.2	95.2
COMPRESSOR'S MAXIMUM POWER INPUT		kW	15,3	17,9	16,9	21,8	27,6	29,4	33,8
AC fan maximum power input		kW	4,8	4,8	4,8	4,8	7,2	7,2	7,2
EC fan maximum power input		kW	4,6	4,6	4,6	4,6	6,9	6,9	6,9
Standard electrical heaters maximum power input		kW	9,0	9,0	9,0	9,0	13,5	13,5	13,5
Enhanced electrical heaters maximum power input		kW	14,0	14,0	14,0	14,0	21,0	21,0	21,0
Humidifier maximum power requirement		kW	14,0	14,0	14,0	14,0	21,0	21,0	21,0
Maximum compressor absorbed current	(1)	A	24,0	28,4	30,6	36,2	44,4	50,9	61,2
Compressor in-rush current	(3)	A	81,0	87,2	174,0	118,1	122,2	165,4	204,6
Maximum AC fan absorbed current	(1)	A	10,0	10,0	10,0	10,0	15,0	15,0	15,0
Maximum EC fan absorbed current	(1)		7,2	7,2	7,2	7,2	10,8	10,8	10,8
Standard electrical heaters maximum absorbed current	(1)		13,0	13,0	13,0	13,0	19,5	19,5	19,5
Enhanced electrical heaters maximum absorbed current	(1)		20,2	20,2	20,2	20,2	30,3	30,3	30,3
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7	8,7	8,7	8,7
Power supply	(2)	V/Hz	400/3~/50 ±5%						

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

(2) With remote condenser arrangement, mains supply MUST comprise neutral.

(3) For twin compressor unit: one compressor at maximum load and one at start-up

## DATATECH - TECHNICAL DATA

### EDW/FC VERSION

Unit size			17.1	22.1	26.1	32.1	34.2	38.1
Total cooling capacity	(1)	kW	17,3	21,9	25,4	31,8	33,5	36,8
Sensible cooling capacity	(1)	kW	17,3	20,8	24,1	27,9	33,5	35,9
SHR			1,0	0,9	0,9	0,9	1,0	1,0
EER	(1),(3)		3,43	3,23	3,36	3,23	3,41	3,28
<b>Free-Cooling</b>								
Total cooling capacity	(2)	kW	19,2	20,2	21,1	26,6	31,5	32,6
Sensible cooling capacity	(2)	kW	17,1	18,3	19,4	23,7	28,8	30,1
SHR			0,9	0,9	0,9	0,9	0,9	0,9
Pressure drop			40	44	48	55	36	39
<b>Compressors</b>								
Number		n°	1	1	1	1	2	1
Power input	(1)	kW	3,9	5,5	6,1	8,1	7,7	8,9
<b>Fans</b>								
Number		n°	1	1	1	1	2	2
Nominal air capacity		m3/h	6.000	6.500	7.000	7.650	10.800	11.450
AC fan power input	(3)	kW	1,1	1,3	1,5	1,7	2,1	2,3
EC fan power input	(3)	kW	0,6	0,7	0,9	1,2	1,0	1,2
Maximum available static pressure - AC fans & G4 filters	(5)	Pa	483	438	360	257	518	480
Maximum available static pressure - EC fans & G4 filters	(5)	Pa	483	448	380	272	498	470
Maximum available static pressure - AC fans & F5 filters	(5)	Pa	371	315	227	110	403	358
Maximum available static pressure - EC fans & F5 filters	(5)	Pa	371	325	247	125	383	348
<b>Plate condenser (EDW unit)</b>								
Number		n°	68	92	42	56	68	62
In/out connections		Pollici	G1"	G1"	G1 1/4"	G1 1/4"	G1"	G1 1/4"
Total pressure drop	(4)	kPa	54	52	51	48	51	52
<b>Electric heating (CH-HH version)</b>								
Standard capacity		kW	4,5	4,5	9,0	9,0	9,0	9,0
Enhanced capacity		kW	7,0	7,0	13,0	13,0	14,0	14,0
Operation stages		n°	1	1	2	2	2	2
<b>Humidifier (HH version)</b>								
Standard steam production		kg/h	5	5	5	5	5	5
Maximum steam production		kg/h	8	8	8	8	8	8
<b>Sound level</b>								
Sound pressure levels	(5)	dB(A)	53	55	56	56	60	60
<b>Drycooler</b>								
Number			1	1	1	1	1	1
Standard model			DGS502AS	DGS502CS	DGS502CS	DGS503BS	DGS503BS	DGS504BS
Low noise model			DGL502CS	DGL503BS	DGL503BS	DGL504BS	DGL504CS	DGL504CS
<b>Dimensions and weight of basic unit</b>								
Cabinet size			S	S	S	S	M	M
Length		mm	1.100	1.100	1.100	1.100	1.750	1.750
Depth		mm	850	850	850	850	850	850
Height		mm	1.990	1.990	1.990	1.990	1.990	1.990
Operating weight U/O EDW HH		kg	432	434	480	493	621 / 603	623 / 593

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature

(2) Air inlet 24°C 50% UR. Water/Glycol 30% in/out 7/12 °C.

(3) 20Pa available pressure, ISO Coarse 75% (G4) filters

(4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return

(5) Static pressure obtainable at reduced air flow

Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

# DATATECH - TECHNICAL DATA

## EDW/FC VERSION

Unit size			38.2	46.2	49.1	56.2	72.2	85.2	95.2
Total cooling capacity	(1)	kW	37,9	44,7	49,7	54,7	72,7	83,6	94,9
Sensible cooling capacity	(1)	kW	36,3	44,6	46,6	49,6	67,0	75,4	82,7
SHR			1,0	1,0	0,9	0,9	0,9	0,9	0,9
EER	(1),(3)		3,26	3,20	3,52	3,15	3,45	3,34	3,45
<b>Free-Cooling</b>									
Total cooling capacity	(2)	kW	32,6	43,3	43,3	45,3	74,0	79,0	82,0
Sensible cooling capacity	(2)	kW	30,1	38,4	38,4	39,6	70,5	77,0	81,7
SHR			0,9	0,9	0,9	0,9	1,0	1,0	1,0
Pressure drop			39	45	45	55	75	84	90
<b>Compressors</b>									
Number		n°	2	2	1	2	2	2	2
Power input	(1)	kW	9,3	10,9	11,0	14,1	17,9	20,2	22,1
<b>Fans</b>									
Number		n°	2	2	2	2	3	3	3
Nominal air capacity		m3/h	11.450	13.500	13.500	14.040	19.000	21.150	22.850
AC fan power input	(3)	kW	2,3	3,1	3,1	3,3	3,2	4,8	5,4
EC fan power input	(3)	kW	1,2	1,9	2,0	2,2	2,4	3,2	3,9
Maximum available static pressure - AC fans & G4 filters	(5)	Pa	479	322	319	278	395	297	217
Maximum available static pressure - EC fans & G4 filters	(5)	Pa	469	337	334	298	395	317	237
Maximum available static pressure - AC fans & F5 filters	(5)	Pa	357	175	173	125	265	151	58
Maximum available static pressure - EC fans & F5 filters	(5)	Pa	347	190	188	145	265	171	78
<b>Plate condenser (EDW unit)</b>									
Number		n°	80	92	82	46	64	74	82
In/out connections		Pollici	G1"	G1"	G1 1/4"	G1 1/4"	G1 1/4"	G1 1/4"	G1 1/4"
Total pressure drop	(4)	kPa	49	52	55	51	50	84	50
<b>Electric heating (CH-HH version)</b>									
Standard capacity		kW	9,0	9,0	9,0	9,0	13,5	13,5	13,5
Enhanced capacity		kW	14,0	14,0	14,0	14,0	21,0	21,0	21,0
Operation stages		n°	2	2	2	2	3	3	3
<b>Humidifier (HH version)</b>									
Standard steam production		kg/h	5	5	5	5	8	8	8
Maximum steam production		kg/h	8	8	8	8	8	8	8
<b>Sound level</b>									
Sound pressure levels	(5)	dB(A)	60	62	62	63	65	66	66
<b>Drycooler</b>									
Number			1	1	1	1	1	1	1
Standard model			DGS504BS	DGS504CS	DGS504CS	DGS634CT	BDMS802DT	BDMS802DT	BDMS803BT
Low noise model			DGL634BT	DGL634BT	BDML802CT	BDML802CT	BDML803BT	BDML803BT	BDML803DT
<b>Dimensions and weight of basic unit</b>									
Cabinet size			M	M	M	M	L	L	L
Length		mm	1.750	1.750	1.750	1.750	2.650	2.650	2.650
Depth		mm	850	850	850	850	850	850	850
Height		mm	1.990	1.990	1.990	1.990	1.990	1.990	1.990
Operating weight U/O EDW HH		kg	637 / 607	721 / 691	639 / 609	725 / 695	1005/1032	1005/1032	1007/1035

(1) Air inlet 24°C 50%rh. 45°C saturated condensing temperature  
 (2) Air inlet 24°C 50% UR. Water/Glycol 30% in/out 7/12 °C.  
 (3) 20Pa available pressure, ISO Coarse 75% (G4) filters  
 (4) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return  
 (5) Static pressure obtainable at reduced air flow  
 Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

## DATATECH - ELECTRICAL DATA

### EDW/FC VERSION

Unit size			17.1	22.1	26.1	32.1	34.2	38.1
COMPRESSOR'S MAXIMUM POWER INPUT		kW	6,2	8,9	9,4	12,5	12,4	13,8
AC fan maximum power input		kW	2,4	2,4	2,4	2,4	4,8	4,8
EC fan maximum power input		kW	2,3	2,3	2,3	2,3	4,6	4,6
Standard electrical heaters maximum power input		kW	4,5	4,5	9,0	9,0	9,0	9,0
Enhanced electrical heaters maximum power input		kW	7,0	7,0	13,0	13,0	14,0	14,0
Humidifier maximum power requirement		kW	6,0	6,0	6,0	6,0	6,0	6,0
Maximum compressor absorbed current	(1)	A	9,8	14,2	15,9	20,5	19,6	22,2
Compressor in-rush current	(2)	A	63,0	73,0	100,0	100,0	72,8	100,0
Maximum AC fan absorbed current	(1)	A	5,0	5,0	5,0	5,0	10,0	10,0
Maximum EC fan absorbed current	(1)		3,6	3,6	3,6	3,6	7,2	7,2
Standard electrical heaters maximum absorbed current	(1)		6,5	6,5	13,0	13,0	13,0	13,0
Enhanced electrical heaters maximum absorbed current	(1)		10,1	10,1	18,8	18,8	20,2	20,2
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7	8,7	8,7
Power supply		V <sub>ph-n</sub>	400/3~/50 ±5%					

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

(2) With remote condenser arrangement, mains supply MUST comprise neutral.

