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FROM 63 KW TO 162 KW.



SINGLE SKIN PACKAGED ROOF TOP UNITS WITH DIGITAL SCROLL COMPRESSORS AND EC INVERTER PLUG-FANS.



The single skin packaged Roof Top units of the AIRPLUS series are the ideal solution for air conditioning of medium-wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. The units are equipped with Digital Scroll compressors with R410A refrigerant, and are available in Reversible Heat Pump version also with Free-Cooling with 2 or 3 dampers. A better efficiency at partial loads is guaranteed by the Digital Scroll technology on compressor since its power is varied according to the requested thermal load. AIRPLUS is equipped with EC Inverter Plug-Fans with high energy efficiency backward blades both for intake as well as delivery, managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity. The unit can easily adapt to diverse engineering needs thanks to the possibility of selecting onsite the airflow direction, choosing among 8 positions of both intake and output air direction. The unit's structure is made of a frame with extruded aluminium profiles and prepainted panels, and features flat type filters with varying efficiency levels, maintaining high air quality and high comfort.



DIGITAL SCROLL

EC INVERTER PLUG FANS

| VERSION | |
|---------|--|
|---------|--|

| RTA/TK/EC/WP | RTA/TK/EC/WP/MS | RTA/TK/EC/WP/ECO |
|----------------------|--|---|
| Reversible Heat Pump | Reversible Heat Pump with Free-Cooling section (2 dampers) | Reversible Heat Pump with Economizer (Free-Cooling section with 3 dampers) |
| | | |

FEATURES

- Structure of base perimeter made of galvanised steel sheet elements. The frame is made of extruded aluminium alloy profiles connected by 3 way joints. The assembling of the base to the frame is of dual support and grants the walking on the base panels installation of which is effected without sticking out screws. The perimeter panels are realised in prepainted sheet steel, they can be easily removed and allow access inside the unit for maintenance and repair operations.
- DIGITAL Scroll and ON-OFF Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- The air treatment section has removable panels allow selection of intake and output configurations that adapt to the specific needs of the system.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device also allows the cooling functioning of the unit by external temperature till -20°C.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

| IM | Automatic circuit breakers | AT/ |
|-----|---|----------|
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on discharge line | WS |
| RFL | Cooling circuit shut-off valve on liquid line | EH |
| TXC | Condensing coil with pre-coated fins | СН |
| TXE | Evaporating coil with pre-coated fins | ΕX |
| FT | Plate filters efficiency M6-F7-F8 | |
| AT | Constant air flow regulation control | SQ PF |

- Constant available static pressure T/P regulation control /S2
 - 2-Row hot water coil with 3-Way valve
- НG Electrical heating coil with step regulation
- Н Enthalpic control (ECO only)
 - External air intake damper (STD only)
- Air quality sensor
- Filter differential pressure switch IS Modbus RTU protocol, RS485 serial interface
- ISB BACnet MSTP protocol, RS485 serial interface
- ISBT BACnet TCP/IP protocol, Ethernet port
- ISI LonWorks protocol, FFT-10 serial interface
- СР Potential free contacts

- High and low pressure gauges MN CS
 - Dampers rain hood
- CR Remote control panel
- RP Coil protection metallic guards
- AG Rubber shock absorbers

RTA/TK/EC/WP 182-R÷453-R



| MODEL | | | 182-R | 202-R | 242-R | 262-R | 302-R | 363-R | 393-R | 453-R |
|--------------------|---------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| lleating | Heating capacity (1) | kW | 62.9 | 71.1 | 81.2 | 92.9 | 107 | 123 | 142 | 162 |
| Heating | Absorbed power (1),(2) | kW | 18.6 | 21.7 | 25.2 | 28.1 | 31.0 | 38.1 | 42.6 | 50.1 |
| Cooling | Cooling capacity (3) | kW | 64.9 | 73.8 | 85.6 | 96.8 | 111 | 128 | 147 | 171 |
| COUTING | Absorbed power (2),(3) | kW | 20.9 | 24.2 | 27.2 | 30.0 | 35.4 | 41.1 | 45.9 | 54.1 |
| | Air flow | m³/s | 2.50 | 2.78 | 3.34 | 3.61 | 4.44 | 4.44 | 5.83 | 6.67 |
| Air treatment | Available static pressure | Pa | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| section | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| 3601011 | Filter | Туре | G4 |
| | Air flow | m³/s | 2.00 | 2.22 | 2.67 | 2.89 | 3.55 | 3.55 | 4.72 | 5.33 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Capacity steps | n° | | | 2 | | | 3 | | |
| | Heating capacity (4) | kW | 65.4 | 68.6 | 74.9 | 78.9 | 84.9 | 84.9 | 103 | 110 |
| | Air pressure drops | Pa | 16 | 19 | 26 | 30 | 43 | 43 | 68 | 86 |
| Hot water coil | Water flow (4) | l/s | 1.56 | 1.64 | 1.79 | 1.89 | 2.03 | 2.03 | 2.46 | 2.62 |
| | Water pressure drops | kPa | 12 | 14 | 15 | 17 | 18 | 18 | 24 | 28 |
| | Water connections | ″G | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | Power supply | V/Ph/Hz | | | | 400/ | 3/50 | | | |
| Electric heating | Heating capacity | kW | 21 | 27 | 27 | 27 | 40 | 40 | 40 | 48 |
| Lieuniu neating | Max. absorbed current | A | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 69 |
| | Steps | n° | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| Flootrical | Power supply | V/Ph/Hz | | | | 400/ | 3/50 | | | |
| charactoristics | Max. running current | А | 53 | 56 | 65 | 69 | 79 | 91 | 110 | 131 |
| characteristics | Max. starting current | A | 190 | 165 | 188 | 201 | 208 | 215 | 242 | 260 |
| Sound pressure | STD/MS/EC0 versions (5) | dB(A) | 56 | 56 | 60 | 60 | 60 | 60 | 61 | 61 |
| Woighte | Transport weight | Kg | 1280 | 1315 | 1370 | 1380 | 1475 | 1570 | 1920 | 2020 |
| vveigints | Operating weight | Kg | 1265 | 1300 | 1355 | 1365 | 1460 | 1555 | 1900 | 2000 |

MS - ECO

MS - Free-Cooling section with 2 dampers - Further to components of the basic version, includes two wing profile aluminium dampers with spring return servomotors.

ECO - Free-Cooling section with 3 dampers - Further to components of the basic version, includes return air EC INVERTER PLUG-FANS; 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.

| DIMENSIONS | | | 182-R | 202-R | 242-R | 262-R | 302-R | 363-R | 393-R | 453-R |
|------------|------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| L | STD/MS/ECO | mm | 2930 | 2930 | 2930 | 2930 | 2930 | 2930 | 3930 | 3930 |
| W | STD/MS/ECO | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD/MS/ECO | mm | 2370 | 2370 | 2370 | 2370 | 2370 | 2370 | 2370 | 2370 |

| CLEARANCE AREA | N | OTES |
|--------------------------|----|--|
| RTA/TK/EC/WP 182-R:453-R | 1. | Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b. |
| | 3. | Evaporator inlet air temperature 27 °C d.b./19 °C w.b.; ambient air temperature 35 °C. |
| | 4. | Inlet air temperature 20 °C, water temperature 70/60 °C. |
| | 5. | Sound pressure level measured in free field |

 Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 New Section 200 and 200

N.B. Weights of MS and ECO versions are specified on technical brochure.



FROM 63 KW TO 162 KW.



RTA/K/EC/WP 182-R+453-R

SINGLE-SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS AND EC INVERTER PLUG-FANS.



