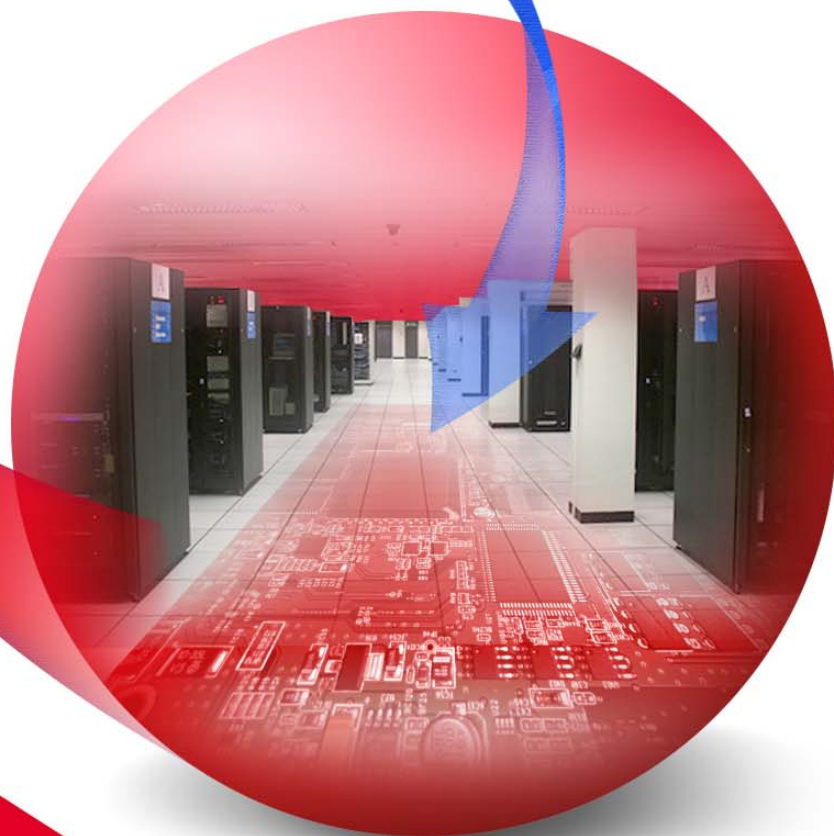


**APARATE DE CLIMATIZARE VERTICALE "CLOSE CONTROL"**  
**VERTICAL AIR CONDITIONERS "CLOSE CONTROL"**



**GEO DATA**  
Air Conditioning Systems





#### VERTICAL AIR CONDITIONERS TYPE "CLOSE CONTROL"

Precision or "close control" air conditioners are mainly designed for cooling electronic equipments, rather than for personal comfort. Over the years, electronic equipments positioned in modern technological rooms are subjected to a considerable increase in power consuming per unit of surface area.

The DC type conditioners with centrifugal fans with **backward blades** with EC motor installed as standard, have been developed to handle this new situation and guarantee maximum reliability and precision in applications such as: High-performance computers rooms, Internet data centres, Fixed telecom networking, Storage servers, Museums, Archives and Laboratories.

#### STANDARD UNIT DESCRIPTION

- ✓ **STRUCTURE** in paint-finished sheet steel with epoxy powder paint in the colour RAL7021, with external panels coated well insulated. Reduced overall dimensions.
- ✓ **SCROLL COMPRESSORS.**
- ✓ **FINNED PACK COOLING COIL** in copper-aluminium with large front surface to reduce air transit speed and reduced number of rows to reduce the dehumidification process. The coil is equipped with a drip tray in stainless steel with flexible drain pipe.
- ✓ **VENTILATION SECTION** with backward blade centrifugal fans with EC motor (Electronically commutated).
- ✓ **G4 FILTERS** (standard). Various options are available for filters with higher efficiency levels.

#### APARATE DE CLIMATIZARE VERTICALE "CLOSE CONTROL"

*Aparatele de climatizare precizie sau "close control" sunt proiectate mai mult pentru racirea echipamentelor electrice, decat pentru confortul personal. De-a lungul anilor, echipamentele electronice amplasate in incaperi tehnologice moderne au fost supuse unei cresteri considerabile in ceea ce priveste consumul de putere pe unitate de suprafata.*

*Aparatele de climatizare de tipul DC cu ventilatoare centrifugale cu **palete incovoiate**, cu motor EC standard instalat, au fost realizate pentru a face fata acestei noi situatii si sa garanteze maximul de incredere si precizie in aplicatii de tipul: in incaperi cu calculatoare de inalta performanta, centre de date pe internet, pentru crearea de retele fixe de telecomunicatii, servere de stocare, muzee, arhive si laboratoare.*

#### DESCRIEREA UNITATII STANDARD

- ✓ **STRUCTURA** din tabla de otel vopsita cu pudra epoxidica de culoare RAL7021, cu panouri externe acoperite, bine izolate. Dimensiuni de gabarit reduce.
- ✓ **COMPRESOARE SCROLL.**
- ✓ **ARIPIOARELE DE RACIRE ALE BOBINEI SUNT INFASURATE** in cupru-aluminiu cu suprafata frontala mare pentru reducerea tranzitului vitezei aerului si pentru a reduce numarul de randuri pentru a diminua procesul de dezumidificare. Bobina este echipata cu o tava pentru captarea picaturilor din otel inoxidabil cu teava de scurgere flexibila.
- ✓ **SECTIUNEA DE VENTILATIE** cu ventilatoare centrifugale cu palete incovoiate, cu motor EC (comutat Electronic).
- ✓ **FILTRU G4** (standard). Sunt disponibile diverse optiuni pentru filtrele cu nivele mai mari de eficienta.

- ✓ **REFRIGERATING CIRCUIT**, in conformity with the PED directive, complete with thermostatic expansion valve, filter, liquid gauge, solenoid valve, liquid receiver, safety valve and high and low pressure switches.
- ✓ **ELECTRICAL PANEL** with main interlocking switch and phase sequence relay. The secondary circuit is powered at low voltage of 24 Vac.
- ✓ **MICROPROCESSOR CONTROL** with predisposition for local network management and automatic rotation of multiple units.
- ✓ **HUMIDIFIER.**
- ✓ **ELECTRIC HEATERS.**

- ✓ **CIRCUITUL FRIGORIFIC**, in conformitate cu directiva PED, este echipat cu ventil de laminare termostatic, filtru, indicator al nivelului de lichid, ventil electromagnetic, rezervor de lichid, ventil de siguranta si intrerupatoare de inalta si joasa presiune.
- ✓ **PANOU ELECTRICE** cu intrerupator principal de centralizare si cu releu cu faza de secventa. Circuitul secundar este alimentat la o tensiune pasa de 24 Vac.
- ✓ **MICROPROCESORUL DE CONTROL** cu predispozitie pentru retea locala de management si rotatie automata a unitatilor multiple.
- ✓ **UMIDIFICATOR.**
- ✓ **INCALZITOARE ELECTRICE.**

## UNIT IDENTIFICATION

## IDENTIFICAREA UNITATII

DC	E	-	DXA	MR	24	/	CHD	U	ST	E
1	2		3	4	5		6	7	8	9

### 1 SERIES:

DATA CENTER, type vertical air conditioners.