(3) For twin compressor unit: one compressor at maximum load and one at startup

## DATATECH - ELECTRICAL DATA

### EDW/FC VERSION

Unit size			38.2	46.2	49.1	56.2	72.2	85.2	95.2
COMPRESSOR'S MAXIMUM POWER INPUT		kW	15,3	17,9	16,9	21,8	27,6	29,4	33,8
AC fan maximum power input		kW	4,8	4,8	4,8	4,8	7,2	7,2	7,2
EC fan maximum power input		kW	4,6	4,6	4,6	4,6	6,9	6,9	6,9
Standard electrical heaters maximum power input		kW	9,0	9,0	9,0	9,0	13,5	13,5	13,5
Enhanced electrical heaters maximum power input		kW	14,0	14,0	14,0	14,0	21,0	21,0	21,0
Humidifier maximum power requirement		kW	6,0	6,0	6,0	6,0	6,0	6,0	6,0
Maximum compressor absorbed current	(1)	A	24,0	28,4	30,6	36,2	44,4	50,9	61,2
Compressor in-rush current	(2)	A	81,0	87,2	174,0	118,1	122,2	165,4	204,6
Maximum AC fan absorbed current	(1)	A	10,0	10,0	10,0	10,0	15,0	15,0	15,0
Maximum EC fan absorbed current	(1)		7,2	7,2	7,2	7,2	10,8	10,8	10,8
Standard electrical heaters maximum absorbed current	(1)		13,0	13,0	13,0	13,0	19,5	19,5	19,5
Enhanced electrical heaters maximum absorbed current	(1)		20,2	20,2	20,2	20,2	30,3	30,3	30,3
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7	8,7	8,7	8,7
Power supply		V/Hz	400/3~/50 ±5%						

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

(2) With remote condenser arrangement, mains supply MUST comprise neutral.

(3) For twin compressor unit: one compressor at maximum load and one at startu

## DATATECH - TECHNICAL DATA

### CW UNIT

Unit size			6	9	14	18	22	30	35	45
Total cooling capacity	(1)	kW	6,7	8,2	13,3	16,7	21,2	30,9	37,0	45,8
Sensible cooling capacity	(1)	kW	6,1	6,9	12,4	14,5	17,1	27,5	31,5	36,6
SHR			0,90	0,85	0,93	0,87	0,81	0,89	0,85	0,80
Maximum total cooling capacity	(6)	kW	8,4	10,5	13,7	17,2	22,0	33,6	40,4	50,1
Maximum sensible cooling capacity	(6)	kW	7,5	8,7	12,8	14,9	17,7	29,6	34,3	39,8
<b>Fans</b>										
Number		n°	1	1	1	1	1	1	1	1
Nominal air capacity		m3/h	1.800	1.800	4.000	4.000	4.000	8.400	8.400	8.400
Maximum allowable airflow	(6)	m3/h	2.520	2.520	4.170	4.170	4.170	9.450	9.450	9.450
AC fans power input - UNDER version	(2)	kW	0,21	0,22	0,55	0,59	0,67	1,58	1,65	1,78
EC fans power input - UNDER version	(2)	kW	0,14	0,15	0,38	0,41	0,51	0,96	1,02	1,14
AC fans power input - OVER version	(2)	kW	0,21	0,22	0,55	0,59	0,67	1,37	1,45	1,60
EC fans power input - OVER version	(2)	kW	0,14	0,15	0,38	0,41	0,51	0,81	0,87	0,98
Maximum available static pressure - Downflow units AC fans	(3)	Pa	85	70	130	105	60	275	255	220
Maximum available static pressure - Downflow units EC fans	(3)	Pa	355	310	335	310	265	325	305	265
Maximum available static pressure - Upflow units AC fans	(3)	Pa	85	70	130	105	60	315	300	260
Maximum available static pressure - Upflow units EC fans	(3)	Pa	355	310	335	310	265	365	350	310
<b>Hydraulic circuit</b>										
Total pressure drop		kPa	33	34	48	72	71	66	67	74
Connections			G1/2"	G1/2"	G3/4"	G3/4"	G1"	G1"1/4	G1"1/4	G1"1/4
Electric heating (CH-HH version)										
Standard capacity		kW	3	3	5	5	5	9	9	9
Enhanced capacity		kW	4	4	7	7	7	13	13	13
Operation stages		n°	1	1	1	1	2	2	2	2
<b>Hot water coil (CH-HH version)</b>										
Potential	(4)	kW	5,9	5,9	13,1	13,1	13,1	24,5	24,5	24,5
Total pressure drop		kPa	21,0	21,0	11,0	11,0	11,0	28,0	28,0	28,0
<b>Humidifier (HH version)</b>										
Standard steam production		kg/h	1,5	1,5	3,0	3,0	5,0	5,0	5,0	5,0
Maximum steam production		kg/h	3,0	3,0	3,0	3,0	8,0	8,0	8,0	8,0
<b>Sound level</b>										
Sound pressure levels	(5)	dB(A)	47	47	50	50	50	56	56	56
<b>Dimensions and weight of basic unit</b>										
Cabinet size			607,0	607,0	705,0	705,0	705,0	1100,0	1100,0	1100,0
Length		mm	607	607	705	705	705	1.100	1.100	1.100
Depth		mm	500	500	650	650	650	850	850	850
Height		mm	1.850	1.850	1.990	1.990	1.990	1.990	1.990	1.990
Under/over (HH) operating weight		kg	165/158	167/160	222/212	225/215	231/221	329	335	347

(1) Air inlet 24 °C 50% UR. water in/out 7/12 °C.

(2) 20Pa available pressure, ISO Coarse 75% (G4) filters

(3) G4 filters and reduced air flow

(4) Inlet air temperature 20 °C water in/out 80/70 °C.

(5) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return

(6) Maximum reachable performance (only with EC fans)

With "Plenum Fan" option

Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.



## DATATECH - TECHNICAL DATA

### CW UNIT

Unit size			55	65	85	100	130	140	170	200	220
Total cooling capacity	(1)	kW	56,0	67,0	83,6	106,0	131,0	152,0	168,0	200,0	220,0
Sensible cooling capacity	(1)	kW	50,0	57,4	66,9	89,7	104,0	122,0	131,0	163,0	174,0
SHR			0,89	0,86	0,80	0,85	0,79	0,80	0,78	0,82	0,79
Maximum total cooling capacity	(6)	kW	58,2	69,8	87,2	115,3	138,4	162,3	180,0	205,0	226,0
Maximum sensible cooling capacity	(6)	kW	51,9	59,7	69,6	95,1	109,6	129,9	139,9	167,0	179,0
<b>Fans</b>											
Number		n°	2	2	2	3	3	3	3	4	4
Nominal air capacity		m <sup>3</sup> /h	15.500	15.500	15.500	24.000	24.000	28.600	28.600	39.825	39.825
Maximum allowable airflow	(6)	m <sup>3</sup> /h	16.425	16.425	16.425	25.875	25.875	31.050	31.050	41.418	41.418
AC fans power input - UNDER version	(2)	kW	3,16	3,37	3,51	5,20	5,57	-	-	-	-
EC fans power input - UNDER version	(2)	kW	1,90	2,02	2,28	3,30	3,60	5,7/4,2*	6,1/4,6*	8,7/7,1*	9,0/7,3*
AC fans power input - OVER version	(2)	kW	2,66	2,82	3,15	4,43	4,90	-	-	-	-
EC fans power input - OVER version	(2)	kW	1,53	1,64	1,89	2,66	3,00	-	-	-	-
Maximum available static pressure - Downflow units AC fans	(3)	Pa	330	310	270	275	235	-	-	-	-
Maximum available static pressure - Downflow units EC fans	(3)	Pa	350	330	290	305	265	340/470*	300/450*	180/295*	160/275*
Maximum available static pressure - Upflow units AC fans	(3)	Pa	385	365	320	330	290	-	-	-	-
Maximum available static pressure - Upflow units EC fans	(3)	Pa	405	385	340	360	320	-	-	-	-
<b>Hydraulic circuit</b>											
Total pressure drop		kPa	76	79	91	81	91	110	89	156	162
Connections			G1"1/2	G1"1/2	G1"1/2	G2"	G2"	G2"1/2	G2"1/2	G2"1/2	G2"1/2
Electric heating (CH-HH version)											
Standard capacity		kW	9	9	9	14	14	30	30	30	30
Enhanced capacity		kW	14	14	14	21	21	39	39	39	39
Operation stages		n°	2	2	2	3	3	3	3	3	3
<b>Hot water coil (CH-HH version)</b>											
Potential	(4)	kW	43,8	43,8	43,8	61,8	61,8	-	-	-	-
Total pressure drop		kPa	25,0	25,0	25,0	52,0	52,0	-	-	-	-
<b>Humidifier (HH version)</b>											
Standard steam production		kg/h	5,0	5,0	5,0	8,0	8,0	15,0	15,0	15,0	15,0
Maximum steam production		kg/h	8,0	8,0	8,0	8,0	8,0	15,0	15,0	15,0	15,0
<b>Sound level</b>											
Sound pressure levels	(5)	dB(A)	63	63	63	65	65	67	67	68	68
<b>Dimensions and weight of basic unit</b>											
Cabinet size			1750,0	1750,0	1750,0	2650,0	2650,0	2650,0	2650,0	3305,0	3305,0
Length		mm	1.750	1.750	1.750	2.650	2.650	2.650	2.650	3.305	3.305
Depth		mm	850	850	850	850	850	890	890	890	890
Height		mm	1.990	1.990	1.990	1.990	1.990	1.990	1.990	1.990	1.990
Under/over (HH) operating weight		kg	477	489	511	677	712	708	740	896	922

