

2013 PRODUCT GUIDE



About us

A GLOBAL GROUP FOR COMFORT ALL OVER THE WORLD

CLINT is the brand meaning Comfort worldwide.

CLINT is part of the Global Group G.I. HOLDING SPA, which can claim over 25 years experience in manufacturing and marketing a complete range of solutions for Comfort and Industrial Cooling: from Air Conditioning and Air Treatment of service and industrial ambients, to Close Control systems, to the Cooling of Industrial Processes.

The Group has reached an important dimension at Global level:

- *3 Sales Offices in three Continents;*
- *4 Manufacturing plants worldwide;*
- *300 employees;*
- *38.000 m² of total productive covered area.*



CLINT
INTERNATIONAL

The logo features a stylized blue globe icon above the word 'CLINT' in a large, bold, blue sans-serif font. Below 'CLINT' is the word 'INTERNATIONAL' in a smaller, blue, all-caps sans-serif font. A registered trademark symbol (®) is located to the right of 'CLINT'. The background of the entire page is a light blue world map composed of small dots, with a man in a white shirt and grey trousers sitting in a modern office chair in the foreground, leaning back.

• Our values

• CUSTOMER FOCUS.

Offer tailor-made solutions to satisfy each Customer requirement.

CLINT offers targeted, customized answers to very specific needs, especially for large installations.

Service focus. Offering an highly skilled Pre-Sales support, the Company is able to define jointly with the Customer the best solution for each specific need, also with tailor-made solutions on the Customer's installation. The After-Sales support and a complete Service Network geographically spread worldwide are able to give support on startups and have immediate reaction in case of any problems.

Fast reaction. A quick decision process & short manufacturing lead-time, thanks to an highly flexible organization allow us to react immediately to Customer's requests.

Specific product ranges tailor-made to every market

CLINT, thanks to its flexibility and Customer orientation, is able to introduce itself to the different international markets with specific ranges, built on the real Customers' needs.

To better satisfy each market requirement in terms of power supply, a dedicated range with 460V or 380V power supply and 60Hz frequency is also available, in addition to the range at 400V / 50Hz.

• LATEST TECHNOLOGY.

We believe in innovation providing real benefit.

At G.I. HOLDING Group we are ready to take on any technological challenge with fast and prompt reaction, thanks to the continuous research for new ideas on products, interfaces, networking. The aim of Research & Developments is to improve the quality and performances of products, as well as offering totally new solutions to the markets that can produce real benefits in terms of higher comfort in every installation with lower energy consumption.





QUALITY & PERFORMANCE.

Production cycle control is the focus of our philosophy.

TOTAL QUALITY is the philosophy at the base of all our activities.

The Company believes in Customer satisfaction and pursues this objective through the development of solutions to ensure the best performance over time and the maximum reliability of its products, constantly monitoring all phases in product-life cycle.

The Company's production is organized on modern assembly lines and work islands. The whole production process is subject to thorough checks and controls, both at the end and at intermediate steps. Each unit must go through strict testing, simulating operational conditions on the Customer's site even in the most demanding situations.

Pressure, temperature, sound level, vibrations: everything is checked to make sure it complies with set parameters.

The Company is also strongly geared for maximum Customer satisfaction and offers a vast Service Network relying on very skilled professionals who can carry out unit start-up on Customer's premises, if required, to adjust the machines to the requirements of any system they are connected to.

CARING FOR THE ENVIRONMENT.

A modern firm operating in respect for the environment.

G.I. HOLDING Group believes in searching for innovative solutions and developing both materials and cooling fluids that comply with the strictest directives on environmental matters, and low energy consumption machines achieving highest ESEER/IPLV.

All cooling fluids used in our CLINT refrigerating machines comply with the directives of the Kyoto and Montreal Protocols, they offer DPO=0 (Ozone Destruction Potential=0) and are used in cooling circuits designed to cut down energy dissipation and space usage, and eliminate potential gas leaks in the environment.

R134a and R410A are the refrigerants used in our cooling units for residential, commercial and industrial air conditioning systems.

On top of that, our post-sales service staff is trained and ready to carry out maintenance operations on machines or dismantle them at the end of their useful life without leaking any gas in the environment.

The group

THE GROUP STRUCTURE.

A wide global group aimed at answering to the needs of each specific market.



G.I. HOLDING Group operates through its Industrial Companies:

- G.I. INDUSTRIAL HOLDING SpA, manufacturing and trading Company based in Italy;
- GIMEK Zrt, manufacturing Company based in Hungary;
- G.I. INDUSTRIAL ASIA HOLDING Sdn Bhd, manufacturing and trading Company based in Malaysia.



The historical centre of the Group, with production totally “made in Europe”. With its sales network it serves the whole World, with a particular attention to European markets.

Sales Offices:

- Rivignano – ITALY. Company Headquarters & Eurasia Regional Office.
- Dubai – U.A.E. Middle East Regional Office.

Manufacturing facilities:

- Rivignano – ITALY. Chillers & Fancoils.
- Piove di Sacco – ITALY. Chillers & Close Control Systems.



The manufacturing business unit serving the Companies of the Group.

Manufacturing facility:

- Budapest – HUNGARY. Air Handling Units & Roof Tops.



The new Company of the Group, based in Malaysia and aimed at developing the business of the Group in international markets.

The key reference market is Asia Pacific, where it offers a dedicated and competitive product range.

With its sales network it also serves the whole World, with a competitive range complementary to the European one.

Sales Office:

- Klang – MALAYSIA. Company Headquarters & Asia Pacific Regional Office.
- Dubai – U.A.E. Middle East Regional Office.

Manufacturing facility:

- Klang – MALAYSIA. Chillers, Fan Coils, Ducted Split Systems, Air Handling Units & Roof Tops.



DISTRIBUTION AND SERVICE NETWORK.

More than 60 Distributors in 70 Countries all over the World and a wide Service Network are widely distributed to offer the best sales and after sales services worldwide.



THE BRANDS

G.I. HOLDING Group operates worldwide through 4 brands, each dedicated to a specific branch of the HVAC business.

G.I. HOLDING Group can claim a deep specialization in the HVAC field due to its nature as a Group formed by the integration of experienced Companies already operating since long time in the different branches of HVAC business.

Within the Group, CLINT is focused on the segment of liquid chillers, ducted split systems, roof-tops and hydronic terminal units.

MONTAIR is the trademark of special applications dedicated to high-tech Close Control Systems.

NOVAIR is the leading brand in the Air Treatment sector.



The Group's brand portfolio also includes the KTK brand, focused on the European market for Process Cooling and special Air Conditioning applications.

Product range

CLINT offers a wide range of watercooled and aircooled liquid Chillers and Heat Pumps as well as Roof Tops, Fan Coils and Ducted Split Systems. They are available in both 50Hz and 60Hz frequencies.



CHILLERS



The HYDROPLUS chillers range is the ideal solution for medium and large areas in commercial and service buildings.

The range features Scroll compressors and R410A refrigerant. A wide number of models with different capacities is available in both aircooled and watercooled versions, with axial or radial fans, plate or shell and tube exchangers.

Compactness and easy installation are the key benefits of this range. The range can also feature the additional AquaLogik technology, with dynamic set point and Inverter circulating pump.



The NEXTPOWER chillers range is based on multi-Scroll technology, with R410A refrigerant. This ensures a high efficiency at partial loads, since the power is split among the different compressors based on the actual load detected by the system, to let only the required compressors work.

The family includes both aircooled and watercooled models, with plate or shell and tube exchangers, on a wide capacity range.



The ENERGYMAX chillers range with Screw compressors features environmentally friendly and efficient R134a refrigerant. It ensures high power with low energy consumption.

The family includes both aircooled and watercooled models with a wide capacity range.

SPECIAL FEATURES



A special range with MICROCHANNEL condensing coils and EC INVERTER fans (optional) is also available for the highest ESEER/IPLV.



• ROOF TOPS



FLEXI AIR is the range of single skin packaged Roof Tops. Full installation flexibility is the main benefit: the airflow direction of both air delivery and intake can be adjusted directly onsite. The range features Scroll compressors and R410A refrigerant.



The packaged Roof Tops of TOP AIR family feature double skin panels for an high energy efficiency. The modular design and the wide range of accessories allow to build the customized solution. The range features Scroll compressors and R410A refrigerant.

• FAN COILS

The Ceiling Concealed & Ducted Blower Fan Coils of FBW-FDW-DBW series are designed for installation in both service areas or built-in, providing cool or warm air to the rooms with quick reaction and silent operation. The range includes Ducted Blower units and Ceiling Concealed units in both Blow Through and Draw Through versions, in order to satisfy any installation requirement.

• DUCTED SPLIT SYSTEMS

The Ducted Split Systems for light commercial applications are designed for installation both in service rooms or built-in. The systems operate with R410A refrigerant and feature Rotary or Scroll compressors, depending on the model.

50 Hz

CHA-M/K 181-P÷522-P



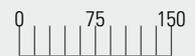
Axial fans, Scroll compressors and plate exchanger



24 - 25

50 Hz

CHA-M/K/ST 181-P÷522-P



Axial fans, Scroll compressors, plate exchanger and pump kit. AquaLogik control system



26 - 27

50 Hz

CHA-M/K 181÷522



Axial fans, Scroll compressors and shell and tube exchanger



28 - 29

50 Hz

CHA-M/K/ST 181÷522



Axial fans, Scroll compressors, shell and tube exchanger and pump kit. AquaLogik control system



30 - 31

50 Hz

CHA-M/K 724-P÷1306-P



Axial fans, Scroll compressors and plate exchanger



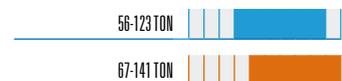
32 - 33

50 Hz

CHA-M/K 724÷1306



Axial fans, Scroll compressors and shell and tube exchanger



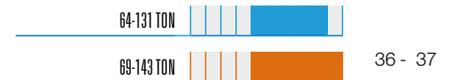
34 - 35

50 Hz

CHA-M/Y 1202÷2002



Axial fans, Screw compressors and shell and tube exchanger

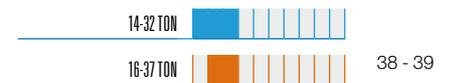


50 Hz

CRA-M/K 181-P÷392-P



Radial fans, Scroll compressors and plate exchanger

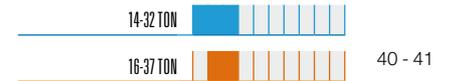


50 Hz

CRA-M/K/ST 181-P÷392-P



Radial fans, Scroll compressors, plate exchanger and pump kit. AquaLogik control system

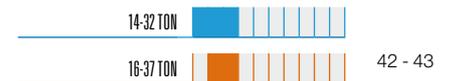


50 Hz

CRA-M/K 181÷392



Radial fans, Scroll compressors and shell and tube exchanger

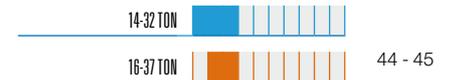


50 Hz

CRA-M/K/ST 181÷392



Radial fans, Scroll compressors, shell and tube exchanger and pump kit. AquaLogik control system



LEGENDA

Version	Compressor	Fan	Exchanger	Solution	Solution	Refrigerant
Cooling only	Scroll	Axial	Plate	Inverter	Operation at 60 Hz	R410A
Cooling & Heating	Screw	Radial	Shell and tube	Microchannel	Operation at 50 Hz & 60 Hz	R134a
High ESP fans				Web Monitoring	Single skin	H ₂ O
				Operating limit 52°C ambient air temperature	Double skin	
				Side connections		

50 Hz

CHA-M/K/MC 181-P÷522-P



Axial fans, Scroll compressors and plate exchanger
With MICROCHANNEL condensing coil and EC INVERTER fans



14-41 TON



46 - 47

50 Hz

CHA-M/K/MC/ST 181-P÷522-P



Axial fans, Scroll compressors, plate exchanger and pump kit. AquaLogik control system
With MICROCHANNEL condensing coil and EC INVERTER fans



14-41 TON



48 - 49

50 Hz

CHA-M/K/MC 181÷522



Axial fans, Scroll compressors and shell and tube exchanger
With MICROCHANNEL condensing coil and EC INVERTER fans



14-41 TON



50 - 51

50 Hz

CHA-M/K/MC/ST 181÷522



Axial fans, Scroll compressors, shell and tube exchanger and pump kit. AquaLogik control system
With MICROCHANNEL condensing coil and EC INVERTER fans



14-41 TON



52 - 53

50 Hz

CHA-M/K/MC 724-P÷1306-P



Axial fans, Scroll compressors and plate exchanger
With MICROCHANNEL condensing coils and EC INVERTER fans



56-123 TON



54 - 55

50 Hz

CHA-M/K/MC 724÷1306



Axial fans, Scroll compressors and shell and tube exchanger
With MICROCHANNEL condensing coils and EC INVERTER fans



56-123 TON



56 - 57

50 Hz

CHA-M/Y/MC 1202÷2002



Axial fans, Screw compressors and shell and tube exchanger
With MICROCHANNEL condensing coils and EC INVERTER fans



58 - 59

LEGENDA

Version	Compressor	Fan	Exchanger	Solution	Solution	Refrigerant
Cooling only	Scroll	Axial	Plate	Inverter	Operation at 60 Hz	R410A
Cooling & Heating	Screw	Radial	Shell and tube	Microchannel	Operation at 50 Hz & 60 Hz	R134a
High ESP fans				Web Monitoring	Single skin	H ₂ O
				Operating limit 52°C ambient air temperature	Double skin	
				Side connections		

60 Hz

CHA-M/SZ/K 181-P÷522-P



Axial fans, Scroll compressors and plate exchanger



60 - 61

60 Hz

CHA-M/SZ/K/ST 181-P÷522-P



Axial fans, Scroll compressors, plate exchanger and pump kit. AquaLogik control system



62 - 63

60 Hz

CHA-M/SZ/K 181÷522



Axial fans, Scroll compressors and shell and tube exchanger



64 - 65

60 Hz

CHA-M/SZ/K/ST 181÷522



Axial fans, Scroll compressors, shell and tube exchanger and pump kit. AquaLogik control system



66 - 67

60 Hz

CHA-M/SZ/K 724-P÷1306-P



Axial fans, Scroll compressors and plate exchanger



68 - 69

60 Hz

CHA-M/SZ/K 724÷1306



Axial fans, Scroll compressors and shell and tube exchanger



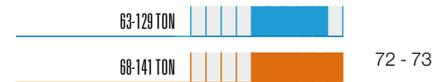
70 - 71

60 Hz

CHA-M/SZ/Y 1202÷2002



Axial fans, Screw compressors and shell and tube exchanger

ENERGY
MAX

60 Hz

CRA-M/SZ/K 181-P÷392-P



Radial fans, Scroll compressors and plate exchanger

HYDRO
PLUS

60 Hz

CRA-M/SZ/K/ST 181-P÷392-P



Radial fans, Scroll compressors, plate exchanger and pump kit. AquaLogik control system

HYDROPLUS
AQUALogik

60 Hz

CRA-M/SZ/K 181÷392



Radial fans, Scroll compressors and shell and tube exchanger

HYDRO
PLUS

60 Hz

CRA-M/SZ/K/ST 181÷392



Radial fans, Scroll compressors, shell and tube exchanger and pump kit. AquaLogik control system

HYDROPLUS
AQUALogik

LEGENDA

Version	Compressor	Fan	Exchanger	Solution	Solution	Refrigerant
Cooling only	Scroll	Axial	Plate	Inverter	Operation at 60 Hz	R410A
Cooling & Heating	Screw	Radial	Shell and tube	Microchannel	Operation at 50 Hz & 60 Hz	R134a
High ESP fans				Web Monitoring	Single skin	H ₂ O
				Operating limit 52°C ambient air temperature	Double skin	
				Side connections		

50 Hz

CWW-M/K 181-P÷522-P



Scroll compressors and plate exchangers



84 - 85

50 Hz

CWW-M/K 181÷522



Scroll compressors and shell and tube exchangers



86 - 87

50 Hz

CWW-M/K 724-P÷1306-P



Scroll compressors and plate exchangers



88 - 89

50 Hz

CWW-M/K 724÷1306



Scroll compressors and shell and tube exchangers



90 - 91

50 Hz

CWW-M/Y 1302÷2002



Screw compressors and shell and tube exchangers



92 - 93

50 Hz

MR-M 200-400



Remote hydronic modules



94 - 95

60 Hz

CWW-M/SZ/K 181-P÷522-P



Scroll compressors and plate exchangers



96 - 97

60 Hz

CWW-M/SZ/K 181÷522



Scroll compressors and shell and tube exchangers



98 - 99

60 Hz

CWW-M/SZ/K 724-P÷1306-P



Scroll compressors and plate exchangers



100 - 101

60 Hz

CWW-M/SZ/K 724÷1306



Scroll compressors and shell and tube exchangers



102 - 103

60 Hz

CWW-M/SZ/Y 1302÷2002



Screw compressors and shell and tube exchangers



104 - 105

LEGENDA

Version	Compressor	Fan	Exchanger	Solution	Solution	Refrigerant
Cooling only	Scroll	Axial	Plate	Inverter	Operation at 60 Hz	R410A
Cooling & Heating	Screw	Radial	Shell and tube	Microchannel	Operation at 50 Hz & 60 Hz	R134a
High ESP fans				Web Monitoring	Single skin	H ₂ O
				Operating limit 52°C ambient air temperature	Double skin	
				Side connections		

60 Hz

MR-M/SZ 200-400



Remote hydronic modules



106 - 107

50 Hz

RTQ-M/K 51÷724



Single skin and Scroll compressors



110 - 111

50 Hz

RTQXT-M/K 51÷804



Single skin and Scroll compressors. High ambient temperature up to 52°C.



112 - 113

50 Hz

RTA-M/K 181÷602



Double skin and Scroll compressors



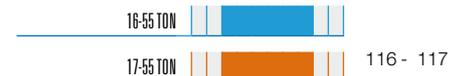
114 - 115

50 Hz

RTA-M/K/MS 181÷602



Double skin, Scroll compressors and Mixing Box



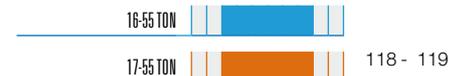
116 - 117

50 Hz

RTA-M/K/ECO 181÷602



Double skin, Scroll compressors and Economizer



118 - 119

LEGENDA

Version

- Cooling only
- Cooling & Heating
- High ESP fans

Compressor

- Scroll
- Screw

Fan

- Axial
- Radial

Exchanger

- Plate
- Shell and tube

Solution

- Inverter
- Microchannel
- Web Monitoring
- Operating limit 52°C ambient air temperature
- Side connections

Solution

- Operation at 60 Hz
- Operation at 50 Hz & 60 Hz
- Single skin
- Double skin

Refrigerant

- R410A
- R134a
- H₂O

50 Hz 60 Hz

FBW-M 23÷123



Ceiling concealed Fan Coils. Blow through



1-3 TON

1-6 TON

126 - 127

50 Hz 60 Hz

FDW-M 23÷123



Ceiling concealed Fan Coils. Draw through



1-3 TON

1-6 TON

128 - 129

50 Hz

DBW-M 133÷464



Ducted Blower Fan Coils



3-14 TON

4-18 TON

130 - 131

50 Hz

DBW-M 643÷2256



Ducted Blower Fan Coils



15-78 TON

132 - 133

60 Hz

DBW-M/SZ 133÷464



Ducted Blower Fan Coils



4-15 TON

4-18 TON

134 - 135

LEGENDA

Version

- Cooling only
- Cooling & Heating
- High ESP fans

Compressor

- Scroll
- Screw

Fan

- Axial
- Radial

Exchanger

- Plate
- Shell and tube

Solution

- Inverter
- Microchannel
- Web Monitoring
- Operating limit 52°C ambient air temperature
- Side connections

Solution

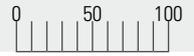
- Operation at 60 Hz
- Operation at 50 Hz & 60 Hz
- Single skin
- Double skin

Refrigerant

- R410A
- R134a
- H₂O

60 Hz

DBW-M/SZ 643÷2256



Ducted Blower Fan Coils

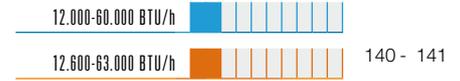


50 Hz

DXC-M/K 12÷60



Ceiling concealed Split Systems

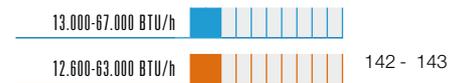


50 Hz

DXCXT-M/K 13÷67



Ceiling concealed Split Systems. High ambient temperature up to 52 °C



50 Hz

DXD-M/K 75÷600



Ducted Blower Split Systems



50 Hz

DXDXT-M/K 85÷660



Ducted Blower Split Systems. High ambient temperature up to 52 °C



60 Hz

DXCXT-M/SZ/K 13÷67



Ceiling concealed Split Systems. High ambient temperature up to 52 °C



60 Hz

DXDXT-M/SZ/K 85÷660



Ducted Blower Split Systems. High ambient temperature up to 52 °C



LEGENDA

Version	Compressor	Fan	Exchanger	Solution	Solution	Refrigerant
Cooling only	Scroll	Axial	Plate	Inverter	Operation at 60 Hz	R410A
Cooling & Heating	Screw	Radial	Shell and tube	Microchannel	Operation at 50 Hz & 60 Hz	R134a
High ESP fans				Web Monitoring	Single skin	H ₂ O
				Operating limit 52°C ambient air temperature	Double skin	
				Side connections		



CHAPTER 1

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH
AXIAL AND RADIAL FANS

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FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.

CHA-M/K 181-P÷522-P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.



The liquid chillers and heat pumps of CHA-M/K 181-P÷522-P HYDROPLUS series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with axial fans, Scroll compressors and plate type exchanger, these units can be completed by a hydraulic circuit with tank, with pump, or with tank and pump; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CHA-M/K

Cooling only

CHA-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
SI	Inertial tank
PS	Circulating pump
PD	Double circulating pump

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CHA-M/K 181-P÷522-P

MODEL			181-P	241-P	301-P	392-P	522-P
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	19.1	24.1	30.9	46.4	64.9
		TON	15.9	20.9	26.0	37.2	46.3
Heating	Heating capacity (2)	kW	56.0	73.4	91.6	131	163
		kW	18.2	22.7	30.7	43.3	55.6
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	19.3	18.3	13.3	18.7	13.7
		kPa	58	55	40	56	41
Water connections	"G	1½"	1½"	2½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	43	52	67	103	127
	Inrush current	A	219	264	328	316	387
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Unit with tank and pump	Pump nominal power	kW	0.75	0.75	1.10	1.50	1.50
	Available static pressure	ft WG	35.0	33.3	48.3	41.7	38.3
		kPa	105	100	145	125	115
	Tank water volume	gal	106	106	106	106	106
		l	400	400	400	400	400
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
l		12	12	12	12	12	
Water connections	"G	2½"	2½"	2½"	2½"	2½"	
Weights	Transport weight (4)	Kg	573	612	722	871	987
	Operating weight (4)	Kg	580	620	740	890	1010

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K 181-P÷522-P

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.

CHA-M/K/ST 181-P÷522-P

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS, PLATE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



CHA-M/K/ST 181-P÷522-P **HYDROPLUS** series liquid chillers and heat pumps, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for air conditioning of rooms, or to remove the heat created during industrial processes. They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs. They are equipped with axial fans, Scroll compressors and plate type exchanger; they can be supplied with RS 485 ModBus connection. A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CHA-M/K/ST

Cooling only with AQUALOGIK technology

CHA-M/K/ST/WP

Reversible heat pump with AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fans.
- Condensing control included allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system with AQUALOGIK technology.
- The hydraulic circuit includes INVERTER circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CHA-M/K/ST 181-P÷522-P

MODEL			181-P	241-P	301-P	392-P	522-P
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	19.1	24.1	30.9	46.4	64.9
Heating	Heating capacity (2)	TON	15.9	20.9	26.0	37.2	46.3
		kW	56.0	73.4	91.6	131	163
	Absorbed power (2)	kW	18.2	22.7	30.7	43.3	55.6
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	19.3	18.3	13.3	18.7	13.7
		kPa	58	55	40	56	41
Water connections	"G	1½"	1½"	2½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	45	54	70	108	132
	Inrush current	A	221	266	331	321	392
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85	1.85
	Available static pressure	ft WG	35.0	33.3	48.3	38.3	36.7
		kPa	105	100	145	115	110
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
		l	12	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	588	627	737	891	1007
	Operating weight	Kg	595	635	755	910	1030

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/ST 181-P÷522-P

300 | 1800 | 800 | 800



NOTES

- Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 - Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.

CHA-M/K 181÷522

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.



The liquid chillers and heat pumps of CHA-M/K 181÷522 **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with axial fans, Scroll compressors and shell and tube exchanger, these units can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CHA-M/K

Cooling only

CHA-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CHA-M/K 181÷522

MODEL			181	241	301	392	522
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	19.1	24.1	30.9	46.4	64.9
Heating	Heating capacity (2)	TON	15.9	20.9	26.0	37.2	46.3
		kW	56.0	73.4	91.6	131	163
	Absorbed power (2)	kW	18.2	22.7	30.7	43.3	55.6
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	10.0	17.0	13.7	14.7	17.7
		kPa	30	51	41	44	53
	Water connections	"G	1½"	2"	2½"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	43	52	67	103	127
	Inrush current	A	219	264	328	316	387
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Weights	Transport weight (4)	Kg	611	649	764	926	1026
	Operating weight (4)	Kg	630	670	790	960	1060

DIMENSIONS			181	241	301	392	522
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K 181÷522

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.

CHA-M/K/ST 181÷522

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS, SHELL AND TUBE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



CHA-M/K/ST 181÷522 **HYDROPLUS** series liquid chillers and heat pumps, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for air conditioning of rooms, or to remove the heat created during industrial processes. They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs. They are equipped with axial fans, Scroll compressors and shell and tube exchanger; they can be supplied with RS 485 ModBus connection. A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CHA-M/K/ST

Cooling only with AQUALOGIK technology

CHA-M/K/ST/WP

Reversible heat pump with AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fans.
- Condensing control included allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.
- The hydraulic circuit includes INVERTER circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CHA-M/K/ST 181÷522

MODEL			181	241	301	392	522
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	19.1	24.1	30.9	46.4	64.9
Heating	Heating capacity (2)	TON	15.9	20.9	26.0	37.2	46.3
		kW	56.0	73.4	91.6	131	163
	Absorbed power (2)	kW	18.2	22.7	30.7	43.3	55.6
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	10.0	17.0	13.7	14.7	17.7
		kPa	30	51	41	44	53
	Water connections	"G	1½"	2"	2½"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	45	54	70	108	132
	Inrush current	A	221	266	331	321	392
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85	1.85
	Available static pressure	ft WG	43.3	35.0	48.3	41.7	33.3
		kPa	130	105	145	125	100
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
		l	12	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	626	664	779	946	1046
	Operating weight	Kg	645	685	805	980	1080

DIMENSIONS			181	241	301	392	522
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/ST 181-522

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 56 TON TO 123 TON.
FROM 196 KW TO 431 KW.

CHA-M/K 724-P÷1306-P

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.



The models of **NEXTPOWER** range are dedicated to air conditioning of medium and wide areas. The intelligent control module optimizes functioning times and supplied power from compressors based on heat load demands in the system.

The range is equipped with R410A refrigerant and features Scroll compressors and plate exchanger.

High reliability is the key plus of **NEXTPOWER**, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels. The optional Air Section Divider allows to service one circuit without stopping the whole unit.

NEXTPOWER obtains high energy yield with high ESEER/IPLV values and excellent silent functioning, since the fans adjust their speed to the actual system load, providing benefits in terms of silent operation, important especially at night.

NEXTPOWER, thanks to the high partialization and the intelligent control module, doesn't require inertial storage tank.



VERSIONS

CHA-M/K

Cooling only

CHA-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of two copper tube and aluminum finned coils.
- Evaporator in AISI 316 stainless steel braze welded plate type with two independent circuits on the refrigerant side and one on the water side, complete with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
AD	Air section divider

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CHA-M/K 724-P÷1306-P

MODEL			724-P	824-P	1044-P	1206-P	1306-P
Cooling	Cooling capacity (1)	TON	55.7	70.8	87.0	104	123
		kW	196	249	306	365	431
	Absorbed power (1)	kW	77	105	117	151	190
Heating	Heating capacity (2)	TON	66.5	83.9	99.8	118	141
		kW	234	295	351	414	497
	Absorbed power (2)	kW	74	98	117	141	164
Compressors	Quantity	n°	2+2	2+2	2+2	3+3	3+3
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow (1)	gpm	148	189	232	276	326
		l/s	9.36	11.90	14.62	17.44	20.59
	Pressure drops (1)	ft WG	17.3	18.7	19.3	16.0	15.3
		kPa	52	56	58	48	46
Water connections	DN	100	100	100	100	100	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	161	195	249	293	361
	Inrush current	A	340	410	512	515	625
Sound pressure	STD version (3)	dB(A)	67	68	68	69	70
	With SL accessory (3)	dB(A)	64	65	65	66	67
Weights	Transport weight	Kg	1650	1748	2344	2479	2685
	Operating weight	Kg	1690	1790	2390	2530	2740

DIMENSIONS			724-P	824-P	1044-P	1206-P	1306-P
L	STD	mm	2800	2800	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2100	2100	2100

DIMENSIONAL & CLEARANCE AREA

CHA-M/K 724-P÷1306-P

500 | 1800 | 1000 | 1800



Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 56 TON TO 123 TON.
FROM 196 KW TO 431 KW.

CHA-M/K 724÷1306

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.



The models of **NEXTPOWER** range are dedicated to air conditioning of medium and wide areas. The intelligent control module optimizes functioning times and supplied power from compressors based on heat load demands in the system.

The range is equipped with R410A refrigerant and features Scroll compressors and shell and tube exchanger.

High reliability is the key plus of **NEXTPOWER**, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels. The optional Air Section Divider allows to service one circuit without stopping the whole unit.

NEXTPOWER obtains high energy yield with high ESEER/IPLV values and excellent silent functioning, since the fans adjust their speed to the actual system load, providing benefits in terms of silent operation, important especially at night.

NEXTPOWER, thanks to the high partialization and the intelligent control module, doesn't require inertial storage tank.



VERSIONS

CHA-M/K

Cooling only

CHA-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of two copper tube and aluminum finned coils.
- Shell and tube type evaporator, with two independent circuits on the refrigerant side and one on the water side.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series
AD	Air section divider

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CHA-M/K 724÷1306

MODEL			724	824	1044	1206	1306
Cooling	Cooling capacity (1)	TON	55.7	70.8	87.0	104	123
		kW	196	249	306	365	431
	Absorbed power (1)	kW	77	105	117	151	190
Heating	Heating capacity (2)	TON	66.5	83.9	99.8	118	141
		kW	234	295	351	414	497
	Absorbed power (2)	kW	74	98	117	141	164
Compressors	Quantity	n°	2+2	2+2	2+2	3+3	3+3
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow (1)	gpm	148	189	232	276	326
		l/s	9.36	11.90	14.62	17.44	20.59
	Pressure drops (1)	ft WG	17.7	17.7	20.3	13.7	16.7
		kPa	53	53	61	41	50
	Water connections	DN	100	100	100	100	100
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	161	195	249	293	361
	Inrush current	A	340	410	512	515	625
Sound pressure	STD version (3)	dB(A)	67	68	68	69	70
	With SL accessory (3)	dB(A)	64	65	65	66	67
Weights	Transport weight	Kg	1753	1834	2492	2665	2940
	Operating weight	Kg	1850	1930	2620	2820	3100

DIMENSIONS			724	824	1044	1206	1306
L	STD	mm	2800	2800	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2100	2100	2100

DIMENSIONAL & CLEARANCE AREA

CHA-M/K 724÷1306

500 | 1800 | 1000 | 1800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 64 TON TO 131 TON.
FROM 225 KW TO 459 KW.