The single skin packaged Roof Top units of the **AIRPLUS** series are the ideal solution for air conditioning of medium-wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. The units are equipped with Scroll compressors with R410A refrigerant, and are available in Reversible Heat Pump version also with **Free-Cooling** with 2 or 3 dampers. AIRPLUS is equipped with **EC Inverter Plug-Fans** with high energy efficiency backward blades both for intake as well as delivery, managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity. The unit can easily adapt to diverse engineering needs thanks to the possibility of selecting onsite the airflow direction, choosing among 8 positions of both intake and output air direction. The unit's structure is made of a frame with extruded aluminium profiles and prepainted panels, and features flat type filters with varying efficiency levels, maintaining high air quality and high comfort.



EC INVERTER PLUG FANS

VERSION

| RTA/K/EC/WP | RTA/K/EC/WP/MS | RTA/K/EC/WP/ECO |
|----------------------|--|---|
| Reversible Heat Pump | Reversible Heat Pump with Free-Cooling section (2 dampers) | Reversible Heat Pump with Economizer (Free-Cooling section with 3 dampers) |
| | | |

FEATURES

- Structure of base perimeter made of galvanised steel sheet elements. The frame is made of extruded aluminium alloy profiles connected by 3 way joints. The assembling of the base to the frame is of dual support and grants the walking on the base panels installation of which is effected without sticking out screws. The perimeter panels are realised in prepainted sheet steel, they can be easily removed and allow access inside the unit for maintenance and repair operations.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- The air treatment section has removable panels allow selection of intake and output configurations that adapt to the specific needs of the system.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.

2-Row hot water coil with 3-Way

Electrical heating coil with step

• Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

| IM | Automatic circuit breakers | WS2 |
|------|---------------------------------------|------|
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on | EHG |
| | discharge line | |
| RFL | Cooling circuit shut-off valve on | CH |
| | liquid line | ΕX |
| СТ | Condensing control down to 0 °C | |
| CC | Condensing control down to -20 °C | SQ |
| TXC | Condensing coil with pre-coated fins | PF |
| TXE | Evaporating coil with pre-coated fins | IS |
| FT | Plate filters efficiency M6-F7-F8 | |
| AT | Constant air flow regulation control | ISB |
| AT/P | Constant available static pressure | |
| | regulation control | ISBT |
| | | 101 |



valve

regulation

CP Potential free contacts

| MN | High and low pressure gauges |
|----|------------------------------|
| CS | Dampers rain hood |

- CS Dampers rain hood CB Bemote control pan
- CR Remote control panel RP Coil protection metallic of
 - P Coil protection metallic guards
- AG Rubber shock absorbers



RTA/K/EC/WP 182-R÷453-R



| MODEL | | | 182-R | 202-R | 242-R | 262-R | 302-R | 363-R | 393-R | 453-R |
|--------------------|---------------------------|---------|-------|-------|----------|-------|-------|-------|-------|-------|
| Heating | Heating capacity (1) | kW | 62.9 | 71.1 | 81.2 | 92.9 | 107 | 123 | 142 | 162 |
| пеациу | Absorbed power (1),(2) | kW | 18.6 | 21.7 | 25.2 | 28.1 | 31.0 | 38.1 | 42.6 | 50.1 |
| Cooling | Cooling capacity (3) | kW | 64.9 | 73.8 | 85.6 | 96.8 | 111 | 128 | 147 | 171 |
| COUTING | Absorbed power (2),(3) | kW | 20.9 | 24.2 | 27.2 | 30.0 | 35.4 | 41.1 | 45.9 | 54.1 |
| | Air flow | m³/s | 2.50 | 2.78 | 3.34 | 3.61 | 4.44 | 4.44 | 5.83 | 6.67 |
| Air treatment | Available static pressure | Pa | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| section | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Air flow | m³/s | 2.00 | 2.22 | 2.67 | 2.89 | 3.55 | 3.55 | 4.72 | 5.33 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Capacity steps | n° | | | 2 | | | 3 | | |
| | Heating capacity (4) | kW | 65.4 | 68.6 | 74.9 | 78.9 | 84.9 | 84.9 | 103 | 110 |
| Hot water coil | Air pressure drops | Pa | 16 | 19 | 26 | 30 | 43 | 43 | 68 | 86 |
| | Water flow (4) | l/s | 1.56 | 1.64 | 1.79 | 1.89 | 2.03 | 2.03 | 2.46 | 2.62 |
| | Water connections | "G | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | Power supply | V/Ph/Hz | | | 400/3/50 | | | | | |
| Electric beating | Heating capacity | kW | 21 | 27 | 27 | 27 | 40 | 40 | 40 | 48 |
| Liecult heating | Max. absorbed current | A | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 69 |
| | Steps | n° | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| Flootrical | Power supply | V/Ph/Hz | | | | 400/ | 3/50 | | | |
| characteristics | Max. running current | A | 53 | 56 | 65 | 69 | 79 | 91 | 110 | 131 |
| | Max. starting current | A | 190 | 165 | 188 | 201 | 208 | 215 | 242 | 260 |
| Sound pressure | STD/MS/ECO versions (5) | dB(A) | 56 | 56 | 60 | 60 | 60 | 60 | 61 | 61 |
| Woighte | Transport weight | Kg | 1280 | 1315 | 1370 | 1380 | 1475 | 1570 | 1920 | 2020 |
| vveigiits | Operating weight | Kg | 1265 | 1300 | 1355 | 1365 | 1460 | 1555 | 1900 | 2000 |

MS - ECO

MS - Free-Cooling section with 2 dampers - Further to components of the basic version, includes two wing profile aluminium dampers with spring return servomotors.

ECO - Free-Cooling section with 3 dampers - Further to components of the basic version, includes return air EC INVERTER PLUG-FANS; 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.

| DIMENSIONS | | | 182-R | 202-R | 242-R | 262-R | 302-R | 363-R | 393-R | 453-R |
|------------|------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| L | STD/MS/ECO | mm | 2930 | 2930 | 2930 | 2930 | 2930 | 2930 | 3930 | 3930 |
| W | STD/MS/ECO | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD/MS/ECO | mm | 2370 | 2370 | 2370 | 2370 | 2370 | 2370 | 2370 | 2370 |

| CLEARANCE AREA | | |
|--|--|--|
| RTA/K/EC/WP 182-R÷453-R 1000 1800 1000 1000 | | |
| | | |

NOTES

- 1. Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
- Excluded the power absorbed by fans of air treatment section
 Evaporator inlet air temperature 27 °C
- Evaporator inlet air temperature 27 °C d.b./19 °C w.b.; ambient air temperature 35 °C.
- 4. 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 MS and ECO versions are specified on technical brochure.





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RTA/IK/EC 172÷724

COMPRESSORS AND EC INVERTER PLUG-FANS.

The double skin packaged Roof Top units of the AIRMAXI series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/IK/EC units feature Inverter Scroll compressor with R410A refrigerant and EC Inverter Plug-Fans. The highest efficiency at partial loads is guaranteed by the Inverter Scroll technology on compressor since its power is varied proportionally to the requested thermal load. Furthermore, the EC Inverter Plug-Fans with high energy efficiency backward blades are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH INVERTER SCROLL

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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



INVERTER SCROLL

EC INVERTER PLUG FANS

VERSION

RTA/IK/EC

Cooling only with EC Inverter Plug-Fans

Reversible Heat Pump with EC Inverter Plug-Fans

RTA/IK/EC/WP

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; 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.
- INVERTER Scroll and ON-OFF Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- High efficiency delivery reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- . Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device also allows the cooling functioning of the unit by external temperature till -20°C.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

EACTORY EITTER ACCESSORIES

| 1A010II | | |
|---------|---|-----|
| IM | Automatic circuit breakers | W\$ |
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on discharge line | E⊢ |
| RFL | Cooling circuit shut-off valve on | SC |
| | liquid line | PF |
| TXC | Condensing coil with pre-coated fins | IS |
| TXE | Evaporating coil with pre-coated fins | |
| FT/M | Soft bag filters efficiency M6-F7-F8 | ISE |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | |
| AT | Constant air flow regulation control | ISE |
| AT/P | Constant available static pressure regulation control | ISI |