(1) Air inlet 24 °C 50% UR. water in/out 7/12 °C.

(2) 20Pa available pressure, ISO Coarse 75% (G4) filters

(3) G4 filters and reduced air flow

(4) Inlet air temperature 20 °C water in/out 80/70 °C.

(5) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return

(6) Maximum reachable performance (only with EC fans)

With "Plenum Fan" option

Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

## DATATECH - ELECTRICAL DATA

### CW UNIT

Unit size			6	9	14	18	22	30	35	45
AC fan maximum power input		kW	0,25	0,25	0,71	0,71	0,71	2,40	2,40	2,40
EC fan maximum power input		kW	0,44	0,44	1,00	1,00	1,00	2,30	2,30	2,30
Standard electrical heaters maximum power input		kW	3,00	3,00	4,50	4,50	4,50	9,00	9,00	9,00
Enhanced electrical heaters maximum power input		kW	4,00	4,00	7,00	7,00	7,00	13,00	13,00	13,00
Humidifier maximum power requirement		kW	2,3	2,3	2,3	2,3	6,0	6,0	6,0	6,0
Maximum AC fan absorbed current	(1)	A	1,1	1,1	1,5	1,5	1,5	5,0	5,0	5,0
Maximum EC fan absorbed current	(1)	A	2,6	2,6	2,2	2,2	2,2	3,6	3,6	3,6
Standard electrical heaters maximum absorbed current	(1)	A	13,0	13,0	6,5	6,5	6,5	13,0	13,0	13,0
Enhanced electrical heaters maximum absorbed current	(1)	A	17,4	17,4	10,1	10,1	10,1	18,8	18,8	18,8
Humidifier maximum absorbed current	(1)	A	9,8	9,8	3,2	3,2	8,7	8,7	8,7	8,7
Power supply		V/Hz	230/1~/50 ±5%				400/3~/50 ±5%			

Unit size			55	65	85	100	130	140	170	200	220
AC fan maximum power input		kW	4,80	4,80	4,80	7,20	7,20	-	-	-	-
EC fan maximum power input		kW	4,60	4,60	4,60	6,90	6,90	9,30	9,30	12,40	12,40
Standard electrical heaters maximum power input		kW	9,00	9,00	9,00	13,50	13,50	30,00	30,00	30,00	30,00
Enhanced electrical heaters maximum power input		kW	14,00	14,00	14,00	21,00	21,00	39,00	39,00	39,00	39,00
Humidifier maximum power requirement		kW	6,0	6,0	6,0	6,0	6,0	11,3	11,3	11,3	11,3
Maximum AC fan absorbed current	(1)	A	10,0	10,0	10,0	15,0	15,0	-	-	-	-
Maximum EC fan absorbed current	(1)	A	7,2	7,2	7,2	10,8	10,8	14,7	14,7	19,6	19,6
Standard electrical heaters maximum absorbed current	(1)	A	13,0	13,0	13,0	19,5	19,5	43,3	43,3	43,3	43,3
Enhanced electrical heaters maximum absorbed current	(1)	A	20,2	20,2	20,2	30,3	30,3	56,3	56,3	56,3	56,3
Humidifier maximum absorbed current	(1)	A	8,7	8,7	8,7	8,7	8,7	16,2	16,2	16,2	16,2
Power supply		V/ph/Hz	400/3~/50 ±5%								

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

## DATATECH - TECHNICAL DATA

### DW UNIT

Unit size			10	12	15	25	30	40
Total cooling capacity	(1)	kW	10,4	12,4	14,6	25,2	31,8	37,1
Sensible cooling capacity	(1)	kW	9,1	10,6	12,1	22,0	26,6	30,3
SHR			0,9	0,9	0,8	0,9	0,8	0,8
<b>Fans</b>								
Number		n°	1	1	1	1	1	1
Nominal air capacity		m <sup>3</sup> /h	3.340	3.340	3.340	8.000	8.000	8.000
AC fans power input - UNDER version	(2)	kW	0,6	0,6	0,6	1,7	1,8	1,9
EC fans power input - UNDER version	(2)	kW	0,4	0,4	0,4	1,0	1,2	1,3
AC fans power input - OVER version	(2)	kW	0,6	0,6	0,6	1,5	1,6	1,7
EC fans power input - OVER version	(2)	kW	0,4	0,4	0,4	0,9	1,0	1,1
Maximum available static pressure - Downflow units AC fans	(3)	Pa	165	120	75	285	245	220
Maximum available static pressure - Downflow units EC fans	(3)	Pa	320	280	235	316	277	253
Maximum available static pressure - Upflow units AC fans	(3)	Pa	165	120	75	332	293	269
Maximum available static pressure - Upflow units EC fans	(3)	Pa	320	280	235	362	323	299
<b>Hydraulic circuit</b>								
Total pressure drop		kPa	64	39	52	45	48	51
Connections			G1/2"	G3/4"	G3/4"	G1"	G1"1/4	G1"1/4
<b>Electric heating (CH-HH version)</b>								
Standard capacity		kW	4,5	4,5	4,5	9,0	9,0	9,0
Enhanced capacity		kW	7,0	7,0	7,0	13,0	13,0	13,0
Operation stages		n°	1	1	1	2	2	2
<b>Humidifier (HH version)</b>								
Standard steam production		kg/h	3	3	3	5	5	5
Maximum steam production		kg/h	3	3	3	8	8	8
<b>Sound level</b>								
Sound pressure levels	(5)	dB(A)	50	50	50	56	56	56
<b>Dimensions and weight of basic unit</b>								
Cabinet size			XS	XS	XS	S	S	S
Length		mm	702	702	702	1100	1100	1100
Depth		mm	650	650	650	850	850	850
Height		mm	1990	1990	1990	1990	1990	1990
Under/over (HH) operating weight			232	235	237	336	345	352

(1) Air inlet 24 °C 50% UR. water in/out 7/12 °C.

(2) 20Pa available pressure, ISO Coarse 75% (G4) filters

(3) G4 filters and reduced air flow

(4) Inlet air temperature 20 °C water in/out 80/70 °C.

(5) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return

(6) Maximum reachable performance (only with EC fans)

With "Plenum Fan" option

Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

## DATATECH - TECHNICAL DATA

### DW UNIT

Unit size			50	60	70	85	100	115	130
Total cooling capacity	(1)	kW	48,8	59,2	67,7	87,3	100,0	107,0	122,0
Sensible cooling capacity	(1)	kW	41,6	49,1	55,0	73,2	79,7	88,4	99,0
SHR			0,9	0,8	0,8	0,8	0,8	0,8	0,8
<b>Fans</b>									
Number		n°	2	2	2	3	3	3	3
Nominal air capacity		m <sup>3</sup> /h	14.500	14.500	14.500	21.000	21.000	24.380	24.380
AC fans power input - UNDER version	(2)	kW	3,2	3,4	3,6	4,7	5,1	n.a.	n.a.
EC fans power input - UNDER version	(2)	kW	1,9	2,1	2,4	2,8	3,2	4,1	4,4
AC fans power input - OVER version	(2)	kW	2,8	3,0	3,3	4,3	4,6	n.a.	n.a.
EC fans power input - OVER version	(2)	kW	1,6	1,8	2,0	2,4	2,7	n.a.	n.a.
Maximum available static pressure - Downflow units AC fans	(3)	Pa	335	300	260	335	290	n.a.	n.a.
Maximum available static pressure - Downflow units EC fans	(3)	Pa	340	304	268	355	311	195	165
Maximum available static pressure - Upflow units AC fans	(3)	Pa	393	357	321	380	346	n.a.	n.a.
Maximum available static pressure - Upflow units EC fans	(3)	Pa	398	362	326	400	366	n.a.	n.a.
<b>Hydraulic circuit</b>									
Total pressure drop		kPa	56	60	66	67	61	71	81
Connections			G1 " 1/2	G1 " 1/2	G1 " 1/2	G2 "	G2 "	G2 "	G2 "
<b>Electric heating (CH-HH version)</b>									
Standard capacity		kW	9,0	9,0	9,0	13,5	13,5	30,0	30,0
Enhanced capacity		kW	14,0	14,0	14,0	21,0	21,0	39,0	39,0
Operation stages		n°	2	2	2	2	3	3	3
<b>Humidifier (HH version)</b>									
Standard steam production		kg/h	5	5	5	8	8	15	15
Maximum steam production		kg/h	8	8	8	8	8	15	15
<b>Sound level</b>									
Sound pressure levels	(5)	dB(A)	63	63	63	65	65	67	67
<b>Dimensions and weight of basic unit</b>									
Cabinet size			M	M	M	L	L	XL	XL
Length		mm	1750	1750	1750	2650	2650	2650	2650
Depth		mm	850	850	850	850	850	890	890
Height		mm	1990	1990	1990	1990	1990	1990	1990
Under/over (HH) operating weight			487 / 490	500 / 503	512 / 515	685 / 678	703 / 697	745	767

(1) Air inlet 24 °C 50% UR. water in/out 7/12 °C.