CHA-M/Y 1202÷2002

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGER.



The liquid chillers and heat pumps of CHA-M/Y 1202÷2002 **ENERGYMAX** series, with R134a refrigerant, are designed to meet the needs of large-sized service or industrial buildings. They are used, in combination with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

They are equipped with axial fans, Screw compressors and shell and tube exchanger. The use of large size condensing coils, together with fans with high unit efficiency, as well as the optimization of the hydraulic and cooling circuit and the use of latest generation Screw compressors, combined with a suitable sizing of the user system, allows to obtain high efficiency during operation with remarkably reduced energy consumption.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CHA-M/Y

Cooling only

CHA-M/Y/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Screw compressors, with built-in oil separator, suction filter, crankcase heater, sight glass, thermal protection, hot gas shut off valves and capacity steps.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of two copper tube and aluminum finned coils.
- Shell and tube type evaporator, with two independent refrigerants circuits and one water circuit.
- Electronic thermostatic valve.
- R134a refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device to decrease the sound level, with a step regulation of the fans.
- Condensing control included allows to reach up to 0°C external air temperature.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

RZ	Compressors stepless control
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series
FE	Evaporator heater
SS	Soft start
AD	Air section divider
WM	Web Monitoring enables remote management of the system through communication protocols GPRS/GSM/TCP
CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

CHA-M/Y 1202÷2002

MODEL			1202	1302	1502	1702	1902	2002
Cooling	Cooling capacity (1)	TON	64.0	75.1	85.6	101	114	131
		kW	225	264	301	355	402	459
	Absorbed power (1)	kW	95	122	131	159	168	225
Heating	Heating capacity (2)	TON	68.8	82.7	92.1	110	124	143
		kW	242	291	324	387	437	504
	Absorbed power (2)	kW	76	93	100	120	129	153
Compressors	Quantity	n°	2	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2	2
	Capacity steps	n°	6	6	6	6	6	6
Evaporator	Water flow	gpm	170	200	228	269	305	348
		l/s	10.75	12.61	14.38	16.96	19.21	21.93
	Pressure drops	ft WG	13.3	14.3	16.3	20.7	16.0	18.0
		kPa	40	43	49	62	48	54
Water connections	DN	100	100	100	100	100	100	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50					
	Max. running current	A	212	250	278	334	363	434
	Inrush current	A	277	371	385	444	518	611
Sound pressure	STD version (3)	dB(A)	69	69	68	70	70	70
Weights	Transport weight	Kg	2475	2842	3083	3262	3500	3927
	Operating weight	Kg	2640	3000	3280	3450	3690	4250

DIMENSIONS			1202	1302	1502	1702	1902	2002
L	STD	mm	2800	2800	3900	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2100	2100	2100	2100

DIMENSIONAL & CLEARANCE AREA

CHA-M/Y 1202÷2002

500 | 1800 | 1000 | 1800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 32 TON.
FROM 49 KW TO 112 KW.

CRA-M/K 181-P÷392-P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.



The indoor installation liquid chillers and heat pumps of the CRA-M/K 181-P÷392-P **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial systems with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with radial fans, Scroll compressors and plate type exchanger, these units are available even in the version with high ESP fans and can be completed by a hydraulic circuit with tank, with pump, or with tank and pump; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CRA-M/K	CRA-M/K/WP
Cooling only	Reversible heat pump
CRA-M/K/AP	CRA-M/K/WP/AP
Cooling only with high ESP fans	Reversible heat pump with high ESP fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CCM	Condensing control down to 0 °C
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
SI	Inertial tank
PS	Circulating pump
PD	Double circulating pump

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CRA-M/K 181-P÷392-P

MODEL			181-P	241-P	301-P	392-P
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8
		kW	48.6	62.9	82.3	112
	Absorbed power (1)	kW	20.1	25.1	31.3	50.4
Heating	Heating capacity (2)	TON	15.9	20.9	26.0	37.2
		kW	56.0	73.4	91.6	131
	Absorbed power (2)	kW	19.2	23.7	31.1	47.4
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8
		l/s	2.32	3.01	3.93	5.35
	Pressure drops	ft WG	19.3	18.3	13.3	18.7
		kPa	58	55	40	56
Water connections	"G	1½"	1½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50			
	Max. running current	A	46	55	72	112
	Inrush current	A	222	267	333	325
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	66	67	68	---
	High ESP version with SL accessory (3)	dB(A)	63	64	65	---
Available static pressure	STD version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
	High ESP version	in WG	1.18	1.08	1.14	---
		Pa	295	270	285	---
Unit with tank and pump	Pump nominal power	kW	0.75	0.75	1.10	1.50
	Available static pressure	ft WG	35.0	33.3	48.3	41.7
		kPa	105	100	145	125
	Tank water volume	gal	106	106	106	106
		l	400	400	400	400
	Expansion vessel	gal	3.2	3.2	3.2	3.2
		l	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	
Weights	Transport weight (4)	Kg	658	722	792	871
	Operating weight (4)	Kg	665	730	810	890

DIMENSIONS				181-P	241-P	301-P	392-P
L	STD	mm		2350	2350	2350	2350
W	STD	mm		1100	1100	1100	1100
H	STD	mm		2005	2005	2005	2005
H (5)	STD	mm		2205	2205	2205	2205

DIMENSIONAL & CLEARANCE AREA

CRA-M/K 181-P÷392-P

300 | 1800 | 800 | 800



NOTES

- Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 - Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 - Unit without tank and pump.
 - Height with inertial tank accessory.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 32 TON.
FROM 49 KW TO 112 KW.

CRA-M/K/ST 181-P÷392-P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS, SCROLL COMPRESSORS, PLATE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



The indoor installation liquid chillers and heat pumps of the CRA-M/K/ST 181-P÷392-P **HYDROPLUS** series, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms, or to remove the heat developed during industrial processes.

They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs.

Equipped with radial fans, Scroll compressors and plate type exchangers, they are available even in the version with high ESP fans; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CRA-M/K/ST

Cooling only with AQUALOGIK technology

CRA-M/K/WP/ST

Reversible heat pump with AQUALOGIK technology

CRA-M/K/AP/ST

Cooling only with high ESP fans and AQUALOGIK technology

CRA-M/K/WP/AP/ST

Reversible heat pump with high ESP fans and AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device for modulating adjustment of the dampers.
- Condensing control included allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system with AQUALOGIK technology.
- The hydraulic circuit includes INVERTER circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CRA-M/K/ST 181-P÷392-P

MODEL			181-P	241-P	301-P	392-P
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8
		kW	48.6	62.9	82.3	112
	Absorbed power (1)	kW	20.1	25.1	31.3	50.4
Heating	Heating capacity (2)	TON	15.9	20.9	26.0	37.2
		kW	56.0	73.4	91.6	131
	Absorbed power (2)	kW	19.2	23.7	31.1	47.4
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8
		l/s	2.32	3.01	3.93	5.35
	Pressure drops	ft WG	19.3	18.3	13.3	18.7
		kPa	58	55	40	56
Water connections	"G	1½"	1½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50			
	Max. running current	A	48	57	75	117
	Inrush current	A	224	269	336	330
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	66	67	68	---
	High ESP version with SL accessory (3)	dB(A)	63	64	65	---
Available static pressure	STD version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
	High ESP version	in WG	1.18	1.08	1.14	---
		Pa	295	270	285	---
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85
	Available static pressure	ft WG	35.0	33.3	48.3	38.3
		kPa	105	100	145	115
	Expansion vessel	gal	3.2	3.2	3.2	3.2
		l	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	673	737	807	891
	Operating weight	Kg	680	745	825	910

DIMENSIONS			181-P	241-P	301-P	392-P
L	STD	mm	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100
H	STD	mm	2005	2005	2005	2005

DIMENSIONAL & CLEARANCE AREA

CRA-M/K/ST 181-P÷392-P

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 32 TON.
FROM 49 KW TO 112 KW.

CRA-M/K 181÷392

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.



The indoor installation liquid chillers and heat pumps of the CRA-M/K 181÷392 **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial systems with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with radial fans, Scroll compressors and shell and tube exchangers, these units are available even in the version with high ESP fans; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CRA-M/K	CRA-M/K/WP
Cooling only	Reversible heat pump
CRA-M/K/AP	CRA-M/K/WP/AP
Cooling only with high ESP fans	Reversible heat pump with high ESP fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CCM	Condensing control down to 0 °C
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CRA-M/K 181÷392

MODEL			181	241	301	392
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8
		kW	48.6	62.9	82.3	112
	Absorbed power (1)	kW	20.1	25.1	31.3	50.4
Heating	Heating capacity (2)	TON	15.9	20.9	26.0	37.2
		kW	56.0	73.4	91.6	131
	Absorbed power (2)	kW	19.2	23.7	31.1	47.4
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8
		l/s	2.32	3.01	3.93	5.35
	Pressure drops	ft WG	10.0	17.0	13.7	14.7
		kPa	30	51	41	44
Water connections	"G	1½"	2"	2½"	3"	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50			
	Max. running current	A	46	55	72	112
	Inrush current	A	222	267	333	325
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	66	67	68	---
	High ESP version with SL accessory (3)	dB(A)	63	64	65	---
Available static pressure	STD version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
	High ESP version	in WG	1.18	1.08	1.14	---
		Pa	295	270	285	---
Weights	Transport weight	Kg	696	759	834	926
	Operating weight	Kg	715	780	860	960

DIMENSIONS			181	241	301	392
L	STD	mm	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100
H	STD	mm	2005	2005	2005	2005

DIMENSIONAL & CLEARANCE AREA

CRA-M/K 181÷392

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 32 TON.
FROM 49 KW TO 112 KW.

CRA-M/K/ST 181÷392

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS, SCROLL COMPRESSORS, SHELL AND TUBE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



The indoor installation liquid chillers and heat pumps of the CRA-M/K/ST 181÷392 **HYDROPLUS** series, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial systems with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs.

Equipped with radial fans, Scroll compressors and shell and tube exchangers, they are available even in the version with high ESP fans; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.



VERSIONS

CRA-M/K/ST

Cooling only with **AQUALOGIK** technology

CRA-M/K/WP/ST

Reversible heat pump with **AQUALOGIK** technology

CRA-M/K/AP/ST

Cooling only with high ESP fans and **AQUALOGIK** technology

CRA-M/K/WP/AP/ST

Reversible heat pump with high ESP fans and **AQUALOGIK** technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device for modulating adjustment of the dampers.
- Condensing control included allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.
- The hydraulic circuit includes INVERTER circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CRA-M/K/ST 181÷392

MODEL			181	241	301	392
Cooling	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8
		kW	48.6	62.9	82.3	112
	Absorbed power (1)	kW	20.1	25.1	31.3	50.4
Heating	Heating capacity (2)	TON	15.9	20.9	26.0	37.2
		kW	56.0	73.4	91.6	131
	Absorbed power (2)	kW	19.2	23.7	31.1	47.4
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8
		l/s	2.32	3.01	3.93	5.35
	Pressure drops	ft WG	10.0	17.0	13.7	14.7
		kPa	30	51	41	44
Water connections	"G	1½"	2"	2½"	3"	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50			
	Max. running current	A	48	57	75	117
	Inrush current	A	224	269	336	330
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	65	66	67	---
	High ESP version with SL accessory (3)	dB(A)	62	63	64	---
Available static pressure	STD version	in WG	6.82	6.22	6.02	---
		Pa	170	155	150	---
	High ESP version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85
	Available static pressure	ft WG	43.3	35.0	48.3	41.7
		kPa	130	105	145	125
	Expansion vessel	gal	3.2	3.2	3.2	3.2
		l	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	711	774	849	946
	Operating weight	Kg	720	780	870	965

DIMENSIONS				181	241	301	392
L	STD	mm		2350	2350	2350	2350
W	STD	mm		1100	1100	1100	1100
H	STD	mm		2005	2005	2005	2005

DIMENSIONAL & CLEARANCE AREA

CRA-M/K/ST 181÷392

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.

CHA-M/K/MC 181-P÷522-P

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.

WITH MICROCHANNEL CONDENSING COIL AND EC INVERTER FANS.



The liquid chillers of CHA-M/K/MC 181-P÷522-P **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with axial fans, Scroll compressors and plate type exchanger, these units can be completed by a hydraulic circuit with tank, with pump, or with tank and pump; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

They feature MICROCHANNEL condensing coil to obtain high EER values; for a further ESEER / IPLV improvement, selected models also feature EC INVERTER fans.



VERSIONS

CHA-M/K/MC

Cooling only with MICROCHANNEL condensing coil

CHA-M/K/MC/EC

Cooling only with MICROCHANNEL condensing coil and EC INVERTER fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor. EC version is provided with EC INVERTER fans.
- Condenser made of aluminium MICROCHANNEL condensing coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device, included on EC version only, with built-in INVERTER device, to decrease the sound level with continuous regulation of the fans.
- Condensing control, included on EC version only, allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C (standard version only)
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
SI	Inertial tank
PS	Circulating pump
PD	Double circulating pump

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CHA-M/K/MC 181-P÷522-P

MODEL			181-P	241-P	301-P	392-P	522-P
Cooling STD version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.4	21.3	27.2	40.1	53.8
	EER		2.96	2.95	3.03	2.79	2.66
Cooling EC version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.2	21.1	26.8	39.6	52.8
	EER		3.00	2.98	3.07	2.83	2.71
	ESEER		3.41	3.40	3.50	3.69	3.75
	IPLV		3.95	3.91	4.02	4.16	4.29
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	19.3	18.3	13.3	18.7	13.7
		kPa	58	55	40	56	41
Water connections	"G	1½"	1½"	2½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	43	52	67	103	127
	Inrush current	A	219	264	328	316	387
Sound pressure	STD version (2)	dB(A)	58	58	60	62	62
	with SL accessory (2)	dB(A)	56	56	58	60	60
Max sound pressure	EC version (2)	dB(A)	58	58	60	62	62
	With SL accessory (2)	dB(A)	56	56	58	60	60
Unit with tank and pump	Pump nominal power	kW	0.75	0.75	1.10	1.50	1.50
	Available static pressure	ft WG	35.0	33.3	48.3	41.7	38.3
		kPa	105	100	145	125	115
	Tank water volume	gal	106	106	106	106	106
		l	400	400	400	400	400
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
l		12	12	12	12	12	
Water connections	"G	2½"	2½"	2½"	2½"	2½"	
Weights	Transport weight (3)	Kg	543	582	682	821	937
	Operating weight (3)	Kg	550	590	700	840	960

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/MC 181-P÷522-P

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
3. Unit without tank and pump.

FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.



CHA-M/K/MC/ST 181-P÷522-P

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS, PLATE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.

WITH MICROCHANNEL CONDENSING COIL AND EC INVERTER FANS.



CHA-M/K/MC/ST 181-P÷522-P **HYDROPLUS** series liquid chillers, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for air conditioning of rooms, or to remove the heat created during industrial processes.

They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs.

They are equipped with axial fans, Scroll compressors and plate type exchanger; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

They feature **MICROCHANNEL** condensing coil to obtain high EER values; for a further ESEER / IPLV improvement, selected models also feature **EC INVERTER** fans.



VERSIONS

CHA-M/K/MC/ST

Cooling only with **MICROCHANNEL** condensing coil and **AQUALOGIK** technology

CHA-M/K/MC/ST/EC

Cooling only with **MICROCHANNEL** condensing coil, **EC INVERTER** fans and **AQUALOGIK** technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor. EC version is provided with **EC INVERTER** fans.
- Condenser made of aluminium **MICROCHANNEL** condensing coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- On standard version, electronic proportional device to decrease the sound level, with a continuous regulation of the fans. On EC version, fans feature built-in **INVERTER** device.
- Condensing control, included on both standard and EC versions, allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system with **AQUALOGIK** technology.
- The hydraulic circuit includes **INVERTER** circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CHA-M/K/MC/ST 181-P÷522-P

MODEL			181-P	241-P	301-P	392-P	522-P
Cooling STD version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.4	21.3	27.2	40.1	53.8
	EER		2.96	2.95	3.03	2.79	2.66
Cooling EC version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.2	21.1	26.8	39.6	52.8
	EER		3.00	2.98	3.07	2.83	2.71
	ESEER		3.41	3.40	3.50	3.69	3.75
	IPLV		3.95	3.91	4.02	4.16	4.29
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	19.3	18.3	13.3	18.7	13.7
		kPa	58	55	40	56	41
	Water connections	"G	1½"	1½"	2½"	2½"	2½"
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	45	54	70	108	132
	Inrush current	A	221	266	331	321	392
Sound pressure	STD version (2)	dB(A)	58	58	60	62	62
	with SL accessory (2)	dB(A)	56	56	58	60	60
Max sound pressure	EC version (2)	dB(A)	58	58	60	62	62
	With SL accessory (2)	dB(A)	56	56	58	60	60
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85	1.85
	Available static pressure	ft WG	35.0	33.3	48.3	38.3	36.7
		kPa	105	100	145	115	110
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
		l	12	12	12	12	12
	Water connections	"G	2½"	2½"	2½"	2½"	2½"
Weights	Transport weight	Kg	558	597	697	841	957
	Operating weight	Kg	565	605	715	860	980

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/MC/ST 181-P÷522-P

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.

CHA-M/K/MC 181÷522

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.

WITH MICROCHANNEL CONDENSING COIL AND EC INVERTER FANS.



The liquid chillers of CHA-M/K/MC 181÷522 **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with axial fans, Scroll compressors and shell and tube exchanger, these units can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

They feature MICROCHANNEL condensing coil to obtain high EER values; for a further ESEER / IPLV improvement, selected models also feature EC INVERTER fans.



VERSIONS

CHA-M/K/MC

Cooling only with MICROCHANNEL condensing coil

CHA-M/K/MC/EC

Cooling only with MICROCHANNEL condensing coil and EC INVERTER fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor. EC version is provided with EC INVERTER fans.
- Condenser made of aluminium MICROCHANNEL condensing coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device, included on EC version only, with built-in INVERTER device, to decrease the sound level with continuous regulation of the fans.
- Condensing control, included on EC version only, allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C (standard version only)
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CHA-M/K/MC 181÷522

MODEL			181	241	301	392	522
Cooling STD version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.4	21.3	27.2	40.1	53.8
	EER		2.96	2.95	3.03	2.79	2.66
Cooling EC version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.2	21.1	26.8	39.6	52.8
	EER		2.96	2.95	3.03	2.79	2.66
	ESEER		3.41	3.40	3.50	3.69	3.75
	IPLV		3.95	3.91	4.02	4.16	4.29
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	10.0	17.0	13.7	14.7	17.7
		kPa	30	51	41	44	53
	Water connections	"G	1½"	2"	2½"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	43	52	67	103	127
	Inrush current	A	219	264	328	316	387
Sound pressure	STD version (2)	dB(A)	58	58	60	62	62
	With SL accessory (2)	dB(A)	56	56	58	60	60
Max sound pressure	EC version (2)	dB(A)	58	58	60	62	62
	with SL accessory	dB(A)	56	56	58	60	60
Weights	Transport weight (3)	Kg	581	619	724	876	976
	Operating weight (3)	Kg	600	640	750	910	1010

DIMENSIONS			181	241	301	392	522
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/MC 181÷522

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
3. Unit without tank and pump.

FROM 14 TON TO 41 TON.
FROM 49 KW TO 143 KW.

CHA-M/K/MC/ST 181÷522

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS, SHELL AND TUBE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.

WITH MICROCHANNEL CONDENSING COIL AND EC INVERTER FANS.



CHA-M/K/MC/ST 181 ÷522 **HYDROPLUS** series liquid chillers, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for air conditioning of rooms, or to remove the heat created during industrial processes.

They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs.

They are equipped with axial fans, Scroll compressors and shell and tube exchanger; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

They feature **MICROCHANNEL** condensing coil to obtain high EER values; for a further ESEER / IPLV improvement, selected models also feature **EC INVERTER** fans.



VERSIONS

CHA-M/K/MC/ST

Cooling only with **MICROCHANNEL** condensing coil and **AQUALOGIK** technology

CHA-M/K/MC/ST/EC

Cooling only with **MICROCHANNEL** condensing coil, **EC INVERTER** fans and **AQUALOGIK** technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor. EC version is provided with **EC INVERTER** fans.
- Condenser made of aluminium **MICROCHANNEL** condensing coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- On standard version, electronic proportional device to decrease the sound level, with a continuous regulation of the fans. On EC version, fans feature built-in **INVERTER** device.
- Condensing control, included on both standard and EC versions, allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.
- The hydraulic circuit includes **INVERTER** circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CHA-M/K/MC/ST 181÷522

MODEL			181	241	301	392	522
Cooling STD version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.4	21.3	27.2	40.1	53.8
	EER		2.96	2.95	3.03	2.79	2.66
Cooling EC version	Cooling capacity (1)	TON	13.8	17.9	23.4	31.8	40.7
		kW	48.6	62.9	82.3	112	143
	Absorbed power (1)	kW	16.2	21.1	26.8	39.6	52.8
	EER		3.00	2.98	3.07	2.83	2.71
	ESEER		3.41	3.40	3.50	3.69	3.75
	IPLV		3.95	3.91	4.02	4.16	4.29
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	36.8	47.7	62.3	84.8	108
		l/s	2.32	3.01	3.93	5.35	6.83
	Pressure drops	ft WG	10.0	17.0	13.7	14.7	17.7
		kPa	30	51	41	44	53
	Water connections	"G	1½"	2"	2½"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	45	54	70	108	132
	Inrush current	A	221	266	331	321	392
Sound pressure	STD version (2)	dB(A)	58	58	60	62	62
	with SL accessory (2)	dB(A)	56	56	58	60	60
Max sound pressure	EC version (2)	dB(A)	58	58	60	62	62
	With SL accessory (2)	dB(A)	56	56	58	60	60
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85	1.85
	Available static pressure	ft WG	43.3	35.0	48.3	41.7	33.3
		kPa	130	105	145	125	100
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
		l	12	12	12	12	12
	Water connections	"G	2½"	2½"	2½"	2½"	2½"
Weights	Transport weight	Kg	596	634	739	896	996
	Operating weight	Kg	620	660	775	945	1045

DIMENSIONS			181	241	301	392	522
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/MC/ST 181÷522

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

FROM 56 TON TO 123 TON.
FROM 196 KW TO 431 KW.

CHA-M/K/MC 724-P÷1306-P

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.

WITH MICROCHANNEL CONDENSING COILS AND EC INVERTER FANS.



The models of **NEXTPOWER** range are dedicated to air conditioning of medium and wide areas. The intelligent control module optimizes functioning times and supplied power from compressors based on heat load demands in the system.

The range is equipped with R410A refrigerant and features Scroll compressors and plate exchanger.

High reliability is the key plus of NEXTPOWER, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels. The optional Air Section Divider allows to service one circuit without stopping the whole unit.

NEXTPOWER obtains high energy yield with high ESEER/IPLV values and excellent silent functioning, since the fans adjust their speed to the actual system load, providing benefits in terms of silent operation, important especially at night.

NEXTPOWER, thanks to the high partialization and the intelligent control module, doesn't require inertial storage tank.

It features MICROCHANNEL condensing coils to obtain high EER values; for a further ESEER / IPLV improvement, selected models also feature EC INVERTER fans.



VERSIONS

CHA-M/K/MC

Cooling only with MICROCHANNEL condensing coil

CHA-M/K/MC/EC

Cooling only with MICROCHANNEL condensing coil and EC INVERTER fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor. EC version is provided with EC INVERTER fans.
- Condenser made of two aluminium MICROCHANNEL condensing coils.
- Evaporator in AISI 316 stainless steel braze welded plate type with two independent circuits on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device, included on EC version only, to decrease the sound level with continuous regulation of the fans with built-in INVERTER device.
- Condensing control, included on EC version only, allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C (standard version only)
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
AD	Air section divider

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

CHA-M/K/MC 724-P÷1306-P

MODEL			724-P	824-P	1044-P	1206-P	1306-P
Cooling STD version	Cooling capacity (1)	TON	55.7	70.8	87.0	104	123
		kW	196	249	306	365	431
	Absorbed power (1)	kW	66.9	90.5	101	128	158
	EER		2.93	2.75	3.03	2.85	2.73
Cooling EC version	Cooling capacity (1)	TON	55.7	70.8	87.0	104	123
		kW	196	249	306	365	431
	Absorbed power (1)	kW	65.9	88.9	100	126	154
	EER		2.97	2.80	3.06	2.90	2.80
	ESEER		4.11	3.81	3.92	3.88	3.91
	IPLV		4.66	4.28	4.45	4.39	4.47
Compressors	Quantity	n°	2+2	2+2	2+2	3+3	3+3
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow (1)	gpm	148	189	232	276	326
		l/s	9.36	11.90	14.62	17.44	20.59
	Pressure drops (1)	ft WG	17.3	18.7	19.3	16.0	15.3
		kPa	52	56	58	48	46
	Water connections	DN	100	100	100	100	100
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	161	195	249	293	361
	Inrush current	A	340	410	512	515	625
Sound pressure	STD version (2)	dB(A)	66	67	66	67	68
	With SL accessory (2)	dB(A)	63	64	63	64	65
Max sound pressure	EC version (2)	dB(A)	66	67	66	67	68
	with SL accessory	dB(A)	63	64	63	64	65
Weights	Transport weight	Kg	1510	1608	2114	2249	2455
	Operating weight	Kg	1550	1650	2160	2300	2510

DIMENSIONS			724-P	824-P	1044-P	1206-P	1306-P
L	STD	mm	2800	2800	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2500	2500	2500

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/MC 724-P÷1306-P

500 | 1800 | 1000 | 1800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

FROM 56 TON TO 123 TON.
FROM 196 KW TO 431 KW.

CHA-M/K/MC 724÷1306

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.

WITH MICROCHANNEL CONDENSING COILS AND EC INVERTER FANS.



The models of **NEXTPOWER** range are dedicated to air conditioning of medium and wide areas. The intelligent control module optimizes functioning times and supplied power from compressors based on heat load demands in the system.

The range is equipped with R410A refrigerant and features Scroll compressors and shell and tube exchanger.

High reliability is the key plus of NEXTPOWER, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels. The optional Air Section Divider allows to service one circuit without stopping the whole unit.

NEXTPOWER obtains high energy yield with high ESEER/IPLV values and excellent silent functioning, since the fans adjust their speed to the actual system load, providing benefits in terms of silent operation, important especially at night.

NEXTPOWER, thanks to the high partialization and the intelligent control module, doesn't require inertial storage tank.

It features MICROCHANNEL condensing coils to obtain high EER values; for a further ESEER / IPLV improvement, selected models also feature EC INVERTER fans.



VERSIONS

CHA-M/K/MC

Cooling only with MICROCHANNEL condensing coil

CHA-M/K/MC/EC

Cooling only with MICROCHANNEL condensing coil and EC INVERTER fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor. EC version is provided with EC INVERTER fans.
- Condenser made of two aluminium MICROCHANNEL condensing coils.
- Shell and tube type evaporator, with two independent circuits on the refrigerant side and one on the water side.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device, included on EC version only, to decrease the sound level with continuous regulation of the fans with built-in INVERTER device.
- Condensing control, included on EC version only, allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C (standard version only)
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series
AD	Air section divider

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

CHA-M/K/MC 724÷1306

MODEL			724	824	1044	1206	1306
Cooling STD version	Cooling capacity (1)	TON	55.7	70.8	87.0	104	123
		kW	196	249	306	365	431
	Absorbed power (1)	kW	66.9	90.5	101	128	158
	EER		2.93	2.75	3.03	2.85	2.73
Cooling EC version	Cooling capacity (1)	TON	55.7	70.8	87.0	104	123
		kW	196	249	306	365	431
	Absorbed power (1)	kW	65.9	88.9	100	126	154
	EER		2.97	2.80	3.06	2.90	2.80
	ESEER		4.11	3.81	3.92	3.88	3.91
	IPLV		4.66	4.28	4.45	4.39	4.47
Compressors	Quantity	n°	2+2	2+2	2+2	3+3	3+3
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow (1)	gpm	148	189	232	276	326
		l/s	9.36	11.90	14.62	17.44	20.59
	Pressure drops (1)	ft WG	17.7	17.7	20.3	13.7	16.7
		kPa	53	53	61	41	50
	Water connections	DN	100	100	100	100	100
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	161	195	249	293	361
	Inrush current	A	340	410	512	515	625
Sound pressure	STD version (2)	dB(A)	66	67	66	67	68
	With SL accessory (2)	dB(A)	63	64	63	64	65
Max sound pressure	EC version (2)	dB(A)	66	67	66	67	68
	With SL accessory (2)	dB(A)	63	64	63	64	65
Weights	Transport weight	Kg	1613	1694	2262	2435	2710
	Operating weight	Kg	1710	1790	2390	2590	2870

DIMENSIONS			724	824	1044	1206	1306
L	STD	mm	2800	2800	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2500	2500	2500

DIMENSIONAL & CLEARANCE AREA

CHA-M/K/MC 724÷1306

500 | 1800 | 1000 | 1800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

FROM 64 TON TO 131 TON.
FROM 225 KW TO 459 KW.

CHA-M/Y/MC 1202÷2002

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGER.

WITH MICROCHANNEL CONDENSING COILS AND EC INVERTER FANS.



The liquid chillers of CHA-M/Y/MC 1202÷2002 **ENERGYMAX** series, with R134a refrigerant, are designed to meet the needs of large-sized service or industrial buildings. They are used, in combination with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

They are equipped with axial fans, Screw compressors and shell and tube exchanger. The use of large size condensing coils, together with fans with high unit efficiency, as well as the optimization of the hydraulic and cooling circuit and the use of latest generation Screw compressors, combined with a suitable sizing of the user system, allows to obtain high efficiency during operation with remarkably reduced energy consumption.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

They feature MICROCHANNEL condensing coil to obtain high EER values; for a further ESEER / IPLV improvement, selected models also feature EC INVERTER fans.