### 2 REFRIGERANT TYPE:

E = R410A  
C = R407C  
A = R134a  
W = Water

### 3 TYPOLOGY:

DXA = Refrigerant direct expansion unit with remote air condensation  
DXW = Refrigerant direct expansion unit with water condensation  
CWR = Cooled water units

### 4 POWER RANGE:

SR = SMALL  
MR = MEDIUM  
LR = LARGE  
XR = EXTRA LARGE

### 5 OPERATING (REFRIGERATING) CURRENT

### 6 VERSION:

C00 = Cooling only  
C0D = Cooling and Dehumidification (\*)  
CH0 = Cooling and Umidification  
CHD = Cooling / Humidification / Dehumidification  
(\*) on demand, the version with finned coiled water post heater is also available, version C0W

### 7 AIR DIRECTION (Suction / Discharge):

U = UNDER (Suction from the top – Discharge from the bottom)  
O = OVER (Suction from the front - Discharge from the top)  
R = REAR (Suction from the rear – Discharge from the top)  
B = BOTTOM (Suction from the bottom - Discharge from the top)

### 8 SET-UP:

ST = Standard  
LC = Compressor placed outside  
DC = Double cooling coil  
FR = Free - Cooling  
CC = Constant Climate

### 9 FAN TYPE:

E = Backward blade centrifugal fans with EC motor (Electronically commutated)

### 1 SERII:

DATA CENTER, tip aparate de climatizare verticale.

### 2 TIPUL DE AGENT FRIGORIFIC:

E = R410A  
C = R407C  
A = R134a  
W = Apa

### 3 TIPOLOGIA:

DXA = Unitate cu expansiune directa cu condensator racit cu aer la distanta  
DXW = Unitate cu expansiune directa cu condensator racit cu apa  
CWR = Unitati pentru racirea apei

### 4 GAMA DE PUTERE:

SR = SMALL (MIC)  
MR = MEDIUM (MEDIU)  
LR = LARGE (MARE)  
XR = EXTRA LARGE (FOARTE MARE)

### 5 MOD DE OPERARE (FRIGORIFIC):

### 6 VERSIUNE:

C00 = numai Racire  
C0D = Racire si Dezumidificare(\*)  
CH0 = Racire si Umidificare  
CHD = Racire/ Umidificare/ Dezumidificare  
(\*) la cerere, versiunea cu aripioare spiralate pentru incalzirea apei este de asemenea disponibila, versiunea C0W

### 7 DIRECTIA AERULUI (Aspiratie / Refulare):

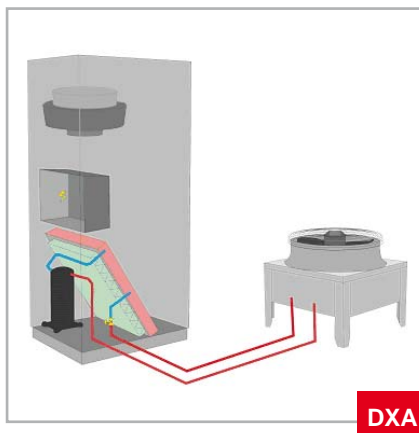
U = SUB (Aspira din partea de sus – Refuleaza din partea de jos)  
O = PESTE (Aspira din fata – Refuleaza din partea de sus)  
R = SPATE (Aspira din spate – Refuleaza din partea de sus)  
B = JOS (Aspira din partea de jos – Refuleaza din partea de sus)

### 8 SETARE:

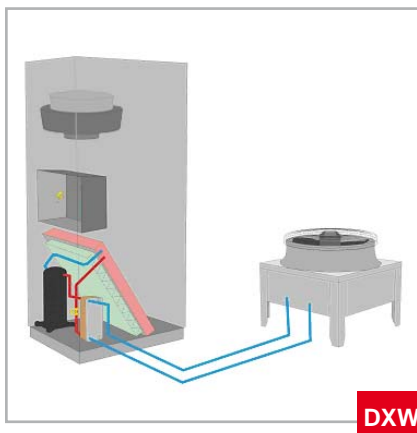
ST = Standard  
LC = Compresor amplasat afara  
DC = Bobina de racire dubla  
FR = Free - Cooling  
CC = Climat Constant

### 9 TIPUL VENTILATORULUI:

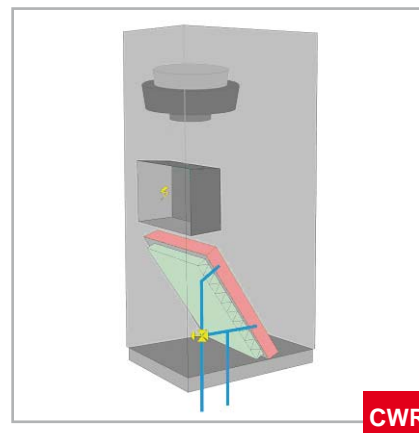
E = Ventilatoare centrifugale cu palete incovoiate cu motor EC (Comutat Electronic)



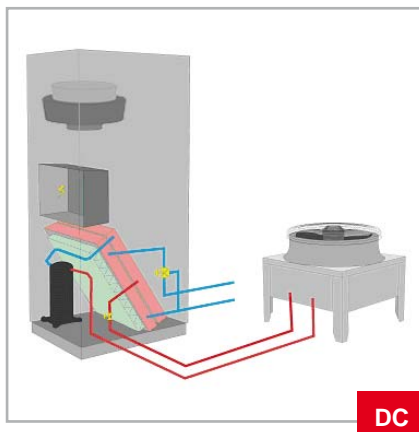
DXA



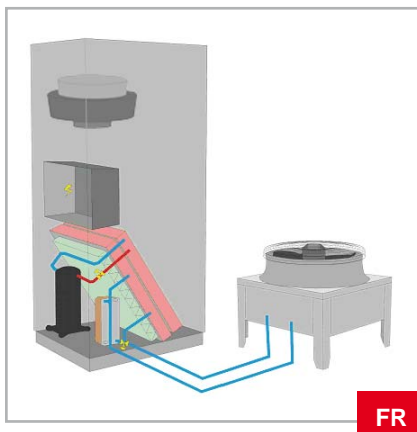
DXW



CWR



DC



FR

**DXA** *Unitate cu expansiune directa cu condensator racit cu aer la distanta*

**Refrigerant direct expansion unit with remote air condenser**

Units with compressor on board; the heat from the technical room is dissipated by an external finned coil condenser, connected during installation. Remote condensers are available in standard and silenced version.

*Unitatile cu compresor la bord; caldura din incaperile tehnice este disipata de un condensator extern echipat cu o bobina cu aripioare, conectat in timpul instalarii. Condensatoarele de la distanta sunt disponibile in versiune standard si mod silentios.*

**DXW** *Unitate cu expansiune directa cu condensator racit cu apa*

**Refrigerant direct expansion unit with water condensation**

Units with compressor on board; the heat from the technical room is dissipated by a brazed plate condenser, placed inside the unit, with pressostatic valve. In comparison to DXA set-up, these units have the advantage that the refrigerant circuit is realized in factory and pre-charged with refrigerant, not needing the laying of refrigerant lines.

*Unitatile cu compresor la bord; caldura din incaperile tehnice este disipata de un condensator cu placa lipita, plasat in interiorul unitatii, cu presostat. In comparatie cu setarea DXA, aceste unitati au avantajul ca circuitul agentului frigorific este realizat in fabrica si pre-incarcat cu agent frigorific, neavand nevoie de stabilirea liniilor de agent frigorific.*

**CWR** *Unitati de racire ale apei*

**Cooling water units**

Units without compressor on board, with a finned coil, fed by refrigerated water, that removes the heat from the technical room. The microprocessor control, with the temperature sensor, allows a precise control, acting on a 3-way modulating valve. Units used in presence of water chillers (also in free-cooling version).

*Unitatile fara compresor la bord, cu o baterie, alimentat cu apa refrigerata, care inlatura caldura din incaperile tehnice. Controlul microprocesorului cu senzor de temperatura permite un control precis, actionand un ventil 3-cai modulator. Unitatile folosite in prezenta racitoarelor de apa (de asemenea in versiunea free-cooling).*

## DC Unitate cu bobina dubla de racire

### Unit with double cooling coil

DC units are equipped with a dual air cooling system. In standard running, the air cooling is provided by a refrigerated water finned coil; in the case of lacking of refrigerated water, the controller provides for the automatic start of the on board compressor. The heat of the technical room is dissipated through a remote finned coil condenser or through a plate heat exchanger. DC units, being equipped with a dual air cooling system, assure higher safety of continuous running.