RP Coil protection metallic guards

LOOSE ACCESSORIES

| MN | High | and | low | pressure | gauges |
|----|------|-----|-----|----------|--------|
|----|------|-----|-----|----------|--------|

| CR | Remote control pane |
|----|---------------------|
| AG | Rubber shock absorb |

Rubber shock absorbers

RTA/IK/EC 172÷724



| MODEL | | | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|-----------------------|---------------------------|---------|----------|------|------|------|------|----------|------|------|------|------|-------|
| Caaling | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| Heating | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| пеациу | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° | Stepless | | | | | | | | | | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | "G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 ½″ | 2 ½" |
| | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| Electric beating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Lieutitu neating | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Flootrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| Characteristics | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) dB | | | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Wajahts | Transport weight | Kg | 990 | 1050 | 1150 | 1250 | 1260 | 1450 | 1810 | 1860 | 2230 | 2400 | 3180 |
| vvciginta | Operating weight | Kg | 975 | 1035 | 1135 | 1235 | 1245 | 1430 | 1790 | 1840 | 2210 | 2380 | 3150 |

COMPLEMENTARY SECTIONS

UMI Section with preparation for Humidifier

UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIM | EN | SIONS | 3 | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|-----|----|-------|----|------|------|------|------|------|------|------|------|------|------|------|
| L | | STD | mm | 2980 | 3080 | 3190 | 3190 | 3290 | 3770 | 4500 | 4500 | 5150 | 5300 | 7370 |
| W | | STD | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Η | | STD | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

| CLEARANCE AREA | | NC | TES |
|--|--|------|--|
| RTA/IK/EC 172÷302 800 1700 800 1700 | RTA/IK/EC 352÷724 1000 1700 1000 1700 | 1. | Evaporator inlet air temperatur d.b./19 °C w.b.; ambient air te 35 °C. |
| | | 2. | Excluded the power absorbed treatment section |
| and the state of t | | 3. | Condenser inlet air temperatur ambient air temperature 7 °C (|
| - q | 13 | 4. | Inlet air temperature 20 °C, wa temperature 70/60 °C. |
| | | 5. | Sound pressure level measure conditions at 1 m from the unit |
| | | N.B. | Weights of WP version are spe technical brochure. |



- ire 27 °C emperature
- by fans of air
- ıre 20 °C, d.b./6 °C w.b. /ater
- ed in free field it. According
- ecified on



RTA/IK/EC/MS 172÷724

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH INVERTER SCROLL COMPRESSORS, EC INVERTER PLUG-FANS AND MIXING BOX.



The double skin packaged Roof Top units of the AIRMAXI series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/IK/EC units feature Inverter Scroll compressor with R410A refrigerant and EC Inverter Plug-Fans. The highest efficiency at partial loads is guaranteed by the Inverter Scroll technology on compressor since its power is varied proportionally to the requested thermal load. Furthermore, the EC Inverter Plug-Fans with high energy efficiency backward blades are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

AIRMAXI

The MS units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, a MIXING BOX.



EC INVERTER PLUG FANS

VERSION

RTA/IK/EC/MS

Cooling only with EC Inverter Plug-Fans and Mixing Box

Reversible Heat Pump with EC Inverter Plug-Fans and Mixing Box

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; 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.

RTA/IK/EC/WP/MS

- INVERTER Scroll and ON-OFF Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- High efficiency delivery reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- . Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device also allows the cooling functioning of the unit by external temperature till -20°C.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

| IM | Automatic circuit breakers | W |
|------|---|-----|
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on discharge line | EH |
| RFL | Cooling circuit shut-off valve on | SC |
| | liquid line | PF |
| TXC | Condensing coil with pre-coated fins | IS |
| TXE | Evaporating coil with pre-coated fins | |
| FT/M | Soft bag filters efficiency M6-F7-F8 | ISE |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | |
| AT | Constant air flow regulation control | ISE |
| AT/P | Constant available static pressure regulation control | ISI |

S2 2-Row hot water coil with 3-Way valve łG Electrical heating coil with step regulation 2 Air quality sensor Filter differential pressure switch Modbus RTU protocol, RS485 serial interface BACnet MSTP protocol, RS485 B serial interface ΒT BACnet TCP/IP protocol, Ethernet port LonWorks protocol, FFT-10 serial interface CP Potential free contacts

RP Coil protection metallic guards

| MN | High ar | nd low pres | sure gauges |
|----|---------|-------------|-------------|
|----|---------|-------------|-------------|

- CR Remote control panel AG
 - Rubber shock absorbers

RTA/IK/EC/MS 172÷724



| MODEL | | | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|--------------------|---------------------------|---------|----------|----------|------|------|------|----------|------|------|------|------|--------|
| Caoling | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| llooting | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| пеациу | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° | Stepless | | | | | | | | | | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | "G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 ½″ | 2 1⁄2″ |
| | Power supply | V/Ph/Hz | | 400/3/50 | | | | | | | | | |
| Electric besting | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Lieuniu neating | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Woights | Transport weight | Kg | 1070 | 1135 | 1245 | 1340 | 1360 | 1560 | 1940 | 1990 | 2300 | 2520 | 3465 |
| vveigints | Operating weight | Kg | 1055 | 1120 | 1225 | 1320 | 1340 | 1540 | 1920 | 1970 | 2280 | 2500 | 3435 |

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

UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIME | INSION | 5 | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|------|--------|----|------|------|------|------|------|------|------|------|------|------|------|
| L | STD | mm | 3430 | 3530 | 3640 | 3640 | 3740 | 4220 | 4950 | 4950 | 5600 | 5750 | 7850 |
| W | STD | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

| CLEARANCE AREA | | NC | DTES |
|---|---|-----------------------------------|--|
| RTA/IK/EC/MS 172:302 800 1700 800 1700 | RTA/IK/EC/MS 352÷724 1000 1700 1000 1700 | 1. 2. 3. 4. 5. N.B | Evaporator inlet air temperature 27 °C d.b./19 °C w.b.; ambient air temperature 35 °C. Excluded the power absorbed by fans of air treatment section Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b. Inlet 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. |
| | | | tooningar prochard. |



Electrical board side



RTA/IK/EC/ECO 172÷724

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH INVERTER SCROLL COMPRESSORS, EC INVERTER PLUG-FANS AND ECONOMIZER.



The double skin packaged Roof Top units of the **AIRMAXI** series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/IK/EC units feature **Inverter Scroll** compressor with R410A refrigerant and **EC Inverter Plug-Fans.** The highest efficiency at partial loads is guaranteed by the Inverter Scroll technology on compressor since its power is varied proportionally to the requested thermal load. Furthermore, the EC Inverter Plug-Fans with high energy efficiency backward blades are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

The ECO units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, an **ECONOMIZER** automatically controlled both in FREE-COOLING or FREE-HEATING.