VERSIONS

CHA-M/Y/MC

Cooling only with MICROCHANNEL condensing coil

CHA-M/Y/MC/EC

Cooling only with MICROCHANNEL condensing coil and EC INVERTER fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Screw compressors, with built-in oil separator, suction filter, crankcase heater, sight glass, thermal protection, hot gas shut off valves and capacity steps.
- Axial fans directly coupled to an electric motor with external rotor. EC version is provided with EC INVERTER fans.
- Condenser made of two aluminium MICROCHANNEL condensing coils.
- Shell and tube type evaporator, with two independent refrigerants circuits and one water circuit.
- Electronic thermostatic valve.
- R134a refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- On standard version, electronic proportional device to decrease the sound level, with a step regulation of the fans. On EC version, fans feature built-in INVERTER device.
- Condensing control, included on both standard and EC versions, allows to reach up to 0°C external air temperature on standard version and up to -20°C external air temperature on EC version.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

RZ	Compressors stepless control
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series
FE	Evaporator heater
SS	Soft start
AD	Air section divider

WM	Web Monitoring enables remote management of the system through communication protocols GPRS/GSM/TCP
CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

CHA-M/Y/MC 1202÷2002

MODEL			1202	1302	1502	1702	1902	2002
Cooling STD version	Cooling capacity (1)	TON	64.0	75.1	85.6	101	114	131
		kW	225	264	301	355	402	459
	Absorbed power (1)	kW	79.8	92.9	106	126	137	171
	EER		2.82	2.84	2.84	2.82	2.93	2.68
Cooling EC version	Cooling capacity (1)	TON	64.0	75.1	85.6	101	114	131
		kW	225	264	301	355	402	459
	Absorbed power (1)	kW	78.2	91.5	104	124	135	167
	EER		2.88	2.89	2.89	2.86	2.98	2.75
	ESEER		4.10	4.06	4.33	4.28	4.55	3.96
	IPLV		4.41	4.37	4.65	4.60	4.89	4.26
Compressors	Quantity	n°	2	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2	2
	Capacity steps	n°	6	6	6	6	6	6
Evaporator	Water flow	gpm	170	200	228	269	305	348
		l/s	10.75	12.61	14.38	16.96	19.21	21.93
	Pressure drops	ft WG	13.3	14.3	16.3	20.7	16.0	18.0
		kPa	40	43	49	62	48	54
	Water connections	DN	100	100	100	100	100	100
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50					
	Max. running current	A	212	250	278	334	363	434
	Inrush current	A	277	371	385	444	518	611
Max sound pressure	STD version (2)	dB(A)	68	67	66	68	68	68
	EC version (2)	dB(A)	68	67	66	68	68	68
Weights	Transport weight	Kg	2335	2802	2853	3032	3270	3697
	Operating weight	Kg	2500	2960	3050	3220	3460	4020

DIMENSIONS			1202	1302	1502	1702	1902	2002
L	STD	mm	2800	3900	3900	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2500	2500	2500	2500	2500

DIMENSIONAL & CLEARANCE AREA

CHA-M/Y/MC 1202÷2002

500 | 1800 | 1000 | 1800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

Electrical board side

FROM 13 TON TO 40 TON.
FROM 46 KW TO 142 KW.

CHA-M/SZ/K 181-P÷522-P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.



60 Hz



The liquid chillers and heat pumps of CHA-M/SZ/K 181-P÷522-P **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with axial fans, Scroll compressors and plate type exchanger, these units can be completed by a hydraulic circuit with tank, with pump, or with tank and pump; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CHA-M/SZ/K

Cooling only

CHA-M/SZ/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
SI	Inertial tank
PS	Circulating pump
PD	Double circulating pump

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

MODEL			181-P	241-P	301-P	392-P	522-P
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6	40.4
		kW	45.5	62.0	81.1	111	142
	Absorbed power (1)	kW	16.4	23.8	29.7	44.8	61.0
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.0	46.1
		kW	52.4	72.4	90.3	130	162
	Absorbed power (2)	kW	15.6	22.4	29.5	41.9	52.3
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0	108
		l/s	2.17	2.96	3.87	5.30	6.78
	Pressure drops	ft WG	17.0	17.7	13.0	18.3	13.3
		kPa	51	53	39	55	40
Water connections	"G	1½"	1½"	2½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	37	45	58	90	110
	Inrush current	A	190	230	285	275	337
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Unit with tank and pump	Pump nominal power	kW	0.75	0.75	1.10	1.50	1.50
		Available static pressure	ft WG	36.7	35.0	48.3	41.7
		kPa	110	105	145	125	115
	Tank water volume	gal	106	106	106	106	106
		l	400	400	400	400	400
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
l		12	12	12	12	12	
Water connections	"G	2½"	2½"	2½"	2½"	2½"	
Weights	Transport weight (4)	Kg	536	572	675	814	923
	Operating weight (4)	Kg	545	580	695	835	945

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
W	STD	mm	1100	1100	1100	1100	1100
L	STD	mm	2350	2350	2350	2350	2350
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/SZ/K 181-P÷522-P

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 13 TON TO 40 TON.
FROM 46 KW TO 142 KW.

CHA-M/SZ/K/ST 181-P÷522-P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSOR, PLATE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



60 Hz



CHA-M/SZ/K/ST 181-P÷522-P **HYDROPLUS** series liquid chillers and heat pumps, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for air conditioning of rooms, or to remove the heat created during industrial processes. They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs.

They are equipped with axial fans, Scroll compressors and plate type exchanger; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CHA-M/SZ/K/ST

Cooling only with **AQUALOGIK** technology

CHA-M/SZ/K/ST/WP

Reversible heat pump with **AQUALOGIK** technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fans.
- Condensing control included allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system with **AQUALOGIK** technology.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

MODEL			181-P	241-P	301-P	392-P	522-P
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6	40.4
		kW	45.5	62.0	81.1	111	142
	Absorbed power (1)	kW	16.4	23.8	29.7	44.8	61.0
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.0	46.1
		kW	52.4	72.4	90.3	130	162
	Absorbed power (2)	kW	15.6	22.4	29.5	41.9	52.3
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0	108
		l/s	2.17	2.96	3.87	5.30	6.78
	Pressure drops	ft WG	17.0	17.7	13.0	18.3	13.3
		kPa	51	53	39	55	40
Water connections	"G	1½"	1½"	2½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	37	45	58	90	110
	Inrush current	A	190	230	285	275	337
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85	1.85
	Available static pressure	ft WG	36.7	35.0	48.3	38.3	36.7
		kPa	110	105	145	115	110
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
		l	12	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	551	587	690	834	943
	Operating weight	Kg	560	595	710	855	965

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/SZ/K/ST 181-P÷522-P

300 | 1800 | 800 | 800



NOTES

- Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 - Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 13 TON TO 40 TON.
FROM 46 KW TO 142 KW.

CHA-M/SZ/K 181÷522

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.



60 Hz



The liquid chillers and heat pumps of CHA-M/SZ/K 181÷522 **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with axial fans, Scroll compressors and shell and tube exchanger, these units can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CHA-M/SZ/K

Cooling only

CHA-M/SZ/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

MODEL			181	241	301	392	522
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6	40.4
		kW	45.5	62.0	81.1	111	142
	Absorbed power (1)	kW	16.4	23.8	29.7	44.8	61.0
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.2	46.3
		kW	52.4	72.4	90.3	131	163
	Absorbed power (2)	kW	15.6	22.4	29.5	41.9	52.3
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0	108
		l/s	2.17	2.96	3.87	5.30	6.78
	Pressure drops	ft WG	8.7	16.3	13.3	14.3	17.3
		kPa	26	49	40	43	52
	Water connections	"G	1½"	2"	2½"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	37	45	58	90	110
	Inrush current	A	190	230	285	275	337
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Weights	Transport weight (4)	Kg	571	607	714	866	959
	Operating weight (4)	Kg	590	630	740	900	990

DIMENSIONS			181	241	301	392	522
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/SZ/K 181-522

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 13 TON TO 40 TON.
FROM 46 KW TO 142 KW.

CHA-M/SZ/K/ST 181÷522

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS, SHELL AND TUBE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



60 Hz



CHA-M/SZ/K/ST 181÷522 **HYDROPLUS** series liquid chillers and heat pumps, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings. They are used, combined with terminal units, for air conditioning of rooms, or to remove the heat created during industrial processes. They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs. They are equipped with axial fans, Scroll compressors and shell and tube exchanger; they can be supplied with RS 485 ModBus connection. A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series. **The units feature 460V power supply and 60Hz frequency.**



VERSIONS

CHA-M/SZ/K/ST

Cooling only with **AQUALOGIK** technology

CHA-M/SZ/K/ST/WP

Reversible heat pump with **AQUALOGIK** technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fans.
- Condensing control included allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system.
- The hydraulic circuit includes **INVERTER** circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

MODEL			181	241	301	392	522
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6	40.4
		kW	45.5	62.0	81.1	111	142
	Absorbed power (1)	kW	16.4	23.8	29.7	44.8	61.0
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.2	46.3
		kW	52.4	72.4	90.3	131	163
	Absorbed power (2)	kW	15.6	22.4	29.5	41.9	52.3
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0	108
		l/s	2.17	2.96	3.87	5.30	6.78
	Pressure drops	ft WG	8.7	16.3	13.3	14.3	17.3
		kPa	26	49	40	43	52
Water connections	"G	1½"	2"	2½"	3"	3"	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	37	45	58	90	110
	Inrush current	A	190	230	285	275	337
Sound pressure	STD version (3)	dB(A)	59	59	61	63	63
	With SL accessory (3)	dB(A)	57	57	59	61	61
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85	1.85
	Available static pressure	ft WG	45.0	35.0	48.3	41.7	33.3
		kPa	135	105	145	125	100
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
l		12	12	12	12	12	
Water connections	"G	2½"	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	586	622	729	886	979
	Operating weight	Kg	605	645	755	920	1010

DIMENSIONS			181	241	301	392	522
L	STD	mm	2350	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1920	1920	1920	2220	2220

DIMENSIONAL & CLEARANCE AREA

CHA-M/SZ/K/ST 181-522

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 55 TON TO 121 TON.
FROM 193 KW TO 425 KW.

CHA-M/SZ/K 724-P÷1306-P

AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.



The models of **NEXTPOWER** range are dedicated to air conditioning of medium and wide areas. The intelligent control module optimizes functioning times and supplied power from compressors based on heat load demands in the system.

The range is equipped with R410A refrigerant and features Scroll compressors and plate exchanger.

High reliability is the key plus of NEXTPOWER, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels. The optional Air Section Divider allows to service one circuit without stopping the whole unit.

NEXTPOWER obtains high energy yield with high ESEER/IPLV values and excellent silent functioning, since the fans adjust their speed to the actual system load, providing benefits in terms of silent operation, important especially at night.

NEXTPOWER, thanks to the high partialization and the intelligent control module, doesn't require inertial storage tank.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CHA-M/SZ/K

CHA-M/SZ/K/WP

Cooling only

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of two copper tube and aluminum finned coils.
- Evaporator in AISI 316 stainless steel braze welded plate type with two independent circuits on the refrigerant side and on the water side, complete with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
AD	Air section divider

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

MODEL			724-P	824-P	1044-P	1206-P	1306-P
Cooling	Cooling capacity (1)	TON	54.9	69.9	85.9	102	121
		kW	193	246	302	360	425
	Absorbed power (1)	kW	76	104	116	149	188
Heating	Heating capacity (2)	TON	65.7	82.7	98.4	116	139
		kW	231	291	346	408	490
	Absorbed power (2)	kW	73	97	115	139	162
Compressors	Quantity	n°	2+2	2+2	2+2	3+3	3+3
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow (1)	gpm	146	186	229	273	322
		l/s	9.22	11.75	14.43	17.20	20.31
	Pressure drops (1)	ft WG	16.7	18.3	19.0	15.7	15.0
		kPa	50	55	57	47	45
	Water connections	DN	100	100	100	100	100
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	140	170	217	255	314
	Inrush current	A	296	357	445	448	543
Sound pressure	STD version (3)	dB(A)	67	68	68	69	70
	With SL accessory (3)	dB(A)	64	65	65	66	67
Weights	Transport weight	Kg	1543	1634	2192	2318	2510
	Operating weight	Kg	1580	1675	2240	2370	2565

DIMENSIONS			724-P	824-P	1044-P	1206-P	1306-P
L	STD	mm	2800	2800	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2100	2100	2100

DIMENSIONAL & CLEARANCE AREA

CHA-M/SZ/K 724-P÷1306-P

500 | 1800 | 1000 | 1800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 55 TON TO 121 TON.
FROM 193 KW TO 425 KW.

CHA-M/SZ/K 724÷1306

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.



The models of **NEXTPOWER** range are dedicated to air conditioning of medium and wide areas. The intelligent control module optimizes functioning times and supplied power from compressors based on heat load demands in the system.

The range is equipped with R410A refrigerant and features Scroll compressors and shell and tube exchanger.

High reliability is the key plus of **NEXTPOWER**, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels. The optional Air Section Divider allows to service one circuit without stopping the whole unit.

NEXTPOWER obtains high energy yield with high ESEER/IPLV values and excellent silent functioning, since the fans adjust their speed to the actual system load, providing benefits in terms of silent operation, important especially at night.

NEXTPOWER, thanks to the high partialization and the intelligent control module, doesn't require inertial storage tank.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CHA-M/SZ/K

Cooling only

CHA-M/SZ/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of two copper tube and aluminum finned coils.
- Shell and tube type evaporator, with two independent circuits on the refrigerant side and one on the water side.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series
AD	Air section divider

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

MODEL			724	824	1044	1206	1306
Cooling	Cooling capacity (1)	TON	54.9	69.9	85.9	102	121
		kW	193	246	302	360	425
	Absorbed power (1)	kW	76	104	116	149	188
Heating	Heating capacity (2)	TON	65.7	82.7	98.4	116	139
		kW	231	291	346	408	490
	Absorbed power (2)	kW	73	97	115	139	162
Compressors	Quantity	n°	2+2	2+2	2+2	3+3	3+3
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow (1)	gpm	146	186	229	273	322
		l/s	9.22	11.75	14.43	17.20	20.31
	Pressure drops (1)	ft WG	17.0	17.3	19.7	13.3	16.3
		kPa	51	52	59	40	49
	Water connections	DN	100	100	100	100	100
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	140	170	217	255	314
	Inrush current	A	296	357	445	448	543
Sound pressure	STD version (3)	dB(A)	67	68	68	69	70
	With SL accessory (3)	dB(A)	64	65	65	66	67
Weights	Transport weight	Kg	1639	1715	2330	2492	2749
	Operating weight	Kg	1735	1810	2455	2645	2910

DIMENSIONS			724	824	1044	1206	1306
L	STD	mm	2800	2800	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2100	2100	2100

DIMENSIONAL & CLEARANCE AREA

CHA-M/SZ/K 724÷1306

500 | 1800 | 1000 | 1800



Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 63 TON TO 129 TON.
FROM 222 KW TO 453 KW.

CHA-M/SZ/Y 1202÷2002

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGER.



The liquid chillers and heat pumps of CHA-M/SZ/Y 1202÷2002 **ENERGYMAX** series, with R134a refrigerant, are designed to meet the needs of large-sized service or industrial buildings. They are used, in combination with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

They are equipped with axial fans, Screw compressors and shell and tube exchanger. The use of large size condensing coils, together with fans with high unit efficiency, as well as the optimization of the hydraulic and cooling circuit and the use of latest generation Screw compressors, combined with a suitable sizing of the user system, allows to obtain high efficiency during operation with remarkably reduced energy consumption.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CHA-M/SZ/Y

Cooling only

CHA-M/SZ/Y/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Screw compressors, with built-in oil separator, suction filter, crankcase heater, sight glass, thermal protection, hot gas shut off valves and capacity steps.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of two copper tube and aluminum finned coils.
- Shell and tube type evaporator, with two independent refrigerants circuits and one water circuit.
- Electronic thermostatic valve.
- R134a refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device to decrease the sound level, with a step regulation of the fans.
- Condensing control included allows to reach up to 0°C external air temperature.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

RZ	Compressors stepless control
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series
FE	Evaporator heater
SS	Soft start
AD	Air section divider
WM	Web Monitoring enables remote management of the system through communication protocols GPRS/GSM/TCP
CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

MODEL			1202	1302	1502	1702	1902	2002
Cooling	Cooling capacity (1)	TON	63.1	73.9	84.4	99.5	113	129
		kW	222	260	297	350	396	453
	Absorbed power (1)	kW	94	120	129	157	166	222
Heating	Heating capacity (2)	TON	68.0	81.6	91.0	109	123	141
		kW	239	287	320	382	431	497
	Absorbed power (2)	kW	75	92	99	119	127	151
Compressors	Quantity	n°	2	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2	2
	Capacity steps	n°	6	6	6	6	6	6
Evaporator	Water flow	gpm	168	197	225	265	300	343
		l/s	10.61	12.42	14.19	16.72	18.92	21.64
	Pressure drops	ft WG	13.0	14.0	16.0	20.0	15.7	17.7
		kPa	39	42	48	60	47	53
Water connections	DN	100	100	100	100	100	100	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60					
	Max. running current	A	184	217	242	290	316	377
	Inrush current	A	241	323	335	386	450	531
Sound pressure	STD version (3)	dB(A)	69	69	68	70	70	70
Weights	Transport weight	Kg	2426	2785	3021	3197	3430	3848
	Operating weight	Kg	2590	2945	3220	3385	3620	4170

DIMENSIONS			1202	1302	1502	1702	1902	2002
L	STD	mm	2800	2800	3900	3900	3900	3900
W	STD	mm	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2100	2100	2100	2100	2100

DIMENSIONAL & CLEARANCE AREA

CHA-M/SZ/Y 1202÷2002

500 | 1800 | 1000 | 1800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 13 TON TO 32 TON.
FROM 46 KW TO 111 KW.

CRA-M/SZ/K 181-P÷392-P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS,
SCROLL COMPRESSORS AND PLATE EXCHANGER.



60 Hz



The indoor installation liquid chillers and heat pumps of the CRA-M/SZ/K 181-P÷392-P **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial systems with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with radial fans, Scroll compressors and plate type exchanger, these units are available even in the version with high ESP fans and can be completed by a hydraulic circuit with tank, with pump, or with tank and pump; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CRA-M/SZ/K

Cooling only

CRA-M/SZ/K/WP

Reversible heat pump

CRA-M/SZ/K/AP

Cooling only with high ESP fans

CRA-M/SZ/K/WP/AP

Reversible heat pump with high ESP fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch. On the heat pump units is always installed an antifreeze heater.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CCM	Condensing control down to 0 °C
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery
SI	Inertial tank
PS	Circulating pump
PD	Double circulating pump

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

MODEL			181-P	241-P	301-P	392-P
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6
		kW	45.5	62.0	81.1	111
	Absorbed power (1)	kW	17.4	24.8	30.1	48.8
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.0
		kW	52.4	72.4	90.3	130
	Absorbed power (2)	kW	16.6	23.4	29.9	46.0
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0
		l/s	2.17	2.96	3.87	5.30
	Pressure drops	ft WG	17.0	17.7	13.0	18.3
		kPa	51	53	39	55
Water connections	"G	1½"	1½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60			
	Max. running current	A	40	48	63	97
	Inrush current	A	193	232	290	283
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	66	67	68	---
	High ESP version with SL accessory (3)	dB(A)	63	64	65	---
Available static pressure	STD version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
	High ESP version	in WG	1.18	1.08	1.14	---
		Pa	295	270	285	---
Unit with tank and pump	Pump nominal power	kW	0.75	0.75	1.10	1.50
	Available static pressure	ft WG	36.7	35.0	48.3	41.7
		kPa	110	105	145	125
	Tank water volume	gal	106	106	106	106
		l	400	400	400	400
	Expansion vessel	gal	3.2	3.2	3.2	3.2
		l	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	
Weights	Transport weight (4)	Kg	615	675	741	814
	Operating weight (4)	Kg	625	680	760	830

1
2
3
4
5

DIMENSIONS				181-P	241-P	301-P	392-P
L	STD	mm		2350	2350	2350	2350
W	STD	mm		1100	1100	1100	1100
H	STD	mm		2205	2005	2005	2005
H (5)	STD	mm		2205	2205	2205	2205

DIMENSIONAL & CLEARANCE AREA

CRA-M/SZ/K 181-P÷392-P

800 | 1800 | 300 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
 5. Height with inertial tank accessory.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 13 TON TO 32 TON.
FROM 46 KW TO 111 KW.

CRA-M/SZ/K/ST 181-P÷392-P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS, SCROLL COMPRESSORS, PLATE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



60 Hz



The indoor installation liquid chillers and heat pumps of the CRA-M/SZ/K/ST 181-P÷392-P **HYDROPLUS** series, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial buildings with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

They are managed by the AQUALOGIK smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. AQUALOGIK optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs.

Equipped with radial fans, Scroll compressors and plate type exchangers, they are available even in the version with high ESP fans; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.

VERSIONS

CRA-M/SZ/K/ST	CRA-M/SZ/K/WP/ST
Cooling only with AQUALOGIK technology	Reversible heat pump with AQUALOGIK technology
CRA-M/SZ/K/AP/ST	CRA-M/SZ/K/WP/AP/ST
Cooling only with high ESP fans and AQUALOGIK technology	Reversible heat pump with high ESP fans and AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device for modulating adjustment of the dampers.
- Condensing control included, allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system with AQUALOGIK technology.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers

MODEL			181-P	241-P	301-P	392-P
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6
		kW	45.5	62.0	81.1	111
	Absorbed power (1)	kW	17.4	24.8	30.1	48.8
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.0
		kW	52.4	72.4	90.3	130
	Absorbed power (2)	kW	16.6	23.4	29.9	46.0
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0
		l/s	2.17	2.96	3.87	5.30
	Pressure drops	ft WG	17.0	17.7	13.0	18.3
		kPa	51	53	39	55
Water connections	"G	1½"	1½"	2½"	2½"	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60			
	Max. running current	A	42	50	66	102
	Inrush current	A	195	234	293	288
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	66	67	68	---
	High ESP version with SL accessory (3)	dB(A)	63	64	65	---
Available static pressure	STD version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
	High ESP version	in WG	1.18	1.08	1.14	---
		Pa	295	270	285	---
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85
	Available static pressure	ft WG	36.7	35.0	48.3	38.3
		kPa	110	105	145	115
	Expansion vessel	gal	3.2	3.2	3.2	3.2
		l	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	630	690	756	834
	Operating weight	Kg	635	695	775	850

DIMENSIONS			181-P	241-P	301-P	392-P
L	STD	mm	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100
H	STD	mm	2005	2005	2005	2005

DIMENSIONAL & CLEARANCE AREA

NOTES

CRA-M/SZ/K/ST 181-P÷392-P

300 | 1800 | 800 | 800



- Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 - Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 13 TON TO 32 TON.
FROM 46 KW TO 111 KW.

CRA-M/SZ/K 181÷392

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.



60 Hz



The indoor installation liquid chillers and heat pumps of the CRA-M/SZ/K 181÷392 **HYDROPLUS** series, with R410A refrigerant, are designed to meet the needs of medium-sized service or industrial systems with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes.

Equipped with radial fans, Scroll compressors and shell and tube exchangers, these units are available even in the version with high ESP fans; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CRA-M/SZ/K

Cooling only

CRA-M/SZ/K/WP

Reversible heat pump

CRA-M/SZ/K/AP

Cooling only with high ESP fans

CRA-M/SZ/K/WP/AP

Reversible heat pump with high ESP fans

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CCM	Condensing control down to 0 °C
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

MODEL			181	241	301	392
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6
		kW	45.5	62.0	81.1	111
	Absorbed power (1)	kW	17.4	24.8	30.1	48.8
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.0
		kW	52.4	72.4	90.3	130
	Absorbed power (2)	kW	16.6	23.4	29.9	46.0
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0
		l/s	2.17	2.96	3.87	5.30
	Pressure drops	ft WG	8.7	16.3	13.3	14.3
		kPa	26	49	40	43
	Water connections	"G	1½"	2"	2½"	3"
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60			
	Max. running current	A	40	48	63	97
	Inrush current	A	193	232	290	283
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	66	67	68	---
	High ESP version with SL accessory (3)	dB(A)	63	64	65	---
		---	---	---	---	---
Available static pressure	STD version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
	High ESP version	in WG	1.18	1.08	1.14	---
		Pa	295	270	285	---
	Weights	Transport weight	Kg	651	710	780
Operating weight		Kg	670	730	810	900

1
2
3
4
5

DIMENSIONS				181	241	301	392
L	STD	mm		2350	2350	2350	2350
W	STD	mm		1100	1100	1100	1100
H	STD	mm		2005	2005	2005	2005

DIMENSIONAL & CLEARANCE AREA

CRA-M/SZ/K 181÷392

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 13 TON TO 32 TON.
FROM 46 KW TO 111 KW.

CRA-M/SZ/K/ST 181÷392

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH RADIAL FANS, SCROLL COMPRESSORS, SHELL AND TUBE EXCHANGER, PUMP KIT AND AQUALOGIK CONTROL SYSTEM.



60 Hz



The indoor installation liquid chillers and heat pumps of the CRA-M/sZ/K/ST 181÷392 **HYDROPLUS** series, with R410A refrigerant and **AQUALOGIK** technology, are designed to meet the needs of medium-sized service or industrial systems with particular difficulty in positioning units outside the building. They are used, combined with terminal units, for the air conditioning of the rooms or to remove the heat developed during industrial processes. They are managed by the **AQUALOGIK** smart control system, with built-in hydronic kit featuring safety valve, expansion vessel and Inverter pump that dynamically runs machine operating parameters, adapting them to real system load requirements. **AQUALOGIK** optimises the water set point and modulates the Inverter pump and the fans, thus making the use of the inertial tank unnecessary. These provide high energy efficiency, quiet operation and optimised dimensions and costs.

Equipped with radial fans, Scroll compressors and shell and tube exchangers, they are available even in the version with high ESP fans; they can be supplied with RS 485 ModBus connection.

A wide range of accessories, factory-assembled or supplied separately, completes the outstanding versatility and functionality of the series.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CRA-M/SZ/K/ST

Cooling only with AQUALOGIK technology

CRA-M/SZ/K/WP/ST

Reversible heat pump with AQUALOGIK technology

CRA-M/SZ/K/AP/ST

Cooling only with high ESP fans and AQUALOGIK technology

CRA-M/SZ/K/WP/AP/ST

Reversible heat pump with high ESP fans and AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser with copper tube and aluminium finned coil.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules, overload protection for compressors and thermo-contacts for fans.
- Electronic proportional device for modulating adjustment of the dampers.
- Condensing control included allows to reach up to -20°C external air temperature.
- Microprocessor control and regulation system with AQUALOGIK technology.
- The hydraulic circuit includes INVERTER circulation pump, safety valve and expansion vessel.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT/S	Total heat recovery in series

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
RP	Metallic guards for condenser
AG	Rubber shock absorbers
FL	Flow switch

MODEL		181	241	301	392	
Cooling	Cooling capacity (1)	TON	12.9	17.6	23.1	31.6
		kW	45.5	62.0	81.1	111
	Absorbed power (1)	kW	17.4	24.8	30.1	48.8
Heating	Heating capacity (2)	TON	14.9	20.6	25.7	37.0
		kW	52.4	72.4	90.3	130
	Absorbed power (2)	kW	16.6	23.4	29.9	46.0
Compressors	Quantity	n°	1	1	1	2
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	1	1	1	2
Evaporator	Water flow	gpm	34.4	46.9	61.3	84.0
		l/s	2.17	2.96	3.87	5.30
	Pressure drops	ft WG	8.7	16.3	13.3	14.3
		kPa	26	49	40	43
Water connections	"G	1½"	2"	2½"	3"	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60			
	Max. running current	A	42	50	66	102
	Inrush current	A	195	234	293	288
Sound pressure	STD version (3)	dB(A)	65	66	67	68
	With SL accessory (3)	dB(A)	62	63	64	65
	High ESP version (3)	dB(A)	65	66	67	---
	High ESP version with SL accessory (3)	dB(A)	62	63	64	---
Available static pressure	STD version	in WG	0.68	0.62	0.60	0.48
		Pa	170	155	150	120
	High ESP version	in WG	6.82	6.22	6.02	---
		Pa	170	155	150	---
Water circuit	Pump nominal power	kW	0.75	0.75	1.10	1.85
	Available static pressure	ft WG	45.0	35.0	48.3	41.7
		kPa	135	105	145	125
	Expansion vessel	gal	3.2	3.2	3.2	3.2
		l	12	12	12	12
Water connections	"G	2½"	2½"	2½"	2½"	
Weights	Transport weight	Kg	666	725	795	886
	Operating weight	Kg	685	745	825	920

DIMENSIONS			181	241	301	392
L	STD	mm	2350	2350	2350	2350
W	STD	mm	1100	1100	1100	1100
H	STD	mm	2005	2005	2005	2005

DIMENSIONAL & CLEARANCE AREA

CRA-M/SZ/K/ST 181÷392

300 | 1800 | 800 | 800



NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
 2. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.



CHAPTER 2

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS.
REMOTE HYDRONIC MODULES

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CWW-M/K 181-P÷522-P	84 - 85
CWW-M/K 181÷522	86 - 87
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CWW-M/SZ/K 181÷522	98 - 99
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CWW-M/SZ/K 724÷1306	102 - 103
CWW-M/SZ/Y 1302÷2002	104 - 105
MR-M/SZ 200-400	106 - 107

FROM 16 TON TO 50 TON.
FROM 58 KW TO 176 KW.

CWW-M/K 181-P÷522-P

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGERS.



The CWW-M/K 181-P÷522-P **HYDROPLUS** liquid chillers and heat pumps, with R410A refrigerant, are designed to meet the needs of medium-sized domestic or industrial systems which require medium-high power, space-saving units and quiet operation. These units are ideal for indoor installation and, equipped with a self-contained structure, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

Equipped with prepainted plate structure, Scroll compressors and plate type exchangers, these units have cooling and hydraulic circuits complete for quick installation and high energy efficiency, even in the version with tank and pump.

A wide series of accessories, factory-assembled or supplied separately, such as the desuperheater or the total heat recuperator, rounds off the variety of equipment in this product range.



VERSIONS

CWW-M/K

Cooling only

CWW-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers

CWW-M/K 181-P÷522-P

MODEL			181-P	241-P	301-P	392-P	522-P	
Cooling	Cooling capacity (1)	TON	16.3	21.0	26.9	39.0	50.0	
		kW	57.5	73.9	94.5	137	176	
Heating	Heating capacity (2)	TON	20.3	26.3	33.0	47.8	62.0	
		kW	71.3	92.4	116	168	218	
Compressors	Absorbed power (2)	kW	16.8	21.3	27.6	40.6	51.9	
		Quantity	n°	1	1	1	2	2
		Refrigerant circuits	n°	1	1	1	1	1
Evaporator	Capacity steps	n°	1	1	1	2	2	
		Water flow	gpm	43.6	56.0	71.6	104	133
		l/s	2.75	3.53	4.52	6.55	8.41	
	Pressure drops	ft WG	14.3	17.3	15.3	17.0	18.7	
		kPa	43	52	46	51	56	
Water connections	"G	32	32	65	65	65		
Condenser	Water flow	gpm	53.6	68.8	88.1	128	165	
		l/s	3.38	4.34	5.56	8.07	10.38	
	Pressure drops	ft WG	17.3	19.7	16.0	18.0	20.0	
		kPa	52	59	48	54	60	
Water connections	"G	32	32	65	65	65		
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50					
	Max. running current	A	39	48	59	95	119	
	Inrush current	A	215	260	320	308	379	
Sound pressure	STD version (3)	dB(A)	59	59	60	60	62	
	With SL accessory (3)	dB(A)	56	56	57	57	59	
Unit with tank and pump	Pump nominal power	kW	0.75	0.75	1.10	1.50	1.85	
		Available static pressure	ft WG	41.7	33.3	40.0	41.7	40.0
	Tank water volume	kPa	125	100	120	125	120	
		gal	79.4	79.4	79.4	79.4	79.4	
	Expansion vessel	l	300	300	300	300	300	
		gal	3.2	3.2	3.2	3.2	3.2	
Water connections	"G	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2		
Weights	Transport weight (4)	Kg	372	391	456	609	725	
	Operating weight (4)	Kg	380	400	470	620	750	

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
L	STD	mm	1200	1200	1200	1600	1600
L (STD+SPD)	STD	mm	2310	2310	2310	2710	2710
L (STD+SPU)	STD	mm	2310	2310	2310	2710	2710
W	STD	mm	680	680	680	680	680
H	STD	mm	1520	1520	1520	1520	1520

DIMENSIONAL & CLEARANCE AREA

CWW-M/K 181-P÷522-P

0 | 300 | 800 | 300



Electrical board side

NOTES

1. Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 2. Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 16 TON TO 50 TON.
FROM 58 KW TO 176 KW.