*Unitatile DC sunt echipate cu un sistem dublu de racire a aerului. In functionarea standard, racirea aerului este realizata de catre o baterie cu apa refrigerata; in cazul lipsei apei refrigerate, controlerul furnizeaza pornirea automata a compresorului la bord. Caldura din incaperile tehnice este disipata printr-un condensator cu baterie de la distanta sau printr-o placa cu schimbator de caldura. Unitatile DC, fiind echipate cu un sistem dublu de racire a aerului, asigura siguranta sporita la functionarea in mod continuu.*

## FR Unitate cu functionare in modul Free-Cooling

### Unit with operation in free-cooling mode

These units take advantage of the possibility of heat rejection directly to the outside environment, when the external air temperature is lower than the temperature of the technical room. The higher this temperature difference, the higher the convenience for energy saving. The controller allows an optimal running of the system, as a function of the inside set temperature and the external air temperature. Besides the direct expansion finned coil, these units are equipped of a finned coil, fed by a water-glycol mixture. During summer, a 3-way valve bypasses the water finned coil and the heat rejection is provided by the direct expansion finned coil. As soon as the climate conditions allow it, the 3-way valve opens the passage to the finned coil of the water-glycol mixture, that is cooled down by outside dry-coolers.

*Aceste unitati prezinta avantaj prin posibilitatea de evacuare a caldurii direct in mediul inconjurator, cand temperatura aerului de afara este mai mica decat temperatura din incaperile tehnice. Cu cat este mai mare aceasta diferenta de temperatura, cu atat mai mare este gradul de economisire a energiei. Controlerul permite o functionare optima a sistemului, ca o functie a setarii temperaturii interioare si a temperaturii externe a aerului. In afara de expansiunea directa a bateriei, aceste unitati sunt echipate cu o baterie alimentata de un amestec de apa-glycol. Pe timpul verii, un ventil 3-cai deviaza bateria cu apa si evacuarea caldurii este realizata de catre bateria cu expansiune directa. De indata ce conditiile climatice permit, ventilul 3-cai deschide trecerea catre baterie a amestecului apa-glycol, care este racit de racitoarele de afara.*

## CC Unitati cu Climat Constant

### Constant Climate units

These units represent the solution for places that require highly precise control of the heating and humidity conditions. This control is performed by the microprocessor, which implements a constant and extremely accurate variation in output and production of steam. The system guarantees a tolerance of ambient temperature of  $\pm 0,3$  °C and  $\pm 5$  % of the relative humidity. These units are used in measurement laboratories, texture industries, tobacco industries, metrological rooms.

*Aceste unitati reprezinta solutia pentru locurile care necesita un control de precizie inalta in ceea ce priveste conditiile de caldura si umiditate. Acest control este realizat de catre microprocesor, care impune o variatie extrem de precisa si constanta in randamentul si in producerea de abur. Sistemul garanteaza o toleranta a temperaturii ambientului de  $\pm 0,3$  °C si de  $\pm 5$  % a umiditatii relative. Aceste unitati sunt folosite in laboratoarele de masurare, industriile textile, industria tutunului, camere metrologice.*

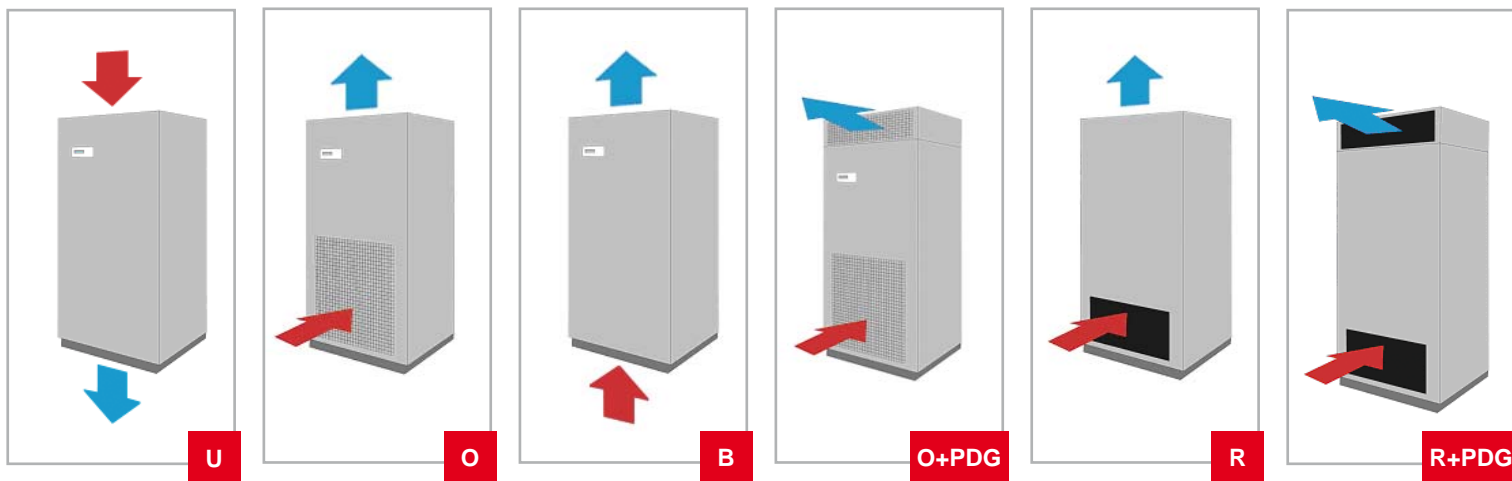
## LC Unitati cu expansiune directa cu compresor extern

### Direct expansion units with external compressor

Units without compressor on board; the heat from the technical room is dissipated by a remote air-to-refrigerant or water-to-refrigerant moto-condensing unit, connected during installation. Remote moto-condensing units are available in standard and silenced version.

*Unitatile fara compresor la bord; caldura din incaperile tehnice este disipata prin grupul compresor-condensator izolat, apa-agent frigorific sau aer-agent frigorific, care e conectat in timpul instalarii.*

*Grupurile moto-compresor-condensator la distanta sunt disponibile in versiunea standard si silentioasa.*



### U Unitati descendente

#### Downflow units

These units have suction from the top and discharge from the bottom. These are normally installed in raised floors, to constitute the plenum for distribution through the ambient.

*Aceste unitati aspira prin partea de sus si refuleaza prin partea de jos. Acestea sunt instalate in mod normal in pardoselile ridicate, pentru a constitui plenum pentru distribuirea prin ambient.*

### O B Unitati ascendente

#### Upflow units

These units have air discharge upwards, normally connected to distribution channels or a false ceiling. The most common type is that with air return at the front of the unit (O), but versions are also available with air return from the base of the conditioner (B). Among the available accessories, there is a plenum for air diffusion into environment, with grille with double order fins and with available opening also on 2 or 3 sides.

*Aceste unitati au refularea aerului in partea de sus, in mod normal conectate la canale de distributie sau tavan fals. Cel mai obișnuit tip de unitate este cel cu retur al aerului in partea din fata a unitatii (O), dar sunt disponibile si versiuni cu retur a aerului de la baza aparatului de climatizare (B). Printre accesoriile disponibile se gasesc si un plenum pentru raspandirea aerului in mediul inconjurator, cu grilaj cu aripioare cu dubla comanda si cu disponibilitate de deschidere de asemenea pe 2 sau 3 parti.*

### R Unitati ascendente cu retur pe spate

#### Upflow units with rear return

These units have air discharge upwards, normally connected to distribution channels or a false ceiling. The unit, normally placed outside the area to be conditioned, requires air return at the rear, to take the air from the ambient.