(2) 20Pa available pressure, ISO Coarse 75% (G4) filters

(3) G4 filters and reduced air flow

(4) Inlet air temperature 20 °C water in/out 80/70 °C.

(5) Sound pressure levels at 2m in front of the unit, downflow air discharge, ducted air return

(6) Maximum reachable performance (only with EC fans)

With "Plenum Fan" option

Gross cooling capacities indicated. For net cooling capacities, subtract fan power input.

## DATATECH - ELECTRICAL DATA

### UNIT DW

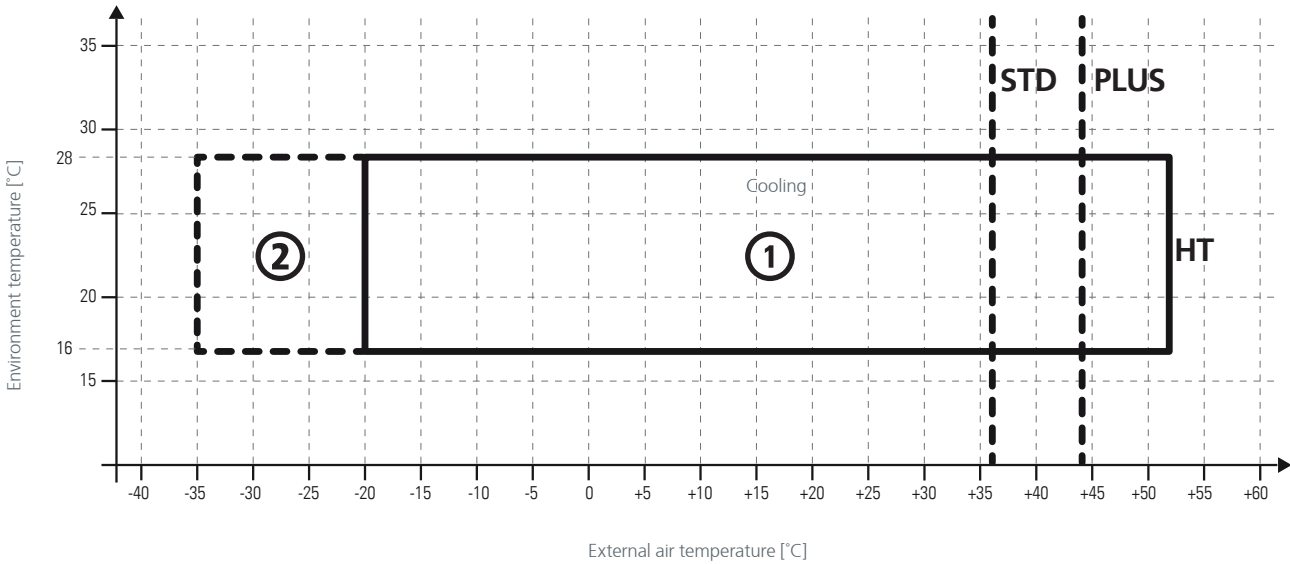
Unit size		10	12	15	25	30	40
AC fan maximum power input	kW	0,7	0,7	0,7	2,4	2,4	2,4
EC fan maximum power input	kW	1,0	1,0	1,0	2,3	2,3	2,3
Standard electrical heaters maximum power input	kW	4,5	4,5	4,5	9,0	9,0	9,0
Enhanced electrical heaters maximum power input	kW	7,0	7,0	7,0	13,0	13,0	13,0
Humidifier maximum power requirement	kW	2,3	2,3	6,0	6,0	6,0	6,0
Maximum AC fan absorbed current	(1) A	1,5	1,5	1,5	5,0	5,0	5,0
Maximum EC fan absorbed current	(1) A	2,2	2,2	2,2	3,6	3,6	3,6
Standard electrical heaters maximum absorbed current	(1) A	6,5	6,5	6,5	13,0	13,0	13,0
Enhanced electrical heaters maximum absorbed current	(1) A	10,1	10,1	10,1	18,8	18,8	18,8
Humidifier maximum absorbed current	(1) A	3,2	3,2	8,7	8,7	8,7	8,7
Power supply	A	400/3~/50 ±5%					

Unit size		50	60	70	85	100	115	130
AC fan maximum power input	kW	4,8	4,8	4,8	7,2	7,2	-	-
EC fan maximum power input	kW	4,6	4,6	4,6	6,9	6,9	6,9	6,9
Standard electrical heaters maximum power input	kW	9,0	9,0	9,0	13,5	13,5	30,0	30,0
Enhanced electrical heaters maximum power input	kW	14,0	14,0	14,0	21,0	21,0	39,0	39,0
Humidifier maximum power requirement	kW	6,0	6,0	6,0	6,0	6,0	11,3	11,3
Maximum AC fan absorbed current	(1) A	10,0	10,0	10,0	15,0	15,0	-	-
Maximum EC fan absorbed current	(1) A	7,2	7,2	7,2	10,8	10,8	10,8	10,8
Standard electrical heaters maximum absorbed current	(1) A	13,0	13,0	13,0	19,5	19,5	43,3	43,3
Enhanced electrical heaters maximum absorbed current	(1) A	20,2	20,2	20,2	30,3	30,3	56,3	56,3
Humidifier maximum absorbed current	(1) A	8,7	8,7	8,7	8,7	8,7	16,2	16,2
Power supply	A	400/3~/50 ±5%						

(1) Current at maximum permissible operating conditions. Please refer to wiring diagram for suggested cable size.

# DATATECH - FUNCTIONING LIMITS

## VERSION WITH DIRECT EXPANSION AND "EDA" AIR COOLING

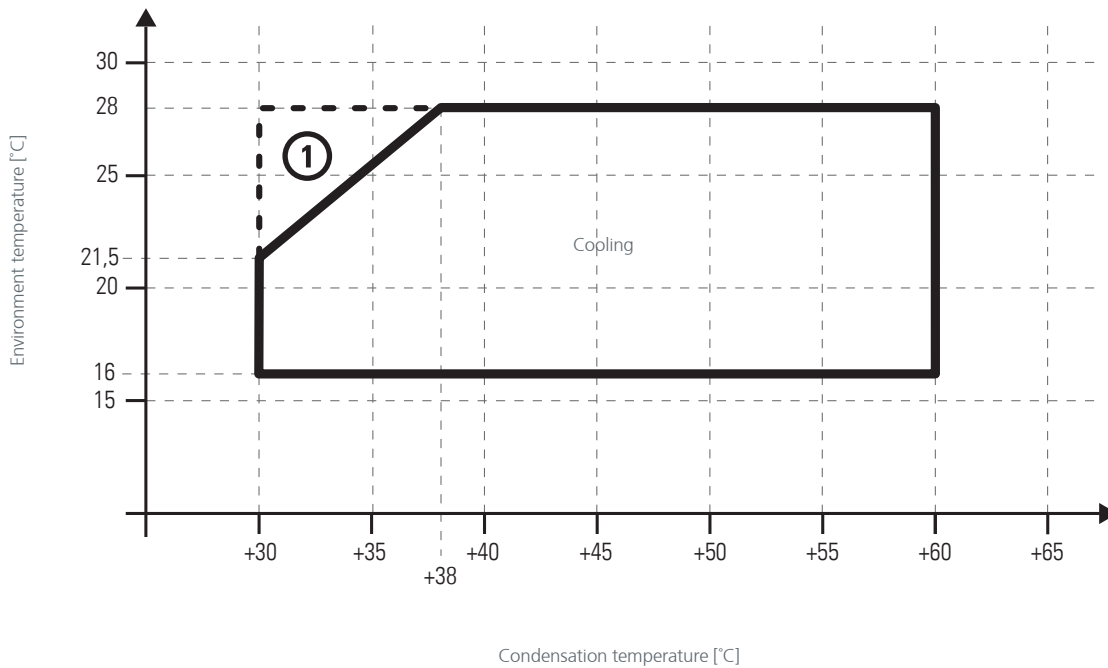


(1) With condenser supply by Blue Box (complete with revs. regulator)

(2) With condensation control kit (LAK-Low Ambient Kit)

(\*) Indicative temperature limit. Real value to be checked with Selection Software (varies by size, working conditions, length and path of pipes).