CWW-M/K 181÷522

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGERS.



The CWW-M/K 181÷522 **HYDROPLUS** liquid chillers and heat pumps, with R410A refrigerant, are designed to meet the needs of medium-sized domestic or industrial systems which require medium-high power, space-saving units and quiet operation. These units are ideal for indoor installation and they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

Equipped with Scroll compressors and shell and tube exchangers, these units have cooling and hydraulic circuits complete for quick installation and high energy efficiency.

A wide series of accessories, factory-assembled or supplied separately, such as the desuperheater or the total heat recuperator, rounds off the variety of equipment in this product range.



VERSIONS

CWW-M/K

Cooling only

CWW-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Shell and tube type condenser, with each refrigerant circuit supplied with an independent condenser. Easily removable cast iron heads to enable access for maintenance operations. Water connections for cooling tower and dry cooler operation; on request for well water.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers
FL	Flow switch

CWW-M/K 181÷522

MODEL			181	241	301	392	522
Cooling	Cooling capacity (1)	TON	16.3	21.0	26.9	39.0	50.0
		kW	57.5	73.9	94.5	137	176
	Absorbed power (1)	kW	13.2	16.9	21.9	31.9	41.3
Heating	Heating capacity (2)	TON	20.3	26.3	33.0	47.8	62.0
		kW	71.3	92.4	116	168	218
	Absorbed power (2)	kW	16.8	21.3	27.6	40.6	51.9
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	43.6	56.0	71.6	104	133
		l/s	2.75	3.53	4.52	6.55	8.41
	Pressure drops	ft WG	14.3	17.3	15.3	17.0	18.7
		kPa	43	52	46	51	56
	Water connections	"G	1½"	2"	2½"	3"	3"
Condenser	Water flow	gpm	53.6	68.8	88.1	128	165
		l/s	3.38	4.34	5.56	8.07	10.38
	Pressure drops	ft WG	3.7	5.0	8.3	10.0	16.7
		kPa	11	15	25	30	50
	Water connections	"G	2½"	2½"	2½"	2½"	2½"
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	39	48	59	95	119
	Inrush current	A	215	260	320	308	379
Sound pressure	STD version (3)	dB(A)	59	59	60	60	62
	With SL accessory (3)	dB(A)	56	56	57	57	59
Weights	Transport weight	Kg	492	516	592	722	879
	Operating weight	Kg	520	550	630	780	950

DIMENSIONS			181	241	301	392	522
L	STD	mm	2000	2200	2200	2200	2500
W	STD	mm	820	820	820	850	850
H	STD	mm	1400	1400	1400	1400	1400

DIMENSIONAL & CLEARANCE AREA

CWW-M/K 181÷522

500 | 500 | 800 | 1000



Electrical board side

NOTES

1. Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 2. Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 67 TON TO 152 TON.
FROM 235 KW TO 533 KW.

CWW-M/K 724-P÷1306-P

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGERS.



The CWW-M/K 724-P÷1306-P **NEXTPOWER** series, with R410A refrigerant, Scroll compressors and plate exchangers, is designed to meet the needs of industrial systems requiring high power, space-saving units and quiet operation.

These units are ideal for indoor installation reducing the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

High reliability is the key plus of NEXTPOWER, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels.

NEXTPOWER obtains high energy yield with elevated ESEER/IPLV values; thanks to the high partialization and the intelligent control module, it doesn't require inertial storage tank.



VERSIONS

CWW-M/K

Cooling only

CWW-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser AISI 316 stainless steel braze welded plate type with two independent circuits on the refrigerant side and one on the water side.
- Evaporator AISI 316 stainless steel braze welded plate type with two independent circuits on the refrigerant side and one on the water side, completed with water differential pressure switch.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers

CWW-M/K 724-P÷1306-P

MODEL			724-P	824-P	1044-P	1206-P	1306-P
Cooling	Cooling capacity (1)	TON	66.8	80.5	99.8	124	152
		kW	235	283	351	437	533
	Absorbed power (1)	kW	55	64	83	100	126
		TON	85.9	100	128	154	191
Heating	Heating capacity (2)	kW	302	353	451	541	670
		kW	70	83	105	128	161
Compressors	Quantity	n°	4	4	4	6	6
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow	gpm	178	214	266	331	404
		l/s	11.23	13.52	16.77	20.88	25.47
	Pressure drops	ft WG	18.3	18.0	25.3	17.7	19.7
		kPa	55	54	76	53	59
Water connections	DN	80	80	80	80	80	
Condenser	Water flow	gpm	219	263	329	406	499
		l/s	13.84	16.59	20.73	25.64	31.50
	Pressure drops	ft WG	23.0	17.0	24.3	20.3	22.3
		kPa	69	51	73	61	67
Water connections	DN	80	80	80	80	80	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	146	180	225	270	337
	Inrush current	A	324	395	489	485	601
Sound pressure	STD version (3)	dB(A)	64	65	65	66	66
	With SL accessory (3)	dB(A)	60	61	61	62	62
Weights	Transport weight	Kg	1093	1162	1362	1531	1889
	Operating weight	Kg	1120	1210	1410	1600	1970

DIMENSIONS			724-P	824-P	1044-P	1206-P	1306-P
L	STD	mm	2500	2500	2500	3000	3000
W	STD	mm	800	800	800	800	800
H	STD	mm	1900	1900	1900	1900	1900

DIMENSIONAL & CLEARANCE AREA

CWW-M/K 724-P÷1306-P

500 | 500 | 800 | 500



NOTES

- Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 - Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 67 TON TO 152 TON.
FROM 235 KW TO 533 KW.

CWW-M/K 724÷1306

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGERS.



The CWW-M/K 724÷1306 **NEXTPOWER** series, with R410A refrigerant, Scroll compressors and shell and tube exchangers, is designed to meet the needs of industrial systems requiring high power, space-saving units and quiet operation.

These units are ideal for indoor installation reducing the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

High reliability is the key plus of **NEXTPOWER**, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels.

NEXTPOWER obtains high energy yield with elevated ESEER/IPLV values; thanks to the high partialization and the intelligent control module, it doesn't require inertial storage tank.



VERSIONS

CWW-M/K

Cooling only

CWW-M/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Shell and tube type condenser, with each refrigerant circuit supplied with an independent condenser. Easily removable cast iron heads to enable access for maintenance operations. Water connections for cooling tower and dry cooler operation; on request for well water.
- Shell and tube type evaporator with two independent circuits on the refrigerant side and one on the water side.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers
FL	Flow switch

CWW-M/K 724÷1306

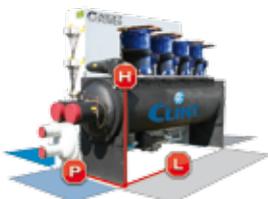
MODEL			724	824	1044	1206	1306
Cooling	Cooling capacity (1)	TON	66.8	80.5	99.8	124	152
		kW	235	283	351	437	533
	Absorbed power (1)	kW	55	64	83	100	126
		TON	85.9	100	128	154	191
Heating	Heating capacity (2)	kW	302	353	451	541	670
		kW	70	83	105	128	161
Compressors	Quantity	n°	4	4	6	6	6
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	6	6	6
Evaporator	Water flow	gpm	178	214	266	331	404
		l/s	11.23	13.52	16.77	20.88	25.47
	Pressure drops	ft WG	19.0	17.7	18.3	17.3	20.0
		kPa	57	53	55	52	60
Water connections	DN	125	125	125	125	125	
Condenser	Water flow	gpm	219	263	329	406	499
		l/s	13.84	16.59	20.73	25.64	31.50
	Pressure drops	ft WG	20.0	16.7	21.0	17.3	20.3
		kPa	60	50	63	52	61
Water connections	DN	65	65	65	80	80	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	146	180	225	270	337
	Inrush current	A	324	395	489	485	601
Sound pressure	STD version (3)	dB(A)	64	65	65	66	66
	With SL accessory (3)	dB(A)	60	61	61	62	62
Weights	Transport weight	Kg	1530	1600	1870	2180	2550
	Operating weight	Kg	1630	1720	2020	2370	2770

DIMENSIONS			724	824	1044	1206	1306
L	STD	mm	3300	3300	3300	3300	3300
W	STD	mm	850	850	850	850	850
H	STD	mm	1800	1800	1800	1800	1800

DIMENSIONAL & CLEARANCE AREA

CWW-M/K 724÷1306

500 | 500 | 800 | 500



NOTES

- Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 - Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 69 TON TO 141 TON.
FROM 241 KW TO 496 KW.

CWW-M/Y 1302÷2002

WATERCOOLED LIQUID CHILLERS WITH SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGERS.



The liquid chillers of CWW-M/Y 1302÷2002 **ENERGYMAX** series, with R134a refrigerant, are designed to meet the needs of large-sized service or industrial systems requiring high power, space-saving units and quiet operation.

Equipped with latest generation Screw compressors, shell and tube exchangers and connections for condensation with cooling tower or dry-cooler, they have a wide series of accessories which are factory-assembled or supplied separately such as: total heat recuperator, soft start and, if necessary, a device for operating a heat pump.

Designed and produced to optimize the layout of each component so as to make any necessary maintenance operations more convenient, these units have an essential and compact structure intended for indoor installation.



VERSIONS

CWW-M/Y

Cooling only

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Screw compressors, with built-in oil separator, suction filter, crankcase heater, sight glass, thermal protection, hot gas shut off valves and capacity steps.
- Shell and tube type condenser, with each refrigerant circuit supplied with an independent condenser. Easily removable cast iron heads to enable access for maintenance operations. Water connections for cooling tower and dry cooler operation; on request for well water.
- Shell and tube type evaporator with two independent circuits on the refrigerant side and one on the water side.
- Electronic thermostatic valve.
- R134a refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

RZ	Compressors stepless control
BT	Low Temperature Kit
HR	Desuperheater
HRT	Total heat recovery
SS	Soft start
DP	Device for heat pump operation
WM	Web Monitoring enables remote management of the system through communication protocols GPRS/GSM/TCP
CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV3	3-way pressostatic valve
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

CWW-M/Y 1302÷2002

MODEL			1302	1502	1702	1902	2002
Cooling	Cooling capacity (1)	TON	68.5	86.7	104	123	141
		kW	241	305	367	431	496
	Absorbed power (1)	kW	54	70	83	93	110
Heating	Heating capacity (2)	TON	79.3	101	119	140	161
		kW	279	354	420	493	567
	Absorbed power (2)	kW	69	89	107	120	142
Compressors	Quantity	n°	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	6	6	6	6	6
Evaporator	Water flow	gpm	182	231	278	326	376
		l/s	11.51	14.57	17.53	20.59	23.70
	Pressure drops	ft WG	19.3	14.3	19.0	14.7	20.0
		kPa	58	43	57	44	60
Water connections	DN	125	125	125	125	125	
Condenser	Water flow	gpm	223	284	341	397	459
		l/s	14.09	17.89	21.48	25.04	28.96
	Pressure drops	ft WG	19.7	19.3	23.3	15.7	22.3
		kPa	59	58	70	47	67
Water connections	DN	65	65	65	80	80	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50				
	Max. running current	A	234	262	310	339	410
	Inrush current	A	355	369	420	494	587
Sound pressure	STD version (3)	dB(A)	69	69	70	70	69
Weights	Transport weight	Kg	1950	2370	2480	2770	3165
	Operating weight	Kg	2100	2580	2690	3010	3520

DIMENSIONS			1302	1502	1702	1902	2002
L	STD	mm	3300	3300	3300	3300	3300
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1900	1900	1900	1900	1900

DIMENSIONAL & CLEARANCE AREA

CWW-M/Y 1302÷2002

500 | 500 | 800 | 500



NOTES

1. Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
2. Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

200 GAL. AND 400 GAL.
760 LT. AND 1520 LT.

MR-M 200-400

REMOTE HYDRONIC MODULES WITH PUMP KIT.



The remote hydronic modules with pumping group of the MR-M 200-400 series are designed to solve technical problems resulting from thermal inertia in cooling systems for both residential and industrial use.

Installing a tank for cooled water allows units to reduce the operating cycles of the compressors, thus extending the useful life of the machines. It also results in a greater capacity of the system itself, a remarkable operational saving even using machines with reduced capacities and a greater flexibility, being able to work with temperatures other than the design temperatures.

The remote hydronic modules are made of galvanized steel frame protected with polyester powder painting, with a capacity of 200 and 400 gal (760 and 1520 lt); they are available with single circulation pump or double circulation pump accessory and are completed with all the components necessary for a quick on-site installation.

VERSIONS

MR-M 200

200 gal. - 760 lt.

MR-M 400

400 gal. - 1520 lt.

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting. Easy to remove panels allow access to the inside of the unit for maintenance and other necessary operations.
- Electrical board, present only with the accessory "circulating pump", includes: main switch with door safety interlock; automatic switches for protection of circulating pumps, secondary circuit and antifreeze heaters; signalling lamps; interface relay and clamps for external connections.
- Water circuit includes: insulated inertial tank; safety valve; manual air release valves; expansion vessel; gauge; plant charge and discharge water shut off valve.

ACCESSORIES

FACTORY FITTED ACCESSORIES

- PU1-PU4 Single circulating pump
- PD1-PD4 Double circulating pump

MR-M 200-400

MODEL			200	400
Pumping kit	Storage water volume	gal	200	400
		l	760	1520
	Expansion vessel	gal	1	1
		l	2x25	2x25
Water connections		"G	4"	4"
Transport weight	STD	Kg	390	470
	STD+PU1	Kg	433	513
	STD+PU2	Kg	532	569
	STD+PU3	Kg	631	569
	STD+PU4	Kg	795	634
	STD+PD1	Kg	1181	586
	STD+PD2	Kg	1407	696
	STD+PD3	Kg	1633	696
	STD+PD4	Kg	1989	826
	Operating weight	STD	Kg	1150
STD+PU1		Kg	1193	2033
STD+PU2		Kg	1292	2089
STD+PU3		Kg	1391	2089
STD+PU4		Kg	1555	2154
STD+PD1		Kg	1941	2106
STD+PD2		Kg	2167	2216
STD+PD3		Kg	2393	2216
STD+PD4		Kg	2749	2346
PUMP ELECTRICAL CHARACTERISTICS				
Power supply		V/Ph/Hz	400 / 3 / 50	
Nominal absorbed power	PU1	kW	3.0	3.0
	PU2	kW	5.5	5.5
	PU3	kW	7.5	7.5
	PU4	kW	15	15
Max running current	PU1	A	5.6	5.6
	PU2	A	11	11
	PU3	A	15	15
	PU4	A	29	29

DIMENSIONS			200	400
L	STD	mm	1900	1900
W	STD	mm	2200	2200
H	STD	mm	1800	1800

DIMENSIONAL & CLEARANCE AREA

NOTES

MR-M 200-400

N.B. PD = two PU pumps

800 | 800 | 800 | 800



Electrical board side

FROM 15 TON TO 50 TON.
FROM 54 KW TO 175 KW.

CWW-M/SZ/K 181-P÷522-P

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGERS.



60 Hz



The CWW-M/SZ/K 181-P÷522-P **HYDROPLUS** liquid chillers and heat pumps, with R410A refrigerant, are designed to meet the needs of medium-sized domestic or industrial systems which require medium-high power, space-saving units and quiet operation. These units are ideal for indoor installation and, equipped with a self-contained structure, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

Equipped with prepainted plate structure, Scroll compressors and plate type exchangers, these units have cooling and hydraulic circuits complete for quick installation and high energy efficiency, even in the version with tank and pump.

A wide series of accessories, factory-assembled or supplied separately, such as the desuperheater or the total heat recuperator, rounds off the variety of equipment in this product range.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CWW-M/SZ/K

CWW-M/SZ/K/WP

Cooling only

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side.
- Evaporator AISI 316 stainless steel braze welded plate type with one circuit on the refrigerant side and one on the water side, completed with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers

MODEL			181-P	241-P	301-P	392-P	522-P
Cooling	Cooling capacity (1)	TON	15.3	20.7	26.5	38.7	49.8
		kW	53.8	72.9	93.1	136	175
	Absorbed power (1)	kW	11.3	16.7	21.1	30.8	38.8
Heating	Heating capacity (2)	TON	19.0	25.9	32.4	47.5	61.7
		kW	66.7	91.1	114	167	217
	Absorbed power (2)	kW	14.4	21.0	26.5	39.2	48.8
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	40.7	55.2	70.5	103	133
		l/s	2.57	3.48	4.45	6.50	8.36
	Pressure drops	ft WG	12.7	17.0	15.0	16.7	18.3
		kPa	38	51	45	50	55
Water connections	"G	32	32	65	65	65	
Condenser	Water flow	gpm	49.3	67.8	86.5	112	162
		l/s	3.11	4.28	5.46	7.07	10.21
	Pressure drops	ft WG	14.7	19.0	15.3	17.7	19.3
		kPa	44	57	46	53	58
Water connections	"G	32	32	65	65	65	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	34	42	51	83	103
	Inrush current	A	187	226	278	268	330
Unit with tank and pump	Pump nominal power	kW	0.75	0.75	1.10	1.50	1.85
	Available static pressure	ft WG	43.3	33.3	40.0	41.7	40.0
		kPa	130	100	120	125	120
	Tank water volume	gal	79.4	79.4	79.4	79.4	79.4
		l	300	300	300	300	300
	Expansion vessel	gal	3.2	3.2	3.2	3.2	3.2
l		12	12	12	12	12	
Water connections	"G	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	
Sound pressure	STD version (3)	dB(A)	59	59	60	60	62
	With SL accessory (3)	dB(A)	56	56	57	57	59
Weights	Transport weight (4)	Kg	348	366	426	569	678
	Operating weight (4)	Kg	355	375	440	580	705

DIMENSIONS			181-P	241-P	301-P	392-P	522-P
L	STD	mm	1200	1200	1200	1600	1600
L (STD+SPD)	STD	mm	2310	2310	2310	2710	2710
L (STD+SPU)	STD	mm	2310	2310	2310	2710	2710
W	STD	mm	680	680	680	680	680
H	STD	mm	1520	1520	1520	1520	1520

DIMENSIONAL & CLEARANCE AREA

CWW-M/SZ/K 181-P÷522-P

0 | 300 | 800 | 300



NOTES

1. Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 2. Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 15 TON TO 50 TON.
FROM 54 KW TO 175 KW.

CWW-M/SZ/K 181÷522

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGERS.



60 Hz



The CWW-M/SZ/K 181÷522 **HYDROPLUS** liquid chillers and heat pumps, with R410A refrigerant, are designed to meet the needs of medium-sized domestic or industrial systems which require medium-high power, space-saving units and quiet operation. These units are ideal for indoor installation and they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

Equipped with Scroll compressors and shell and tube exchangers, these units have cooling and hydraulic circuits complete for quick installation and high energy efficiency.

A wide series of accessories, factory-assembled or supplied separately, such as the desuperheater or the total heat recuperator, rounds off the variety of equipment in this product range.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CWW-M/SZ/K

CWW-M/SZ/K/WP

Cooling only

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Shell and tube type condenser, with each refrigerant circuit supplied with an independent condenser. Easily removable cast iron heads to enable access for maintenance operations. Water connections for cooling tower and dry cooler operation; on request for well water.
- Shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers
FL	Flow switch

MODEL			181	241	301	392	522
Cooling	Cooling capacity (1)	TON	15.3	20.7	26.5	38.7	49.8
		kW	53.8	72.9	93.1	136	175
	Absorbed power (1)	kW	11.3	16.7	21.1	30.8	38.8
Heating	Heating capacity (2)	TON	19.0	25.9	32.4	47.5	61.7
		kW	66.7	91.1	114	167	217
	Absorbed power (2)	kW	14.4	21.0	26.5	39.2	48.8
Compressors	Quantity	n°	1	1	1	2	2
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	1	1	1	2	2
Evaporator	Water flow	gpm	40.7	55.2	70.5	103	133
		l/s	2.57	3.48	4.45	6.50	8.36
	Pressure drops	ft WG	11.0	21.0	17.7	20.7	16.0
		kPa	33	63	53	62	48
	Water connections	"G	1½"	2"	2½"	3"	3"
Condenser	Water flow	gpm	50.6	68.9	86.4	127	164
		l/s	3.19	4.35	5.45	7.98	10.37
	Pressure drops	ft WG	17.0	32.7	26.3	31.0	24.7
		kPa	51	98	79	93	74
	Water connections	"G	2½"	2½"	2½"	2½"	2½"
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	34	42	51	83	103
	Inrush current	A	187	226	278	268	330
Sound pressure	STD version (3)	dB(A)	59	59	60	60	62
	With SL accessory (3)	dB(A)	56	56	57	57	59
Weights	Transport weight	Kg	460	482	554	675	822
	Operating weight	Kg	490	515	590	735	895

DIMENSIONS			181	241	301	392	522
L	STD	mm	2000	2200	2200	2200	2500
W	STD	mm	820	820	820	850	850
H	STD	mm	1400	1400	1400	1400	1400

DIMENSIONAL & CLEARANCE AREA

CWW-M/SZ/K 181÷522

500 | 500 | 800 | 1000



Electrical board side

NOTES

1. Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 2. Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 66 TON TO 150 TON.
FROM 232 KW TO 526 KW.

CWW-M/SZ/K 724-P÷1306-P

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGERS.



60 Hz



The CWW-M/SZ/K 724-P÷1306-P **NEXTPOWER** series, with R410A refrigerant, Scroll compressors and plate exchangers, is designed to meet the needs of industrial systems requiring high power, space-saving units and quiet operation.

These units are ideal for indoor installation reducing the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

High reliability is the key plus of NEXTPOWER, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels.

NEXTPOWER obtains high energy yield with elevated ESEER/IPLV values; thanks to the high partialization and the intelligent control module, it doesn't require inertial storage tank.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CWW-M/SZ/K

CWW-M/SZ/K/WP

Cooling only

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser AISI 316 stainless steel braze welded plate type with two independent circuits on the refrigerant side and one on the water side.
- Evaporator AISI 316 stainless steel braze welded plate type with two independent circuits on the refrigerant side and one on the water side, completed with water differential pressure switch.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
BT	Low Temperature Kit
DS	Desuperheater
RT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers

MODEL			724-P	824-P	1044-P	1206-P	1306-P
Cooling	Cooling capacity (1)	TON	66.0	79.3	98.4	123	150
		kW	232	279	346	431	526
	Absorbed power (1)	kW	54	64	82	98	125
		TON	84.7	99.0	127	152	188
Heating	Heating capacity (2)	kW	298	348	445	534	661
		kW	69	82	104	126	159
Compressors	Quantity	n°	4	4	4	6	6
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow	gpm	176	211	262	326	398
		l/s	11.08	13.33	16.53	20.59	25.13
	Pressure drops	ft WG	18.0	17.3	24.7	17.3	19.0
		kPa	54	52	74	52	57
Water connections	DN	80	80	80	80	80	
Condenser	Water flow	gpm	217	259	324	401	493
		l/s	13.66	16.36	20.44	25.29	31.09
	Pressure drops	ft WG	22.3	16.7	23.7	19.7	21.7
		kPa	67	50	71	59	65
Water connections	DN	80	80	80	80	80	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	127	157	196	235	293
	Inrush current	A	282	343	425	422	523
Sound pressure	STD version (3)	dB(A)	64	65	65	66	66
	With SL accessory (3)	dB(A)	60	61	61	62	62
Weights	Transport weight	Kg	1044	1110	1301	1462	1804
	Operating weight	Kg	1070	1160	1350	1530	1885

DIMENSIONS			724-P	824-P	1044-P	1206-P	1306-P
L	STD	mm	2500	2500	2500	3000	3000
W	STD	mm	800	800	800	800	800
H	STD	mm	1900	1900	1900	1900	1900

DIMENSIONAL & CLEARANCE AREA

CWW-M/SZ/K 724-P÷1306-P

500 | 500 | 800 | 500



NOTES

- Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 - Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 66 TON TO 150 TON.
FROM 232 KW TO 526 KW.

CWW-M/SZ/K 724÷1306

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGERS.



The CWW-M/SZ/K 724÷1306 **NEXTPOWER** series, with R410A refrigerant, Scroll compressors and shell and tube exchangers, is designed to meet the needs of industrial systems requiring high power, space-saving units and quiet operation.

These units are ideal for indoor installation reducing the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

High reliability is the key plus of **NEXTPOWER**, thanks to the use of components built in large series and the management of several compressors allowing an increased compressor life span and the reduction of machine stopping risks: a faulty compressor will not compromise the functioning of the unit, that will continue to work with decreased power levels.

NEXTPOWER obtains high energy yield with elevated ESEER/IPLV values; thanks to the high partialization and the intelligent control module, it doesn't require inertial storage tank.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CWW-M/SZ/K

Cooling only

CWW-M/SZ/K/WP

Reversible heat pump

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Shell and tube type condenser, with each refrigerant circuit supplied with an independent condenser. Easily removable cast iron heads to enable access for maintenance operations. Water connections for cooling tower and dry cooler operation; on request for well water.
- Shell and tube type evaporator with two independent circuits on the refrigerant side and one on the water side.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
BT	Low Temperature Kit
HR	Desuperheater
HRT	Total heat recovery

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV2	2-way pressostatic valve
PV3	3-way pressostatic valve
AG	Rubber shock absorbers
FL	Flow switch

MODEL			724	824	1044	1206	1306
Cooling	Cooling capacity (1)	TON	66.0	79.3	98.4	123	150
		kW	232	279	346	431	526
	Absorbed power (1)	kW	54	64	82	98	125
Heating	Heating capacity (2)	TON	84.7	99.0	127	152	188
		kW	298	348	445	534	661
	Absorbed power (2)	kW	69	82	104	126	159
Compressors	Quantity	n°	4	4	4	6	6
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	4	4	4	6	6
Evaporator	Water flow	gpm	176	211	262	326	398
		l/s	11.08	13.33	16.53	20.59	25.13
	Pressure drops	ft WG	18.3	17.3	17.7	17.0	19.3
		kPa	55	52	53	51	58
Water connections	DN	125	125	125	125	125	
Condenser	Water flow	gpm	217	259	324	401	493
		l/s	13.66	16.36	20.44	25.29	31.09
	Pressure drops	ft WG	19.3	16.3	20.3	17.0	19.7
		kPa	58	49	61	51	59
Water connections	DN	65	65	65	80	80	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	127	157	196	235	293
	Inrush current	A	282	343	425	422	523
Sound pressure	STD version (3)	dB(A)	64	65	65	66	66
	With SL accessory (3)	dB(A)	60	61	61	62	62
Weights	Transport weight	Kg	1460	1530	1790	2020	2440
	Operating weight	Kg	1560	1650	1940	2210	2660

DIMENSIONS			724	824	1044	1206	1306
L	STD	mm	3300	3300	3300	3300	3300
W	STD	mm	850	850	850	850	850
H	STD	mm	1800	1800	1800	1800	1800

DIMENSIONAL & CLEARANCE AREA

CWW-M/SZ/K 724÷ 1306

500 | 500 | 800 | 500



NOTES

- Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
 - Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 68 TON TO 139 TON.
FROM 238 KW TO 489 KW.

CWW-M/SZ/Y 1302÷2002

WATERCOOLED LIQUID CHILLERS WITH SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGERS.



60 Hz



The liquid chillers of CWW-M/SZ/Y 1302÷2002 **ENERGYMAX** series, with R134a refrigerant, is designed to meet the needs of large-sized service or industrial systems requiring high power, space saving units and quiet operation.

Equipped with latest generation Screw compressors, shell and tube exchangers and connections for condensation with cooling tower or dry-cooler, they have a wide series of accessories which are factory-assembled or supplied separately such as: total heat recuperator, soft start and, if necessary, a device for operating a heat pump.

Designed and produced to optimize the layout of each component so as to make any necessary maintenance operations more convenient, these units have an essential and compact structure intended for indoor installation.

The units feature 460V power supply and 60Hz frequency.



VERSIONS

CWW-M/SZ/Y

Cooling only

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting.
- Screw compressors, with built-in oil separator, suction filter, crankcase heater, sight glass, thermal protection, hot gas shut off valves and capacity steps.
- Shell and tube type condenser, with each refrigerant circuit supplied with an independent condenser. Easily removable cast iron heads to enable access for maintenance operations. Water connections for cooling tower and dry cooler operation; on request for well water.
- Shell and tube type evaporator with two independent circuits on the refrigerant side and one on the water side.
- Electronic thermostatic valve.
- R134a refrigerant.
- Electrical board includes: main switch with door safety interlock, protection modules and overload protection for compressors.

ACCESSORIES

FACTORY FITTED ACCESSORIES

RZ	Compressors stepless control
BT	Low Temperature Kit
HR	Desuperheater
HRT	Total heat recovery
SS	Soft start
DP	Device for heat pump operation
WM	Web Monitoring enables remote management of the system through communication protocols GPRS/GSM/TCP
CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low gauges
CR	Remote display
IS	RS 485 serial interface
PV3	3-way pressostatic valve
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

MODEL			1302	1502	1702	1902	2002
Cooling	Cooling capacity (1)	TON	67.7	85.6	103	121	139
		kW	238	301	362	425	489
	Absorbed power (1)	kW	53	69	81	92	109
Heating	Heating capacity (2)	TON	78.2	99.2	118	138	159
		kW	275	349	414	486	559
	Absorbed power (2)	kW	69	88	105	119	140
Compressors	Quantity	n°	2	2	2	2	2
	Type		Screw				
	Refrigerant circuits	n°	2	2	2	2	2
	Capacity steps	n°	6	6	6	6	6
Evaporator	Water flow	gpm	180	228	274	322	370
		l/s	11.37	14.38	17.30	20.31	23.36
	Pressure drops	ft WG	19.0	14.0	18.7	14.3	19.3
		kPa	57	42	56	43	58
Water connections	DN	125	125	125	125	125	
Condenser	Water flow	gpm	221	280	336	392	453
		l/s	13.91	17.66	21.18	24.70	28.56
	Pressure drops	ft WG	19.3	19.0	22.7	15.3	21.7
		kPa	58	57	68	46	65
Water connections	DN	65	65	65	80	80	
Electrical characteristics	Power supply	V/Ph/Hz	460 / 3 / 60				
	Max. running current	A	203	228	270	295	357
	Inrush current	A	309	321	365	430	510
Sound pressure	STD version (3)	dB(A)	69	69	70	70	69
Weights	Transport weight	Kg	1900	2310	2420	2700	3090
	Operating weight	Kg	2050	2520	2630	2940	3445

1
2
3
4
5

DIMENSIONS			1302	1502	1702	1902	2002
L	STD	mm	3300	3300	3300	3300	3300
W	STD	mm	1100	1100	1100	1100	1100
H	STD	mm	1900	1900	1900	1900	1900

DIMENSIONAL & CLEARANCE AREA

CWW-M/SZ/Y 1202÷2002

500 | 500 | 800 | 500



NOTES

1. Chilled water from 12 to 7°C, water temperature at the condenser from 30 to 35°C.
2. Heated water from 40 to 45°C, water temperature at the evaporator from 15 to 10°C.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

200 GAL. AND 400 GAL.
760 LT. AND 1520 LT.

MR-M/SZ 200-400

REMOTE HYDRONIC MODULES WITH PUMP KIT.