INVERTER SCROLL

EC INVERTER PLUG FANS

VERSION

RTA/IK/EC/ECO

RTA/IK/EC/WP/ECO

Cooling only with EC Inverter Plug-Fans and Economizer

Reversible Heat Pump with EC Inverter Plug-Fans and Economizer

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; 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.
- INVERTER Scroll and ON-OFF Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- · Condenser and evaporator with copper tube and aluminium finned coil.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device also allows the cooling functioning of the unit by external temperature till -20°C.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

| IM | Automatic circuit breakers | WS2 |
|------|---------------------------------------|------|
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on | EHG |
| | discharge line | |
| RFL | Cooling circuit shut-off valve on | СН |
| | liquid line | SQ |
| TXC | Condensing coil with pre-coated fins | PF |
| TXE | Evaporating coil with pre-coated fins | IS |
| FT/M | Soft bag filters efficiency M6-F7-F8 | |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | ISB |
| AT | Constant air flow regulation control | |
| AT/P | Constant available static pressure | ISBT |
| | regulation control | |

valve Electrical heating coil with step regulation Enthalpic control (ECO only) Air quality sensor Filter differential pressure switch

2-Row hot water coil with 3-Way

- Modbus RTU protocol, RS485 serial
- interface BB BACnet MSTP protocol, RS485
- serial interface SBT BACnet TCP/IP protocol, Ethernet port
- ISL LonWorks protocol, FFT-10 serial interface
- CP Potential free contacts
- RP Coil protection metallic guards

- MN High and low pressure gauges
- CR Remote control panel
- AG Rubber shock absorbers

RTA/IK/EC/ECO 172÷724



| MODEL | | | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|--------------------------|---------------------------|-------------|------|------|------|------|------|----------|------|------|------|--------|-------|
| Cooling | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| Heating | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| пеациу | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° Stepless | | | | | | | | | | | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | "G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 1⁄2″ | 2 ½″ |
| | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| Electric heating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Liectric riedting | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Flootrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) dB(A) | | | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Woights | Transport weight | Kg | 1500 | 1610 | 1740 | 1840 | 1860 | 2000 | 2400 | 2450 | 3020 | 3370 | 4190 |
| worgints | Operating weight | Kg | 1480 | 1590 | 1720 | 1820 | 1840 | 1975 | 2375 | 2425 | 2990 | 3335 | 4150 |

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

UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIM | ENSIONS | S | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|-----|---------|----|------|------|------|------|------|------|------|------|------|------|-------|
| L | STD | mm | 5260 | 5480 | 5570 | 5570 | 5650 | 6170 | 6900 | 6900 | 8080 | 8470 | 11020 |
| W | STD | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

| CLEARANCE AREA | | NO | TES |
|--|--|------------------------|--|
| RTA/IK/EC/EC0 172÷302 800 1700 800 1700 | RTA/IK/EC/EC0 352÷724 1000 1700 1000 1700 | 1. 2. | Evaporator inlet air tempera d.b./19 °C w.b.; ambient air 35 °C. Excluded the power absorbe treatment section |
| | | 3. 4. 5. N.B. | ambient air temperature 7 °C Inlet air temperature 20 °C, v temperature 70/60 °C. Sound pressure level measu conditions at 1 m from the u to ISO 3744. Weights of WP version are s |
| | | N.D. | Worging of WI Vorsion die |

- ture 27 °C temperature
- ed by fans of air
- ture 20 °C, °C d.b./6 °C w.b.
- water
- red in free field nit. According
- specified on technical brochure.





RTA/IK/EC/ECO/REC-FX 172÷724

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



The double skin packaged Roof Top units of the AIRMAXI series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/IK/EC units feature Inverter Scroll compressor with R410A refrigerant and EC Inverter Plug-Fans. The highest efficiency at partial loads is guaranteed by the Inverter Scroll technology on compressor since its power is varied proportionally to the requested thermal load. Furthermore, the EC Inverter Plug-Fans with high energy efficiency backward blades are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

The ECO/REC-FX units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, an ECONOMIZER automatically controlled both in FREE-COOLING or FREE-HEATING and a CROSS-FLOW HEAT RECOVERY.



INVERTER SCROLL

EC INVERTER PLUG FANS

VERSION

RTA/IK/EC/ECO/REC-FX

Cooling only with EC Inverter Plug-Fans, Economizer and Cross Flow Heat Recovery

RTA/IK/EC/WP/ECO/REC-FX

Reversible Heat Pump with EC Inverter Plug-Fans, Economizer and Cross Flow Heat Recovery

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; 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.
- INVERTER Scroll and ON-OFF Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit: contactors for the fan motors of the air handling unit.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device also allows the cooling functioning of the unit by external temperature till -20°C.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

| IM | Automatic circuit breakers | AT/P | Constan |
|------|---|------|------------------------|
| SL | Unit silencement | | regulatio |
| RFM | Cooling circuit shut-off valve on discharge line | WS2 | 2-Row h valve |
| RFL | Cooling circuit shut-off valve on liquid line | EHG | Electrica regulatio |
| TXC | Condensing coil with pre-coated fins | СН | Enthalpi |
| TXE | Evaporating coil with pre-coated fins | SQ | Air quali |
| FT/M | Soft bag filters efficiency M6-F7-F8 | PF | Filter dif |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | IS | Modbus |
| AT | Constant air flow regulation control | | interface |
| | | ISB | BACnet |

- nt available static pressure on control not water coil with 3-Way
- al heating coil with step
- on
- ic control (ECO only) itv sensor

fferential pressure switch RTU protocol, RS485 serial

BACnet MSTP protocol, RS485 serial interface

- ISBT BACnet TCP/IP protocol, Ethernet port
- LonWorks protocol, FFT-10 serial ISL interface
- CP Potential free contacts
- RP Coil protection metallic guards

- ΜN High and low pressure gauges
- CR Remote control panel
- Rubber shock absorbers AG



RTA/IK/EC/ECO/REC-FX 172÷724



| MODEL | | | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|--------------------|---------------------------|-------------|------|------|------|------|------|----------|------|------|------|--------|-------|
| Caoling | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| Heating | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° Stepless | | | | | | | | | | | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | "G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 1⁄2″ | 2 ½″ |
| | Power supply | V/Ph/Hz | | | | | | 400/3/50 | _ | | | | |
| Electric heating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Lieutitutieating | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Flootrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| charactoristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Woights | Transport weight | Kg | 1645 | 1720 | 1910 | 2020 | 2040 | 2210 | 2640 | 2690 | 3260 | 3590 | 4390 |
| vveignis | Operating weight | Kg | 1620 | 1695 | 1885 | 1995 | 2015 | 2185 | 2610 | 2660 | 3225 | 3555 | 4350 |

ECO/REC-FX

ECO/REC-FX - Economizer and Cross Flow Heat Recovery. Further to components of the basic section, includes: static recovery device made of aluminium with moisture drain pan, flat filters with inspection possible through hinged door with spring return (external air damper + supply air damper + 2 free-cooling dampers).

COMPLEMENTARY SECTIONS

- UMI Section with preparation for Humidifier
- UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIME | INSIONS | 3 | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|------|---------|----|------|------|------|------|------|------|------|------|------|------|-------|
| L | STD | mm | 6060 | 6060 | 6270 | 6270 | 6450 | 7050 | 7870 | 7870 | 9120 | 9380 | 11650 |
| W | STD | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

| CLEARANCE AREA | | NO | TES |
|---|---|----------|---|
| RTA/IK/EC/ECO/REC-FX 172÷302 800 1700 800 1700 | RTA/IK/EC/ECO/REC-FX 352÷724 1000 1700 1000 1700 | 1. | Evaporator inlet air te d.b./19 °C w.b.; ambie 35 °C. |
| and the second | | 2. 3. | Excluded the power al treatment section Condenser inlet air te ambient air temperatu |
| | · · · · · | 4. 5. | Inlet air temperature 2 temperature 70/60 °C Sound pressure level |
| | | N.B. | to ISO 3744. Weights of WP versio |

- emperature 27 °C ent air temperature
- absorbed by fans of air
- mperature 20 °C, ure 7 °C d.b./6 °C w.b.
- 20 °C, water
- measured in free field m the unit. According
- on are specified on
- technical brochure





RTA/IK/EC/ECO/REC-WH 172÷724

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH INVERTER SCROLL COMPRESSORS, EC INVERTER PLUG-FANS, ECONOMIZER AND WHEEL HEAT RECOVERY.



The double skin packaged Roof Top units of the **AIRMAXI** series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/IK/EC units feature **Inverter Scroll** compressor with R410A refrigerant and **EC Inverter Plug-Fans.** The highest efficiency at partial loads is guaranteed by the **Inverter Scroll** technology on compressor since its power is varied proportionally to the requested thermal load. Furthermore, the EC Inverter Plug-Fans with high energy efficiency backward blades are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

The ECO/REC-WH units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, an **ECONOMIZER** automatically controlled both in FREE-COOLING or FREE-HEATING and a **WHEEL HEAT RECOVERY** with efficiency from 50% to 80% depending on operating conditions, able to treat up to 100% of total air flow.