*Aceste unitati au refularea aerului in partea de sus, in mod normal conectate la canale de distributie sau tavan fals. Unitatea, amplasata in mod normal in afara zonei conditionate, necesita retur al aerului in spate, luand aerul din mediul ambiant.*

## CONTROL

Each unit of the DATA CENTER series is equipped with an advanced control, a microprocessor at 16 bit and a **FLASH MEMORY** to guarantee high speed software performance and the possibility of managing multi-language configuration masks and different serial communication protocols.

The control, receiving temperature and humidity (if present) values, activates the different functions (cooling – heating – humidification and dehumidification) in order to maintain the set point conditions.

All the safe protections are linked to the control software, allowing a high security level in case of failure.

The user interface is by means of a LCD video terminal, where it is possible to directly manage the control parameters, while the main parameters are protected by a password, guaranteeing higher protection.

## CONTROL

*Fiecare unitate a seriilor DATA CENTER este echipata cu un control avansat, un microprocesor de 16bit si o „MEMORIE FLASH” pentru a garanta performanta de viteza inalta software si posibilitatea de a gestiona configuratia in mai multe limbi si diferite protocoale de comunicatie de serie.*

*Controlul, receptionand valori de temperatura si umiditate (daca exista), activeaza diferite functii (racire-caldura-umidificare si dezumidificare) in scopul de a mentine conditiile stabilite.*

*Toate masurile de protectie sunt legate de software-ul de control, permitand un nivel inalt de securitate in caz de defectiune. Legatura utilizatorului cu interfața se face prin intermediul unui terminal video LCD, de unde este posibila administrarea directa a parametrilor de control, in timp ce principalii parametri sunt protejati de o parola, garantand o protectie inalta.*

All the electronic boards can be connected to a local network named **pLAN** (Local Area Network) that is able to manage 8 units at most.

(For more information, see the control service manual).

Also, the management of a electronic expansion valve (**EEV**) is available.

## CONNECTIVITY

Some electronic boards or communication protocols (optionals) are available. They allow the connection to the main BMS.

- **RS485 Board** for the direct connection to CAREL, MODBUS protocols and to external GATEWAY.
- **RS232 Board** for the management of an analogical or GSM modem for SMS sending.
- **Ethernet Board** to interface with communication standards such as SNMP (v1-v2-v3), FTP, HTTP, Bacnet/Ethernet and BacnetIP.
- **BACnet/MSTP Board** in RS485.
- **CANbus Board**.
- **LON WORKS Board** for FTT-10A or RS485 interface.
- **TREND Board**.

Also

- **Memory expansion** for the analysis of the alarm history through the specific program WINLOAD.
- **Clock board** that allows the local management of alarm history, besides the time band running.

(For more information, see the control service manual).

## ACCESSORIES

- **DFA**, Dirty filter alarm;
- **FAA**, Flooding alarm;
- **SFA**, Smoke/Fire alarm;
- **PFA**, Power failure alarm;
- **WCV**, Water coil + 3-way valve;
- **HBP**, Capacity step control (hot gas by-pass);
- **HBI**, Continuous capacity control (hot gas by-pass + liquid injection);
- **SIC**, Sound-insulation caps on compressors;
- **CRV**, Compressor suction/discharge valves;
- **HLM**, High/low refrigerating pressure gauges;
- **EEV**, electronic thermostatic valve;
- **PDG**, Plenum for air diffusion into environment, with grille (for versions O / B / R);
- **EAF**, External air intake with filter;
- **BFX**, base frame, height adjustable H=300/500 ±25 mm (for U units only);
- **BDX**, base frame, with deflector and height adjustable H=300/500 ±25 mm (for U units only);
- **NRG**, Non return air gate, motor-driven for U;
- **ONG**, Overpressure type non return air gate, with for O/B/R;
- **SB5**, RS485 type serial board;
- **RCP**, Remote control panel;
- **ACB**, Alarm log clock board;
- **OTS**, Air discharge temperature sensor;
- **FF5**, Filter section with F5 grade (according to EN 779);
- **FF7**, Filter section with F7 grade (according to EN 779);
- **2VW**, 2-way pressure valve for well water;
- **2VT**, 2-way pressure valve for tower water;
- **3VT**, 3-way pressure valve for tower water.

Toate tablourile electronice pot fi conectate la o retea locala numita **pLAN** (Local Area Network) care este in masura sa administreze 8 unitati cel mult.

(Pentru mai multe informatii vedeti manualul service-ului de control)

De asemenea, este disponibila gestionarea unui ventil de laminare electronic (**EEV**).

## CONECTIVITATE

Unele tablouri electronice sau protocoale de comunicatie (optionale) sunt disponibile. Acestea permit conexiunea cu BMS-ul principal.

- **Tablou RS485** pentru conexiunea directa la CAREL, protocoale MODBUS si cu GATEWAY extern.
- **Tablou RS232** pentru gestionarea unui analogic sau modul GSM pentru trimiterea de SMS.
- **Tablou Ethernet** pentru interfata cu comunicare standard cum ar fi SNMP(v1-v2-v3), FTP, HTTP, Bacnet/Ethernet si BacnetIP.
- **Tablou BACnet/MSTP** in RS485.
- **Tablou CANbus**.
- **Tablou LON WORKS** pentru FTT-10A sau interfata RS485.
- **Tablou TREND**.

De asemenea

- **Expansiune memorie** pentru analiza arhivei de alarma printr-un program specific WINLOAD.
  - **Tablou Clock** care permite gestionarea locala a arhivei de alarma, in afara de intervalul de timp de functionare.
- (Pentru mai multe informatii vedeti manualul service-ului de control)

## ACCESORII

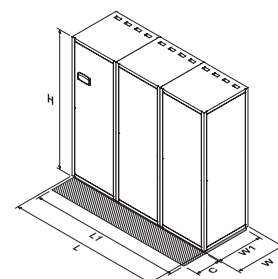
- **DFA**, Filtru de alarma infectat;
- **FAA**, Alarma inundatie;
- **SFA**, Alarma de Fum/Foc;
- **PFA**, Alarma defectiune putere;
- **WCV**, Bobina de apa + Ventil 3-cai;
- **HBP**, Capacitate Control ( gaz fierbinte by-pass);
- **HBI**, Capacitate de control continua (gaz fierbinte by-pass + injectie lichid);
- **SIC**, Capace de izolare fonica pe compresoare;
- **CRV**, Ventile aspiratie/ refulare compresor;
- **HLM**, Indicatoare de inalta/ joasa presiune a agentului frigorific;
- **EEV**, Ventil termostatic electronic;
- **PDG**, Plenum pentru difuzia aerului in mediul inconjurator, cu grilaj (pentru versiunile O / B / R);
- **EAF**, Admisie de aer extern cu filtru;
- **BFX**, Cadru de baza, inaltime ajustabila H=300/500 ±25 mm (numai pentru unitati U);
- **BDX**, Cadru de baza, cu deflectoare si inaltime ajustabila H=300/500 ±25 mm (numai pentru unitati U);
- **NRG**, Rasuflatoare fara retur, actionata de un motor pentru U;
- **ONG**, Rasuflatoare fara retur tip suprapresiune, pentru O/B/R;
- **SB5**, Tipul de serie tablou RS485;
- **RCP**, Panou de control de la distanta;
- **ACB**, Alarma tablou;
- **OTS**, Senzor de temperatura pentru refularea aerului;
- **FF5**, Element de filtru multicelular cu clasa F5 (conform EN 779);
- **FF7**, Element de filtru multicelular cu clasa F7 (conform EN 779);
- **2VW**, Ventil de presiune 2-cai pentru apa de fantana;
- **2VT**, Ventil de presiune 2-cai pentru turn de apa;
- **3VT**, Ventil de presiune 3-cai pentru turn de apa.