60 Hz



The remote hydronic modules with pumping group of the MR-M/SZ 200-400 series are designed to solve technical problems resulting from thermal inertia in cooling systems for both residential and industrial use.

Installing a tank for cooled water allows units to reduce the operating cycles of the compressors, thus extending the useful life of the machines. It also results in a greater capacity of the system itself, a remarkable operational saving even using machines with reduced capacities and a greater flexibility, being able to work with temperatures other than the design temperatures.

The remote hydronic modules are made of galvanized steel frame protected with polyester powder painting, with a capacity of 200 and 400 gal (760 and 1520 lt); they are available with single circulation pump or double circulation pump accessory and are completed with all the components necessary for a quick on-site installation.

The units feature 460V power supply and 60Hz frequency.

VERSIONS

MR-M/SZ 200

200 gal. - 760 lt.

MR-M/SZ 400

400 gal. - 1520 lt.

FEATURES

- Self-supporting galvanized steel frame protected with polyester powder painting. Easy to remove panels allow access to the inside of the unit for maintenance and other necessary operations.
- Electrical board, present only with the accessory "circulating pump", includes: main switch with door safety interlock; automatic switches for protection of circulating pumps, secondary circuit and antifreeze heaters; signalling lamps; interface relay and clamps for external connections.
- Water circuit includes: insulated inertial tank; safety valve; manual air release valves; expansion vessel; gauge; plant charge and discharge water shut off valve.

ACCESSORIES

FACTORY FITTED ACCESSORIES

- PU1-PU4 Single circulating pump
PD1-PD4 Double circulating pump

MODEL			200	400	
Pumping kit	Storage water volume	gal	200	400	
		l	760	1520	
	Expansion vessel	gal	1	1	
		l	2x25	2x25	
Water connections	"G	4"	4"		
Transport weight	STD	Kg	390	470	
	STD+PU1	Kg	433	513	
	STD+PU2	Kg	532	569	
	STD+PU3	Kg	631	569	
	STD+PU4	Kg	795	634	
	STD+PD1	Kg	1181	586	
	STD+PD2	Kg	1407	696	
	STD+PD3	Kg	1633	696	
	STD+PD4	Kg	1989	826	
	STD	Kg	1150	1990	
Operating weight	STD+PU1	Kg	1193	2033	
	STD+PU2	Kg	1292	2089	
	STD+PU3	Kg	1391	2089	
	STD+PU4	Kg	1555	2154	
	STD+PD1	Kg	1941	2106	
	STD+PD2	Kg	2167	2216	
	STD+PD3	Kg	2393	2216	
	STD+PD4	Kg	2749	2346	
	PUMP ELECTRICAL CHARACTERISTICS				
	Power supply	V/Ph/Hz	460 / 3 / 60		
Nominal absorbed power	PU1	kW	3.0	3.0	
	PU2	kW	5.5	5.5	
	PU3	kW	7.5	7.5	
	PU4	kW	15	15	
Max running current	PU1	A	4.9	4.9	
	PU2	A	9.6	9.6	
	PU3	A	13	13	
	PU4	A	22	22	

DIMENSIONS			200	400
L	STD	mm	1900	1900
W	STD	mm	2200	2200
H	STD	mm	1800	1800

DIMENSIONAL & CLEARANCE AREA

NOTES

MR-M/SZ 200-400

N.B. PD = two PU pumps



Electrical board side



CHAPTER 3

ROOFTOPS

UNIT	Page
50 HZ	
RTQ-M/K 51÷724	110 - 111
RTQXT-M/K 51÷804	112 - 113
RTA-M/K 181÷602	114 - 115
RTA-M/K/MS 181÷602	116 - 117
RTA-M/K/ECO 181÷602	118 - 119
RTA-M/K/ECO/REC-FX 181÷602	120 - 121
60 HZ	
RTQXT-M/SZ/K 51÷804	122 - 123

FROM 3 TON TO 50 TON.
FROM 12 KW TO 176 KW.

RTQ-M/K 51÷724

SINGLE SKIN PACKAGED ROOFTOP UNITS WITH SCROLL COMPRESSORS.



The single skin packaged RoofTop air conditioning units of the **FLEXI AIR** series, with R410A refrigerant, can be connected to a duct network for air conditioning of large surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres, or for industrial ambients such as food processing or preservation centres.

Equipped with radial fans, these units are available in cooling-only and reversible heat pump version.

FLEXI AIR is characterized by full installation flexibility: the airflow direction for both air delivery and intake can be adjusted directly onsite; air delivery and intake are foreseen both on the same side in order to keep the overall space at minimum.

The cabinet features a solid steel structure with zinc coated galvanized treatment.



VERSIONS

RTQ-M/K

Cooling only

RTQ-M/K/WP

Reversible heat pump

FEATURES

- Structure of base perimeter made of steel sheet elements galvanized. Self-supporting galvanized steel frame further protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- Delivery & intake radial fans coupled to 3-phase motors by V belt and variable pulley.
- R410A refrigerant.
- Electrical board includes: protection modules; thermal protection relays on compressors; thermo-contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

LOOSE ACCESSORIES

- ECO Free-cooling economizer section with aluminium dampers managed by electrical motor. Microprocessor control for dampers' opening to manage supply, return and fresh air.

RTQ-M/K 51÷724

MODEL			51	61	71	101	121	151	181
Cooling	Cooling capacity (1)	TON	3.3	4.2	5.0	6.7	8.3	10.0	12.5
		kW	11.7	14.6	17.6	23.4	29.3	35.2	43.9
	Absorbed power (1),(2)	kW	4.2	4.9	6.0	8.3	9.6	12.3	14.7
Heating	Heating capacity (3)	TON	3.7	4.7	5.6	7.5	9.3	11.2	14.0
		kW	13.1	16.4	19.7	26.3	32.8	39.4	49.2
	Absorbed power (2),(3)	kW	3.6	4.2	5.1	7.1	8.2	10.5	12.5
Air treatment section	Air flow	cfm	1271	1694	1906	2753	3389	4024	5083
		m³/s	0.6	0.8	0.9	1.3	1.6	1.9	2.4
	Available static pressure	in WG	0.40	0.40	0.40	0.60	0.60	0.60	0.60
		Pa	100	100	100	150	150	150	150
	Fans	n°	1	1	1	1	1	1	1
	Filters	G4	G4	G4	G4	G4	G4	G4	
Condensing section	Compressors	n°	1	1	1	1	1	1	1
	Refrigerant circuits	n°	1	1	1	1	1	1	1
	Capacity steps	n°	1	1	1	1	1	1	1
	Fans	n°	1	2	2	1	1	1	1
	Air flow	cfm	2965	3812	3812	5930	6989	9319	11861
		m³/s	1.4	1.8	1.8	2.8	3.3	4.4	5.6
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50						
	Max. running current	A	10	12	14	18	20	26	34
	Inrush current	A	51	59	70	100	115	144	184
Sound pressure	STD version (4)	dB(A)	50	52	54	55	55	59	60
Weights	Transport weight	Kg	343	362	372	394	443	460	505
	Operating weight	Kg	333	352	362	384	433	450	495

MODEL			242	302	362	484	544	604	724
Cooling	Cooling capacity (1)	TON	16.7	20.8	25.0	29.9	33.3	40.1	50.0
		kW	58.6	73.2	87.9	105	117	141	176
	Absorbed power (1),(2)	kW	19.7	24.7	29.2	39.0	43.3	48.5	57.0
Heating	Heating capacity (3)	TON	18.7	23.3	28.0	33.6	37.2	44.9	56.0
		kW	65.6	82.0	98.4	118	131	158	197
	Absorbed power (2),(3)	kW	16.7	21.0	24.8	33.1	36.8	41.2	48.4
Air treatment section	Air flow	cfm	6778	8260	9955	12073	13343	16097	19909
		m³/s	3.2	3.9	4.7	5.7	6.3	7.6	9.4
	Available static pressure	in WG	1.20	1.20	1.20	1.20	1.20	1.20	1.20
		Pa	300	300	300	300	300	300	300
	Fans	n°	1	1	1	1	1	1	1
	Filters	G4	G4	G4	G4	G4	G4	G4	
Condensing section	Compressors	n°	2	2	2	4	4	4	4
	Refrigerant circuits	n°	2	2	2	2	2	2	2
	Capacity steps	n°	2	2	2	2	2	2	2
	Fans	n°	2	2	2	2	4	4	4
	Air flow	cfm	14191	19909	19909	23510	28169	37701	37701
		m³/s	6.7	9.4	9.4	11.1	13.3	17.8	17.8
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50						
	Max. running current	A	45	53	69	87	92	109	134
	Inrush current	A	140	172	219	276	369	228	284
Sound pressure	STD version (4)	dB(A)	60	60	62	61	62	62	61
Weights	Transport weight	Kg	533	555	587	684	722	778	827
	Operating weight	Kg	523	545	577	674	712	768	817

DIMENSIONS			51	61	71	101	121	151	181	242	302	362	484	544	604	724
L	STD	mm	1200	1200	1350	1600	1700	1900	2140	1900	2190	2150	3040	3175	3215	3650
W	STD	mm	1200	1200	1300	1200	1450	1450	1750	1700	1850	1850	2100	2250	2250	2250
H	STD	mm	950	1000	1000	1250	1250	1250	1250	1750	1750	2050	2050	2050	2330	2330

DIMENSIONAL & CLEARANCE AREA

RTQ-M/K 51÷724

1000 | 1000 | 1000 | 1000



NOTES

- Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 35 °C.
 - Excluded the power absorbed by radial fans.
 - Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 4 TON TO 55 TON.
FROM 13 KW TO 195 KW.

RTQXT-M/K 51÷804

SINGLE SKIN PACKAGED ROOFTOP UNITS WITH SCROLL COMPRESSORS.

HIGH AMBIENT TEMPERATURE UP TO 52 °C



The single skin packaged RoofTop air conditioning units of the **FLEXI AIR** series, with R410A refrigerant, can be connected to a duct network for air conditioning of large surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres, or for industrial ambients such as food processing or preservation centres.

The RTQXT-M/K models ensure the perfect functioning even on regions with high temperature, being able to work **up to 52°C external air temperature**.

Equipped with radial fans, these units are available in cooling-only and reversible heat pump version.

FLEXI AIR is characterized by full installation flexibility: the airflow direction for both air delivery and intake can be adjusted directly onsite; air delivery and intake are foreseen both on the same side in order to keep the overall space at minimum.

The cabinet features a solid steel structure with zinc coated galvanized treatment.



VERSIONS

RTQXT-M/K

Cooling only

RTQXT-M/K/WP

Reversible heat pump

FEATURES

- Structure of base perimeter made of steel sheet elements galvanized. Self-supporting galvanized steel frame further protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- Delivery & intake radial fans coupled to 3-phase motors by V belt and variable pulley.
- R410A refrigerant.
- Electrical board includes: protection modules; thermal protection relays on compressors; thermo-contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

LOOSE ACCESSORIES

- ECO Free-cooling economizer section with aluminium dampers managed by electrical motor. Microprocessor control for dampers' opening to manage supply, return and fresh air.

RTQXT-M/K 51÷804

MODEL		51	61	81	101	131	161	201	
Cooling	Cooling capacity (1)	TON	3.3	4.2	5.0	6.7	8.3	10.0	12.5
		kW	11.7	14.6	17.6	23.4	29.3	35.2	43.9
	Absorbed power (1),(2)	kW	4.9	6.2	7.6	9.5	12.3	15.8	19.0
		TON	3.7	4.6	5.5	7.4	9.2	11.1	13.8
Heating	Cooling capacity (3)	kW	13.1	16.2	19.5	26.0	32.5	39.0	48.7
		kW	4.0	5.0	6.2	7.8	10.1	13.0	15.6
	Heating capacity (4)	TON	3.7	4.7	5.6	7.5	9.3	11.2	14.0
		kW	13.1	16.4	19.7	26.3	32.8	39.4	49.2
Air treatment section	Absorbed power (2),(3)	kW	4.1	5.1	6.3	7.9	10.3	13.2	15.9
		TON	3.7	4.7	5.6	7.5	9.3	11.2	14.0
	Air flow	cfm	1271	1694	1906	2753	3389	4024	5083
	Available static pressure	in WG	0.40	0.40	0.40	0.60	0.60	0.60	0.60
Condensing section	Fans	n°	1	1	1	1	1	1	1
	Filters		G4	G4	G4	G4	G4	G4	G4
	Compressors	n°	1	1	1	1	1	1	1
	Refrigerant circuits	n°	1	1	1	1	1	1	1
Electrical characteristics	Capacity steps	n°	1	1	1	1	1	1	1
	Fans	n°	2	2	2	1	1	1	2
	Air flow	cfm	2965	3812	3812	5930	6989	9319	11861
		m³/s	1.4	1.8	1.8	2.8	3.3	4.4	5.6
Sound pressure	Power supply	V/Ph/Hz	400 / 3 / 50						
	Max. running current	A	11	14	17	20	25	30	39
	Inrush current	A	57	71	90	108	140	166	216
Weights	STD version (5)	dB(A)	52	54	54	55	59	60	60
	Transport weight	Kg	359	383	395	418	467	498	545
	Operating weight	Kg	349	373	385	408	457	488	535

MODEL		262	324	404	484	544	604	804	
Cooling	Cooling capacity (1)	TON	16.7	20.8	25.0	30.1	33.3	40.1	50.0
		kW	58.6	73.2	87.9	106	117	141	176
	Absorbed power (1),(2)	kW	24.6	31.3	38.3	44.3	49.1	63.1	76.7
		TON	18.5	23.1	27.7	33.3	37.0	44.4	55.4
Heating	Cooling capacity (3)	kW	65.0	81.2	97.5	117	130	156	195
		kW	20.0	24.4	31.2	35.9	39.9	51.1	62.5
	Heating capacity (4)	TON	18.7	23.3	28.0	33.6	37.2	44.9	56.0
		kW	65.6	82.0	98.4	118	131	158	197
Air treatment section	Absorbed power (2),(4)	kW	20.3	32.0	31.8	36.5	40.6	52.0	63.5
		TON	18.7	23.3	28.0	33.6	37.2	44.9	56.0
	Air flow	cfm	6778	8260	9955	12073	13343	16097	19909
	Available static pressure	in WG	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Condensing section	Fans	n°	1	1	1	1	1	1	1
	Filters		G4	G4	G4	G4	G4	G4	G4
	Compressors	n°	2	4	4	4	4	4	4
	Refrigerant circuits	n°	2	2	2	2	2	2	2
Electrical characteristics	Capacity steps	n°	2	2	2	2	2	2	2
	Fans	n°	2	2	2	4	4	4	4
	Air flow	cfm	14191	19909	19909	23510	28169	37701	37701
		m³/s	6.7	9.4	9.4	11.1	13.3	17.8	17.8
Sound pressure	Power supply	V/Ph/Hz	400 / 3 / 50						
	Max. running current	A	53	62	80	94	104	129	158
	Inrush current	A	165	195	254	297	212	255	327
Weights	STD version (5)	dB(A)	60	62	62	61	62	62	62
	Transport weight	Kg	573	597	637	749	787	858	907
	Operating weight	Kg	563	587	627	739	777	848	897

DIMENSIONS		51	61	81	101	131	161	201	262	324	404	484	544	604	804
L	STD	mm	1200	1200	1350	1600	1700	1900	2140	1900	2190	2150	3040	3175	3650
W	STD	mm	1200	1200	1300	1200	1450	1450	1750	1700	1850	1850	2100	2250	2250
H	STD	mm	950	1000	1000	1250	1250	1250	1250	1750	1750	2050	2050	2050	2330

DIMENSIONAL & CLEARANCE AREA

RTQ-MXT/K 51÷724

1000 | 1000 | 1000 | 1000



NOTES

- Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 46 °C.
 - Excluded the power absorbed by radial fans.
 - Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 35 °C.
 - Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 16 TON TO 55 TON.
FROM 57 KW TO 192 KW.

RTA-M/K 181÷602

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS.



The double skin packaged Roof Top air conditioning units of the **TOP AIR** series, with R410A refrigerant, which can be connected to a duct network for air distribution, are ideal for the air conditioning of large surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres, or for industrial ambients such as food processing or preservation centres.

Equipped with radial fans, extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in cooling-only and reversible heat pump version. They have a high level of modularity and adaptability to every plant-engineering need since, in addition to the basic versions, it is also possible to add various solutions for the air treatment sections.

The flat or pocket filters help to keep the air quality at a suitable level in order to guarantee appropriate hygiene standards.



VERSIONS

RTA-M/K

Cooling only

RTA-M/K/WP

Heat pump

COMPLEMENTARY SECTIONS

UMI Section with preparation for humidifier

FEATURES

- Structure of base perimeter made of steel sheet elements galvanised, passive treated and mould folded (3mm thick). Frame made of extruded aluminium alloy profiles connected by 3 way joints. Assembling of the base to the frame is of dual support and grants the walking on the base panels installation without sticking out screws. 50mm thick sandwich panels made of prepainted steel sheet and fastened with a snap-in system without screws; water proofing granted by gaskets having shape memory for perfect seal up even after repeated removals. Section connection is effected by means of assembling conic stirrups and water proofing is granted by gaskets.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- Delivery & intake radial fans coupled to 3-phase motors by V belt and variable pulley.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; protection modules; thermal protection relays on compressors; thermo-contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C
FT	Filter section efficiency F6-F7-F8
FT/R	Rigid bag filter F6-F7-F8 effc.
WS2	2-row water coil for heating with three way valve
EH	Integrated electrical coils
SQ	Air quality sensor
PF	Differential pressostat filters control
CP	Potential free contacts
RP	Metallic guards for condenser

LOOSE ACCESSORIES

MN	High and low gauges
CS	Shutter protection caps
CR	Remote display
IS	RS 485 serial interface
AG	Rubber shock absorbers

RTA-M/K 181÷602

MODEL			181	241	301	392	522	602
Cooling	Cooling capacity (1)	TON	16.2	21.7	27.3	35.8	43.5	54.6
		kW	57.1	76.2	96.0	126	153	192
	Absorbed power (1),(2)	kW	20.9	24.3	28.6	38.1	49.5	58.2
Heating	Heating capacity (3)	TON	16.9	21.8	27.4	36.4	44.4	55.4
		kW	59.5	76.5	96.3	128	156	195
	Absorbed power (2),(3)	kW	18.0	19.9	24.1	33.8	40.5	50.8
Air treatment section	Air flow	cfm	5719	8684	10378	13343	17368	20545
		m³/s	2.7	4.1	4.9	6.3	8.2	9.7
	Available static pressure	in WG	1.00	1.00	1.00	1.00	1.00	1.00
		Pa	250	250	250	250	250	250
	Fans	n°	1	1	1	1	1	1
Filters		G4	G4	G4	G4	G4	G4	
Condensing section	Compressors	n°	1	1	1	2	2	2
	Refrigerant circuits	n°	1	1	1	1	1	1
	Capacity steps	n°	1	1	1	1	1	1
	Fans	n°	2	2	2	4	4	4
	Air flow	cfm	15461	15250	20545	30499	30499	41089
	m³/s	7.3	7.2	9.7	14.4	14.4	19.4	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50					
	Max. running current	A	44	53	68	87	105	136
	Inrush current	A	220	265	329	264	318	397
Hot water coil	Heating capacity (4)	TON	24.2	35.5	42.7	56.9	71.1	85.3
		kW	85	125	150	200	250	300
	Air pressure drops	in WG	0.12	0.12	0.12	0.14	0.14	0.14
		Pa	30	31	31	36	35	35
	Water flow (4)	gpm	32.2	47.4	56.7	75.8	94.6	114
		l/s	2.03	2.99	3.58	4.78	5.97	7.17
	Water pressure drops	ft WG	15.0	16.0	16.3	17.0	17.7	19.0
kPa		45	48	49	51	53	57	
Water connections	"G	1"½	1"½	1"½	2"	2"	2"½	
Electric heating	Power supply	V/Ph/Hz	400 / 3 / 50					
	Heating capacity	kW	15	27	27	41	41	48
	Max absorbed current	A	22	39	39	59	59	69
	Steps	n°	2	2	2	4	4	4
Sound pressure	STD version (5)	dB(A)	59	59	59	61	62	62
Weights	Transport weight	Kg	1010	1157	1310	1890	2216	2500
	Operating weight	Kg	1002	1145	1298	1874	2200	2484

DIMENSIONS			181	241	301	392	522	602
L	STD	mm	2980	3190	3290	4500	5150	5300
W	STD	mm	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2340	2340	2340	2340	2510

DIMENSIONAL & CLEARANCE AREA

RTA-M/K 181÷301

800	800	800	1700
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RTA-M/K 392÷602

800	1700	1000	1700
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NOTES

- Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 35 °C.
 - Excluded the power absorbed by radial fans.
 - Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Inlet air temperature 20 °C, water temperature 70/60 °C.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 16 TON TO 55 TON.
FROM 57 KW TO 192 KW.

RTA-M/K/MS 181÷602

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS AND WITH MIXING BOX.



The double skin packaged Roof Top air conditioning units of the **TOP AIR** series, with R410A refrigerant, which can be connected to a duct network for air distribution, are ideal for the air conditioning of large surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres, or for industrial ambients such as food processing or preservation centres.

Equipped with radial fans, extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in cooling-only and reversible heat pump version.

They have a high level of modularity and adaptability to every plant-engineering need: this unit features, in addition to the basic sections, a **MIXING BOX**.

The flat or pocket filters help to keep the air quality at a suitable level in order to guarantee appropriate hygiene standards.



VERSIONS

RTA-M/K/MS

Cooling only with mixing box

RTA-M/K/WP/MS

Heat pump with mixing box

MIXING BOX

MS - Mixing box. Further to components of the basic section, includes two wing profile aluminium dampers with spring return servomotors (the opposite movement is ensured by transmission of nylon gear).

COMPLEMENTARY SECTIONS

UMI Section with preparation for humidifier

FEATURES

- Structure of base perimeter made of steel sheet elements galvanised, passive treated and mould folded (3mm thick). Frame made of extruded aluminium alloy profiles connected by 3 way joints. Assembling of the base to the frame is of dual support and grants the walking on the base panels installation without sticking out screws. 50mm thick sandwich panels made of prepainted steel sheet and fastened with a snap-in system without screws; water proofing granted by gaskets having shape memory for perfect seal up even after repeated removals. Section connection is effected by means of assembling conic stirrups and water proofing is granted by gaskets.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- Delivery & intake centrifugal fans coupled to 3-phase motors by V belt and variable pulley.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; protection modules; thermal protection relays on compressors; thermo-contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C
FT	Filter section efficiency F6-F7-F8
FT/R	Rigid bag filter F6-F7-F8 effc.
WS2	2-row water coil for heating with three way valve
EH	Integrated electrical coils
SQ	Air quality sensor
PF	Differential pressostat filters control

CP	Potential free contacts
RP	Metallic guards for condenser

LOOSE ACCESSORIES

MN	High and low gauges
CS	Shutter protection caps
CR	Remote display
IS	RS 485 serial interface
AG	Rubber shock absorbers

RTA-M/K/MS 181÷602

MODEL			181	241	301	392	522	602
Cooling	Cooling capacity (1)	TON	16.2	21.7	27.3	35.8	43.5	54.6
		kW	57.1	76.2	96.0	126	153	192
	Absorbed power (1),(2)	kW	20.9	24.3	28.6	38.1	49.5	58.2
Heating	Heating capacity (3)	TON	16.9	21.8	27.4	36.4	44.4	55.4
		kW	59.5	76.5	96.3	128	156	195
	Absorbed power (2),(3)	kW	18.0	19.9	24.1	33.8	40.5	50.8
Air treatment section	Air flow	cfm	5719	8684	10378	13343	17368	20545
		m³/s	2.7	4.1	4.9	6.3	8.2	9.7
	Available static pressure	in WG	1.00	1.00	1.00	1.00	1.00	1.00
		Pa	250	250	250	250	250	250
	Fans	n°	1	1	1	1	1	1
	Filters		G4	G4	G4	G4	G4	G4
Condensing section	Compressors	n°	1	1	1	2	2	2
	Refrigerant circuits	n°	1	1	1	1	1	1
	Capacity steps	n°	1	1	1	1	1	1
	Fans	n°	2	2	2	4	4	4
	Air flow	cfm	15461	15250	20545	30499	30499	41089
	m³/s	7.3	7.2	9.7	14.4	14.4	19.4	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50					
	Max. running current	A	44	53	68	87	105	136
	Inrush current	A	220	265	329	264	318	397
Hot water coil	Heating capacity (4)	TON	24.2	35.5	42.7	56.9	71.1	85.3
		kW	85	125	150	200	250	300
	Air pressure drops	in WG	0.12	0.12	0.12	0.14	0.14	0.14
		Pa	30	31	31	36	35	35
	Water flow (4)	gpm	32.2	47.4	56.7	75.8	94.6	114
		l/s	2.03	2.99	3.58	4.78	5.97	7.17
	Water pressure drops	ft WG	15.0	16.0	16.3	17.0	17.7	19.0
	kPa	45	48	49	51	53	57	
Water connections	"G	1"½	1"½	1"½	2"	2"	2"½	
Electric heating	Power supply	V/Ph/Hz	400 / 3 / 50					
	Heating capacity	kW	15	27	27	41	41	48
	Max absorbed current	A	22	39	39	59	59	69
	Steps	n°	2	2	2	4	4	4
Sound pressure	STD version (5)	dB(A)	59	59	59	61	62	62
Weights	Transport weight	Kg	1090	1262	1410	1990	2316	2620
	Operating weight	Kg	1078	1250	1398	1974	2296	2600

DIMENSIONS			181	241	301	392	522	602
L	STD	mm	3430	3640	3740	4950	5600	5750
W	STD	mm	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2340	2340	2340	2340	2510

DIMENSIONAL & CLEARANCE AREA

RTA-M/K/MS 181:301

RTA-M/K/MS 392:602



NOTES

1. Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 35 °C.
2. Excluded the power absorbed by radial fans.
3. Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b. Inlet air temperature 20 °C, water temperature 70/60 °C.
4. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
5. Weights of WP versions are indicated on the technical book.

FROM 16 TON TO 55 TON.
FROM 57 KW TO 192 KW.

RTA-M/K/ECO 181÷602

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS AND WITH ECONOMIZER.



The double skin packaged Roof Top air conditioning units of the **TOP AIR** series, with R410A refrigerant, which can be connected to a duct network for air distribution, are ideal for the air conditioning of large surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres, or for industrial ambients such as food processing or preservation centres.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in cooling-only and reversible heat pump version.

They have a high level of modularity and adaptability to every plant-engineering need: this unit features, in addition to the basic sections, an **ECONOMIZER** which is automatically controlled both in **FREE-COOLING** or **FREE-HEATING**.

The flat or pocket filters help to keep the air quality at a suitable level in order to guarantee appropriate hygiene standards.



VERSIONS

RTA-M/K/ECO

Cooling only with economizer

RTA-M/K/WP/ECO

Heat pump with economizer

ECO

ECO - Economizer. Further to components of the basic section, includes: return air fan with electrical motor, complete of adjustable transmission, mounted on elastic supports; motorized wing profile aluminium dampers (the opposite movement is ensured by transmission of nylon gear). Supply, return and fresh air are controlled through the microprocessor fitted in the base unit; this microprocessor, according to the temperature of the return and fresh air, modulates the opening of the dampers and controls the refrigerant circuit capacity steps to ensure comfort conditions of the handled air. The adjustments of the ECO versions are automatically controlled both in free-cooling and free-heating mode.

COMPLEMENTARY SECTIONS

UMI Section with preparation for humidifier

FEATURES

- Structure of base perimeter made of steel sheet elements galvanised, passive treated and mould folded (3mm thick). Frame made of extruded aluminium alloy profiles connected by 3 way joints. Assembling of the base to the frame is of dual support and grants the walking on the base panels installation without sticking out screws. 50mm thick sandwich panels made of prepainted steel sheet and fastened with a snap-in system without screws; water proofing granted by gaskets having shape memory for perfect seal up even after repeated removals. Section connection is effected by means of assembling conic stirrups and water proofing is granted by gaskets.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- Delivery & intake centrifugal fans coupled to 3-phase motors by V belt and variable pulley.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; protection modules; thermal protection relays on compressors; thermo-contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencing
CT	Condensing control down to 0 °C
FT	Filter section efficiency F6-F7-F8
FT/R	Rigid bag filter F6-F7-F8 effic.
WS2	2-row water coil for heating with three way valve
EH	Integrated electrical coils

CH	Enthalpic control (ECO only)
SQ	Air quality sensor
PF	Differential pressostat filters control
CP	Potential free contacts
RP	Metallic guards for condenser

LOOSE ACCESSORIES

MN	High and low gauges
CS	Shutter protection caps
CR	Remote display
IS	RS 485 serial interface
AG	Rubber shock absorbers

RTA-M/K/ECO 181÷602

MODEL			181	241	301	392	522	602
Cooling	Cooling capacity (1)	TON	16.2	21.7	27.3	35.8	43.5	54.6
		kW	57.1	76.2	96.0	126	153	192
	Absorbed power (1),(2)	kW	20.9	24.3	28.6	38.1	49.5	58.2
Heating	Heating capacity (3)	TON	16.9	21.8	27.4	36.4	44.4	55.4
		kW	59.5	76.5	96.3	128	156	195
	Absorbed power (2),(3)	kW	18.0	19.9	24.1	33.8	40.5	50.8
Air treatment section	Air flow	cfm	5719	8684	10378	13343	17368	20545
		m³/s	2.7	4.1	4.9	6.3	8.2	9.7
	Available static pressure	in WG	1.00	1.00	1.00	1.00	1.00	1.00
		Pa	250	250	250	250	250	250
	Fans	n°	1	1	1	1	1	1
Filters		G4	G4	G4	G4	G4	G4	
Air intake section	Air flow	cfm	5719	8684	10378	13343	17368	20545
		m³/s	2.7	4.1	4.9	6.3	8.2	9.7
	Available static pressure	in WG	0.40	0.40	0.40	0.40	0.40	0.40
		Pa	100	100	100	100	100	100
	Fans	n°	1	1	1	1	1	1
Condensing section	Compressors	n°	1	1	1	2	2	2
	Refrigerant circuits	n°	1	1	1	1	1	1
	Capacity steps	n°	1	1	1	1	1	1
	Fans	n°	2	2	2	4	4	4
	Air flow	cfm	15461	15250	20545	30499	30499	41089
m³/s		7.3	7.2	9.7	14.4	14.4	19.4	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50					
	Max. running current	A	44	53	68	87	105	136
	Inrush current	A	220	265	329	264	318	397
Hot water coil	Heating capacity (4)	TON	24.2	35.5	42.7	56.9	71.1	85.3
		kW	85	125	150	200	250	300
	Air pressure drops	in WG	0.12	0.12	0.12	0.14	0.14	0.14
		Pa	30	31	31	36	35	35
	Water flow (4)	gpm	32.2	47.4	56.7	75.8	94.6	114
		l/s	2.03	2.99	3.58	4.78	5.97	7.17
	Water pressure drops	ft WG	15.0	16.0	16.3	17.0	17.7	19.0
kPa		45	48	49	51	53	57	
Water connections	"G	1"½	1"½	1"½	2"	2"	2"½	
Electric heating	Power supply	V/Ph/Hz	400 / 3 / 50					
	Heating capacity	kW	15	27	27	41	41	48
	Max absorbed current	A	22	39	39	59	59	69
	Steps	n°	2	2	2	4	4	4
Sound pressure	STD version (5)	dB(A)	59	59	59	61	62	62
Weights	Transport weight	Kg	1550	1787	1940	2550	3076	3520
	Operating weight	Kg	1534	1767	1920	2526	3048	3492

DIMENSIONS			181	241	301	392	522	602
L	STD	mm	5260	5570	5650	6900	8080	8470
W	STD	mm	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2340	2340	2340	2340	2510

DIMENSIONAL & CLEARANCE AREA



NOTES

1. Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 35 °C.
 2. Excluded the power absorbed by radial fans.
 3. Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 4. Inlet air temperature 20 °C, water temperature 70/60 °C.
 5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 16 TON TO 55 TON.
FROM 57 KW TO 192 KW.