INVERTER SCROLL

EC INVERTER PLUG FANS

VERSION

RTA/IK/EC/ECO/REC-WH

Cooling only with EC Inverter Plug-Fans, Economizer and Wheel Heat Recovery

Reversible Heat Pump with EC Inverter Plug-Fans, Economizer and Wheel Heat Recovery

RTA/IK/EC/WP/ECO/REC-WH

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; 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.
- INVERTER Scroll and ON-OFF Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser and evaporator with copper tube and aluminium finned coil.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device also allows the cooling
 functioning of the unit by external temperature till -20°C.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

| IM | Automatic circuit breakers | AT/P | Constant available static pressure |
|------|---|------|--|
| SL | Unit silencement | | regulation control |
| RFM | Cooling circuit shut-off valve on discharge line | WS2 | 2-Row hot water coil with 3-Way valve |
| RFL | Cooling circuit shut-off valve on liquid line | EHG | Electrical heating coil with step regulation |
| TXC | Condensing coil with pre-coated fins | СН | Enthalpic control (ECO only) |
| TXE | Evaporating coil with pre-coated fins | SQ | Air quality sensor |
| FT/M | Soft bag filters efficiency M6-F7-F8 | PF | Filter differential pressure switch |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | IS | Modbus RTU protocol, RS485 serial |
| AT | Constant air flow regulation control | | interface |

ISB BACnet MSTP protocol, RS485 serial interface

- ISBT BACnet TCP/IP protocol, Ethernet port
- ISL LonWorks protocol, FFT-10 serial interface
- CP Potential free contacts
- RP Coil protection metallic guards

- MN High and low pressure gauges
- CR Remote control panel
- AG Rubber shock absorbers



RTA/IK/EC/ECO/REC-WH 172÷724



| MODEL | | | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|--------------------|---------------------------|-------------|------|------|------|------|------|----------|------|------|------|--------|--------|
| Cooling | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| Heating | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| пеациу | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° Stepless | | | | | | | | | | | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | ″G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 1⁄2″ | 2 1⁄2″ |
| | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| Electric heating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Lieunic nearing | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| Characteristics | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Woights | Transport weight | Kg | 1645 | 1720 | 1910 | 2020 | 2040 | 2210 | 2640 | 2690 | 3260 | 3590 | 4390 |
| Weights | Operating weight | Kg | 1620 | 1695 | 1885 | 1995 | 2015 | 2185 | 2610 | 2660 | 3225 | 3555 | 4350 |

ECO/REC-WH

ECO/REC-WH - Economizer and Wheel Heat Recovery. Further to components of the basic section, includes: high efficiency wheel-type recovery device made of aluminium with hygroscopic treatment, managed by a constant-speed electric motor, with moisture drain pan, flat filters with inspection possible through hinged door with spring return (external air damper + 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

UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIME | ENSIONS | 3 | 172 | 192 | 212 | 232 | 272 | 302 | 352 | 372 | 484 | 574 | 724 |
|------|---------|----|------|------|------|------|------|------|------|------|------|------|-------|
| L | STD | mm | 6060 | 6060 | 6270 | 6270 | 6450 | 7050 | 7870 | 7870 | 9120 | 9380 | 11650 |
| W | STD | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

| CLEARANCE AREA | | NC | TES |
|---|---|----|--|
| RTA/IK/EC/ECO/REC-WH 172÷302 800 1700 800 1700 | RTA/IK/EC/ECO/REC-WH 352÷724 1000 1700 1000 1700 | 1. | Evaporator inlet air tem d.b./19 °C w.b.; ambier 35 °C. |
| | | 2. | Excluded the power ab treatment section |
| San attended | | 3. | Condenser inlet air tem ambient air temperatur |
| 19 | 12 | 4. | Inlet air temperature 20 temperature 70/60 °C. |
| | | 5. | Sound pressure level m conditions at 1 m from to ISO 3744. |
| -0101- | | ND | Moighto of M/D vorgion |

- nperature 27 °C nt air temperature
- sorbed by fans of air
- nperature 20 °C, re 7 °C d.b./6 °C w.b.
- 0 °C, water
- neasured in free field the unit. According
- N.B. Weights of WP version are specified on technical brochure.



RTA/K 182÷804

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS AND RADIAL FANS OR EC INVERTER PLUG-FANS.





The double skin packaged Roof Top units of the **AIRMAXI** series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/K units feature Scroll compressors with R410A refrigerant and radial fans or **EC Inverter Plug-Fans.** The EC Inverter Plug-Fans with high energy efficiency backward blades both for intake as well as delivery are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity. Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling,

these units are available in Cooling-only and Reversible Heat Pump version.

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



EC INVERTER PLUG FANS

| RTA/K/WP |
|---|
| Reversible Heat Pump with radial fans |
| RTA/K/EC/WP |
| Reversible Heat Pump with EC Inverter Plug-Fans |
| |

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; 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 radial fans coupled to 3-phase motors by V belt and variable pulley.
- High efficiency delivery reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; 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

| IM | Automatic circuit breakers | VV |
|------|--|----------|
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on discharge line | Eŀ |
| RFL | Cooling circuit shut-off valve on liquid line | SC PF |
| СТ | Condensing control down to 0 °C | IS |
| CC | Condensing control down to -20 °C | |
| TXC | Condensing coil with pre-coated fins | IS |
| TXE | Evaporating coil with pre-coated fins | |
| FT/M | Soft bag filters efficiency M6-F7-F8 | IS |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | |
| AT | Constant air flow regulation control | IS |
| AT/P | Constant available static pressure regulation control | CF |

| NS2 | 2-Row hot water coil with 3-Way valve |
|-----|---|
| EHG | Electrical heating coil with step regulation |
| SQ | Air quality sensor |
| PF | Filter differential pressure switch |
| S | Modbus RTU protocol, RS485 serial interface |
| SB | BACnet MSTP protocol, RS485 serial interface |
| SBT | BACnet TCP/IP protocol, Ethernet port |
| SL | LonWorks protocol, FFT-10 serial interface |
| CP | Potential free contacts |

RP Coil protection metallic guards

| MN | High and low pressure gauges |
|----|------------------------------|
| CR | Remote control panel |
| AG | Rubber shock absorbers |



RTA/K 182÷804



| | | | | | | | | | | | VERITAS | | SO 9001 |
|------------------------------------|---------------------------|------------------|------|------|------|------|------|----------|------|------|---------|--------|---------|
| MODEL | | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
| 0 1: | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1).(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| Heating | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| A | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| (EC version) | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Tipo | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° | | | 2 | | | | 3 | | | 4 | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | "G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 1⁄2″ | 2 ½″ |
| | Power supply | V/Ph/Hz 400/3/50 | | | | | | | | | | | |
| Electric heating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Lieunic nearing | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 50 | 53 | 63 | 67 | 76 | 94 | 100 | 109 | 133 | 150 | 173 |
| Characteristics | Max. starting current | A | 173 | 175 | 186 | 199 | 243 | 218 | 232 | 276 | 265 | 317 | 347 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| (EC version) | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 60 | 61 | 61 | 62 |
| Sound pressure (EC version) (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Woights | Transport weight | Kg | 1030 | 1085 | 1180 | 1280 | 1300 | 1540 | 1900 | 1950 | 2270 | 2480 | 3320 |
| งงธาติแเง | Operating weight | Kg | 1015 | 1070 | 1165 | 1265 | 1285 | 1520 | 1880 | 1930 | 2250 | 2460 | 3290 |
| Weights | Transport weight | Kg | 990 | 1050 | 1150 | 1250 | 1260 | 1450 | 1810 | 1860 | 2230 | 2400 | 3180 |
| (EC version) | Operating weight | Kg | 975 | 1035 | 1135 | 1235 | 1245 | 1430 | 1790 | 1840 | 2210 | 2380 | 3150 |

COMPLEMENTARY SECTIONS

UMI Section with preparation for Humidifier

UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIM | INSIONS | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|-----|---------|----|------|------|------|------|------|------|------|------|------|------|------|
| L | STD/EC | mm | 2980 | 3080 | 3190 | 3190 | 3290 | 3770 | 4500 | 4500 | 5150 | 5300 | 7370 |
| W | STD/EC | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD/EC | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

| CLEARANCE AREA | | NC | DTES |
|--|--|----------------------|--|
| RTA/K 182÷363 800 1700 800 1700 | RTA/K 393÷804 1000 1700 1000 1700 | 1. | Evaporator inlet air temperature 27 °C d.b./19 °C w.b.; ambient air temperature 35 °C. |
| | | 2. 3. 4. 5. | Excluded the power absorbed by fans of air treatment section 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 |
| | | N.B | to ISO 3744. Weights of WP and EC versions are specified on technical brochure. |





RTA/K/MS 182÷804

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS, RADIAL FANS OR EC INVERTER PLUG-FANS AND MIXING BOX.