**APARATE DE CLIMATIZARE cu design vertical, condensare cu expansiune directa cu aer (DXA) sau apa (DXW)**
**AIR CONDITIONERS vertical design, direct expansion with air (DXA) or water (DXW) condensation**

TYPE - TIP		SR06	SR07	SR09	SR11	SR14	SR16	SR19	SR21	MR26	MR32	MR40	MR50
Power supply - Sursa de alimentare		230V/1N/50Hz				400V/3N/50Hz			400V/3/50Hz				
Total cooling capacity <sup>1)</sup> - Capacitate de racire totala <sup>1)</sup>	<b>kW</b>	6,6	7,2	8,7	11,6	14,6	16,2	19,3	22,1	25,6	33,5	37,5	45,6
Sensible cooling capacity <sup>1)</sup> - Capacitate de racire sensibila <sup>1)</sup>	<b>kW</b>	6,3	7,0	8,6	10,7	12,7	15,2	17,7	20,3	23,4	31,3	33,8	43,1
SHR		0,96	0,98	0,99	0,92	0,87	0,94	0,92	0,92	0,91	0,93	0,90	0,95
Electrical power input <sup>2)</sup> - Putere electrica ceruta <sup>2)</sup>	<b>kW</b>	1,7	1,8	2,2	2,9	3,8	3,8	4,6	5,4	6,0	8,0	8,8	10,0
<b>FAN SECTION - SECTIUNE VENTILATOR</b>													
Nominal air flow - Flux de aer nominal	<b>m<sup>3</sup>/h</b>	1800	2050	2600	2800	3300	4500	4700	5400	6100	8500	8300	11300
Type - Tip		Centrifugal backward curve blade with EC type motor - Palete incovoiate centrifugale cu motor de tip EC											
Number of fans - Numar de ventilatoare		1	1	1	1	1	1	1	1	1	1	1	2
Maximum pressure drop - Cadere maxima de presiune	<b>Pa</b>	215	175	140	75	225	285	245	170	165	135	165	320
Fan nominal power input - Puterea nominala a ventilatorului	<b>kW</b>	0,28	0,30	0,41	0,41	0,52	0,88	0,90	0,90	0,89	1,75	1,26	2,64
Fan power input (FLA) - Puterea ceruta a ventilatorului (FLA)	<b>A</b>	0,47	0,46	0,53	0,5	0,79	1,43	1,41	1,48	1,43	2,92	2,02	4,24
<b>EVAPORATING COIL - BOBINA DE VAPORIZARE</b>													
Type - Tip		Copper tubes and aluminium fins coil - Tevi de cupru si bobina cu aripioare din aluminiu											
Frontal surface - Suprafata frontala	<b>m<sup>2</sup></b>	0,34	0,34	0,34	0,34	0,61	0,61	0,61	0,61	0,98	0,98	1,30	1,30
Frontal air speed - Viteza frontala a aerului	<b>m/s</b>	1,45	1,65	2,10	2,26	1,50	2,05	2,14	2,46	1,74	2,42	1,74	2,37
<b>COMPRESSOR - COMPRESOR</b>													
Type - Tip		ermetico scroll - ermetic scroll											
Number / Circuit - Numar / Circuit		1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Number of stages - Numar trepte de comprimare		1 / 100	1 / 100	1 / 100	1 / 100	1 / 100	1 / 100	1 / 100	1 / 100	1 / 100	1 / 100	1 / 100	1 / 100
Max power input x) - Putere maxima ceruta	<b>kW</b>	2,6	2,8	3,5	4,2	5,2	5,5	6,7	7,9	8,6	11,5	12,6	15,4
Starting current (LRA) - Curent de pornire (LRA)	<b>A</b>	58	61	82	48	63	63	66	73	96	131	144	158
<b>INTEGRATED HUMIDIFIER (opt) - UMIDIFICATOR INTEGRAT (optional)</b>													
Nominal capacity <sup>4)</sup> - Capacitate nominala <sup>4)</sup>	<b>kg/h</b>	1,5	1,5	3	3	5	5	5	5	5	5	5	5
Electrical power input - Putere electrica ceruta	<b>kW</b>	1,12	1,12	2,25	2,25	3,75	3,75	3,75	3,75	3,75	3,75	3,75	3,78
Operating current (FLA) - Curent de operare (FLA)	<b>A</b>	4,9	4,9	9,8	9,8	5,4	5,4	5,4	5,4	5,4	5,4	5,4	5,4
<b>ELECTRICAL HEATING (opt) - INCALZIRE ELECTRICA (opt.)</b>													
Steps - Trepte		1	1	1	1	1	1	1	1	1	1	2	2
Heating capacity - Capacitatea de incalzire	<b>kW</b>	1,5	1,5	1,5	1,5	5,0	5,0	5,0	5,0	5,0	5,0	10,0	10,0
Operating current (FLA) - Curentul de operare (FLA)	<b>A</b>	6,5	6,5	6,5	6,5	7,2	7,2	7,2	7,2	7,2	7,2	14,2	14,2
<b>FILTER SECTION - SECTIUNE FILTRU</b>													
Efficiency - Eficacitate		G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
<b>CONNECTIONS - CONEXIUNI</b>													
Gas discharge - DXA version - Refulare gaz - Versiunea DXA	<b>mm</b>	16	16	16	16	18	18	18	22	22	22	28	28
Liquid - DXA version - Lichid - Versiunea DXA	<b>mm</b>	12	12	12	12	12	12	16	16	16	16	16	16
Condensing Water IN/OUT - DXW version Condensarea apei IN/OUT - Versiunea DXW	<b>DN (inch)</b>	25 (1")	25 (1")	25 (1")	25 (1")	25 (1")	25 (1")	25 (1")	25 (1")	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)
Humidifier discharge water - Umidificator de refulare a apei	<b>G-Male</b>	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Humidifier supply water - Umidificator pentru furnizarea apei	<b>mm</b>	32	32	32	32	32	32	32	32	32	32	32	32
<b>REMOTE AIR CONDENSING (ONLY DXA VERSION) - CONDENSAREA AERULUI LA DISTANTA (NUMAI VERSIUNEA DXA)</b>													
HR-AX (Standard)		S06	S07	S09	S11	S14	S16	S19	S21	M26	M32	M40	M50
HR-AX LSR (low noise - nivel scazut de zgomot)		S06L	S07L	S09L	S11L	S14L	S16L	S19L	S21L	M26L	M32L	M40L	M50L
<b>WATER CONDENSER (DXW VERSION) - CONDENSATOR APA (VERSIUNEA DXW)<sup>5)</sup></b>													
Water flowrate - Debit de apa	<b>kg/s</b>	0,38	0,42	0,51	0,67	0,85	0,93	1,12	1,28	1,51	1,94	2,25	2,58
Pressure drop - Caderea de presiune	<b>Pa</b>	29	35	31	27	42	28	40	39	33	36	27	35
<b>SOUND LEVEL - NIVEL DE ZGOMOT <sup>6)</sup></b>													
SPL "Under"	<b>dB(A)</b>	49	50	51	52	52	55	55	55	55	57	59	59
SPL "Over"	<b>dB(A)</b>	54	56	57	57	57	60	61	61	63	63	65	65
Weight - DXA - Greutate - DXA	<b>kg</b>	140	170	180	210	230	270	310	340	380	470	570	640
Weight - DXW - Greutate - DXW	<b>kg</b>	160	190	200	230	250	305	345	375	420	510	610	680
<b>DIMENSIONS - DIMENSIUNI</b>													
Length(L) - Lungime (L)	<b>mm</b>	670	670	670	670	770	770	770	770	1280	1280	1680	1680
Depth (W) - Adancime (W)	<b>mm</b>	500	500	500	500	650	650	650	650	890	890	890	890
Height (H) - Inaltime (H)	<b>mm</b>	1750	1750	1750	1750	1980	1980	1980	1980	1980	1980	1980	1980
<b>DISTANCES FROM THE UNIT - DISTANTE DE LA UNITATE</b>													
W	<b>mm</b>	500	500	500	500	750	750	750	750	750	750	750	750
W1	<b>mm</b>	470	470	470	470	720	720	720	720	720	720	720	720
L	<b>mm</b>	770	770	770	770	770	770	770	770	1160	1160	1500	1500
L1	<b>mm</b>	740	740	740	740	740	740	740	740	1130	1130	1470	1470
C	<b>mm</b>	700	700	700	700	700	700	700	700	700	700	700	700