RTA-M/K/ECO/REC-FX 181÷602

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS, ECONOMIZER AND CROSS-FLOW HEAT RECOVERY.



The double skin packaged Roof Top air conditioning units of the **TOP AIR** series, with R410A refrigerant, which can be connected to a duct network for air distribution, are ideal for the air conditioning of large surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres, or for industrial ambients such as food processing or preservation centres.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in cooling-only and reversible heat pump version.

They have an high level of modularity and adaptability to every plant-engineering need: this unit features, in addition to the basic sections, an **ECONOMIZER** which is automatically controlled both in **FREE-COOLING** or **FREE-HEATING** and a **CROSS-FLOW HEAT RECOVERY** with max 25% of total air flow.

The flat or pocket filters help to keep the air quality at a suitable level in order to guarantee appropriate hygiene standards.



VERSIONS

RTA-M/K/ECO/REC-FX

Cooling only with economizer and cross flow heat recovery

RTA-M/K/WP/ECO/REC-FX

Heat pump with economizer and cross flow heat recovery

ECO/REC-FX

ECO/REC-FX - Cross flow heat recovery. Further to components of the basic section, includes: static recovery device made of aluminium with moisture drain pan; flat filters inspect able through hinged door and dampers; supply air damper; 2 free-cooling dampers. Also the adjustment of this section is included into the unit control.

COMPLEMENTARY SECTIONS

UMI Section with preparation for humidifier

FEATURES

- Structure of base perimeter made of steel sheet elements galvanised, passive treated and mould folded (3mm thick). Frame made of extruded aluminium alloy profiles connected by 3 way joints. Assembling of the base to the frame is of dual support and grants the walking on the base panels installation without sticking out screws. 50mm thick sandwich panels made of prepainted steel sheet and fastened with a snap-in system without screws; water proofing granted by gaskets having shape memory for perfect seal up even after repeated removals. Section connection is effected by means of assembling conic stirrups and water proofing is granted by gaskets.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- Delivery & intake centrifugal fans coupled to 3-phase motors by V belt and variable pulley.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; protection modules; thermal protection relays on compressors; thermo-contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

SL	Unit silencement
CT	Condensing control down to 0 °C
FT	Filter section efficiency F6-F7-F8
FT/R	Rigid bag filter F6-F7-F8 effic.
WS2	2-row water coil for heating with three way valve
EH	Integrated electrical coils
CH	Enthalpic control (ECO only)

SQ	Air quality sensor
PF	Differential pressostat filters control
CP	Potential free contacts
RP	Metallic guards for condenser

LOOSE ACCESSORIES

MN	High and low gauges
CS	Shutter protection caps
CR	Remote display
IS	RS 485 serial interface
AG	Rubber shock absorbers

RTA-M/K/ECO/REC-FX 181÷602

MODEL			181	241	301	392	522	602
Cooling	Cooling capacity (1)	TON	16.2	21.7	27.3	35.8	43.5	54.6
		kW	57.1	76.2	96.0	126	153	192
	Absorbed power (1),(2)	kW	20.9	24.3	28.6	38.1	49.5	58.2
Heating	Heating capacity (3)	TON	16.9	21.8	27.4	36.4	44.4	55.4
		kW	59.5	76.5	96.3	128	156	195
	Absorbed power (2),(3)	kW	18.0	19.9	24.1	33.8	40.5	50.8
Air treatment section	Air flow	cfm	5719	8684	10378	13343	17368	20545
		m³/s	2.7	4.1	4.9	6.3	8.2	9.7
	Available static pressure	in WG	1.00	1.00	1.00	1.00	1.00	1.00
		Pa	250	250	250	250	250	250
	Fans	n°	1	1	1	1	1	1
	Filters		G4	G4	G4	G4	G4	G4
Air intake section	Air flow	cfm	5719	8684	10378	13343	17368	20545
		m³/s	2.7	4.1	4.9	6.3	8.2	9.7
	Available static pressure	in WG	0.40	0.40	0.40	0.40	0.40	0.40
		Pa	100	100	100	100	100	100
	Fans	n°	1	1	1	1	1	1
Condensing section	Compressors	n°	1	1	1	2	2	2
	Refrigerant circuits	n°	1	1	1	1	1	1
	Capacity steps	n°	1	1	1	1	1	1
	Fans	n°	2	2	2	4	4	4
	Air flow	cfm	15461	15250	20545	30499	30499	41089
	m³/s	7.3	7.2	9.7	14.4	14.4	19.4	
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50					
	Max. running current	A	44	53	68	87	105	136
	Inrush current	A	220	265	329	264	318	397
Hot water coil	Heating capacity (4)	TON	24.2	35.5	42.7	56.9	71.1	85.3
		kW	85	125	150	200	250	300
	Air pressure drops	in WG	0.12	0.12	0.12	0.14	0.14	0.14
		Pa	30	31	31	36	35	35
	Water flow (4)	gpm	32.2	47.4	56.7	75.8	94.6	114
		l/s	2.03	2.99	3.58	4.78	5.97	7.17
	Water pressure drops	ft WG	15.0	16.0	16.3	17.0	17.7	19.0
	kPa	45	48	49	51	53	57	
Water connections	"G	1"½	1"½	1"½	2"	2"	2"½	
Electric heating	Power supply	V/Ph/Hz	400 / 3 / 50					
	Heating capacity	kW	15	27	27	41	41	48
	Max absorbed current	A	22	39	39	59	59	69
	Steps	n°	2	2	2	4	4	4
Sound pressure	STD version (5)	dB(A)	59	59	59	61	62	62
Weights	Transport weight	Kg	1695	1967	2120	2790	3316	3740
	Operating weight	Kg	1675	1657	2100	2766	3288	3708

DIMENSIONS			181	241	301	392	522	602
L	STD	mm	6060	6270	6450	7870	9120	9380
W	STD	mm	2200	2200	2200	2200	2200	2200
H	STD	mm	2100	2340	2340	2340	2340	2510

DIMENSIONAL & CLEARANCE AREA

RTA-M/K/ECO/REC-FX 181÷301

800 | 800 | 800 | 1700



RTA-M/K/ECO/REC-FX 392÷602

800 | 1700 | 1000 | 1700



NOTES

1. Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 35 °C.
 2. Excluded the power absorbed by radial fans.
 3. Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 4. Inlet air temperature 20 °C, water temperature 70/60 °C.
 5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.

FROM 4 TON TO 54 TON.
FROM 13 KW TO 191 KW.

RTQXT-M/SZ/K 51÷804

SINGLE SKIN PACKAGED ROOFTOP UNITS WITH SCROLL COMPRESSORS.

HIGH AMBIENT TEMPERATURE UP TO 52 °C

60 Hz



The single skin packaged Rooftop air conditioning units of the **FLEXI AIR** series, with R410A refrigerant, can be connected to a duct network for air conditioning of large surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres, or for industrial ambients such as food processing or preservation centres.

The RTQXT-M/SZ/K models ensure the perfect functioning even on regions with high temperature, being able to work **up to 52°C external air temperature**.

Equipped with radial fans, these units are available in cooling-only and reversible heat pump version.

FLEXI AIR is characterized by full installation flexibility: the airflow direction for both air delivery and intake can be adjusted directly onsite; air delivery and intake are foreseen both on the same side in order to keep the overall space at minimum.

The cabinet features a solid steel structure with zinc coated galvanized treatment.

The units feature 380V power supply and 60Hz frequency.



VERSIONS

RTQXT-M/SZ/K

RTQXT-M/SZ/K/WP

Cooling only

Heat pump

FEATURES

- Structure of base perimeter made of steel sheet elements galvanized. Self-supporting galvanized steel frame further protected with polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- Delivery & intake radial fans coupled to 3-phase motors by V belt and variable pulley.
- R410A refrigerant.
- Electrical board includes: protection modules; thermal protection relays on compressors; thermo-contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

LOOSE ACCESSORIES

- ECO Free-cooling economizer section with aluminium dampers managed by electrical motor. Microprocessor control for dampers' opening to manage supply, return and fresh air.

RTQXT-M/SZ/K 51÷804

MODEL		51	61	81	101	131	161	201	
Cooling	Cooling capacity (1)	TON	3.2	4.0	4.9	6.5	8.1	9.8	12.2
		kW	11.4	14.2	17.2	22.8	28.6	34.3	42.8
	Absorbed power (1),(2)	kW	4.8	6.0	7.4	9.3	12.0	15.4	18.5
		TON	3.6	4.5	5.4	7.2	9.0	10.8	13.5
Heating	Cooling capacity (3)	kW	12.8	15.8	19.1	25.3	31.7	38.0	47.5
		kW	3.9	4.8	6.0	7.6	9.9	12.7	15.2
	Heating capacity (4)	TON	3.7	4.6	5.5	7.3	9.1	11.0	13.7
		kW	12.9	16.2	19.4	25.8	32.1	38.6	48.1
Air treatment section	Absorbed power (2),(3)	kW	4.0	5.0	6.1	7.7	10.0	12.9	15.5
		TON	3.7	4.6	5.5	7.3	9.1	11.0	13.7
	Air flow	cfm	1271	1694	1906	2753	3389	4024	5083
	Available static pressure	in WG	0.4	0.4	0.4	0.6	0.6	0.6	0.6
	Fans	n°	1	1	1	1	1	1	1
Condensing section	Filters	n°	G4	G4	G4	G4	G4	G4	G4
	Compressors	n°	1	1	1	1	1	1	1
	Refrigerant circuits	n°	1	1	1	1	1	1	1
	Capacity steps	n°	1	1	1	1	1	1	1
	Fans	n°	2	2	2	1	1	1	2
Electrical characteristics	Power supply	V/Ph/Hz	380 / 3 / 60						
	Max. running current	A	10	13	16	19	24	29	37
Sound pressure	Inrush current	A	54	67	86	103	133	158	205
	STD version (5)	dB(A)	52	54	54	55	59	60	60
Weights	Transport weight	Kg	352	378	388	412	460	492	537
	Operating weight	Kg	342	368	378	402	450	482	527

MODEL		262	324	404	484	544	604	804	
Cooling	Cooling capacity (1)	TON	16.3	20.3	24.4	29.3	32.4	39.0	48.9
		kW	57.2	71.4	85.7	103	114	137	172
	Absorbed power (1),(2)	kW	24.0	30.5	37.4	43.2	47.8	61.5	74.7
		TON	18.0	22.5	27.0	32.4	36.1	43.2	54.2
Heating	Cooling capacity (3)	kW	63.4	79.2	95.1	114	127	152	191
		kW	19.5	23.8	30.4	35.0	38.8	49.8	61.0
	Heating capacity (4)	TON	18.2	22.8	27.4	33.0	36.4	44.1	54.9
		kW	64.1	80.3	96.4	116	128	155	193
Air treatment section	Absorbed power (2),(4)	kW	19.8	26.5	31.0	35.6	39.6	50.7	61.9
		TON	18.2	22.8	27.4	33.0	36.4	44.1	54.9
	Air flow	cfm	6778	8260	9955	12073	13343	16097	19909
	Available static pressure	in WG	1.2	1.2	1.2	1.2	1.2	1.2	1.2
	Fans	n°	1	1	1	1	1	1	1
Condensing section	Filters	n°	G4	G4	G4	G4	G4	G4	G4
	Compressors	n°	2	4	4	4	4	4	4
	Refrigerant circuits	n°	2	2	2	2	2	2	2
	Capacity steps	n°	2	2	2	2	2	2	2
	Fans	n°	2	2	2	4	4	4	4
Electrical characteristics	Power supply	V/Ph/Hz	380 / 3 / 60						
	Max. running current	A	50	59	76	89	99	123	150
Sound pressure	Inrush current	A	157	185	241	282	201	242	311
	STD version (5)	dB(A)	60	62	62	61	62	62	62
Weights	Transport weight	Kg	565	589	627	738	775	845	894
	Operating weight	Kg	555	579	617	728	765	835	884

DIMENSIONS		51	61	81	101	131	161	201	262	324	404	484	544	604	804
L	STD	mm	1200	1200	1350	1600	1700	1900	2140	1900	2190	2150	3040	3175	3650
W	STD	mm	1200	1200	1300	1200	1450	1450	1750	1700	1850	1850	2100	2250	2250
H	STD	mm	950	1000	1000	1250	1250	1250	1250	1750	1750	2050	2050	2050	2330

DIMENSIONAL & CLEARANCE AREA

RTQ-MXT/SZ/K 51÷804

1000 | 1000 | 1000 | 1000



NOTES

- Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 46 °C.
 - Excluded the power absorbed by radial fans.
 - Evaporator inlet air temperature 27 °C d.b./19 °C w.b., ambient air temperature 35 °C.
 - Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
 - Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP versions are indicated on the technical book.



CHAPTER 4

FAN COILS

UNIT	Page
50/60 HZ	
FBW-M 23÷123	126 - 127
FDW-M 23÷123	128 - 129
50 HZ	
DBW-M 133÷464	130 - 131
DBW-M 643÷2256	132 - 133
60 HZ	
DBW-M/SZ 133÷464	134 - 135
DBW-M/SZ 643÷2256	136 - 137

FROM 0.6 TON TO 3.1 TON.
FROM 2.0 KW TO 10.7 KW.

FBW-M 23÷123

CEILING CONCEALED FAN COILS, BLOWTHROUGH.



The Blow Through ceiling concealed Fan Coils of the FBW-M series are designed for installation in domestic ambients or in services sector including offices, hotels, restaurants, gyms and shops.

If connected to a system equipped with a water chiller, FBW-M generates cool air silently and with instantaneous reaction. Otherwise, during the winter, if combined with a heating system with boiler or heat pump, it delivers warm air to satisfy the heating needs of households and the service industry alike.

A filter, which absorbs and retains dust in suspension, allows to keep the air quality at a suitable level, and its easy removal enables continuous cleaning cycles to be carried out which are particularly important in order to guarantee suitable hygiene standards in highly frequented rooms.

VERSIONS

FBW-M

Built-in horizontal unit rear inlet and horizontal delivery

FBW-M/AP

Built-in horizontal unit rear inlet and horizontal delivery. High ESP fans

FEATURES

- Structure made of galvanized steel sheet complete with heat/sound insulation, filter and natural discharge condensation tray.
- Radial fan type directly coupled to a 4-speed single phase electric motor, with 3 speeds connected in the standard configuration.
- Heat exchanger coil with copper pipes and aluminium fins with airvent on the distributors.
- Standard water connections on left side based on air flow direction, they are easily converted to opposite side directly on-site without requiring additional parts.

ACCESSORIES

LOOSE ACCESSORIES

- C Auxiliary tray
- V2 3-way on/off valve for system with 2 pipes

FBW-M 23÷123

50 Hz

MODEL			23	33	43	63	83	103	123
Cooling	Total cooling capacity (1)	TON	0.58	0.83	1.12	1.63	2.06	2.41	3.05
		kW	2.04	2.92	3.95	5.75	7.26	8.48	10.74
	Sensible cooling capacity (1)	TON	0.42	0.60	0.80	1.17	1.50	1.76	2.22
		kW	1.46	2.11	2.83	4.12	5.29	6.20	7.81
	Water flow (1)	gpm	1.5	2.2	3.0	4.4	5.5	6.4	8.1
		l/h	351	502	679	989	1249	1459	1847
Pressure drops (1)	ft WG		4.0	3.3	6.0	14.0	3.7	5.0	9.0
		kPa	12	10	18	42	11	15	27
	Heating capacity (2)	TON	1.15	1.67	2.22	3.24	4.21	4.92	6.15
kW		4.05	5.87	7.81	11.39	14.81	17.30	21.62	
Water flow (2)	gpm		1.5	2.2	3.0	4.3	5.6	6.6	8.2
		l/h	348	505	672	980	1274	1488	1859
	ft WG		3.3	4.7	4.7	10.3	3.0	4.0	7.0
kPa		10	14	14	31	9	12	21	
Air flow	Max.	cfm	206	300	412	600	800	965	1201
		m³/h	350	510	700	1020	1360	1640	2040
	Med.	cfm	171	230	288	483	647	800	1024
		m³/h	290	390	490	820	1100	1360	1740
	Min.	cfm	118	165	206	418	500	647	889
		m³/h	200	280	350	710	850	1100	1510
Available static pressure	STD	in WG	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12
		Pa	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30
	AP	in WG	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32
		Pa	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80
Sound pressure	Max. (3)	dB(A)	32	36	38	43	41	42	43
	Med. (3)	dB(A)	31	31	34	38	38	37	38
	Min. (3)	dB(A)	25	28	32	31	33	33	33
Electrical characteristics	Power supply	V/Ph/Hz	230 / 1 / 50 - 60						
	Max absorbed power	kW	0.053	0.073	0.097	0.157	0.215	0.237	0.285
Water connections		"G	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Weights	Transport weight	Kg	17	20	24	28	39	42	44
	Operating weight	Kg	15	18	22	26	37	40	42

FBW-M 23÷123

60 Hz

MODEL			23	33	43	63	83	103	123
Cooling	Total cooling capacity (1)	TON	0.66	0.95	1.28	1.87	2.35	2.75	3.48
		kW	2.33	3.33	4.50	6.56	8.28	9.67	12.24
	Sensible cooling capacity (1)	TON	0.47	0.69	0.92	1.34	1.71	2.01	2.53
		kW	1.66	2.41	3.23	4.70	6.03	7.07	8.90
	Water flow (1)	gpm	1.8	2.5	3.4	5.0	6.3	7.3	9.3
		l/h	401	573	774	1128	1424	1663	2105
Pressure drops (1)	ft WG		5.3	4.3	7.7	18.3	4.7	6.3	11.7
		kPa	16	13	23	55	14	19	35
	Heating capacity (2)	TON	1.31	1.90	2.53	3.69	4.80	5.61	7.01
kW		4.62	6.69	8.90	12.98	16.88	19.72	24.65	
Water flow (2)	gpm		1.7	2.5	3.4	4.9	6.4	7.5	9.3
		l/h	397	575	765	1116	1452	1696	2120
	ft WG		4.3	6.0	6.0	13.3	4.0	5.3	9.0
kPa		13	18	18	40	12	16	27	
Air flow	Max.	cfm	247	360	494	720	961	1158	1441
		m³/h	420	612	840	1224	1632	1968	2448
	Med.	cfm	205	275	346	579	777	961	1229
		m³/h	348	468	588	984	1320	1632	2088
	Min.	cfm	141	198	247	501	600	777	1067
		m³/h	240	336	420	852	1020	1320	1812
Available static pressure	STD	in WG	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12
		Pa	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30
	AP	in WG	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32
		Pa	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80
Sound pressure	Max. (3)	dB(A)	33	37	38	44	41	43	44
	Med. (3)	dB(A)	31	31	35	38	39	37	39
	Min. (3)	dB(A)	26	29	33	32	33	34	33
Electrical characteristics	Power supply	V/Ph/Hz	230 / 1 / 50 - 60						
	Max absorbed power	kW	0.064	0.088	0.116	0.188	0.258	0.284	0.342
Water connections		"G	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Weights	Transport weight	Kg	17	20	24	28	39	42	44
	Operating weight	Kg	15	18	22	26	37	40	42

DIMENSIONS			23	33	43	63	83	103	123
L	STD	mm	740	910	1040	1240	1490	1590	1850
W	STD	mm	480	480	480	480	480	480	480
H	STD	mm	260	260	260	260	260	260	260

DIMENSIONAL & CLEARANCE AREA

NOTES

FBW-M 23÷123

200 | 400



Electrical board side

1. Ambient air temperature 27 °C d.b. / 19 °C w.b., water temperature 7/12 °C.
2. Ambient air temperature 20 °C d.b., water temperature 70/60 °C.
3. Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.

FROM 0.6 TON TO 3.1 TON.
FROM 2.1 KW TO 10.9 KW.

FDW-M 23÷123

CEILING CONCEALED FAN COILS, DRAW THROUGH.



The Draw Through ceiling concealed Fan Coils of the FDW-M series are designed for installation in domestic ambients or in services sector including offices, hotels, restaurants, gyms and shops.

If connected to a system equipped with a water chiller, FDW-M generates cool air silently and with instantaneous reaction. Otherwise, during the winter, if combined with a heating system with boiler or heat pump, it delivers warm air to satisfy the heating needs of households and the service industry alike.

A filter, which absorbs and retains dust in suspension, allows to keep the air quality at a suitable level, and its easy removal enables continuous cleaning cycles to be carried out which are particularly important in order to guarantee suitable hygiene standards in highly frequented rooms.

VERSIONS

FDW-M

Built-in horizontal unit rear inlet and horizontal delivery

FDW-M/AP

Built-in horizontal unit rear inlet and horizontal delivery. High ESP fans

FEATURES

- Structure made of galvanized steel sheet complete with heat/sound insulation, filter and natural discharge condensation tray.
- Radial fan type directly coupled to a 4-speed single phase electric motor, with 3 speeds connected in the standard configuration.
- Heat exchanger coil with copper pipes and aluminium fins with airvent on the distributors.
- Standard water connections on left side based on air flow direction, they are easily converted to opposite side directly on-site without requiring additional parts.

ACCESSORIES

LOOSE ACCESSORIES

- C Auxiliary tray
- V2 3-way on/off valve for system with 2 pipes

FDW-M 23÷123

50 Hz

MODEL			23	33	43	63	83	103	123
Cooling	Total cooling capacity (1)	TON	0.59	0.84	1.15	1.66	2.08	2.46	3.10
		kW	2.08	2.95	4.05	5.84	7.30	8.65	10.90
	Sensible cooling capacity (1)	TON	0.42	0.61	0.82	1.19	1.51	1.80	2.25
		kW	1.49	2.13	2.90	4.18	5.32	6.33	7.93
	Water flow (1)	gpm	1.6	2.2	3.1	4.4	5.5	6.6	8.3
		l/h	358	507	697	1004	1256	1488	1875
Pressure drops (1)	ft WG	4.3	3.3	6.3	14.3	3.7	5.3	9.3	
	kPa	13	10	19	43	11	16	28	
Heating	Heating capacity (2)	TON	1.17	1.69	2.28	3.29	4.23	5.02	6.24
		kW	4.13	5.93	8.01	11.56	14.88	17.65	21.95
	Water flow (2)	gpm	1.6	2.2	3.0	4.4	5.6	6.7	8.3
		l/h	355	510	689	994	1280	1518	1888
	Pressure drops (2)	ft WG	3.3	4.7	5.0	10.7	3.0	4.3	7.3
		kPa	10	14	15	32	9	13	22
Air flow	Max.	cfm	206	300	412	600	800	965	1201
		m³/h	350	510	700	1020	1360	1640	2040
	Med.	cfm	171	230	288	483	647	800	1024
		m³/h	290	390	490	820	1100	1360	1740
	Min.	cfm	118	165	206	418	500	647	889
		m³/h	200	280	350	710	850	1100	1510
Available static pressure	STD	in WG	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12
		Pa	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30
	AP	in WG	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32
		Pa	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80
Sound pressure	Max. (3)	dB(A)	33	37	38	43	41	43	44
	Med. (3)	dB(A)	31	31	35	39	38	37	39
	Min. (3)	dB(A)	26	29	33	32	33	34	33
Electrical characteristics	Power supply	V/Ph/Hz	230 / 1 / 50 - 60						
	Max absorbed power	kW	0.053	0.073	0.097	0.157	0.215	0.237	0.285
Water connections		"G	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Weights	Transport weight	Kg	19	22	26	30	41	44	46
	Operating weight	Kg	17	20	24	28	39	42	44

FDW-M 23÷123

60 Hz

MODEL			23	33	43	63	83	103	123
Cooling	Total cooling capacity (1)	TON	0.67	0.96	1.31	1.89	2.37	2.80	3.53
		kW	2.37	3.36	4.62	6.66	8.32	9.86	12.43
	Sensible cooling capacity (1)	TON	0.48	0.69	0.94	1.36	1.72	2.05	2.57
		kW	1.70	2.43	3.31	4.77	6.06	7.22	9.04
	Water flow (1)	gpm	1.8	2.5	3.5	5.0	6.3	7.5	9.4
		l/h	408	578	795	1146	1431	1696	2138
Pressure drops (1)	ft WG	5.7	4.3	8.3	18.7	4.7	7.0	12.0	
	kPa	17	13	25	56	14	21	36	
Heating	Heating capacity (2)	TON	1.34	1.92	2.60	3.75	4.82	5.72	7.11
		kW	4.71	6.76	9.13	13.18	16.96	20.12	25.02
	Water flow (2)	gpm	1.8	2.6	3.5	5.0	6.4	7.6	9.5
		l/h	405	581	785	1133	1459	1730	2152
	Pressure drops (2)	ft WG	4.3	6.0	6.3	14.0	4.0	5.7	9.7
		kPa	13	18	19	42	12	17	29
Air flow	Max.	cfm	247	360	494	720	961	1158	1441
		m³/h	420	612	840	1224	1632	1968	2448
	Med.	cfm	205	275	346	579	777	961	1229
		m³/h	348	468	588	984	1320	1632	2088
	Min.	cfm	141	198	247	501	600	777	1067
		m³/h	240	336	420	852	1020	1320	1812
Available static pressure	STD	in WG	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12	0.00 / 0.12
		Pa	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30	0 / 30
	AP	in WG	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32	0.24 / 0.32
		Pa	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80	60 / 80
Sound pressure	Max. (3)	dB(A)	34	38	38	44	41	44	45
	Med. (3)	dB(A)	31	31	36	39	39	37	40
	Min. (3)	dB(A)	27	30	34	33	33	35	33
Electrical characteristics	Power supply	V/Ph/Hz	230 / 1 / 50 - 60						
	Max absorbed power	kW	0.064	0.088	0.116	0.188	0.258	0.284	0.342
Water connections		"G	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Weights	Transport weight	Kg	19	22	26	30	41	44	46
	Operating weight	Kg	17	20	26	28	39	42	44

DIMENSIONS			23	33	43	63	83	103	123
L	STD	mm	795	795	995	1105	1395	1525	1755
W	STD	mm	330	330	330	330	330	330	330
H	STD	mm	260	260	260	260	260	260	260

DIMENSIONAL & CLEARANCE AREA

NOTES

FDW-M 23÷123

200 | 400



Electrical board side

1. Ambient air temperature 27 °C d.b. / 19 °C w.b., water temperature 7/12 °C.
2. Ambient air temperature 20 °C d.b., water temperature 70/60 °C.
3. Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.

FROM 3.3 TON TO 13.8 TON.
FROM 11.7 KW TO 48.7 KW.

DBW-M 133÷464

DUCTED BLOWER FAN COILS.



The Ducted Blower Fan Coils of the DBW-M series are designed for installation in wide ambients as office buildings, hotels, restaurants, sport structures and shopping malls. If connected to a system equipped with a water chiller, DBW-M generates cool or warm air silently and with instantaneous reaction. The range includes 8 models with cooling capacities from 3 to 14 TON which are characterized by high static pressure (up to 0,6 inWG) to satisfy the needs of wide installations where external unit is far from the internal ambients or there are multiple far ambients to be cooled simultaneously. A filter, which absorbs and retains dust in suspension, allows to keep the air quality at a suitable level, and its easy removal enables continuous cleaning cycles to be carried out which are particularly important in order to guarantee suitable hygiene standards in highly frequented rooms.

VERSIONS

DBW-M

Horizontal unit rear inlet and horizontal delivery

FEATURES

- Structure made of galvanized steel sheet with electrostatic powder paint complete with polyethylene for thermal and acoustical purpose.
- G3 standard cleanable filter.
- Radial fan type, directly coupled with single-phase 3-speed electric motor or to 3-phase motors by V belt and variable pulley, depending on the model.
- Heat exchanger coil with copper pipes and aluminium fins with manual air vent and drain pan.
- Standard water connections on left side based on air flow direction. On request units can provided with water connections on right side.