The double skin packaged Roof Top units of the **AIRMAXI** series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/K units feature Scroll compressors with R410A refrigerant and radial fans or **EC Inverter Plug-Fans.** The EC Inverter Plug-Fans with high energy efficiency backward blades both for intake as well as delivery are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

The MS units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, a **MIXING BOX**.



EC INVERTER PLUG FANS

| VERSION | |
|--|--|
| RTA/K/MS | RTA/K/WP/MS |
| Cooling only with radial fans and Mixing Box | Reversible Heat Pump with radial fans and Mixing Box |
| RTA/K/EC/MS | RTA/K/EC/WP/MS |
| Cooling only with EC Inverter Plug-Fans and Mixing Box | Reversible Heat Pump with EC Inverter Plug-Fans and Mixing Box |

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; 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 radial fans coupled to 3-phase motors by V belt and variable pulley.
- High efficiency delivery reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
 B410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; 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

| IIVI | Automatic circuit breakers | VV3Z | Ζ. |
|------|---------------------------------------|------|----|
| SL | Unit silencement | | Vá |
| RFM | Cooling circuit shut-off valve on | EHG | E |
| | discharge line | | re |
| RFL | Cooling circuit shut-off valve on | SQ | А |
| | liquid line | PF | F |
| СТ | Condensing control down to 0 °C | IS | N |
| CC | Condensing control down to -20 °C | | ir |
| TXC | Condensing coil with pre-coated fins | ISB | В |
| TXE | Evaporating coil with pre-coated fins | | S |
| FT/M | Soft bag filters efficiency M6-F7-F8 | ISBT | В |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | | р |
| AT | Constant air flow regulation control | ISL | L |
| AT/P | Constant available static pressure | | ir |
| ,,. | regulation control | CP | P |
| | | | ~ |

11/52 2-Row hot water coil with 3-Way alve lectrical heating coil with step egulation Air quality sensor ilter differential pressure switch Aodbus RTU protocol, RS485 serial terface ACnet MSTP protocol, RS485 erial interface ACnet TCP/IP protocol, Ethernet ort onWorks protocol, FFT-10 serial nterface otential free contacts

RP Coil protection metallic guards

- MN High and low pressure gauges
- CR Remote control panel
- AG Rubber shock absorbers



RTA/K/MS 182÷804



| | | | | | | | | | | l l | VERITAS | • | <1SO 9001 > |
|------------------------------------|---------------------------|---------|----------------|------|------|------|------|----------|------|------|---------|------|-------------|
| MODEL | | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
| Caoling | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| Heating | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| пеациу | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| Air trootmont | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| All treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| (FC version) | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° | | | 2 | | _ | | 3 | | | 4 | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | "G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 ½″ | 2 1/2" |
| | Power supply | V/Ph/Hz | 2h/Hz 400/3/50 | | | | | | | | | | |
| Electric heating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Lieutit heating | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Floctrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 50 | 53 | 63 | 67 | 76 | 94 | 100 | 109 | 133 | 150 | 173 |
| | Max. starting current | A | 173 | 175 | 186 | 199 | 243 | 218 | 232 | 276 | 265 | 317 | 347 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| (EC version) | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 60 | 61 | 61 | 62 |
| Sound pressure (EC version) (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Waighta | Transport weight | Kg | 1110 | 1170 | 1285 | 1380 | 1400 | 1610 | 2000 | 2050 | 2370 | 2600 | 3570 |
| vveigints | Operating weight | Kg | 1095 | 1155 | 1265 | 1360 | 1380 | 1590 | 1980 | 2030 | 2350 | 2580 | 3540 |
| Weights | Transport weight | Kg | 1070 | 1135 | 1245 | 1340 | 1360 | 1560 | 1940 | 1990 | 2300 | 2520 | 3465 |
| (EC version) | Operating weight | Kg | 1055 | 1120 | 1225 | 1320 | 1340 | 1540 | 1920 | 1970 | 2280 | 2500 | 3435 |

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

UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIME | ENSIONS | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|------|---------|----|------|------|------|------|------|------|------|------|------|------|------|
| L | STD/EC | mm | 3430 | 3530 | 3640 | 3640 | 3740 | 4220 | 4950 | 4950 | 5600 | 5750 | 7850 |
| W | STD/EC | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD/EC | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

CLEARANCE AREA

RTA/K/MS 182÷363

800 1700 800 1700

RTA/K/MS 393÷804 1000 1700 1000 1700



NOTES

- Evaporator inlet air temperature 27 °C d.b./19 °C w.b.; ambient air temperature 35 °C.
- 2. Excluded the power absorbed by fans of air treatment section
- 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 and EC versions are specified on technical brochure.





RTA/K/ECO 182+804

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS, RADIAL FANS OR EC INVERTER PLUG-FANS AND ECONOMIZER.



The double skin packaged Roof Top units of the **AIRMAXI** series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/K units feature Scroll compressors with R410A refrigerant and radial fans or **EC Inverter Plug-Fans.** The EC Inverter Plug-Fans with high energy efficiency backward blades both for intake as well as delivery are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

The ECO units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, an **ECONOMIZER** automatically controlled both in FREE-COOLING or FREE-HEATING.



EC INVERTER PLUG FANS

| VERSION | |
|--|--|
| RTA/K/ECO | RTA/K/WP/ECO |
| Cooling only with radial fans and Economizer | Reversible Heat Pump with radial fans and Economizer |
| RTA/K/EC/ECO | RTA/K/EC/WP/ECO |
| Cooling only with EC Inverter Plug-Fans and Economizer | Reversible Heat Pump with EC Inverter Plug-Fans and Economizer |

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; 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.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; 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

| IIVI | Automatic circuit preakers | AI/F |
|------|---------------------------------------|------------------|
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on | WS: |
| | discharge line | |
| RFL | Cooling circuit shut-off valve on | EHC |
| | liquid line | |
| CT | Condensing control down to 0 °C | СН |
| CC | Condensing control down to -20 °C | SQ |
| TXC | Condensing coil with pre-coated fins | PF |
| TXE | Evaporating coil with pre-coated fins | IS |
| FT/M | Soft bag filters efficiency M6-F7-F8 | |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | ISB |
| AT | Constant air flow regulation control | |
| | ũ | ISB ⁻ |

- Constant available static pressure regulation control 2-Row hot water coil with 3-Way 2 valve G Electrical heating coil with step regulation Enthalpic control (ECO only) Air quality sensor Filter differential pressure switch Modbus RTU protocol, RS485 serial interface BACnet MSTP protocol, RS485 serial interface Т BACnet TCP/IP protocol, Ethernet port
- ISL LonWorks protocol, FFT-10 serial interface
- CP Potential free contacts
- RP Coil protection metallic guards

- MN High and low pressure gauges
- CR Remote control panel
- AG Rubber shock absorbers