- 1) condensing; Refrigerante/Refrigerant fluid R410A condensare 24°C db 17,1°C wb; 50% R.H. - 45°C; Agent frigorific R410A
- 2) It's possible to use with different values; check with GEODATA min and max values. Este posibil sa se utilizeze cu diferite valori; verificati cu GEODATA valorile min si max.
- 3) Value when the signal is max. Valoare cand semnalul este maxim
- 4) When water conductivity is between 350-750 uS/cm<sup>3</sup>. Cand conductibilitatea apei este intre 350-750 uS/cm<sup>3</sup>
- 5) External air at 24°C; 50% R.H. and delta T 5°C. Aerul exterior la 24°C; 50% R.H. si delta T 5°C.
- 6) Sound pressure level @ 1 mt in free field. Nivelul de zgomot este 1 mt in loc deschis

Technical data and measures are not binding. GEODATA reserves the right to make changes at any time without prior notice.  
Datele tehnice si masuratorile nu sunt obligatorii. GEODATA isi rezerva dreptul de a face schimbari in orice moment, fara notificare prealabila.

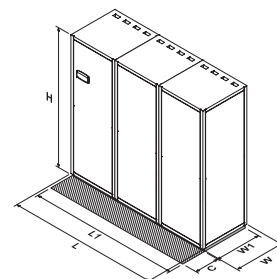


**APARATE DE CLIMATIZARE cu design vertical, condensare cu expansiune directa cu aer (DXA) sau apa (DXW)**
**AIR CONDITIONERS vertical design, direct expansion with air (DXA) or water (DXW) condensation**

TYPE - TIP		LR26	LR32	LR40	LR45	LR48	LR58	LR65	LR75	LR90	LR100
Power supply - Sursa de alimentare		400V/3/50Hz									
Total cooling capacity <sup>1)</sup> - Capacitate de racire totala <sup>1)</sup>	<b>kW</b>	30,4	32,9	39,3	46,0	50,0	57,7	67,0	75,0	89,6	99,4
Sensible cooling capacity <sup>1)</sup> - Capacitate de racire sensibila <sup>1)</sup>	<b>kW</b>	27,7	30,6	35,8	43,6	46,2	53,7	61,6	69,1	83,2	89,6
SHR		0,91	0,93	0,91	0,95	0,92	0,93	0,92	0,92	0,93	0,90
Electrical power input <sup>2)</sup> - Putere electrica ceruta <sup>2)</sup>	<b>kW</b>	7,5	7,6	9,2	10,8	11,9	13,9	16,0	17,6	19,9	23,0
<b>FAN SECTION - SECTIUNE VENTILATOR</b>											
Nominal air flow - Flux de aer nominal	<b>m<sup>3</sup>/h</b>	7200	8200	8900	11500	11900	14500	16100	17300	21100	22000
Type - Tip		Centrifugal backward curve blade with EC type motor - Palete incoavoiate centrifugale cu motor de tip EC									
Number of fans - Numar de ventilatoare		1	1	1	2	2	2	2	2	2	3
Maximum pressure drop - Cadere maxima de presiune	<b>Pa</b>	170	190	310	305	280	130	190	340	330	195
Fan nominal power input - Puterea nominala a ventilatorului	<b>kW</b>	1,27	1,78	2,03	2,64	2,65	2,50	3,58	4,15	5,60	4,20
Fan power input (FLA) - Puterea ceruta a ventilatorului (FLA)	<b>A</b>	2,17	2,88	3,11	4,26	4,3	4,12	5,76	6,44	8,92	6,51
<b>EVAPORATING COIL - BOBINA DE VAPORIZARE</b>											
Type - Tip		Copper tubes and aluminium fins coil - Tevi de cupru si bobina cu aripioare din aluminiu									
Frontal surface - Suprafata frontala	<b>m<sup>2</sup></b>	0,98	0,98	1,30	1,30	1,30	1,79	1,79	2,43	2,43	2,43
Frontal air speed - Viteza frontala a aerului	<b>m/s</b>	2,05	2,34	1,86	2,41	2,49	2,25	2,49	1,98	2,41	2,51
<b>COMPRESSOR - COMPRESOR</b>											
Type - Tip		hermetic scroll - ermetic scroll									
Number / Circuit - Numar / Circuit		2 / 1	2 / 1	2 / 1	2 / 1	2 / 1	2 / 2	2 / 2	2 / 2	2 / 2	2 / 2
Number of stages - Numar trepte de comprimare		2 / 50	2 / 50	2 / 50	2 / 50	2 / 50	2 / 50	2 / 50	2 / 50	2 / 50	2 / 50
Max power input x) - Putere maxima ceruta	<b>kW</b>	10,4	11,0	13,4	15,8	17,2	19,9	23,0	25,3	30,8	34,7
Starting current (LRA) - Curent de pornire (LRA)	<b>A</b>	73	73	78	87	113	133	153	169	183	186
<b>INTEGRATED HUMIDIFIER (opt) - UMIDIFICATOR INTEGRAT (optional)</b>											
Nominal capacity <sup>4)</sup> - Capacitate nominala <sup>4)</sup>	<b>kg/h</b>	5	5	5	5	8	8	8	8	8	8
Electrical power input - Putere electrica ceruta	<b>kW</b>	3,75	3,75	3,75	3,75	6,00	6,00	6,00	6,00	6,00	6,00
Operating current (FLA) - Curent de operare (FLA)	<b>A</b>	5,4	5,4	5,4	5,4	8,7	8,7	8,7	8,7	8,7	8,7
<b>ELECTRICAL HEATING (opt) - INCALZIRE ELECTRICA (opt.)</b>											
Steps - Trepte		1	1	2	2	2	2	2	2	2	2
Heating capacity - Capacitatea de incalzire	<b>kW</b>	5,0	5,0	10,0	10,0	10,0	10,0	10,0	15,0	15,0	15,0
Operating current (FLA) - Curentul de operare (FLA)	<b>A</b>	7,2	7,2	14,2	14,2	14,2	14,2	14,2	21,7	21,7	21,7
<b>FILTER SECTION - SECTIUNE FILTRU</b>											
Efficiency - Eficacitate		G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
<b>CONNECTIONS - CONEXIUNI</b>											
Gas discharge - DXA version - Refulare gaz - Versiunea DXA	<b>mm</b>	22	22	28	28	28	2 x 22	2 x 22	2 x 28	2 x 28	2 x 28
Liquid - DXA version - Lichid - Versiunea DXA	<b>mm</b>	16	16	16	16	16	2 x 16	2 x 16	2 x 16	2 x 16	2 x 16
Condensing Water IN/OUT - DXW version Condensarea apei IN/OUT - Versiunea DXW	<b>DN (inch)</b>	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)	32 (1"1/4)
Humidifier discharge water - Umidificator de refulare a apei	<b>G-Male</b>	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Humidifier supply water - Umidificator pentru furnizarea apei	<b>mm</b>	32	32	32	32	32	32	32	32	32	32
<b>REMOTE AIR CONDENSING (ONLY DXA VERSION) - CONDENSAREA AERULUI LA DISTANTA (NUMAI VERSIUNEA DXA)</b>											
HR-AX (Standard)		L26	L32	L40	L45	L48	2X L26	2X L32	2X L40	2X L45	2X L48
HR-AX LSR (low noise - nivel scazut de zgomot)		L26L	L32L	L40L	L45L	L48L	2X L26L	2X L32L	2X L40L	2X L45L	2X L48L
<b>WATER CONDENSER (DXW VERSION) - CONDENSATOR APA (VERSIUNEA DXW)<sup>9)</sup></b>											
Water flowrate - Debit de apa	<b>kg/s</b>	1,65	1,89	2,31	2,62	2,86	3,43	3,85	4,43	5,16	5,84
Pressure drop - Caderea de presiune	<b>Pa</b>	33	34	28	29	34	36	36	36	35	36
<b>SOUND LEVEL - NIVEL DE ZGOMOT <sup>6)</sup></b>											
SPL "Under"	<b>dB(A)</b>	56	57	59	59	59	61	61	63	63	63
SPL "Over"	<b>dB(A)</b>	62	62	64	64	64	66	66	68	68	68
Weight - DXA - Greutate - DXA	<b>kg</b>	400	460	540	580	620	660	790	920	970	1010
Weight - DXW - Greutate - DXW	<b>kg</b>	440	500	580	620	660	710	840	970	1020	1060
<b>DIMENSIONS - DIMENSIUNI</b>											
Length(L) - Lungime (L)	<b>mm</b>	1280	1280	1680	1680	1680	2060	2060	2580	2580	2580
Depth (W) - Adancime (W)	<b>mm</b>	890	890	890	890	890	890	890	890	890	890
Height (H) - Inaltime (H)	<b>mm</b>	1980	1980	1980	1980	1980	1980	1980	1980	1980	1980
<b>DISTANCES FROM THE UNIT - DISTANTE DE LA UNITATE</b>											
W	<b>mm</b>	750	750	750	750	750	890	890	890	890	890
W1	<b>mm</b>	720	720	720	720	720	860	860	860	860	860
L	<b>mm</b>	1160	1160	1500	1500	1500	1880	1880	2500	2500	2500
L1	<b>mm</b>	1130	1130	1470	1470	1470	1850	1850	2470	2470	2470
C	<b>mm</b>	700	700	700	700	700	700	700	700	700	700