DBW-M 133÷464

MODEL			133	164	203	253	324	423	424	464	
Cooling	Total cooling capacity (1)	TON	3.3	4.3	4.7	5.5	9.0	10.6	12.5	13.8	
		kW	11.7	15.0	16.4	19.3	31.7	37.2	44.0	48.7	
	Sensible cooling capacity (1)	TON	2.3	3.0	3.4	4.1	6.3	7.3	8.6	9.4	
		kW	7.9	10.6	12.0	14.4	22.3	25.8	30.2	33.1	
	Water flow (1)	gpm	8.9	11.3	12.4	14.6	24.0	28.2	33.3	36.8	
		l/h	2016	2571	2823	3326	5444	6402	7561	8368	
Pressure drops (1)	ft WG	4.0	1.0	0.7	1.0	2.5	9.7	7.3	9.1		
	kPa	12	3	2	3	8	29	22	27		
Heating	Heating capacity (2)	TON	4.2	5.7	6.9	8.1	11.8	13.9	15.8	17.6	
		kW	14.9	19.9	24.1	28.5	41.5	48.9	55.7	61.8	
	Water flow (2)	gpm	8.9	11.3	12.4	14.6	24.0	28.2	33.3	36.8	
		l/h	2016	2571	2823	3326	5444	6402	7561	8368	
Air flow	Max.	cfm	1250	1600	2000	2500	3200	4200	4200	4600	
		m³/h	2122	2716	3396	4244	5433	7131	7131	7810	
	Med.	cfm	1100	1400	1800	2200	2900	---	---	---	
		m³/h	1868	2377	3056	3735	4924	---	---	---	
	Min.	cfm	900	1250	1400	1600	2600	---	---	---	
		m³/h	1528	2122	2377	2716	4414	---	---	---	
Available static pressure	in WG	0.40	0.40	0.40	0.40	0.40	0.60	0.60	0.60		
	Pa	100	100	100	100	100	150	150	150		
Sound pressure	Max. (3)	dB(A)	52	52	55	56	61	67	67	68	
	Med. (3)	dB(A)	49	49	51	52	58	---	---	---	
	Min. (3)	dB(A)	40	40	43	44	49	---	---	---	
Electrical characteristics	Power supply	V/Ph/Hz	230 / 1 / 50					400 / 3 / 50			
	Max absorbed power	kW	0.4	0.8	2 x 0.4	2 x 0.4	2 x 0.8	1.9	1.9	1.9	
Water connections		inch	3/4"	3/4"	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"	
Weights	Transport weight	Kg	46	50	75	86	90	130	139	139	
	Operating weight	Kg	44	48	73	84	88	128	137	137	

DIMENSIONS			133	164	203	253	324	423	424	464
L	STD	mm	855	855	1495	1495	1495	1630	1630	1630
W	STD	mm	705	705	705	705	705	975	975	975
H	STD	mm	565	565	565	565	565	785	785	785

DIMENSIONAL & CLEARANCE AREA

NOTES

DBW-M 133÷464

800 | 800 | 800



Electrical board side

1. Ambient air temperature 27 °C d.b. / 19 °C w.b., water temperature 7/12 °C.
2. Ambient air temperature 20 °C d.b., water temperature 50 °C, same water flow as for cooling.
3. Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.

FROM 15.0 TON TO 77.8 TON.
FROM 52.8 KW TO 274 KW.

DBW-M 643÷2256

DUCTED BLOWER FAN COILS.



The Ducted Blower Fan Coils of the DBW-M series are designed for installation in extra wide ambients as big office buildings, hotels, restaurants, sport structures and shopping malls.

If connected to a system equipped with a water chiller, DBW-M generates cool air silently and with instantaneous reaction. The range includes 27 models with cooling capacities from 15 to 78 TON, characterized by high static pressure (up to 1,4 inWG) to satisfy the needs of extra wide installations where external unit is far from the internal ambients or there are multiple far ambients to be cooled simultaneously. Each model is available in versions with 3, 4 or 6 rows and features both horizontal and vertical air delivery to satisfy any Customer need.

A filter, which absorbs and retains dust in suspension, allows to keep the air quality at a suitable level, and its easy removal enables continuous cleaning cycles to be carried out which are particularly important in order to guarantee suitable hygiene standards in highly frequented rooms.

VERSIONS

DBW-M

Horizontal unit rear inlet and horizontal delivery

FEATURES

- Structure made of galvanized steel sheet with electrostatic powder paint complete with polyethylene for thermal and acoustical purpose.
- G3 standard cleanable filter.
- Radial fan type, statically and dynamically balanced to reduce vibration and noise to a minimum, directly coupled to 3-phase motors by V belt and variable pulley, installed on rubber shock absorbers.
- Heat exchanger coil with copper pipes and aluminium fins with manual air vent and drain pan.
- Units from size 643 to 646 come with standard horizontal air discharge and are convertible to vertical air discharge on site; sizes from 803 to 1204 come with standard vertical air discharge and are convertible to horizontal air discharge on site.

DBW-M 643÷2256

MODEL			643	644	646	803	804	806	903	904	906	1053	1054	1056	1203	1204
Cooling	Total cooling capacity (1)	TON	15.0	20.2	24.3	18.2	24.7	29.9	20.6	27.8	33.5	25.9	30.5	37	28.8	33.8
		kW	52.8	70.9	85.3	63.9	86.8	105	72.4	97.6	118	91.2	107	130	101	119
	Sensible cooling capacity (1)	TON	10.8	13.6	16.0	13.3	16.8	19.8	14.8	18.8	22.2	18.3	21.3	25.2	20.4	23.8
		kW	37.8	47.8	56.3	46.6	58.9	69.8	52.2	66.2	78.0	64.5	74.7	88.5	71.8	83.5
	Water flow (1)	gpm	39.9	53.7	64.6	48.4	65.7	79.5	54.8	73.9	89.2	69.0	81.2	98.5	76.6	90.1
		l/h	9073	12200	14670	10989	14921	18060	12451	16787	20265	15678	18450	22382	17391	20466
Pressure drops (1)	ft WG	2.3	10.7	9.6	1.6	10.0	6.9	2.1	8.0	8.9	2.4	1.8	1.2	2.8	2.1	
	kPa	7	32	29	5	30	21	6	24	27	7	5	4	8	6	
Rows	n°	3	4	6	3	4	6	3	4	6	3	4	6	3	4	
Air flow	cfm	6400	6400	6400	8000	8000	8000	9000	9000	9000	10500	10500	10500	12000	12000	
	m³/h	10866	10866	10866	13582	13582	13582	15280	15280	15280	17827	17827	17827	20374	20374	
Available static pressure	in WG	0.60	0.60	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	
	Pa	150	150	150	200	200	200	200	200	200	200	200	200	200	200	
Sound pressure (2)		dB(A)	72	72	72	74	74	74	76	76	76	79	79	79	77	77
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50													
	Max absorbed power	kW	3.6	3.6	3.6	4.7	4.7	4.7	4.7	4.7	4.7	6.4	6.4	6.4	6.4	6.4
Water connections		inch	1 1/2"	1 1/2"	2"	2"	2"	2 1/2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	3"	2 1/2"	2 1/2"
Weights	Transport weight	Kg	176	182	227	242	252	285	256	272	305	294	322	368	310	332
	Operating weight	Kg	174	180	225	240	250	283	254	270	303	292	320	366	308	330

MODEL			1206	1353	1354	1356	1503	1504	1506	1803	1804	1806	2253	2254	2256	
Cooling	Total cooling capacity (1)	TON	41.3	33.0	38.9	47.3	35.8	42.3	51.7	43.8	51.7	62.9	54.0	63.8	77.8	
		kW	145	116	137	166	126	149	182	154	182	221	190	224	274	
	Sensible cooling capacity (1)	TON	28.2	23.3	26.9	32.2	25.3	29.4	35.3	31.0	35.8	42.6	38.1	44.5	52.8	
		kW	99.1	81.8	94.7	113	88.8	103	124	109	126	150	134	157	186	
	Water flow (1)	gpm	110	87.9	104	126	95.4	112	138	116	138	168	144	170	207	
		l/h	25004	19962	23542	28633	21677	25557	31254	26466	31254	38060	32666	38564	47083	
Pressure drops (1)	ft WG	1.5	3.9	2.9	2.1	4.5	3.4	2.4	4.0	3.0	2.1	4.4	3.3	2.3		
	kPa	4	12	9	6	14	10	7	12	9	6	13	10	7		
Rows	n°	6	3	4	6	3	4	6	3	4	6	3	4	6		
Air flow	cfm	12000	13500	13500	13500	15000	15000	15000	18000	18000	18000	22500	22500	22500		
	m³/h	20374	22920	22920	22920	25467	25467	25467	30560	30560	30560	38200	38200	38200		
Available static pressure	in WG	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.20	1.41	1.41	1.41		
	Pa	200	250	250	250	250	250	250	300	300	300	350	350	350		
Sound pressure (2)		dB(A)	77	80	80	80	83	83	83	84	84	84	84	84		
Electrical characteristics	Power supply	V/Ph/Hz	400 / 3 / 50													
	Max absorbed power	kW	6.4	8.6	8.6	8.6	12.4	12.4	12.4	12.4	12.4	12.4	16.8	16.8	16.8	
Water connections		inch	3"	2 1/2"	2 1/2"	3"	2 1/2"	2 1/2"	3"	2x2"	2x2"	2x2"	2x2"	2x2"	2x2"	
Weights	Transport weight	Kg	420	317	341	442	330	352	400	982	1001	1098	1063	1086	1236	
	Operating weight	Kg	418	315	339	440	328	350	398	980	999	1096	1061	1084	1234	

DIMENSIONS			643	644	646	803	804	806	903	904	906	1053	1054	1056	1203	1204
L	STD	mm	1875	1875	1875	1915	1915	1915	1915	1915	1915	2170	2170	2170	2320	2320
W	STD	mm	980	980	980	1175	1175	1175	1175	1175	1175	1175	1175	1175	1380	1380
H	STD	mm	865	865	865	1235	1235	1235	1235	1235	1235	1490	1490	1490	1490	1490

DIMENSIONS			1206	1353	1354	1356	1503	1504	1506	1803	1804	1806	2253	2254	2256
L	STD	mm	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320
W	STD	mm	1380	1380	1380	1380	1380	1380	1380	1830	1830	1830	1830	1830	1830
H	STD	mm	1490	1490	1490	1490	1490	1490	1490	1915	1915	1915	2250	2250	2250

DIMENSIONAL & CLEARANCE AREA

DBW-M 643-2256

800 | 800 | 800



Electrical board side

NOTES

1. Ambient air temperature 27 °C d.b. / 19 °C w.b., water temperature 7/12 °C.
2. Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.

FROM 3.5 TON TO 14.7 TON.
FROM 12.4 KW TO 51.6 KW.

DBW-M/SZ 133÷464

DUCTED BLOWER FAN COILS.



60 Hz



The Ducted Blower Fan Coils of the DBW-M series are designed for installation in wide ambients as office buildings, hotels, restaurants, sport structures and shopping malls.

If connected to a system equipped with a water chiller, DBW-M generates cool or warm air silently and with instantaneous reaction. The range includes 8 models with cooling capacities from 4 to 15 TON which are characterized by high static pressure (up to 0,6 inWG) to satisfy the needs of wide installations where external unit is far from the internal ambients or there are multiple far ambients to be cooled simultaneously.

A filter, which absorbs and retains dust in suspension, allows to keep the air quality at a suitable level, and its easy removal enables continuous cleaning cycles to be carried out which are particularly important in order to guarantee suitable hygiene standards in highly frequented rooms.

The units feature 230V or 380V power supply and 60Hz frequency.

VERSIONS

DBW-M/SZ

Horizontal unit rear inlet and horizontal delivery

FEATURES

- Structure made of galvanized steel sheet with electrostatic powder paint complete with polyethylene for thermal and acoustical purpose.
- G3 standard cleanable filter.
- Radial fan type, directly coupled with single-phase 3-speed electric motor or to 3-phase motors by V belt and variable pulley, depending on the model.
- Heat exchanger coil with copper pipes and aluminium fins with manual air vent and drain pan.
- Standard water connections on left side based on air flow direction. On request units can provided with water connections on right side.

MODEL			133	164	203	253	324	423	424	464	
Cooling	Total cooling capacity (1)	TON	3.5	4.5	4.9	5.8	9.5	11.2	13.3	14.7	
		kW	12.4	15.8	17.4	20.5	33.5	39.5	46.6	51.6	
	Sensible cooling capacity (1)	TON	2.4	3.2	3.6	4.3	6.7	7.8	9.1	10.0	
		kW	8.4	11.2	12.7	15.2	23.6	27.3	32.0	35.1	
	Water flow (1)	gpm	9.4	12.0	13.2	15.5	25.4	29.9	35.3	39.1	
		l/h	2133	2718	2993	3526	5762	6794	8015	8875	
Pressure drops (1)	ft WG	4.3	1.0	0.7	1.0	2.8	11.0	8.0	10.3		
	kPa	13	3	2	3	8	33	24	31		
Heating	Heating capacity (2)	TON	4.4	5.9	7.2	8.4	12.4	14.4	16.4	18.3	
		kW	15.4	20.9	25.2	29.6	43.6	50.8	57.8	64.2	
	Water flow (2)	gpm	9.4	12.0	13.2	15.5	25.4	29.9	35.3	39.1	
		l/h	2133	2718	2993	3526	5762	6794	8015	8875	
Air flow	Max.	cfm	1300	1700	2100	2600	3400	4400	4400	4800	
		m³/h	2207	2886	3565	4414	5772	7470	7470	8149	
	Med.	cfm	1200	1500	1900	2300	3000	---	---	---	
		m³/h	2037	2547	3226	3905	5093	---	---	---	
	Min.	cfm	900	1300	1500	1700	2700	---	---	---	
		m³/h	1528	2207	2547	2886	4584	---	---	---	
Available static pressure	in WG	0.40	0.40	0.40	0.40	0.40	0.60	0.60	0.60		
	Pa	100	100	100	100	100	150	150	150		
Sound pressure	Max. (3)	dB(A)	53	53	56	57	62	68	68	69	
	Med. (3)	dB(A)	50	50	52	53	59	---	---	---	
	Min. (3)	dB(A)	41	41	44	45	50	---	---	---	
Electrical characteristics	Power supply	V/Ph/Hz	230 / 1 / 60						380 / 3 / 60		
	Max absorbed power	kW	0.4	0.8	2 x 0.4	2 x 0.4	2 x 0.8	1.9	1.9	1.9	
Water connections		inch	3/4"	3/4"	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"	
Weights	Transport weight	Kg	46	50	75	86	90	130	139	139	
	Operating weight	Kg	44	48	73	84	88	128	137	137	

DIMENSIONS			133	164	203	253	324	423	424	464
L	STD	mm	855	855	1495	1495	1495	1630	1630	1630
W	STD	mm	705	705	705	705	705	975	975	975
H	STD	mm	565	565	565	565	565	785	785	785

DIMENSIONAL & CLEARANCE AREA

NOTES

DBW-M/SZ 133-464

800 | 800 | 800



Electrical board side

1. Ambient air temperature 27 °C d.b./ 19 °C w.b., water temperature 7/12 °C.
2. Ambient air temperature 20 °C d.b., water temperature 50 °C, same water flow as for cooling.
3. Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.

FROM 16.0 TON TO 83.3 TON.
FROM 56.4 KW TO 293 KW.

DBW-M/SZ 643÷2256

DUCTED BLOWER FAN COILS.



60 Hz



The Ducted Blower Fan Coils of the DBW-M series are designed for installation in extra wide ambients as big office buildings, hotels, restaurants, sport structures and shopping malls.

If connected to a system equipped with a water chiller, DBW-M generates cool or warm air silently and with instantaneous reaction. The range includes 27 models with cooling capacities from 16 to 83 TON, characterized by high static pressure (up to 1,4 inWG) to satisfy the needs of extra wide installations where external unit is far from the internal ambients or there are multiple far ambients to be cooled simultaneously. Each model is available in versions with 3, 4 or 6 rows and features both horizontal and vertical air delivery to satisfy any Customer need.

A filter, which absorbs and retains dust in suspension, allows to keep the air quality at a suitable level, and its easy removal enables continuous cleaning cycles to be carried out which are particularly important in order to guarantee suitable hygiene standards in highly frequented rooms.

The units feature 380V power supply and 60Hz frequency.

VERSIONS

DBW-M/SZ

Horizontal unit rear inlet and horizontal delivery

FEATURES

- Structure made of galvanized steel sheet with electrostatic powder paint complete with polyethylene for thermal and acoustical purpose.
- G3 standard cleanable filter.
- Radial fan type, statically and dynamically balanced to reduce vibration and noise to a minimum, directly coupled to 3-phase motors by V belt and variable pulley, installed on rubber shock absorbers.
- Heat exchanger coil with copper pipes and aluminium fins with manual air vent and drain pan.
- Units from size 643 to 646 come with standard horizontal air discharge and are convertible to vertical air discharge on site; sizes from 803 to 1204 come with standard vertical air discharge and are convertible to horizontal air discharge on site.

MODEL			643	644	646	803	804	806	903	904	906	1053	1054	1056	1203	1204
Cooling	Total cooling capacity (1)	TON	16.0	21.6	26.0	19.4	26.4	31.8	22.0	29.6	35.8	27.9	32.7	39.5	30.7	36.1
		kW	56.4	75.9	91.3	68.4	92.8	112	77.5	104	126	98.0	115	139	108	127
	Sensible cooling capacity (1)	TON	11.5	14.5	17.1	14.2	17.9	21.3	15.9	20.2	23.7	19.6	22.7	26.9	21.8	25.4
		kW	40.5	51.1	60.2	49.9	63.0	75.0	55.8	70.9	83.4	69.0	80.0	94.7	76.8	89.4
	Water flow (1)	gpm	42.7	57.5	69.1	51.8	70.3	84.8	58.7	78.8	95.4	74.2	87.1	105	81.8	96.2
		l/h	9701	13055	15704	11765	15962	19264	13330	17888	21672	16856	19780	23908	18576	21844
Pressure drops (1)	ft WG	3.0	13.7	12.0	2.0	12.7	8.7	2.7	10.3	11.3	3.0	2.3	1.7	3.7	2.7	
	kPa	9	41	36	6	38	26	8	31	34	9	7	5	11	8	
Rows	n°	3	4	6	3	4	6	3	4	6	3	4	6	3	4	
Air flow	cfm	7200	7200	7200	9000	9000	9000	10200	10200	10200	11900	11900	11900	13600	13600	
	m³/h	12224	12224	12224	15280	15280	15280	17317	17317	17317	20204	20204	20204	23090	23090	
Available static pressure	in WG	0.60	0.60	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	
	Pa	150	150	150	200	200	200	200	200	200	200	200	200	200	200	
Sound pressure (2)		dB(A)	73	73	73	75	75	75	77	77	77	80	80	80	78	78
Electrical characteristics	Power supply	V/Ph/Hz	380 / 3 / 60													
	Max absorbed power	kW	3.6	3.6	3.6	4.7	4.7	4.7	4.7	4.7	6.4	6.4	6.4	8.6	6.4	6.4
Water connections		inch	1 1/2"	1 1/2"	2"	2"	2"	2 1/2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	3"	2 1/2"	2 1/2"
Weights	Transport weight	Kg	176	182	227	242	252	285	256	272	305	294	322	368	310	332
	Operating weight	Kg	174	180	225	240	250	283	254	270	303	292	320	366	308	330

MODEL			1206	1353	1354	1356	1503	1504	1506	1803	1804	1806	2253	2254	2256
Cooling	Total cooling capacity (1)	TON	44.4	35.3	41.5	50.6	38.4	45.2	55.2	46.9	55.2	67.4	57.7	68.2	83.3
		kW	156	124	146	178	135	159	194	165	194	237	203	240	293
	Sensible cooling capacity (1)	TON	30.1	24.9	28.7	34.4	27.0	31.6	37.8	33.2	38.4	45.5	40.7	47.5	56.6
		kW	106	87.5	101	121	95.0	111	133	116	135	160	143	165	199
	Water flow (1)	gpm	118	93.9	111	135	102	120	147	125	147	179	154	182	222
		l/h	26832	21328	25112	30616	23220	27348	33368	28380	33368	40764	34916	41280	50396
Pressure drops (1)	ft WG	2.0	5.0	3.7	2.7	5.7	4.3	3.0	4.0	3.0	2.1	4.4	3.3	2.3	
	kPa	6	15	11	8	17	13	9	12	9	6	13	10	7	
Rows	n°	6	3	4	6	3	4	6	3	4	6	3	4	6	
Air flow	cfm	13600	15300	15300	15300	17000	17000	17000	20300	20300	20300	25400	25400	25400	
	m³/h	23090	25976	25976	25976	28862	28862	28862	34465	34465	34465	43124	43124	43124	
Available static pressure	in WG	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.20	1.20	1.20	1.41	1.41	1.41	
	Pa	200	250	250	250	250	250	250	300	300	300	350	350	350	
Sound pressure (2)		dB(A)	78	81	81	81	84	84	85	85	85	85	85	85	
Electrical characteristics	Power supply	V/Ph/Hz	380 / 3 / 60												
	Max absorbed power	kW	6.4	8.6	8.6	8.6	12.4	12.4	12.4	12.4	12.4	12.4	16.8	16.8	16.8
Water connections		inch	3"	2 1/2"	2 1/2"	3"	2 1/2"	2 1/2"	3"	2x2"	2x2"	2x2"	2x2"	2x2"	2x2"
Weights	Transport weight	Kg	420	317	341	442	330	352	400	982	1001	1098	1063	1086	1236
	Operating weight	Kg	418	315	339	440	328	350	398	980	999	1096	1061	1084	1234

DIMENSIONS			643	644	646	803	804	806	903	904	906	1053	1054	1056	1203	1204
L	STD	mm	1875	1875	1875	1915	1915	1915	1915	1915	1915	2170	2170	2170	2320	2320
W	STD	mm	980	980	980	1175	1175	1175	1175	1175	1175	1175	1175	1175	1380	1380
H	STD	mm	865	865	865	1235	1235	1235	1235	1235	1235	1490	1490	1490	1490	1490

DIMENSIONS			1206	1353	1354	1356	1503	1504	1506	1803	1804	1806	2253	2254	2256
L	STD	mm	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320
W	STD	mm	1380	1380	1380	1380	1380	1380	1380	1830	1830	1830	1830	1830	1830
H	STD	mm	1490	1490	1490	1490	1490	1490	1490	1915	1915	1915	2250	2250	2250

DIMENSIONAL & CLEARANCE AREA

DBW-M/SZ 643-2256

800 | 800 | 800



Electrical board side

NOTES

1. Ambient air temperature 27 °C d.b. / 19 °C w.b., water temperature 7/12 °C.
2. Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.



CHAPTER 5

DUCTED SPLIT SYSTEMS

UNIT	Page
50 HZ	
DXC-M/K 12÷60	140 - 141
DXCXT-M/K 13÷67	142 - 143
DXD-M/K 75÷600	144 - 145
DXDXT-M/K 85÷660	146 - 147
60 HZ	
DXCXT-M/SZ/K 13÷67	148 - 149
DXDXT-M/SZ/K 85÷660	150 - 151

1

2

3

4

5

FROM 12.000 BTU/h TO 60.000 BTU/h.
 FROM 1,0 TON TO 5,0 TON.
 FROM 3,5 KW TO 17,6 KW.

DXC-M/K 12÷60

CEILING CONCEALED SPLIT SYSTEMS.



The ceiling concealed split systems of DXC-M/K series are the ideal solution for keeping the best comfort level in medium-sized spaces as offices, shops, hotels or education facilities.

The units are designed for built-in installation; thanks to its height of only 305 mm, the indoor unit can be totally hidden on the ceiling, to provide the perfect comfort without compromising on the building architecture and design, nor occupying any service space.

The ducts ensure an even distribution of conditioned air to every corner of the room. Even multiple areas can be conditioned simultaneously just with one indoor unit.

The range is characterized by low-noise operation of both internal units and external units, thanks to the high level acoustic insulation.

On a stylish soft-touch design, the electronic wired controller offers a wide range of control features, including self diagnosis error management, 7 days / 24 hours programming and more.

The systems operate with R410A refrigerant and feature Rotary or Scroll compressor, depending on the model.

VERSIONS

DXC-M/K

DXC-M/K/WP

Cooling only

Reversible heat pump

FEATURES

- Indoor and Outdoor units are made of galvanized steel sheet with electrostatic powder paint. Indoor units are complete with polyethylene for thermal and acoustical purpose.
- Single-phase Rotary (12÷36) or Three-phase Scroll compressor with oil sight glass (42÷60), internal overheat protection and crankcase heater.
- Indoor units are provided with radial fans directly coupled with single-phase 3-speed electric motor. Outdoor units are provided with axial fans directly coupled to a single-phase electric motor.
- Indoor and Outdoor units are provided with copper tube and aluminum finned coils.
- All Indoor units are provided with return air plenum and standard cleanable filter.
- Microprocessor for the automatic control of the unit allowing continuous display of the operational status, control the set and real air temperature and, in case of partial or total block of the unit, indication of security device that intervened through a wired wall pad as standard.
- Wired wall pad included on indoor unit.

DXC-M/K 12÷60

MODEL			12	18	24	30	36	42	48	60
Model	Indoor unit		12 INU	18 INU	24 INU	30 INU	36 INU	42 INU	48 INU	60 INU
	Outdoor unit		12 OTU	18 OTU	24 OTU	30 OTU	36 OTU	42 OTU	48 OTU	60 OTU
Cooling	Cooling capacity (1)	BTU/h	12000	18000	24000	30000	36000	42000	48000	60000
		TON	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0
	kW	3.5	5.3	7.0	8.8	10.5	12.3	14.1	17.6	
Heating	Heating capacity (2)	BTU/h	12600	18900	25200	31500	37800	44000	50000	63000
		TON	1.1	1.6	2.1	2.6	3.2	3.7	4.2	5.3
	kW	3.7	5.5	7.4	9.2	11.1	12.9	14.6	18.5	
Indoor unit	Absorbed power (1)	kW	1.3	2.1	2.7	3.4	4.0	4.6	4.8	6.1
		Max air flow	cfm	400	600	700	970	1170	1340	1340
	Available static pressure	m³/s	0.2	0.3	0.3	0.5	0.6	0.6	0.6	0.8
		in WG	0.30	0.30	0.40	0.40	0.50	0.50	0.60	0.60
	Liquid line	inch	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
	Suction line	inch	3/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
	Drain	inch	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
	Max sound pressure (3)	dB(A)	39	40	41	42	43	44	47	50
		n°	1	1	1	1	1	1	1	1
	Outdoor unit	Compressors	type	Rotary	Rotary	Rotary	Rotary	Rotary	Scroll	Scroll
Liquid line			inch	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"
Suction line		inch	3/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
Sound pressure (4)		dB(A)	41	45	46	51	52	51	52	53
Max piping length	Max distance OTU-INU (5)	m	15	15	15	15	40	40	40	40
	Max height OTU-INU (5)	m	8	8	8	8	20	20	20	20
Electrical characteristics	Power supply indoor unit	V/Ph/Hz	230 / 1 / 50							
	Power supply outdoor unit	V/Ph/Hz	230 / 1 / 50				400 / 3+N / 50			
	Max. running current	A	10	11	13	14	20	14	15	17
	Inrush current	A	43	46	50	80	92	68	78	80
Weights	Transport weight indoor unit (6)	Kg	28	30	49	48	52	61	61	65
	Operating weight indoor unit (6)	Kg	25	27	45	44	48	56	56	60
	Transport weight outdoor unit (6)	Kg	46	56	58	71	77	104	108	114
	Operating weight outdoor unit (6)	Kg	41	52	54	66	72	98	102	108

DIMENSIONS			12	18	24	30	36	42	48	60
L indoor unit	STD	mm	875	875	1160	1260	1260	1510	1510	1590
W indoor unit	STD	mm	545	545	545	545	545	545	545	545
H indoor unit	STD	mm	305	305	305	305	305	305	305	305
L outdoor unit	STD	mm	920	920	920	1040	1040	1050	1050	1050
W outdoor unit	STD	mm	375	375	375	425	425	425	425	425
H outdoor unit	STD	mm	615	615	615	710	710	1175	1175	1175

DIMENSIONAL & CLEARANCE AREA

INDOOR UNIT

OUTDOOR UNIT



NOTES

- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 35°C d.b.
- Indoor air temperature 20°C w.b., outdoor air temperature 7°C d.b. / 6°C w.b.
- Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Maximum lengths reachable with proper piping diameter and siphons.
- Cooling only unit

FROM 13.000 BTU/h TO 67.000 BTU/h.
 FROM 1,1 TON TO 5,5 TON.
 FROM 3,9 KW TO 19,5 KW.

DXCXT-M/K 13÷67

CEILING CONCEALED SPLIT SYSTEMS.

HIGH AMBIENT TEMPERATURE UP TO 52 °C



The ceiling concealed split systems of DXCXT-M/K series are the ideal solution for keeping the best comfort level in medium-sized spaces as offices, shops, hotels or education facilities.

The units are designed for built-in installation; thanks to its height of only 305 mm, the indoor unit can be totally hidden on the ceiling, to provide the perfect comfort without compromising on the building architecture and design, nor occupying any service space.

The ducts ensure an even distribution of conditioned air to every corner of the room. Even multiple areas can be conditioned simultaneously just with one indoor unit.

The range is characterized by low-noise operation of both internal units and external units, thanks to the high level acoustic insulation.

On a stylish soft-touch design, the electronic wired controller offers a wide range of control features, including self diagnosis error management, 7 days / 24 hours programming and more.

The systems operate with R410A refrigerant and feature Scroll compressor.

The DXCXT-M/K models ensure the perfect functioning even on regions with high temperature, being able to work **up to 52°C external air temperature.**

VERSIONS

DXCXT-M/K

DXCXT-M/K/WP

Cooling only

Reversible heat pump

FEATURES

- Indoor and Outdoor units are made of galvanized steel sheet with electrostatic powder paint. Indoor units are complete with polyethylene for thermal and acoustical purpose.
- Three-phase Scroll compressor with oil sight glass, internal overheat protection and crankcase heater.
- Indoor units are provided with radial fans, directly coupled with single-phase 3-speed electric motor. Outdoor units are provided with axial fans directly coupled to a single-phase electric motor.
- Indoor and Outdoor units are provided with copper tubes and aluminum finned coils.
- All Indoor units are provided with return air plenum and standard cleanable filter.
- Microprocessor for the automatic control of the unit allowing continuous display of the operational status, control the set and real air temperature and, in case of partial or total block of the unit, indication of security device that intervened through a wired wall pad as standard.
- Wired wall pad included on indoor unit.