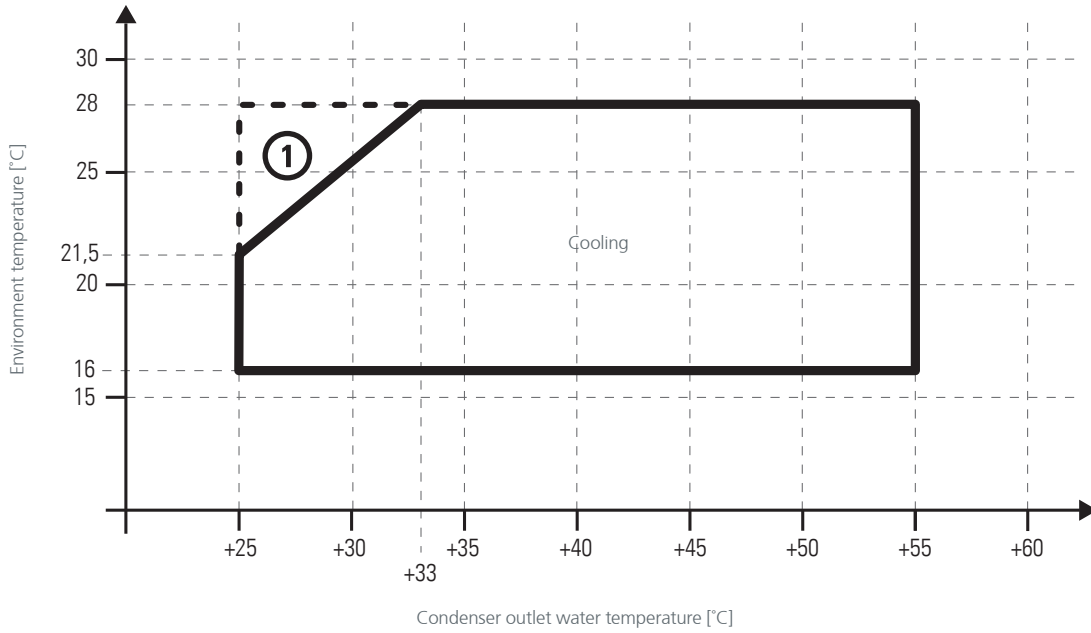
Condenser not supplied by Blue Box



(1) Unit 6.1 / 8.1 / 49.1 / 85.2 / 95.2

# DATATECH - FUNCTIONING LIMITS

## VERSION WITH DIRECT EXPANSION AND "EDW" WATER COOLING



(1) Unit 6.1 / 8.1 / 49.1 / 85.2 / 95.2

## DATATECH - SOUND SPECTRUMS

We present the sound spectrums in air flow rate and nominal useful pressures conditions for the DATATECH series.

The tables differ as follows:

- 1) Sound pressure levels at 2m
- 2) Intake side sound power levels
- 3) Flow side sound power levels
  - a) Unit with downward flow, upward with return from downwards and upwards with rear return
  - b) Unit with upward flow (only in the basic version with front intake)
- I) ED unit
- II) CW unit
- III) DW unit

### ED LP

Model	Sound pressure level octave-band - air intake from the front, air discharge from the top									A-weighted 2m free field sound pressure level
	Central frequency (Hz)									
	31,5	63	125	250	500	1000	2000	4000	8000	
OED* 6.1	35,0	36,0	40,0	45,5	43,0	42,5	40,0	36,0	29,0	47
OED* 8.1	35,0	34,5	39,5	43,0	41,0	43,0	40,5	37,5	29,5	47
OED* 11.1	53,5	49,0	52,0	50,5	45,0	43,0	43,0	41,5	35,0	50
OED* 15.1	50,0	47,5	50,0	49,0	46,0	44,5	44,0	44,0	38,0	51
OED* 18.1	49,0	46,0	50,0	48,0	44,5	44,5	44,5	44,0	40,5	51
OED* 17.1	56,5	52,5	55,5	49,5	46,5	47,5	44,5	42,0	32,5	52
OED* 22.1	56,0	52,0	56,5	51,0	47,5	48,5	45,5	42,5	33,0	53
OED* 26.1	60,0	58,5	61,0	56,0	50,5	48,5	48,0	43,0	34,0	55
OED* 30.2	56,5	54,5	56,5	53,0	49,0	49,5	49,0	46,0	37,5	55
OED* 32.1	56,5	54,5	57,0	53,5	49,0	49,5	49,0	45,0	37,0	55
OED* 36.1	54,5	53,0	54,0	53,5	51,5	52,5	51,5	46,0	39,0	57
OED* 34.2	62,0	60,0	58,0	60,0	54,0	54,5	51,5	47,5	37,5	59
OED* 38.1	63,0	61,0	58,5	60,5	55,0	56,0	51,5	48,0	38,5	60
OED* 38.2	58,5	58,0	56,5	58,0	53,0	53,5	53,5	49,0	39,0	59
OED* 46.2	61,5	59,0	59,0	60,5	55,5	56,0	55,0	49,5	40,5	61
OED* 49.1	61,5	59,0	59,0	60,5	55,5	56,0	55,0	49,0	39,5	61
OED* 56.2	60,5	58,0	58,0	60,5	54,0	57,0	57,0	50,5	41,5	62
OED* 66.2	58,0	55,5	57,0	60,5	54,0	57,5	57,0	50,5	42,5	62
OED* 72.2	65,5	65,0	64,0	61,5	60,5	58,5	54,5	48,5	39,0	63
OED* 85.2	60,5	60,5	62,0	60,0	60,0	60,5	56,5	50,0	40,0	64
OED* 95.2	64,5	60,0	60,5	59,5	60,0	60,5	56,5	51,0	44,0	64
OED* 104.2	61,5	58,5	60,0	59,5	59,5	61,0	56,0	51,5	45,0	64

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

Model	Sound pressure level octave-band - air discharge from the bottom and air intake from the top, or air discharge from the top and air intake from the bottom/rear									A-weighted 2m free field sound pressure level
	Central frequency (Hz)									
	31,5	63	125	250	500	1000	2000	4000	8000	
*ED* 6.1	36,5	39,0	42,5	47,0	44,0	42,0	39,5	35,0	27,5	47
*ED* 8.1	36,5	37,5	42,0	46,0	42,5	42,5	40,0	36,5	28,0	47
*ED* 11.1	55,0	52,0	54,5	52,0	46,0	42,0	42,0	40,5	33,5	50
*ED* 15.1	51,5	50,5	52,5	50,5	47,0	44,0	43,5	43,0	36,5	51
*ED* 18.1	50,5	49,0	52,5	49,5	45,5	44,0	44,5	43,0	39,0	51
*ED* 17.1	58,0	55,5	58,0	51,0	47,5	47,0	44,0	40,5	31,0	52
*ED* 22.1	57,5	55,0	59,0	52,5	48,5	48,0	45,0	41,0	31,5	53
*ED* 26.1	60,0	58,5	61,0	56,0	50,5	48,5	48,0	43,0	34,0	55
*ED* 30.2	58,0	57,5	59,0	54,5	50,0	49,0	48,5	45,0	36,0	55
*ED* 32.1	58,0	57,5	59,5	55,0	50,0	49,0	48,5	44,0	35,5	55
*ED* 36.1	56,0	56,0	56,5	55,0	52,5	52,0	51,0	45,0	37,5	57
*ED* 34.2	63,5	63,0	60,5	61,5	55,0	53,5	50,5	46,0	36,0	59
*ED* 38.1	64,5	64,0	61,0	62,0	56,0	55,5	51,0	46,0	37,0	60
*ED* 38.2	60,0	61,0	59,0	59,5	54,0	53,0	53,0	48,0	37,5	59
*ED* 46.2	63,0	62,0	61,5	62,0	56,5	55,5	54,5	48,5	39,0	61
*ED* 49.1	63,0	62,0	61,5	62,0	56,5	55,5	54,5	48,0	38,0	61
*ED* 56.2	62,0	61,0	60,5	62,0	55,0	56,5	57,0	49,5	40,0	62
*ED* 66.2	59,5	58,5	59,5	62,0	55,0	57,0	56,5	50,5	41,0	62
*ED* 72.2	67,0	68,0	66,5	63,0	61,5	57,5	53,5	47,0	37,5	63
*ED* 85.2	62,0	63,5	64,5	61,5	61,0	60,0	56,0	49,0	38,5	64
*ED* 95.2	63,0	61,5	62,5	61,0	60,5	60,5	55,5	50,5	43,5	64
*ED* 104.2	63,0	61,5	62,5	61,0	60,5	60,5	55,5	50,5	43,5	64