- 1) condensing; Refrigerant/Refrigerant fluid R410A  
condensare 24°C db 17,1°C wb; 50% R.H. - 45°C; Agent frigorific R410A
- 2) It's possible to use with different values; check with GEODATA min and max values  
Este posibil sa se utilizeze cu diferite valori; verificati cu GEODATA valorile min si max.
- 3) Value when the signal is max  
Valoare cand semnalul este maxim
- 4) When water conductivity is between 350-750 uS/cm<sup>3</sup>  
Cand conductibilitatea apei este intre 350-750 uS/cm<sup>3</sup>
- 5) External air at 24°C; 50% R.H. and delta T: 5°C  
Aerul exterior la 24°C; 50% R.H. si delta T: 5°C.
- 6) Sound pressure level @ 1 mt in free field  
Nivelul de zgomot este 1 mt in loc deschis

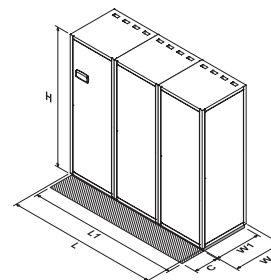
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**APARATE DE CLIMATIZARE cu design vertical, cu apa refrigerata**
**AIR CONDITIONERS vertical design, with refrigerated water**

TYPE - TIP		SR08	SR10	SR12	SR15	SR20	SR27	MR30	MR40	MR45	MR55
Power supply - Sursa de alimentare		230V/1N/50Hz				400V/3/50Hz		400V/3/50Hz			
Total cooling capacity <sup>1)</sup> - Capacitate de racire totala <sup>1)</sup>	<b>kW</b>	7,9	10,5	12,0	15,0	20,7	27,1	30,6	40,3	45,2	55,3
Sensible cooling capacity <sup>1)</sup> - Capacitate de racire sensibila <sup>1)</sup>	<b>kW</b>	6,5	8,7	10,4	12,2	18,2	22,8	27,0	33,0	39,8	45,3
SHR		0,83	0,83	0,87	0,81	0,88	0,84	0,88	0,82	0,88	0,82
<b>FAN SECTION - SECTIUNE VENTILATOR</b>											
Nominal air volume - Volum de aer nominal	<b>m³/h</b>	1700	2225	2880	3000	5960	6000	8450	8450	11500	11500
Type - Tip		Centrifugal backward curve blade with EC type motor Palete incovoiate centrifugale cu motor de tip EC									
Number of fans - Numar de ventilatoare		1	1	1	1	1	1	1	1	2	2
Maximum useful pressure drop - Cadere maxima de presiune	<b>Pa</b>	220	135	105	350	310	265	235	165	290	225
Fan nominal power input - Puterea nominala a ventilatorului	<b>kW</b>	0,28	0,41	0,40	0,83	1,30	1,30	2,08	2,05	2,65	2,66
Fan operating current (FLA) - Curent de functionare ventilator (FLA)	<b>A</b>	0,47	0,54	0,48	1,3	2,1	2,07	3,36	3,33	4,3	4,24
<b>REFRIGERATED WATER COIL - BOBINA APA REFRIGERATA</b>											
Type - Tip		Copper tubes and aluminium fins coil - Tevi de cupru si bobina cu aripioare din aluminiu									
Frontal surface - Suprafata frontala	<b>m²</b>	0,34	0,34	0,42	0,61	0,61	0,61	0,96	0,96	1,30	1,30
Frontal air speed - Viteza frontala a aerului	<b>m/s</b>	1,3	2,0	1,8	1,6	2,5	2,5	2,4	2,5	2,5	2,5
<b>INTEGRATED HUMIDIFIER (opt) - UMIDIFICATOR INTEGRAT (optional)</b>											
Nominal capacity - Capacitate nominala	<b>kg/h</b>	1,5	1,5	3	3	5	5	5	5	5	5
Electrical power input - Putere electrica ceruta	<b>kW</b>	1,12	1,12	2,25	2,25	3,75	3,75	3,75	3,75	3,75	3,78
Operating current (FLA) - Curent de operare (FLA)	<b>A</b>	4,9	4,9	9,8	9,8	5,4	5,4	5,4	5,4	5,4	5,4
<b>ELECTRICAL HEATING (opt) - INCALZIRE ELECTRICA (opt.)</b>											
Steps - Trepte		1	1	1	1	1	1	1	1	2	2
Heating capacity - Capacitatea de incalzire	<b>kW</b>	1,5	1,5	1,5	5,0	5,0	5,0	5,0	5,0	10,0	10,0
Current (FLA) - Curentul de operare (FLA)	<b>A</b>	6,5	6,5	6,5	7,2	7,2	7,2	7,2	7,2	14,4	14,4
<b>FILTER SECTION - SECTIUNE FILTRU</b>											
Efficiency - Eficacitate		G4	G4	G4	G4	G4	G4	G4	G4	G4	G4
<b>3-WAY VALVE - VENTIL 3-CAI</b>											
Water flow - Debit de apa	<b>l/s</b>	1,35	1,80	2,06	2,58	3,55	4,66	5,26	6,91	7,76	9,48
Pressure drop - Cadere de presiune	<b>kPa</b>	38	28	24	30	23	30	28	30	30	29
<b>CONNECTIONS - CONEXIUNI</b>											
Water IN/OUT Apa IN/OUT	<b>DN (inch)</b>	15 (1/2")	15 (1/2")	15 (1/2")	20 (3/4")	20 (3/4")	20 (3/4")	25 (1")	25 (1")	25 (1")	25 (1")
Humidifier discharge water - Umidificator de refulare a apei	<b>G-Male</b>	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Humidifier supply water - Umidificator pentru furnizarea apei	<b>mm</b>	32	32	32	32	32	32	32	32	32	32
<b>SOUND LEVEL - NIVEL DE ZGOMOT</b>											
SPL "Under"	<b>dB(A)</b>	48	49	50	54	54	54	56	56	57	57
SPL "Over"	<b>dB(A)</b>	53	54	56	59	59	60	62	62	63	63
Weight - Greutate	<b>kg</b>	95	95	95	160	160	160	295	295	380	380
<b>DIMENSIONS - DIMENSIUNI</b>											
Length (L) - Lungime (L)	<b>mm</b>	670	670	670	770	770	770	1280	1280	1680	1680
Depth (W) - Adancime (W)	<b>mm</b>	500	500	500	650	650	650	890	890	890	890
Height (H) - Inaltime (H)	<b>mm</b>	1750	1750	1750	1980	1980	1980	1980	1980	1980	1980
<b>DISTANCES FROM THE UNIT - DISTANTE DE LA UNITATE</b>											
W	<b>mm</b>	500	500	500	750	750	750	750	750	750	750
W1	<b>mm</b>	470	470	470	720	720	720	720	720	720	720
L	<b>mm</b>	770	770	770	770	770	770	1160	1160	1500	1500
L1	<b>mm</b>	740	740	740	740	740	740	1130	1130	1470	1470
C	<b>mm</b>	700	700	700	700	700	700	700	700	700	700