DXCXT-M/K 13÷67

MODEL			13	20	27	33	40	47	53	67
Model	Indoor unit		12 INU	18 INU	24 INU	30 INU	36 INU	42 INU	48 INU	60 INU
	Outdoor unit		13 OTU	20 OTU	27 OTU	33 OTU	40 OTU	47 OTU	53 OTU	67 OTU
Cooling	Cooling capacity (1)	BTU/h	12000	18000	24000	30000	36000	42000	48000	60000
		TON	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0
		kW	3.5	5.3	7.0	8.8	10.5	12.3	14.1	17.6
	Absorbed power (1)	kW	1.5	2.3	2.8	3.7	4.1	5.2	5.8	7.1
		BTU/h	13000	20000	27000	33000	40000	47000	53000	67000
		TON	1.1	1.6	2.2	2.8	3.3	3.9	4.4	5.5
Absorbed power (2)	kW	3.9	5.8	7.8	9.7	11.6	13.7	15.6	19.5	
	kW	1.3	2.0	2.4	3.1	3.4	4.3	4.8	5.9	
	BTU/h	12600	18900	25200	31500	37800	44000	50000	63000	
Heating	Heating capacity (3)	TON	1.1	1.6	2.1	2.6	3.2	3.7	4.1	5.3
		kW	3.7	5.5	7.4	9.2	11.1	12.9	14.6	18.5
		kW	1.2	1.8	2.2	3.0	3.3	4.1	4.5	5.4
Absorbed power (3)	BTU/h	12600	18900	25200	31500	37800	44000	50000	63000	
	cfm	400	600	700	970	1170	1340	1340	1740	
	m³/s	0.2	0.3	0.3	0.5	0.6	0.6	0.6	0.8	
Indoor unit	Available static pressure	in WG	0.30	0.30	0.40	0.40	0.50	0.50	0.60	0.60
		Pa	75	75	90	100	120	120	150	150
	Liquid line	inch	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
	Suction line	inch	3/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
	Drain	inch	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
	Max sound pressure (4)	dB(A)	39	40	41	42	43	44	47	50
Outdoor unit	Compressors	n°	1	1	1	1	1	1	1	1
		type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Liquid line	inch	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
	Suction line	inch	3/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
Max piping length	Sound pressure (5)	dB(A)	44	46	47	52	53	51	52	53
	Max distance OTU-INU (6)	m	15	15	15	15	40	40	40	40
Max height OTU-INU (6)	Max height OTU-INU (6)	m	8	8	8	8	20	20	20	20
	Power supply indoor unit	V/Ph/Hz	230 / 1 / 50							
Electrical characteristics	Power supply outdoor unit	V/Ph/Hz	230 / 1 / 50				400 / 3+N / 50			
	Max. running current	A	12	13	16	22	22	14	15	17
Weights	Inrush current	A	45	55	70	91	102	68	78	80
	Transport weight indoor unit (7)	Kg	28	30	49	48	52	61	61	65
	Operating weight indoor unit (7)	Kg	25	27	45	44	48	56	56	60
	Transport weight outdoor unit (7)	Kg	49	59	61	76	83	104	108	114
	Operating weight outdoor unit (7)	Kg	45	55	57	71	77	98	102	108

DIMENSIONS			13	20	27	33	40	47	53	67
L indoor unit	STD	mm	875	875	1160	1260	1260	1510	1510	1590
W indoor unit	STD	mm	545	545	545	545	545	545	545	545
H indoor unit	STD	mm	305	305	305	305	305	305	305	305
L outdoor unit	STD	mm	920	920	920	1040	1040	1050	1050	1050
W outdoor unit	STD	mm	375	375	375	425	425	425	425	425
H outdoor unit	STD	mm	615	615	615	710	710	1175	1175	1175

DIMENSIONAL & CLEARANCE AREA

INDOOR UNIT

OUTDOOR UNIT

300 | 300 | 1000 | 500



NOTES

- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 46°C d.b.
- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 35°C d.b.
- Indoor air temperature 20°C w.b., outdoor air temperature 7°C d.b. / 6°C w.b.
- Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Maximum lengths reachable with proper piping diameter and siphons.
- Cooling only unit

FROM 75.000 BTU/h TO 600.000 BTU/h.
 FROM 6,3 TON TO 50,0 TON.
 FROM 22 KW TO 176 KW.

DXD-M/K 75÷600

DUCTED BLOWER SPLIT SYSTEMS.



The ducted blower split systems of DXD-M/K series are the ideal solution for keeping the best comfort level in large-sized spaces as offices, shops, hotels or education facilities. The range comprises 12 models from 75.000 BTU/h to 600.000 BTU/h and the systems are composed of one indoor unit connected to up to four outdoor units, depending on the cooling capacity required.

The systems operate with R410A refrigerant and feature Scroll compressor.

The units are designed for installation both in service rooms or built-in; the air ducts, totally hidden on the ceiling or on walls, provide the perfect comfort without compromising on the building architecture and design. Models over 125.000 BTU/h feature both horizontal and vertical air outlet, which can be chosen directly onsite, to allow the highest flexibility in installation.

The ducts ensure an even distribution of conditioned air to every corner of the room. Even multiple areas can be conditioned simultaneously just with one indoor unit.

The range is characterized by low-noise operation of both internal units and external units, thanks to the high level acoustic insulation.

VERSIONS

DXD-M/K

DXD-M/K/WP

Cooling only

Reversible heat pump

FEATURES

- Indoor and Outdoor units are made of galvanized steel sheet with electrostatic powder paint. Indoor units are complete with polyethylene for thermal and acoustical purpose.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Indoor units are provided with radial fans, directly coupled with single-phase 3-speed electric motor (to build models' sizes 75 - 100) or to 3-phase motors by V belt and variable pulley (to build models' sizes 125 - 600). Outdoor units are provided axial fans directly coupled to electric motor.
- Indoor units to build models' sizes 75 - 150 come with standard horizontal air discharge; indoor units to build models' sizes 125 - 150 are convertible to vertical air discharge on site. Indoor units to build models' sizes 200 - 600 come with standard vertical air discharge and they are convertible to horizontal air discharge on site.
- Indoor and Outdoor units are provided with copper tube and aluminum finned coils precharged with nitrogen.
- All Indoor units are provided with return air plenum and standard cleanable filter.
- Microprocessor for the automatic control of the unit allowing continuous display of the operational status, control the set and real air temperature and, in case of partial or total unit stop, indication of security device that intervened through a wired wall pad as standard.
- Units matching with two or more outdoor units are provided with a sequential controller allowing part loading of the system capacity.
- Wired wall pad included on indoor unit.

DXD-M/K 75÷600

MODEL			75	100	125	150	200	250	300	350	400	450	500	600
Model	Indoor unit		1 x 75 INU	1 x 100 INU	1 x 125 INU	1 x 150 INU	1 x 200 INU	1 x 250 INU	1 x 300 INU	1 x 350 INU	1 x 400 INU	1 x 450 INU	1 x 500 INU	1 x 600 INU
	Outdoor unit		1 x 75 OTU	1 x 100 OTU	1 x 125 OTU	1 x 150 OTU	2 x 100 OTU	2 x 125 OTU	2 x 150 OTU	2 x 125 OTU 1 x 100 OTU	4 x 100 OTU	3 x 150 OTU	4 x 125 OTU	4 x 150 OTU
Cooling	Cooling capacity (1)	BTU/h	75000	100000	125000	150000	200000	250000	300000	350000	400000	450000	500000	600000
		TON	6.3	8.3	10.4	12.5	16.7	20.8	25.0	29.1	33.3	37.5	41.7	50.0
Heating	Heating capacity (2)	kW	22.0	29.3	36.6	43.9	58.6	73.2	87.9	103	117	132	147	176
		BTU/h	78200	104000	129700	155800	207600	259500	311400	363300	415200	467100	519000	622800
Absorbed power (1)	kW		8.9	11.4	14.1	16.7	23.3	28.9	35.9	43.6	45.7	52.9	62.9	67.6
		BTU/h	78200	104000	129700	155800	207600	259500	311400	363300	415200	467100	519000	622800
Absorbed power (2)	kW		7.4	9.6	12.8	14.6	19.0	23.5	29.3	35.6	37.3	43.1	51.2	55.1
		BTU/h	78200	104000	129700	155800	207600	259500	311400	363300	415200	467100	519000	622800
Indoor unit	Max air flow	cfm	2500	2800	4100	4400	6400	7800	9000	10500	12000	13500	14600	17600
		m³/s	1.2	1.3	1.9	2.1	3.0	3.7	4.2	5.0	5.7	6.4	6.9	8.3
	Available static pressure	in WG	0.60	0.60	0.60	0.60	0.60	0.80	0.80	0.80	0.80	1.00	1.00	1.20
		Pa	150	150	150	150	150	200	200	200	200	250	250	300
	Liquid line	inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
	Suction line	inch	1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8" 1-1/8"	1-1/8"	1-3/8"	1-3/8"
Drain	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	
Max sound pressure (3)	dB(A)	56	57	58	59	60	62	65	65	65	66	67	68	
Outdoor unit	Compressors	n°	1	1	1	1	1	1	1	1	1	1	1	
		type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	
	Liquid line	inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8" 1-3/8"	5/8"	5/8"	5/8"	
	Suction line	inch	1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8" 1-1/8"	1-1/8"	1-3/8"	1-3/8"	
Sound pressure (4)	dB(A)	57	57	58	58	57	57	58	57	57	58	57		
Max piping length	Max distance OTU-INU (5)	m	50	50	50	50	50	50	50	50	50	50		
	Max height OTU-INU (5)	m	30	30	30	30	30	30	30	30	30	30		
Electrical characteristics	Power supply indoor unit	V/Ph/Hz	230 / 1 / 50			400 / 3+N / 50								
	Power supply outdoor unit	V/Ph/Hz	400 / 3 / 50											
	Max. running current	A	20	26	26	32	43	54	72	81	84	102	116	130
Inrush current	A	102	128	146	180	145	173	217	201	187	250	237	279	
Weights	Transport weight indoor unit (6)	Kg	127	150	215	217	235	368	378	503	556	570	850	
	Operating weight indoor unit (6)	Kg	122	145	210	212	225	358	368	493	546	560	840	
	Transport weight outdoor unit (6)	Kg	185	190	196	230	190	197	230	197/190	190	230	197	
	Operating weight outdoor unit (6)	Kg	175	180	187	220	180	187	220	187/180	180	220	187	

DIMENSIONS			75	100	125	150	200	250	300	350	400	450	500	600
L indoor unit	STD	mm	1580	1880	1575	1575	1905	1905	1905	1905	2420	2420	2420	2440
W indoor unit	STD	mm	765	765	985	985	985	1240	1240	1240	1520	1520	1520	1820
H indoor unit	STD	mm	430	430	870	870	870	1165	1165	1385	1385	1385	1385	1770
L outdoor unit	STD	mm	965	965	965	1130	965	965	1130	965	965	1130	965	1130
W outdoor unit	STD	mm	975	975	975	1110	975	975	1110	975	975	1110	975	1110
H outdoor unit	STD	mm	950	950	950	950	950	950	1000	950	950	1000	950	1000

DIMENSIONAL & CLEARANCE AREA

INDOOR UNIT

OUTDOOR UNIT



NOTES

- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 35°C d.b.
- Indoor air temperature 20°C w.b., outdoor air temperature 7°C d.b. / 6°C w.b
- Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Maximum lengths reachable with proper piping diameter and siphons.
- Cooling only unit

FROM 85.000 BTU/h TO 660.000 BTU/h.
 FROM 7,1 TON TO 55,0 TON.
 FROM 25 KW TO 193 KW.

DXDXT-M/K 85÷660

DUCTED BLOWER SPLIT SYSTEMS.



HIGH AMBIENT TEMPERATURE UP TO 52 °C



The ducted blower split systems of DXDXT-M/K series are the ideal solution for keeping the best comfort level in large-sized spaces as offices, shops, hotels or education facilities. The range comprises 12 models from 85.000 BTU/h to 660.000 BTU/h and the systems are composed of one indoor unit connected to up to four outdoor units, depending on the cooling capacity required.

The systems operate with R410A refrigerant and feature Scroll compressor.

The units are designed for installation both in service rooms or built-in; the air ducts, totally hidden on the ceiling or on walls, provide the perfect comfort without compromising on the building architecture and design. Models from 140.000 BTU/h feature both horizontal and vertical air outlet, which can be chosen directly onsite, to allow the highest flexibility in installation.

The ducts ensure an even distribution of conditioned air to every corner of the room. Even multiple areas can be conditioned simultaneously just with one indoor unit.

The DXDXT-M/K models ensure the perfect functioning even on regions with high temperature, being able to work **up to 52°C external air temperature**.

VERSIONS

DXDXT-M/K

DXDXT-M/K/WP

Cooling only

Reversible heat pump

FEATURES

- Indoor and Outdoor units are made of galvanized steel sheet with electrostatic powder paint. Indoor units are complete with polyethylene for thermal and acoustical purpose.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Indoor units are provided with radial fans, directly coupled with single-phase 3-speed electric motor (to build models' sizes 85 - 110) or to 3-phase motors by V belt and variable pulley (to build models' sizes 140 - 660). Outdoor units are provided axial fans directly coupled to electric motor.
- Indoor units to build models' sizes 85 - 165 come with standard horizontal air discharge; indoor units to build models' sizes 140 - 165 are convertible to vertical air discharge on site. Indoor units to build models' sizes 220 - 660 come with standard vertical air discharge and they are convertible to horizontal air discharge on site.
- Indoor and Outdoor units are provided with copper tube and aluminum finned coils precharged with nitrogen.
- All Indoor units are provided with return air plenum and standard cleanable filter.
- Microprocessor for the automatic control of the unit allowing continuous display of the operational status, control the set and real air temperature and, in case of partial or total unit stop, indication of security device that intervened through a wired wall pad as standard.
- Units matching with two or more outdoor units are provided with a sequential controller allowing part loading of the system capacity.
- Wired wall pad included on indoor unit.

DXDXT-M/K 85÷660

MODEL			85	110	140	165	220	280	330	390	440	495	560	660
Model	Indoor unit		1 x 75 INU	1 x 100 INU	1 x 125 INU	1 x 150 INU	1 x 200 INU	1 x 250 INU	1 x 300 INU	1 x 350 INU	1 x 400 INU	1 x 450 INU	1 x 500 INU	1 x 600 INU
	Outdoor unit		1 x 85 OTU	1 x 110 OTU	1 x 140 OTU	1 x 165 OTU	2 x 110 OTU	2 x 140 OTU	2 x 165 OTU	2 x 140 OTU 1 x 110 OTU	4 x 110 OTU	3 x 165 OTU	4 x 140 OTU	4 x 165 OTU
Cooling	Cooling capacity (1)	BTU/h	75000	100000	125000	150000	200000	250000	300000	350000	400000	450000	500000	600000
		TON	6.3	8.3	10.4	12.5	16.7	20.8	25.0	29.3	33.3	37.5	41.8	50.0
	Absorbed power (1)	kW	22.0	29.3	36.6	43.9	58.6	73.2	87.9	103	117	132	147	176
		BTU/h	85000	110000	140000	165000	220000	280000	330000	390000	440000	495000	560000	660000
	Cooling capacity (2)	TON	7.1	9.2	11.7	13.7	18.3	23.3	27.5	32.5	36.7	41.3	46.6	55.0
		kW	24.9	32.5	40.6	48.3	64.4	82.0	96.7	114	129	145	164	193
Absorbed power (2)	kW	9.4	11.8	14.9	20.5	24.1	30.5	43.1	45.2	47.5	63.8	65.3	82.7	
Heating	Heating capacity (3)	BTU/h	78200	104000	129700	155800	207600	259500	311400	363300	415200	467100	519000	622800
		TON	6.5	8.7	10.8	13.0	17.3	21.6	25.9	30.1	34.7	38.9	43.2	52.0
	Absorbed power (3)	kW	22.9	30.5	38.0	45.6	60.8	76.0	91.2	106	122	137	152	183
Indoor unit	Max air flow	cfm	2500	2800	4100	4400	6400	7800	9000	10500	12000	13500	14600	17600
		m³/s	1.2	1.3	1.9	2.1	3.0	3.7	4.2	5.0	5.7	6.4	6.9	8.3
	Available static pressure	in WG	0.60	0.60	0.60	0.60	0.60	0.80	0.80	0.80	0.80	1.00	1.00	1.20
		Pa	150	150	150	150	150	200	200	200	200	250	250	300
	Liquid line	inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
	Suction line	inch	1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"
	Drain	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"
	Max sound pressure (4)	dB(A)	56	57	58	59	60	62	65	65	66	67	68	68
Outdoor unit	Compressors	n°	1	1	1	1	1	1	1	1	1	1	1	1
		type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Liquid line	inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	
	Suction line	inch	1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"
Sound pressure (5)	dB(A)	57	57	58	58	57	57	58	57	57-56	58	57	58	
Max piping length	Max distance OTU-INU (6)	m	50	50	50	50	50	50	50	50	50	50	50	
	Max height OTU-INU (6)	m	30	30	30	30	30	30	30	30	30	30	30	
Electrical characteristics	Power supply indoor unit	V/Ph/Hz	230 / 1 / 50			400 / 3+N / 50								
	Power supply outdoor unit	V/Ph/Hz	400 / 3 / 50											
	Max. running current	A	25	31	34	44	53	69	90	101	105	136	147	176
Inrush current	A	119	129	180	243	148	212	288	244	194	255	284	366	
Weights	Transport weight indoor unit (7)	Kg	127	150	215	217	235	368	378	503	556	570	850	920
	Operating weight indoor unit (7)	Kg	122	145	210	212	225	358	368	493	546	560	840	910
	Transport weight outdoor unit (7)	Kg	185	190	196	230	190	197	230	197/190	190	230	197	230
	Operating weight outdoor unit (7)	Kg	175	180	187	220	180	187	220	187/180	180	220	187	220

DIMENSIONS			85	110	140	165	220	280	330	390	440	495	560	660
L indoor unit	STD	mm	1580	1880	1575	1575	1905	1905	1905	1905	2420	2420	2420	2440
W indoor unit	STD	mm	765	765	985	985	985	1240	1240	1240	1520	1520	1520	1820
H indoor unit	STD	mm	430	430	870	870	870	1165	1165	1385	1385	1385	1385	1770
L outdoor unit	STD	mm	965	965	965	1130	965	965	1130	965	965	1130	965	1130
W outdoor unit	STD	mm	975	975	975	1110	975	975	1110	975	975	1110	975	1110
H outdoor unit	STD	mm	950	950	950	950	950	950	1000	950	950	1000	950	1000

DIMENSIONAL & CLEARANCE AREA

INDOOR UNIT

OUTDOOR UNIT



NOTES

- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 46°C d.b.
- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 35°C d.b.
- Indoor air temperature 20°C w.b., outdoor air temperature 7°C d.b. / 6°C w.b.
- Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Maximum lengths reachable with proper piping diameter and siphons.
- Cooling only unit

FROM 13.000 BTU/h TO 64.000 BTU/h.
 FROM 1,1 TON TO 5,3 TON.
 FROM 3,7 KW TO 18,8 KW.

DXCXT-M/SZ/K 13÷67

CEILING CONCEALED SPLIT SYSTEMS.

HIGH AMBIENT TEMPERATURE UP TO 52 °C



60 Hz



The ceiling concealed split systems of DXCXT-M/SZ/K series are the ideal solution for keeping the best comfort level in medium-sized spaces as offices, shops, hotels or education facilities.

The units are designed for built-in installation; thanks to its height of only 305 mm, the indoor unit can be totally hidden on the ceiling, to provide the perfect comfort without compromising on the building architecture and design, nor occupying any service space.

The ducts ensure an even distribution of conditioned air to every corner of the room. Even multiple areas can be conditioned simultaneously just with one indoor unit.

The range is characterized by low-noise operation of both internal units and external units, thanks to the high level acoustic insulation.

On a stylish soft-touch design, the electronic wired controller offers a wide range of control features, including self diagnosis error management, 7 days / 24 hours programming and more.

The systems operate with R410A refrigerant and feature Scroll compressor.

The DXCXT-M/SZ/K models ensure the perfect functioning even on regions with high temperature, being able to work **up to 52°C external air temperature.**

The units feature 230V or 380V power supply and 60Hz frequency.

VERSIONS

DXCXT-M/SZ/K

DXCXT-M/SZ/K/WP

Cooling only

Reversible heat pump

FEATURES

- Indoor and Outdoor units are made of galvanized steel sheet with electrostatic powder paint. Indoor units are complete with polyethylene for thermal and acoustical purpose.
- Three-phase Scroll compressor with oil sight glass, internal overheat protection and crankcase heater.
- Indoor units are provided with radial fans, directly coupled with single-phase 3-speed electric motor. Outdoor units are provided with axial fans directly coupled to a single-phase electric motor.
- Indoor and Outdoor units are provided with copper tubes and aluminum finned coils.
- All Indoor units are provided with return air plenum and standard cleanable filter.
- Microprocessor for the automatic control of the unit allowing continuous display of the operational status, control the set and real air temperature and, in case of partial or total block of the unit, indication of security device that intervened through a wired wall pad as standard.
- Wired wall pad included on indoor unit.

DXCXT-M/SZ/K 13÷67

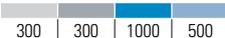
MODEL			13	20	27	33	40	47	53	67
Model	Indoor unit		12 INU	18 INU	24 INU	30 INU	36 INU	42 INU	48 INU	60 INU
	Outdoor unit		13 OTU	20 OTU	27 OTU	33 OTU	40 OTU	47 OTU	53 OTU	67 OTU
Cooling	Cooling capacity (1)	BTU/h	11000	17000	23000	28000	34000	40000	46000	58000
		TON	0.9	1.4	1.9	2.3	2.8	3.3	3.8	4.8
		kW	3.2	5.0	6.7	8.2	10.0	11.7	13.5	17.0
	Absorbed power (1)	kW	1.4	2.1	2.7	3.5	3.9	4.9	5.5	6.7
		BTU/h	13000	19000	26000	31000	38000	44000	51000	64000
		TON	1.1	1.6	2.1	2.6	3.1	3.7	4.2	5.3
Heating	Cooling capacity (2)	kW	3.7	5.6	7.5	9.0	11.0	13.0	14.9	18.8
		kW	1.2	1.8	2.3	2.9	3.2	4.1	4.6	5.6
		BTU/h	12000	18000	23900	29600	35900	41800	47500	61100
	Heating capacity (3)	TON	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.1
		kW	3.5	5.3	7.0	8.7	10.5	12.2	13.9	17.9
		kW	1.1	1.6	2.1	2.9	3.1	3.9	4.3	5.1
Indoor unit	Max air flow	cfm	420	630	730	1010	1220	1400	1400	1820
		m³/s	0.2	0.3	0.3	0.5	0.6	0.7	0.7	0.9
		Available static pressure	in WG	0.30	0.30	0.40	0.40	0.50	0.50	0.60
	Liquid line	Pa	75	75	90	100	120	120	150	150
		inch	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
	Suction line	inch	3/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
	Drain	inch	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
	Max sound pressure (4)	dB(A)	39	40	41	42	43	44	47	50
	Outdoor unit	Compressors	n°	1	1	1	1	1	1	1
type			Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Liquid line		inch	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
Suction line		inch	3/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
Sound pressure (5)	dB(A)	44	46	47	52	53	51	52	53	
Max piping length	Max distance OTU-INU (6)	m	15	15	15	15	40	40	40	40
	Max height OTU-INU (6)	m	8	8	8	8	20	20	20	20
Electrical characteristics	Power supply indoor unit	V/Ph/Hz	230 / 1 / 60							
	Power supply outdoor unit	V/Ph/Hz	230 / 1 / 60				380 / 3+N / 60			
	Max. running current	A	12	13	16	22	22	15	16	18
	Inrush current	A	45	55	70	91	102	72	82	84
Weights	Transport weight indoor unit (7)	Kg	28	30	49	48	52	61	61	65
	Operating weight indoor unit (7)	Kg	25	27	45	44	48	56	56	60
	Transport weight outdoor unit (7)	Kg	47	57	59	71	78	99	103	109
	Operating weight outdoor unit (7)	Kg	43	53	55	66	72	93	97	103

DIMENSIONS			13	20	27	33	40	47	53	67
L indoor unit	STD	mm	875	875	1160	1260	1260	1510	1510	1590
W indoor unit	STD	mm	545	545	545	545	545	545	545	545
H indoor unit	STD	mm	305	305	305	305	305	305	305	305
L outdoor unit	STD	mm	920	920	920	1040	1040	1050	1050	1050
W outdoor unit	STD	mm	375	375	375	425	425	425	425	425
H outdoor unit	STD	mm	615	615	615	710	710	1175	1175	1175

DIMENSIONAL & CLEARANCE AREA

INDOOR UNIT

OUTDOOR UNIT



NOTES

- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 46°C d.b.
- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 35°C d.b.
- Indoor air temperature 20°C w.b., outdoor air temperature 7°C d.b. / 6°C w.b.
- Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Maximum lengths reachable with proper piping diameter and siphons.
- Cooling only unit

FROM 84.000 BTU/h TO 645.000 BTU/h.
 FROM 7,0 TON TO 53,6 TON.
 FROM 25 KW TO 189 KW.

DXDXT-M/SZ/K 85÷660

DUCTED BLOWER SPLIT SYSTEMS



HIGH AMBIENT TEMPERATURE UP TO 52 °C



The ducted blower split systems of DXDXT-M/SZ/K series are the ideal solution for keeping the best comfort level in large-sized spaces as offices, shops, hotels or education facilities. The range comprises 12 models from 84.000 BTU/h to 645.000 BTU/h and the systems are composed of one indoor unit connected to up to four outdoor units, depending on the cooling capacity required.

The systems operate with R410A refrigerant and feature Scroll compressor.

The units are designed for installation both in service rooms or built-in; the air ducts, totally hidden on the ceiling or on walls, provide the perfect comfort without compromising on the building architecture and design. Models from 136.000 BTU/h feature both horizontal and vertical air outlet, which can be chosen directly onsite, to allow the highest flexibility in installation.

The ducts ensure an even distribution of conditioned air to every corner of the room. Even multiple areas can be conditioned simultaneously just with one indoor unit.

The DXDXT-M/SZ/K models ensure the perfect functioning even on regions with high temperature, being able to work **up to 52°C external air temperature**.

The units feature 230V or 380V power supply and 60Hz frequency.

VERSIONS

DXDXT-M/SZ/K

DXDXT-M/SZ/K/WP

Cooling only

Reversible heat pump

FEATURES

- Indoor and Outdoor units are made of galvanized steel sheet with electrostatic powder paint. Indoor units are complete with polyethylene for thermal and acoustical purpose.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Indoor units are provided with radial fans, directly coupled with single-phase 3-speed electric motor (to build models' sizes 85 - 110) or to 3-phase motors by V belt and variable pulley (to build models' sizes 140 - 660). Outdoor units are provided axial fans directly coupled to electric motor.
- Indoor units to build models' sizes 85 - 165 come with standard horizontal air discharge; indoor units to build models' sizes 140 - 165 are convertible to vertical air discharge on site. Indoor units to build models' sizes 220 - 660 come with standard vertical air discharge and they are convertible to horizontal air discharge on site.
- Indoor and Outdoor units are provided with copper tube and aluminum finned coils precharged with nitrogen.
- All Indoor units are provided with return air plenum and standard cleanable filter.
- Microprocessor for the automatic control of the unit allowing continuous display of the operational status, control the set and real air temperature and, in case of partial or total unit stop, indication of security device that intervened through a wired wall pad as standard.
- Units matching with two or more outdoor units are provided with a sequential controller allowing part loading of the system capacity.
- Wired wall pad included on indoor unit.

DXDXT-M/SZ/K 85÷660

MODEL			85	110	140	165	220	280	330	390	440	495	560	660
Model	Indoor unit		1 x 75 INU	1 x 100 INU	1 x 125 INU	1 x 150 INU	1 x 200 INU	1 x 250 INU	1 x 300 INU	1 x 350 INU	1 x 400 INU	1 x 450 INU	1 x 500 INU	1 x 600 INU
	Outdoor unit		1 x 85 OTU	1 x 110 OTU	1 x 140 OTU	1 x 165 OTU	2 x 110 OTU	2 x 140 OTU	2 x 165 OTU	2 x 140 OTU 1 x 110 OTU	4 x 110 OTU	3 x 165 OTU	4 x 140 OTU	4 x 165 OTU
Cooling	Cooling capacity (1)	BTU/h	74000	98000	123000	147000	196000	245000	294000	343000	392000	441000	490000	588000
		TON	6.2	8.2	10.2	12.3	16.3	20.4	24.5	28.4	32.7	36.7	40.9	48.9
	Absorbed power (1)	kW	21.7	28.7	36.0	43.1	57.4	71.8	86.1	100	115	129	144	172
		kW	11.1	14.0	17.6	24.2	28.5	36.0	51.0	53.4	56.1	75.4	79.1	97.7
	Cooling capacity (2)	BTU/h	84000	109000	136000	162000	215000	274000	323000	379000	434000	485000	550000	645000
		TON	7.0	9.0	11.3	13.5	17.9	22.9	26.9	31.5	36.1	40.3	45.7	53.6
Absorbed power (2)	kW	24.6	31.8	39.9	47.4	63.1	80.4	94.7	111	127	142	161	189	
Heating	Heating capacity (3)	BTU/h	77000	102000	127000	153000	203000	254000	305000	356000	407000	458000	509000	610000
		TON	6.4	8.5	10.6	12.7	16.9	21.2	25.4	29.6	33.8	38.1	42.4	50.9
	Absorbed power (3)	kW	22.6	29.9	37.2	44.8	59.5	74.4	89.3	104	119	134	149	179
		kW	8.6	11.4	14.4	20.3	23.3	29.3	41.6	43.5	45.7	61.5	62.9	79.6
Indoor unit	Max air flow	cfm	2500	2800	4100	4400	6400	7800	9000	10500	12000	13500	14600	17600
		m³/s	1.2	1.3	1.9	2.1	3.0	3.7	4.2	5.0	5.7	6.4	6.9	8.3
	Available static pressure	in WG	0.60	0.60	0.60	0.60	0.60	0.80	0.80	0.80	0.80	1.00	1.00	1.20
		Pa	150	150	150	150	150	200	200	200	200	250	250	300
	Liquid line	inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
	Suction line	inch	1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"
	Drain	inch	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"
Max sound pressure (4)	dB(A)	56	57	58	59	60	62	65	65	66	67	68	68	
Outdoor unit	Compressors	n°	1	1	1	1	1	1	1	1	1	1	1	
	Liquid line	inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	
	Suction line	inch	1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-1/8"	1-3/8"	1-3/8"	
Sound pressure (5)	dB(A)	57	57	58	58	57	57	58	57	57-56	58	57	58	
Max piping length	Max distance OTU-INU (6)	m	50	50	50	50	50	50	50	50	50	50	50	
	Max height OTU-INU (6)	m	30	30	30	30	30	30	30	30	30	30	30	
Electrical characteristics	Power supply indoor unit	V/Ph/Hz	230 / 1 / 60			380 / 3+N / 60								
	Power supply outdoor unit	V/Ph/Hz	380 / 3 / 60											
	Max. running current	A	26	33	36	46	56	73	95	106	111	143	155	185
	Inrush current	A	125	136	189	256	156	223	303	257	204	268	299	385
Weights	Transport weight indoor unit (7)	Kg	127	150	215	217	235	368	378	503	556	570	850	920
	Operating weight indoor unit (7)	Kg	122	145	210	212	225	358	368	493	546	560	840	910
	Transport weight outdoor unit (7)	Kg	183	188	194	228	188	195	228	194/188	188	228	195	228
	Operating weight outdoor unit (7)	Kg	173	178	185	218	178	185	218	187/180	178	218	185	218

DIMENSIONS			85	110	140	165	220	280	330	390	440	495	560	660
L indoor unit	STD	mm	1580	1880	1575	1575	1905	1905	1905	1905	2420	2420	2420	2440
W indoor unit	STD	mm	765	765	985	985	985	1240	1240	1240	1520	1520	1520	1820
H indoor unit	STD	mm	430	430	870	870	870	1165	1165	1385	1385	1385	1385	1770
L outdoor unit	STD	mm	965	965	965	1130	965	965	1130	965	965	1130	965	1130
W outdoor unit	STD	mm	975	975	975	1110	975	975	1110	975	975	1110	975	1110
H outdoor unit	STD	mm	950	950	950	950	950	950	1000	950	950	1000	950	1000

DIMENSIONAL & CLEARANCE AREA

INDOOR UNIT

OUTDOOR UNIT



NOTES

- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 46°C d.b.
- Indoor air temperature 27°C d.b. / 19°C w.b., outdoor air temperature 35°C d.b.
- Indoor air temperature 20°C w.b., outdoor air temperature 7°C d.b. / 6°C w.b.
- Sound pressure level measured at 1 m from the unit with reverberation time 0,5 s.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Maximum lengths reachable with proper piping diameter and siphons.
- Cooling only unit



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