RTA/K/ECO 182÷804

| | SUSTEM CER; |
|-----|-------------|
| | DNVG |
| TAS | ISO 9001 |

| MODEL | | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|--|---------------------------|---------|------|------|------|------|------|----------|---|------|--|---|--------|
| 0 | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1).(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| ш. е | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| Heating | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | |
| A | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| Section (EC vorsion) | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Air intoko postion | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| (EC version) | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° | | | 2 | | | | 3 | | | 4 | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| Hot water coil | Water connections | "G | 1″½ | 1″½ | 1‴½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 ½″ | 2 1⁄2″ |
| | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| Electric heating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Air intake section Air intake section (EC version) Condensing section Hot water coil Electric heating Electrical characteristics Electrical characteristics (EC version) | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | $\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$ | | |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | 67 | 76 | 94 | 100 | 109 | 133 | 150 | 173 | | | | | |
| characteristics | Max. starting current | A | 173 | 175 | 186 | 199 | 243 | 218 | 232 | 276 | 265 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| (EC version) | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 60 | 61 | 61 | 62 |
| Sound pressure (EC version) (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| Woights | Transport weight | Kg | 1570 | 1690 | 1810 | 1910 | 1930 | 2160 | 2560 | 2610 | 3130 | 3500 | 4520 |
| vveignits | Operating weight | Kg | 1550 | 1670 | 1790 | 1890 | 1910 | 2135 | 2535 | 2585 | 3100 | 3465 | 4480 |
| Weights | Transport weight | Kg | 1500 | 1610 | 1740 | 1840 | 1860 | 2000 | 2400 | 2450 | 3020 | 3370 | 4190 |
| (EC version) | Operating weight | Kg | 1480 | 1590 | 1720 | 1820 | 1840 | 1975 | 2375 | 2425 | 2990 | 3335 | 4150 |

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
- UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIME | ENSIONS | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|------|---------|----|------|------|------|------|------|------|------|------|------|------|-------|
| L | STD/EC | mm | 5260 | 5480 | 5570 | 5570 | 5650 | 6170 | 6900 | 6900 | 8080 | 8470 | 11020 |
| W | STD/EC | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD/EC | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

CLEARANCE AREA

RTA/K/EC0 182÷363



RTA/K/EC0 393÷804 1000 1700 1000 1700



- NOTES
- Evaporator inlet air temperature 27 °C d.b./19 °C w.b.; ambient air temperature 35 °C.
- 2. Excluded the power absorbed by fans of air treatment section
- 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
- bound pressure reventinessured in the include conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP and EC versions are specified on technical brochure.





RTA/K/ECO/REC-FX 182÷804

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS, RADIAL FANS OR EC INVERTER PLUG-FANS, ECONOMIZER AND CROSS-FLOW HEAT RECOVERY.



The double skin packaged Roof Top units of the **AIRMAXI** series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/K units feature Scroll compressors with R410A refrigerant and radial fans or **EC Inverter Plug-Fans.** The EC Inverter Plug-Fans with high energy efficiency backward blades both for intake as well as delivery are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

CAIRMAXI

The ECO/REC-FX units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, an **ECONOMIZER** automatically controlled both in FREE-COOLING or FREE-HEATING and a **CROSS-FLOW HEAT RECOVERY.**

EC INVERTER PLUG FANS

VERSION

RTA/K/ECO/REC-FX

Cooling only with radial fans, Economizer

and Cross Flow Heat Recovery

RTA/K/EC/ECO/REC-FX

Cooling only with EC Inverter Plug-Fans, Economizer and Cross Flow Heat Recovery

RTA/K/WP/ECO/REC-FX

Reversible Heat Pump with radial fans, Economizer and Cross Flow Heat Recovery

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

Reversible Heat Pump with EC Inverter Plug-Fans, Economizer and Cross Flow Heat Recovery

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; 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.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; 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

| IM | Automatic circuit breakers | AT/P |
|------|--|------|
| SL | Unit silencement | |
| RFM | Cooling circuit shut-off valve on discharge line | WS2 |
| RFL | Cooling circuit shut-off valve on liquid line | EHG |
| CT | Condensing control down to 0 °C | СН |
| CC | Condensing control down to -20 °C | SQ |
| TXC | Condensing coil with pre-coated fins | PF |
| TXE | Evaporating coil with pre-coated fins | IS |
| FT/M | Soft bag filters efficiency M6-F7-F8 | |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | ISB |
| AT | Constant air flow regulation control | |

Constant available static pressure regulation control 2-Row hot water coil with 3-Way

valve

Electrical heating coil with step regulation

- Enthalpic control (ECO only) Air quality sensor
- PF Filter differential pressure switch

Modbus RTU protocol, RS485 serial interface

BACnet MSTP protocol, RS485 serial interface

- ISBT BACnet TCP/IP protocol, Ethernet
- port ISL LonWorks protocol, FFT-10 serial
- interface
- CP Potential free contacts
- RP Coil protection metallic guards

- MN High and low pressure gauges
- CR Remote control panel
- AG Rubber shock absorbers



RTA/K/ECO/REC-FX 182÷804

| | SYSTEM CEA |
|-------|------------|
| IJ | d DNV.GI |
| E A U | ISO 9001 |

| MODEL | | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|--|---------------------------|-------------------|------|------|------|------|------|----------|------|------|---|---|-------|
| On allian | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| lleating | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| пеаціпу | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | G4 |
| A : | Air flow | m ³ /s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| Section (EC vorsion) | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Air flow | m ³ /s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air intake section (EC version) Condensing section H | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° | | | 2 | | | | 3 | | | 4 | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| (EC version) Condensing section Hot water coil Electric heating | Water connections | "G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 ½″ | 2 ½″ |
| Condensing section Hot water coil | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| Electric besting | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Hot water coil Electric heating | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Air intake section (EC version) A Air intake section (EC version) F Condensing section R Condensing section R Hot water coil V V V Electric heating N S S Electrical characteristics P Characteristics (EC version) N Sound pressure (5) C | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| | Max. running current | A | 50 | 53 | 63 | 67 | 76 | 94 | 100 | 109 | 133 | 150 | 173 |
| characteristics | Max. starting current | A | 173 | 175 | 186 | 199 | 243 | 218 | 232 | 276 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| (EC version) | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 60 | 61 | 61 | 62 |
| Sound pressure (EC version) (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| (EC version) (5) | Transport weight | Kg | 1715 | 1800 | 1980 | 2090 | 2110 | 2370 | 2800 | 2850 | 3370 | 3720 | 4720 |
| vveignts | Operating weight | Kg | 1690 | 1775 | 1955 | 2065 | 2085 | 2345 | 2770 | 2820 | 3335 | 3685 | 4680 |
| Weights | Transport weight | Kg | 1645 | 1720 | 1910 | 2020 | 2040 | 2210 | 2640 | 2690 | 3260 | 3590 | 4390 |
| (EC version) | Operating weight | Kg | 1620 | 1695 | 1885 | 1995 | 2015 | 2185 | 2610 | 2660 | 3225 | 3555 | 4350 |

ECO/REC-FX

ECO/REC-FX - Economizer and Cross Flow Heat Recovery. Further to components of the basic section, includes: static recovery device made of aluminium with moisture drain pan, flat filters with inspection possible through hinged door with spring return (external air damper + supply air damper + 2 free-cooling dampers).

COMPLEMENTARY SECTIONS

UMI Section with preparation for Humidifier

UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIME | ENSIONS | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|------|---------|----|------|------|------|------|------|------|------|------|------|------|-------|
| L | STD/EC | mm | 6060 | 6060 | 6270 | 6270 | 6450 | 7050 | 7870 | 7870 | 9120 | 9380 | 11650 |
| W | STD/EC | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD/EC | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

CLEARANCE AREA

RTA/K/ECO/REC-FX 182÷363





NOTES

- Evaporator inlet air temperature 27 °C 1. d.b./19 °C w.b.; ambient air temperature 35 °C.
- Excluded the power absorbed by fans of air 2. treatment section
- 3. Condenser inlet air temperature 20 °C, ambient air temperature 7 °C d.b./6 °C w.b.
- Inlet air temperature 20 °C, water 4. 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 and EC versions are specified on technical brochure.