1) 24°C db - 17°C wb; 50% R.H.; 7°C-12°C IN OUT water / Apa

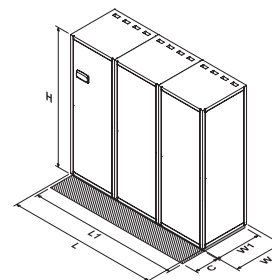
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**APARATE DE CLIMATIZARE cu design vertical, cu apa refrigerata**
**AIR CONDITIONERS vertical design, with refrigerated water**

TYPE - TIP		LR60	LR80	LR90	LR110	XR125	XR150	XR170	XR200
Power supply - Sursa de alimentare		400V/3/50Hz							
Total cooling capacity <sup>1)</sup> - Capacitate de racire totala <sup>1)</sup>	<b>kW</b>	61,5	82,1	90,0	113,7	126,3	150,1	173,5	208,1
Sensible cooling capacity <sup>1)</sup> - Capacitate de racire sensibila <sup>1)</sup>	<b>kW</b>	54,7	67,3	78,3	93,2	103,6	117,1	142,3	162,3
SHR		0,89	0,82	0,87	0,82	0,82	0,78	0,82	0,78
<b>FAN SECTION - SECTIUNE VENTILATOR</b>									
Nominal air volume - Volum de aer nominal	<b>m<sup>3</sup>/h</b>	15500	16000	23000	22000	27400	26000	37000	40000
Type - Tip		Centrifugal backward curve blade with EC type motor Palete incovoiate centrifugale cu motor de tip EC							
Number of fans - Numar de ventilatoare		2	2	2	2	3	3	4	4
Maximum useful pressure drop - Cadere maxima de presiune	<b>Pa</b>	260	155	125	180	305	290	245	365
Fan nominal power input - Puterea nominala a ventilatorului	<b>kW</b>	3,65	3,60	5,30	5,60	6,30	6,15	8,20	12,20
Fan operating current (FLA) - Curent de functionare ventilator (FLA)	<b>A</b>	5,82	5,78	8,04	8,5	9,87	9,51	12,48	18,6
<b>REFRIGERATED WATER COIL - BOBINA APA REFRIGERATA</b>									
Type - Tip		Copper tubes and aluminium fins coil - Tevi de cupru si bobina cu aripioare din aluminiu							
Frontal surface - Suprafata frontala	<b>m<sup>2</sup></b>	1,79	1,79	2,43	2,43	2,43	2,43	3,00	3,00
Frontal air speed - Viteza frontala a aerului	<b>m/s</b>	2,4	2,5	2,5	2,5	1,6	1,5	1,7	1,9
<b>INTEGRATED HUMIDIFIER (opt) - UMIDIFICATOR INTEGRAT (optional)</b>									
Nominal capacity - Capacitate nominala	<b>kg/h</b>	5	5	5	5	8	8	8	8
Electrical power input - Putere electrica ceruta	<b>kW</b>	3,75	3,75	3,75	3,75	6,00	6,00	6,00	6,00
Operating current (FLA) - Curent de operare (FLA)	<b>A</b>	5,4	5,4	5,4	5,4	8,7	8,7	8,7	8,7
<b>ELECTRICAL HEATING (opt) - INCALZIRE ELECTRICA (opt.)</b>									
Steps - Trepte		2	2	2	2	2	2	2	2
Heating capacity - Capacitatea de incalzire	<b>kW</b>	10,0	10,0	15,0	15,0	15,0	15,0	20,0	20,4
Current (FLA) - Curentul de operare (FLA)	<b>A</b>	14,4	14,4	21,7	21,7	21,7	21,7	28,9	28,9
<b>FILTER SECTION - SECTIUNE FILTRU</b>									
Efficiency - Eficacitate		G4	G4	G4	G4	G4	G4	G4	G4
<b>3-WAY VALVE - VENTIL 3-CAI</b>									
Water flow - Debit de apa	<b>l/s</b>	10,55	14,09	15,45	19,5	21,68	25,76	29,76	35,72
Pressure drop - Cadere de presiune	<b>kPa</b>	30	36	41	43	22	21	40	43
<b>CONNECTIONS - CONEXIUNI</b>									
Water IN/OUT Apa IN/OUT	<b>DN (inch)</b>	32 (1"1/4)	32 (1"1/4)	40 (1"1/2)	40 (1"1/2)	50 (2")	50 (2")	50 (2")	50 (2")
Humidifier discharge water - Umidificator de refulare a apei	<b>G-Male</b>	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Humidifier supply water - Umidificator pentru furnizarea apei	<b>mm</b>	32	32	32	32	32	32	32	32
<b>SOUND LEVEL - NIVEL DE ZGOMOT</b>									
SPL "Under"	<b>dB(A)</b>	59	59	61	61	61	61	63	63
SPL "Over"	<b>dB(A)</b>	65	65	67	67	68	68	70	70
Weight - Greutate	<b>kg</b>	480	480	650	650	750	750	1035	1035
<b>DIMENSIONS - DIMENSIUNI</b>									
Length (L) - Lungime (L)	<b>mm</b>	2060	2060	2580	2580	2580	2580	3600	3600
Depth (W) - Adancime (W)	<b>mm</b>	890	890	890	890	890	890	890	890
Height (H) - Inaltime (H)	<b>mm</b>	1980	1980	1980	1980	1980	1980	1980	1980
<b>DISTANCES FROM THE UNIT - DISTANTE DE LA UNITATE</b>									
W	<b>mm</b>	750	750	750	750	890	890	890	890
W1	<b>mm</b>	720	720	720	720	860	860	860	860
L	<b>mm</b>	1880	1880	2550	2550	2500	2500	3500	3500
L1	<b>mm</b>	1850	1850	2520	2520	2470	2470	3470	3470
C	<b>mm</b>	700	700	700	700	700	700	700	700

1) 24°C db - 17°C wb; 50% R.H.; 7°C-12°C IN OUT water /Apa

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