# DATATECH - SOUND SPECTRUMS

## ED LW - FLOW

Modello	Livello di potenza sonora in banda d'ottava									Livello di potenza sonora pesato "A" lato mandata
	Frequenza centrale [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
OED* 6.1	65,5	63,5	67,0	70,5	71,0	70,5	68,5	66,5	64,0	76
OED* 8.1	60,5	59,5	64,0	68,0	67,5	70,0	71,0	69,0	68,5	76,5
OED* 11.1	75,5	74,5	75,5	72,0	71,5	71,5	71,5	70,5	68,5	78
OED* 15.1	68,5	69,5	72,0	69,5	69,5	71,5	72,0	71,0	69,5	78
OED* 18.1	66,0	66,5	69,5	67,0	69,0	72,0	71,5	71,5	70,0	78
OED* 17.1	77,0	75,0	77,0	80,0	76,0	75,5	72,5	68,0	56,0	80
OED* 22.1	77,0	75,5	78,0	80,5	76,5	76,0	73,0	69,5	58,5	80,5
OED* 26.1	75,0	73,5	75,5	80,5	76,0	75,5	73,5	70,0	59,0	80,5
OED* 30.2	70,5	70,0	73,0	78,0	75,0	76,5	74,0	70,0	58,5	80,5
OED* 32.1	69,5	68,0	72,0	77,5	74,5	77,0	74,5	71,5	60,5	81
OED* 36.1	69,5	68,0	72,0	77,5	74,5	77,0	74,5	71,5	60,5	81
OED* 34.2	75,5	73,5	80,5	82,0	79,0	75,5	71,5	68,0	58,0	81
OED* 38.1	76,0	73,5	81,0	81,0	78,0	76,0	73,0	70,0	60,0	81
OED* 38.2	73,0	71,5	78,5	80,0	77,5	76,5	73,0	70,0	60,0	81
OED* 46.2	75,5	74,5	80,0	81,5	77,5	77,0	73,0	70,5	60,5	81,5
OED* 49.1	71,0	70,0	77,0	79,0	77,0	77,5	75,0	68,0	57,5	81,5
OED* 56.2	72,0	70,0	77,5	80,0	76,0	77,5	73,0	69,0	59,5	81
OED* 66.2	69,0	68,5	76,0	78,5	76,0	78,0	75,0	73,0	63,0	82
OED* 72.2	80,5	81,5	81,0	84,0	80,0	78,5	73,0	72,5	62,5	83
OED* 85.2	79,0	80,5	80,0	83,5	80,5	79,0	73,0	69,5	59,0	83
OED* 95.2	77,0	76,5	77,5	82,0	79,5	80,5	74,5	71,0	61,0	83,5
OED* 104.2	77,0	76,5	77,5	82,0	79,5	80,5	74,5	71,0	61,0	83,5

Condizioni: portata d'aria nominale e pressione statica utile 20Pa. Mandata dell'aria canalizzata o sottopavimento

Modello	Livello di potenza sonora in banda d'ottava									Livello di potenza sonora pesato "A" lato mandata
	Frequenza centrale [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
UED* 6.1	70,5	68,0	71,0	73,5	74,0	70,0	68,5	65,0	61,0	76
UED* 8.1	65,0	64,5	68,5	69,5	70,5	71,5	71,0	69,0	66,0	77
UED* 11.1	76,5	75,0	78,0	75,0	72,5	70,5	72,5	71,5	67,5	78,5
UED* 15.1	75,0	73,0	76,5	75,0	72,5	71,5	73,0	72,5	68,5	79
UED* 18.1	74,5	70,5	75,5	71,0	70,5	72,0	73,5	73,5	70,5	79,5
UED* 17.1	78,0	75,0	78,5	82,5	76,5	76,0	72,5	70,5	62,0	81
UED* 22.1	76,5	73,5	77,0	80,0	77,5	76,5	73,0	73,0	64,5	81,5
UED* 26.1	77,0	74,0	76,5	80,0	76,5	77,5	74,0	74,0	65,5	82
UED* 30.2	75,5	74,5	78,0	80,5	77,0	76,5	73,5	73,0	65,0	81,5
UED* 32.1	75,5	73,0	76,5	79,5	76,0	77,0	74,5	74,5	66,5	82
UED* 36.1	73,0	71,5	75,5	78,5	76,0	78,0	75,0	75,0	66,5	82,5
UED* 34.2	76,0	76,5	82,5	82,5	80,0	75,5	72,5	72,5	64,5	82
UED* 38.1	74,5	75,0	81,5	82,0	79,5	76,0	73,5	74,5	66,5	82,5
UED* 38.2	74,5	75,0	81,5	82,0	79,5	76,0	73,5	74,5	66,5	82,5
UED* 46.2	72,0	73,5	80,5	82,0	79,5	76,5	74,5	75,5	67,5	83
UED* 49.1	72,0	73,5	80,5	82,5	79,5	77,5	75,0	70,0	62,5	82,5
UED* 56.2	70,5	73,0	80,5	81,5	77,5	76,5	73,0	72,5	64,5	81,5
UED* 66.2	69,0	71,5	79,0	80,5	77,5	77,5	76,0	77,5	69,5	83,5
UED* 72.2	81,0	82,5	82,5	85,0	81,5	79,0	75,5	77,5	69,5	85
UED* 85.2	80,0	81,5	81,5	84,5	79,5	79,5	76,0	72,0	64,0	84
UED* 95.2	77,0	78,0	80,5	84,0	80,0	80,0	77,5	73,0	65,5	84,5
UED* 104.2	77,0	78,0	80,5	84,0	80,0	80,0	77,5	73,0	65,5	84,5

Condizioni: portata d'aria nominale e pressione statica utile 20Pa. Mandata dell'aria canalizzata o sottopavimento

## DATATECH - SOUND SPECTRUMS

### ED LW - INTAKE

Modello	Livello di potenza sonora in banda d'ottava									Livello di potenza sonora pesato "A" lato aspirazione
	Frequenza centrale [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
OED* 6.1	59,0	57,5	61,5	66,0	65,0	65,0	63,0	59,5	54,5	70
OED* 8.1	57,5	55,0	60,0	64,0	64,0	66,5	66,0	63,0	58,0	71,5
OED* 11.1	68,5	67,5	70,0	68,0	67,5	67,0	68,0	69,0	62,5	74,5
OED* 15.1	65,5	66,5	67,5	64,5	67,0	67,5	68,5	70,0	64,0	75
OED* 18.1	65,5	66,5	67,5	64,5	68,0	68,5	70,0	71,5	65,5	76,5
OED* 17.1	75,0	72,0	73,5	77,5	72,5	67,0	69,0	69,5	62,0	76,5
OED* 22.1	73,0	71,0	72,5	77,0	72,5	69,0	71,0	72,0	64,5	78
OED* 26.1	71,5	69,5	71,0	74,5	72,5	70,0	72,0	73,0	65,5	78,5
OED* 30.2	72,0	70,0	71,5	75,0	72,5	69,5	71,5	72,5	64,5	78
OED* 32.1	69,0	69,5	72,0	75,5	72,5	71,0	73,0	74,5	66,5	79,5
OED* 36.1	70,0	68,5	71,0	74,5	72,5	71,0	73,0	74,5	66,5	79,5
OED* 34.2	72,5	71,0	77,0	78,0	72,5	69,0	71,0	72,0	64,5	78
OED* 38.1	71,0	70,0	76,5	77,5	73,0	70,5	72,5	74,0	66,5	79,5
OED* 38.2	71,0	70,0	76,5	77,5	73,0	70,5	72,5	74,0	66,5	79,5
OED* 46.2	69,0	68,5	74,5	77,0	73,0	71,5	73,5	75,0	67,5	80
OED* 49.1	69,0	68,5	74,5	77,0	71,0	72,0	74,0	69,0	62,0	78,5
OED* 56.2	70,0	66,5	73,0	77,0	72,0	70,0	71,5	72,0	64,5	78
OED* 66.2	70,5	68,0	74,0	77,5	74,0	73,0	75,5	77,0	69,5	82
OED* 72.2	70,0	69,5	74,0	79,0	76,0	73,5	75,0	77,0	69,5	82
OED* 85.2	69,5	69,0	73,5	78,5	75,0	74,5	75,0	71,0	63,5	80,5
OED* 95.2	65,5	66,0	73,5	77,0	74,5	75,0	77,0	72,5	65,0	81,5
OED* 104.2	65,5	66,0	73,5	77,0	74,5	75,0	77,0	72,5	65,0	81,5

Condizioni: portata d'aria nominale e pressione statica utile 20Pa. Mandata dell'aria canalizzata o sottopavimento

Modello	Livello di potenza sonora in banda d'ottava									Livello di potenza sonora pesato "A" lato aspirazione
	Frequenza centrale [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
UED* 6.1	62,0	59,5	65,0	67,5	66,0	64,5	61,0	56,0	51,0	69
UED* 8.1	58,0	56,0	63,0	66,5	65,5	65,0	62,5	58,5	54,5	69,5
UED* 11.1	77,0	74,5	76,5	70,5	67,0	64,5	66,5	65,0	58,5	72,5
UED* 15.1	70,5	70,5	72,0	68,0	65,5	65,5	67,0	67,0	60,0	73
UED* 18.1	70,0	70,0	71,5	66,5	65,5	66,5	67,5	68,0	61,5	73,5
UED* 17.1	77,5	73,0	74,5	77,5	72,0	66,5	65,5	64,0	54,5	74,5
UED* 22.1	76,5	72,5	74,0	77,0	72,0	68,0	67,5	67,0	57,5	75,5
UED* 26.1	71,5	69,5	73,5	76,5	71,5	69,5	69,0	68,0	58,5	76
UED* 30.2	71,0	69,0	73,0	76,0	71,5	69,0	68,5	67,0	57,5	75,5
UED* 32.1	72,5	71,5	73,5	77,5	72,5	69,0	69,0	69,0	59,0	76,5
UED* 36.1	72,5	71,5	73,5	77,5	72,5	69,0	69,0	69,0	59,0	76,5
UED* 34.2	72,0	72,0	77,5	77,0	73,5	67,5	67,0	66,5	57,0	76
UED* 38.1	71,5	72,0	77,0	77,0	73,5	68,5	68,5	68,5	59,0	76,5
UED* 38.2	69,5	70,0	76,0	76,5	73,0	69,0	69,0	68,5	59,0	76,5
UED* 46.2	71,0	70,5	76,5	76,5	73,0	70,0	70,0	69,5	60,0	77
UED* 49.1	68,5	69,0	76,0	76,5	72,5	70,5	70,5	64,0	55,0	76,5
UED* 56.2	72,0	70,0	76,5	75,5	72,0	68,5	68,0	67,0	57,5	75,5
UED* 66.2	68,5	69,0	76,0	74,5	73,0	71,0	71,5	71,5	62,0	78
UED* 72.2	72,0	71,0	74,5	78,5	75,0	71,5	72,0	72,0	62,0	79
UED* 85.2	68,5	69,0	74,0	78,5	74,0	72,0	72,0	66,5	56,5	78
UED* 95.2	65,0	65,0	71,0	76,5	72,5	73,0	73,5	67,5	58,5	78,5
UED* 104.2	65,0	65,0	71,0	76,5	72,5	73,0	73,5	67,5	58,5	78,5

Condizioni: portata d'aria nominale e pressione statica utile 20Pa. Mandata dell'aria canalizzata o sottopavimento

## DATATECH - SOUND SPECTRUMS

### CW LP

Model	Sound pressure level octave-band - air intake from the front, air discharge from the top									A-weighted 2m free field sound pressure level
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
OCW 6	38	36,5	42	46	45	42,5	37,5	34	28	47
OCW 9	38,5	36,5	41,5	45,5	45	44	39,5	36,5	31,5	48
OCW 14	53	52	53,5	50	44,5	42,5	43,5	41	37,5	50
OCW 18	50	49,5	51	47,5	44	43	44	42	38	50
OCW 22	48,5	48	49,5	46	43	43,5	44	42,5	40	50
OCW 30	55	53,5	56	50	48,5	52,5	50,5	41,5	34	56
OCW 35	52	52	53	48,5	48,5	53	49,5	43	35	56
OCW 45	51	50	52,5	47,5	49	53	49,5	44	35,5	56
OCW 55	65	64,5	61,5	63	58	58	57	49	39,5	63
OCW 65	63	63	61	63	57	58	57,5	49,5	40	63
OCW 85	61	62,5	59,5	61	56,5	58,5	57,5	51	43	63
OCW 100	65,5	66	65,5	63,5	62	61	57	48	40,5	65
OCW 130	66	65,5	64	60,5	60,5	61,5	58,5	49	42	65

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

Model	Sound pressure level octave-band - air discharge from the bottom and air intake from the top, or air discharge from the top and air intake from the bottom/rear									A-weighted 2m free field sound pressure level
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
*CW 6	41	40	44,5	48	46	41,5	36	32,5	25	47
*CW 9	39	38,5	44	48	45,5	43,5	38,5	35	28,5	48
*CW 14	52	50,5	53,5	51,5	47	42	42,5	39,5	35	50
*CW 18	51,5	50,5	52,5	50,5	46,5	42,5	42,5	41	36	50
*CW 22	50,5	49	52,5	49,5	45	43	43,5	41	37	50
*CW 30	58,5	57,5	60	53	50,5	52,5	49,5	40	32	56
*CW 35	59	57,5	59,5	55	51,5	51	49,5	40,5	34	56
*CW 45	58	57	58,5	55	51,5	51	50	41	35	56
UCW 55	66,5	66	64	66	59	57	55,5	47	37	63
*CW 65	65	64	63,5	64,5	58,5	57,5	56,5	48,5	38,5	63
*CW 85	63,5	62,5	62	63,5	56,5	58	57,5	49,5	39,5	63
*CW 100	65,5	67,5	67	64	63	60,5	56	46,5	38	65
*CW 130	62,5	60,5	60,5	61	62	62	56,5	50	44	65
UCW 140	67,5	68,5	68	65	64	63	59	50	42	67
UCW 170	65	66,5	65,5	63	62,5	63	61	52	44,5	67

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

## DATATECH - SOUND SPECTRUMS

### CW LW - FLOW

Model	Sound pressure level octave-band - air intake from the front, air discharge from the top									A-weighted sound power level discharge side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
OCW 6	65,5	63,5	67	70,5	71	70,5	68,5	66,5	64	75,5
OCW 9	62,5	61	65,5	69	68,5	71	70,5	68,5	67,5	76,5
OCW 14	72	71,5	74	70,5	69	70,5	71,5	71	69,5	77,5
OCW 18	68	69	71,5	69	68,5	71	71,5	70,5	69,5	77,5
OCW 22	66	66,5	69,5	67	68	71,5	71	70,5	70	77,5
OCW 30	74,5	72,5	75,5	79	75,5	76	73	67,5	53,5	80
OCW 35	70,5	70	73	78	75	76	73,5	67,5	54	80
OCW 45	69,5	68	72	77,5	74	76,5	73,5	68	55,5	80
OCW 55	73	71,5	78,5	80	77,5	76,5	72	65,5	54,5	80,5
OCW 65	71	70	77	79	76	77	73	66,5	55	80,5
OCW 85	69	68,5	76	78,5	75	77,5	73	67	57	80,5
OCW 100	76	78	78,5	82,5	80	79	70,5	68	57	82,5
OCW 130	74	74,5	76	81,5	79	79,5	71,5	70	59,5	82,5

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

Model	Sound pressure level octave-band - Air discharge to the bottom and air intake from the top, or air discharge to the top and air intake from the bottom/rear									A-weighted sound power level discharge side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
UCW 6	68	66,5	69,5	72,5	73	70	68	65	61,5	75,5
UCW 9	66,5	65,5	69	69,5	71,5	71	70,5	68	65	76,5
UCW 14	76,5	75	78	75	71,5	70	71,5	69,5	67	77,5
UCW 18	75	73	76,5	75	71	70	71,5	69,5	68	77,5
UCW 22	74,5	70,5	75,5	71	68,5	70	72	70,5	69,5	77,5
UCW 30	78	75	78,5	82,5	76,5	75,5	71	65	51	80
UCW 35	75,5	74,5	78	80,5	76	76,5	71	66	53,5	80
UCW 45	75,5	73	76,5	79,5	75,5	76,5	72	66,5	54	80
UCW 55	73	74	80	81,5	79	75,5	70	63,5	51,5	80,5
UCW 65	70	72	79	81,5	78,5	76	70	65	53,5	80,5
UCW 85	67,5	70,5	78,5	80	77	77	71,5	65,5	54	80,5
UCW 100	78,5	80	79,5	83,5	80,5	78,5	70	67	55,5	82,5
UCW 130	75	76,5	78	82	80	79	71,5	67,5	58	82,5
UCW 140	85	86,5	83	90,5	85,5	82,5	75,5	71,5	59,5	87,5
UCW 170	85	85	82,5	89	84,5	83,5	77,5	73,5	62,5	87,5

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

## DATATECH - SOUND SPECTRUMS

### CW LW - INTAKE

Model	Sound pressure level octave-band - air intake from the front, air discharge from the top									A-weighted sound power level discharge side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
OCW 6	56,5	55,5	60,5	65	64,5	64	61,5	58	54,5	68,5
OCW 9	54	53	59	63	62,5	65	63	61	57,5	69,5
OCW 14	65,5	65	67,5	66	64,5	65	64,5	63,5	61	71
OCW 18	62,5	64	66,5	64	64,5	65,5	64	64	61,5	71
OCW 22	60,5	61,5	65	63	64	65,5	65,5	64,5	62	71
OCW 30	71,5	69	71,5	76	71	65,5	66,5	59,5	52	73,5
OCW 35	69,5	68,5	70	74	71	66,5	67	60,5	53,5	73,5
OCW 45	68	66,5	69	73,5	68,5	67,5	68	62	54,5	73,5
OCW 55	68,5	68,5	74,5	76,5	70,5	66	66,5	56,5	48,5	73,5
OCW 65	69,5	67	73	76,5	70	67	66,5	56,5	48,5	73,5
OCW 85	69,5	66	72,5	76,5	69	67	67	57,5	50	73,5
OCW 100	67,5	67,5	72	77,5	73,5	69	67,5	61,5	50	75,5
OCW 130	62,5	64	70,5	75,5	73,5	69,5	68	63	51,5	75,5

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

Model	Sound pressure level octave-band - Air discharge to the bottom and air intake from the top, or air discharge to the top and air intake from the bottom/rear									A-weighted sound power level discharge side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
UCW 6	60	57,5	64	67	66	64	60,5	56	52	68,5
UCW 9	58	56	63	66,5	65,5	65,5	62	58	54,5	69,5
UCW 14	73,5	71,5	74	69	64,5	63	65,5	63	58,5	71
UCW 18	70,5	70,5	72	68	63	63,5	65	64,5	59	71
UCW 22	69,5	69,5	71,5	66,5	62	64,5	65	64	60	71
UCW 30	75	71,5	73,5	77	71,5	66,5	64	57,5	48,5	73,5
UCW 35	71	69	73	76	70,5	67,5	65,5	58,5	49,5	73,5
UCW 45	70,5	68	71,5	76	69,5	68	65,5	60,5	50,5	73,5
UCW 55	69,5	70	76	76,5	72	66,5	63,5	54,5	45,5	73,5
UCW 65	69	69,5	76	76,5	71,5	67,5	63,5	55	46	73,5
UCW 85	68,5	69	76	75,5	71,5	67,5	64,5	56	47	73,5
UCW 100	68,5	69	74	78,5	73,5	68,5	67	60,5	48	75,5
UCW 130	65,5	65,5	71,5	77	72,5	69,5	68,5	62,5	51	75,5
UCW 140	77,5	76,5	80,5	85,5	76	75	72	66,5	55,5	81
UCW 170	72,5	72	78	84	73,5	76,5	73,5	69	59	81

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

## DATATECH - SOUND SPECTRUMS

### DW LP

Model	Sound pressure level octave-band - air intake from the front, air discharge from the top									A-weighted 2m free field sound pressure level
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
ODW 10	54	51	53	51,5	47	42,5	42,5	39	34	50
ODW 12	52,5	50	52,5	51,5	46,5	43	42,5	39	34,5	50
ODW 15	50,5	49,5	52	51	46	43	42,5	40,5	36	50
ODW 25	55	54,5	56,5	51	48,5	52,5	50,5	41	34	56
ODW 30	56,5	54	55	50,5	48,5	52,5	50,5	41,5	34,5	56
ODW 40	57	53	53	49,5	48,5	52,5	50,5	42	35,5	56
ODW 50	67	65	62,5	66,5	57	57,5	56	47	37,5	63
ODW 60	66,5	63,5	62,5	66,5	56,5	57,5	56,5	47	38	63
ODW 70	66	63	62	66	56,5	57	57	47,5	38,5	63
ODW 85	67	68	67,5	64	63	60,5	56	46	37	65
ODW 100	66	68,5	66	63,5	62,5	61	56,5	46,5	38	65

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

Model	Sound pressure level octave-band - air discharge from the bottom and air intake from the top, or air discharge from the top and air intake from the bottom/rear									A-weighted 2m free field sound pressure level
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
*DW 10	55	52,5	54	52,5	47,5	41,5	42	38	32,5	50
*DW 12	52,5	52	52,5	52	47	42	42,5	39	33	50
*DW 15	50,5	49,5	52	51	46	42,5	43	40,5	34	50
*DW 25	56,5	56	58	51,5	49,5	52,5	50	40,5	33	56
*DW 30	56	55	57	50,5	49	52,5	50,5	41	33,5	56
*DW 40	57	54,5	55,5	50	48,5	52,5	50,5	41,5	34,5	56
*DW 50	66,5	67,5	63,5	67	57,5	57	55,5	46	36	63
*DW 60	65	65,5	63,5	66,5	56,5	57,5	56	47	36,5	63
*DW 70	63,5	64	63	65,5	56,5	57,5	57	48	38,5	63
*DW 85	65,5	70	68,5	65	63,5	60	55	45	36,5	65
*DW 100	62,5	60,5	60,5	61	62	62	56,5	50	44	65
UDW 115	67,5	70	69	66,5	65	62,5	58	49	40,5	67
UDW 130	65	68	66,5	64,5	63,5	63,5	59	51	43	67

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

## DATATECH - SOUND SPECTRUMS

### DW LW - FLOW

Model	Sound power level in octave band - front air intake, ducted upward flow.									A-weighted sound power level discharge side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
ODW 10	76,5	75	77,5	74,5	71	70,5	71,5	70	67	77,5
ODW 12	76,5	75	75,5	72,5	71	70,5	71,5	70	67,5	77,5
ODW 15	76	74,5	74,5	71	70,5	70,5	71,5	70,5	68	77,5
ODW 25	76	76	78	80,5	76	76	72	65,5	52	80
ODW 30	76	75	77,5	80	75,5	76	72,5	66,5	53	80
ODW 40	75,5	74,5	77	78,5	75	76,5	72,5	67	53,5	80
ODW 50	72,5	74,5	80	82	79	75,5	70,5	62,5	50,5	80,5
ODW 60	71,5	73,5	79	81,5	78,5	76	71	62,5	52	80,5
ODW 70	70,5	73,5	78,5	80,5	78	76,5	71,5	63,5	52	80,5
ODW 85	78,5	79,5	78,5	83	80,5	78,5	71	67,5	56	82,5
ODW 100	77	77,5	77,5	82	80	79	71,5	68,5	57	82,5

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

Model	Sound pressure level octave-band - Air discharge to the bottom raised floor and air intake from the top ducted, or air discharge to the top ducted and air intake from the bottom/rear									A-weighted sound power level discharge side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
*DW 10	78	77,5	80	76,5	72,5	70	71	69	65,5	77,5
*DW 12	77	76,5	79,5	75	71,5	70,5	71,5	69	66,5	77,5
*DW 15	76	75	78,5	74	70	70,5	71,5	70,5	67	77,5
*DW 25	77,5	77,5	79,5	83	77	75	70	64	50	80
*DW 30	76	77	78,5	81,5	76,5	75,5	71,5	65	51	80
*DW 40	75	76,5	77,5	81	76	76	71,5	65,5	52,5	80
*DW 50	72,5	74,5	80	82	79	75,5	70,5	62,5	50,5	80,5
*DW 60	71	74	80	82	78,5	75,5	70,5	63	51	80,5
*DW 70	69	72,5	79	81	78,5	76	71	64	52,5	80,5
*DW 85	80,5	82	80,5	84	81	78	69,5	66	54	82,5
*DW 100	79,5	80,5	79,5	83,5	80,5	78,5	70,5	67	56	82,5
UDW 115	86,5	88	84	90,5	86	82	74,5	71	58,5	87,5
UDW 130	85	85,5	83	89	85,5	83	76	72	60	87,5

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

## DATATECH - SOUND SPECTRUMS

### DW LW - INTAKE

Model	Sound power level in octave band - front air intake, ducted upward flow.									A-weighted sound power level suction side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
ODW 10	69	70,5	74	68,5	64,5	63	65,5	63	58,5	71
ODW 12	69	70	73,5	67	63	63	66	63	59,5	71
ODW 15	70	69,5	72,5	66	62,5	63	66	64	60	71
ODW 25	72,5	71,5	73	76,5	71	65,5	64	57	48	73,5
ODW 30	70	70	72	76,5	70,5	66,5	64,5	57	48,5	73,5
ODW 40	69	68,5	70,5	76	70,5	66,5	64,5	58	49,5	73,5
ODW 50	72,5	71	76	77,5	71,5	66	63	55	45,5	73,5
ODW 60	71,5	71	76	77,5	71,5	66	63	55	46,5	73,5
ODW 70	70	70,5	76,5	77,5	71,5	66	63	55	47	73,5
ODW 85	66,5	69	74	78,5	73,5	68,5	67	60	47,5	75,5
ODW 100	68	67,5	72,5	77,5	73	69	68	61,5	49,5	75,5

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted

Model	Sound pressure level octave-band - Air discharge to the bottom raised floor and air intake from the top ducted, or air discharge to the top ducted and air intake from the bottom/rear									A-weighted sound power level suction side
	Central frequency [Hz]									
	31,5	63	125	250	500	1000	2000	4000	8000	
*DW 10	74	73	75,5	70,5	66	62,5	65	62,5	57	71
*DW 12	72,5	71,5	75	70	65	63	65	63	58	71
*DW 15	70	70,5	73	67,5	64	63,5	65	64	58,5	71
*DW 25	75	73,5	74,5	78	72	65	63	55,5	46	73,5
*DW 30	73,5	73	74	77,5	72	65	63,5	56,5	47	73,5
*DW 40	73	72	74	77,5	71,5	65,5	64	57	48	73,5
*DW 50	69,5	72	77,5	78	72	65	62	53,5	44	73,5
*DW 60	70	71	77	77,5	72	65,5	63	55	46	73,5
*DW 70	70	70,5	76,5	77,5	71,5	66	63	55	47	73,5
*DW 85	70	70,5	75,5	79	74	67,5	66	59	46,5	75,5
*DW 100	69	68	74,5	78,5	73,5	68,5	67	60	48	75,5
UDW 115	77	78,5	82	86,5	76,5	74	70,5	65,5	54	81
UDW 130	75,5	78,5	80,54	86	75	75	72	66	55	81

Conditions: nominal air flow and 20Pa external static pressure Air discharge under raised floor or ducted



## INSTALLATIONS RECOMMENDATIONS

### LOCATION

Strictly allow clearances as indicated in the catalogue.

Please check that there isn't any obstructions on the suction of the finned coil and on the discharge of the fans

Locate the unit in order to be compatible with environmental requirements (sound level, integration into the site, etc.).

### ELECTRICAL CONNECTIONS

Check the wiring diagram enclosed with the unit, in which are always present all the instructions necessary to the electrical connections.

Supply the unit at least 12 hours before start-up, in order to turn crankcase heaters on. Do not disconnect electrical supply during temporary stop periods (i.e. weekends).

Before opening the main switch, stop the unit by acting on the suitable running switches or, if lacking, on the remote control.

Before servicing the inner components, disconnect electrical supply by opening the main switch.

The electric supply line must be equipped with an automatic circuit breaker (to be provided by the installer).

### HYDRAULIC CONNECTIONS

Carefully vent the system, with pump turned off, by acting on the vent valves. This procedure is fundamental: little air bubbles can freeze the evaporator causing the general failure of the system.

Drain the system during seasonal stops (wintertime) or use proper mixtures with low freezing point. In case of temporary stop periods an electric heater should be installed on the evaporator and hydraulic circuit.

Install the hydraulic circuit including all the components indicated in the recommended hydraulic circuit diagrams (expansion vessel, flow switch, strainer, storage tank, vent valves, shut off valves, flexible connections, etc.).

Connect the flow switch, which is furnished on all units, not fitted. Follow the instructions enclosed with the units.

### START UP AND MAINTENANCE OPERATIONS

Strictly follow what reported in use and maintenance manual. All these operations must be carried on by trained personnel only.