RTA/K/ECO/REC-WH 182÷804

DOUBLE SKIN PACKAGED ROOF TOP UNITS WITH SCROLL COMPRESSORS, RADIAL FANS OR EC INVERTER PLUG-FANS, ECONOMIZER AND WHEEL HEAT RECOVERY.



The double skin packaged Roof Top units of the **AIRMAXI** series are the ideal solution for air conditioning of wide surfaces such as shopping malls and restaurants, canteens or for industrial areas. RTA/K units feature Scroll compressors with R410A refrigerant and radial fans or **EC Inverter Plug-Fans.** The EC Inverter Plug-Fans with high energy efficiency backward blades both for intake as well as delivery are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity.

Equipped with extruded aluminium alloy sections and 50mm-thick sandwich panelling, these units are available in Cooling-only and Reversible Heat Pump version.

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

The ECO/REC-WH units have an high level of modularity and adaptability to every plant-engineering need: these units feature, in addition to the basic sections, an **ECONOMIZER** automatically controlled both in FREE-COOLING or FREE-HEATING and a **WHEEL HEAT RECOVERY** with efficiency from 50% to 80% depending on operating conditions, able to treat up to 100% of total air flow.



EC INVERTER PLUG FANS

VERSION

| RTA/K/ECO/REC-WH | RTA/K/WP/ECO/REC-WH |
|---|---|
| Cooling only with radial fans, Economizer and Wheel Heat Recov | ery Reversible Heat Pump with radial fans, Economizer and Wheel Heat Recovery |
| RTA/K/EC/ECO/REC-WH | RTA/K/EC/WP/ECO/REC-WH |
| Cooling only with EC Inverter Plug-Fans, Economizer and Wheel Heat Recovery | Reversible Heat Pump with EC Inverter Plug-Fans, Economizer and Wheel Heat Recovery |
| | |

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; 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.
- High efficiency delivery & intake reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.
- Electronic thermostatic valve.
- R410A refrigerant.
- Electrical board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermo contacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.
- Electronic proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device also allows the cooling functioning of the unit by external temperature till -20°C.
- Microprocessor for the automatic control of the unit.

ACCESSORIES

FACTORY FITTED ACCESSORIES

| IM | Automatic circuit breakers | AT | Constant air flow regulation control | ISBT |
|------|---|------|---|------|
| SL | Unit silencement | AT/P | Constant available static pressure | ISL |
| RFM | Cooling circuit shut-off valve on | | regulation control | |
| | discharge line | WS2 | 2-Row hot water coil with 3-Way valve | CP |
| RFL | Cooling circuit shut-off valve on liquid line | EHG | Electrical heating coil with step regulation | RP |
| СТ | Condensing control down to 0 °C | СН | Enthalpic control (ECO only) | LOOS |
| CC | Condensing control down to -20 °C | SQ | Air quality sensor | MN |
| TXC | Condensing coil with pre-coated fins | PF | Filter differential pressure switch | CR |
| TXE | Evaporating coil with pre-coated fins | IS | Modbus RTU protocol, RS485 serial | AG |
| FT/M | Soft bag filters efficiency M6-F7-F8 | | interface | |
| FT/R | Rigid bag filters efficiency M6-F7-F8 | ISB | BACnet MSTP protocol, RS485 serial interface | |

- BT BACnet TCP/IP protocol, Ethernet port
- LonWorks protocol, FFT-10 serial interface
- CP Potential free contacts
 - P Coil protection metallic guards

- MN High and low pressure gauges
- CR Remote control panel
- G Rubber shock absorbers
 -



RTA/K/ECO/REC-WH 182÷804

| | ST STEM CE |
|-----|------------|
| V | |
| TAS | ISO 9001 |

| MODEL | | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|--|---------------------------|---------|------|------|------|------|------|----------|------|------|------|------|-------|
| O a a line a | Cooling capacity (1) | kW | 57.9 | 65.8 | 77.6 | 87.4 | 98.6 | 113 | 129 | 145 | 168 | 198 | 252 |
| Cooling | Absorbed power (1),(2) | kW | 19.4 | 21.8 | 24.6 | 26.2 | 30.8 | 37.8 | 40.4 | 43.3 | 54.6 | 61.5 | 85.1 |
| lleating | Heating capacity (3) | kW | 60.2 | 67.2 | 76.8 | 88.6 | 101 | 115 | 133 | 151 | 173 | 204 | 262 |
| пеациу | Absorbed power (2),(3) | kW | 16.8 | 17.9 | 20.2 | 22.8 | 25.2 | 32.2 | 34.0 | 40.0 | 45.7 | 50.4 | 70.5 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| section | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| A : | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air treatment | Available static pressure | Pa | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| (EC vorgion) | Fan | n° | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 |
| MODEL Cooling / -leating / -leating / Air treatment / section / Air treatment / section / Air treatment / section / Air intake section / // Air intake section / // Air intake section / // Condensing section / Hot water coil / Electric heating / Electrical / characteristics / Electrical / characteristics / Sound pressure (5) / Sound pressure (5) / Weights / Weights / | Filter | Туре | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 | G4 |
| | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| Air intake section | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Air intoko postion | Air flow | m³/s | 2.67 | 3.30 | 4.05 | 4.05 | 4.84 | 5.49 | 6.32 | 6.32 | 8.20 | 9.79 | 12.31 |
| (EC version) | Available static pressure | Pa | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | Fan | n° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 4 |
| | Compressor | n° | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 |
| Condensing section | Refrigerant circuits | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | Capacity steps | n° | | | 2 | | | | 3 | | | 4 | |
| | Heating capacity (4) | kW | 85 | 100 | 125 | 125 | 150 | 175 | 200 | 200 | 250 | 300 | 350 |
| | Air pressure drops | Pa | 30 | 31 | 31 | 31 | 31 | 30 | 36 | 36 | 35 | 35 | 57 |
| Hot water coil | Water flow (4) | l/s | 2.03 | 2.39 | 2.99 | 2.99 | 3.58 | 4.18 | 4.78 | 4.78 | 5.97 | 7.17 | 8.36 |
| | Water pressure drops | kPa | 45 | 47 | 48 | 48 | 49 | 44 | 51 | 51 | 53 | 57 | 45 |
| | Water connections | ″G | 1″½ | 1″½ | 1″½ | 1″½ | 1″½ | 2″ | 2″ | 2″ | 2″ | 2 ½″ | 2 ½″ |
| | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| Electric heating | Heating capacity | kW | 15 | 21 | 27 | 27 | 27 | 41 | 41 | 41 | 41 | 48 | 55 |
| Liecule heating | Max. absorbed current | A | 22 | 30 | 39 | 39 | 39 | 59 | 59 | 59 | 59 | 69 | 79 |
| | Steps | n° | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 50 | 53 | 63 | 67 | 76 | 94 | 100 | 109 | 133 | 150 | 173 |
| Air intake section (EC version) Condensing section Hot water coil Electric heating Electrical characteristics Electrical characteristics (EC version) Sound pressure (5) | Max. starting current | A | 173 | 175 | 186 | 199 | 243 | 218 | 232 | 276 | 265 | 317 | 347 |
| Electrical | Power supply | V/Ph/Hz | | | | | | 400/3/50 | | | | | |
| characteristics | Max. running current | A | 46 | 47 | 56 | 60 | 69 | 88 | 93 | 102 | 126 | 148 | 170 |
| (EC version) | Max. starting current | A | 169 | 169 | 179 | 192 | 236 | 212 | 225 | 269 | 258 | 315 | 344 |
| Sound pressure (5) | | dB(A) | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 60 | 61 | 61 | 62 |
| Sound pressure (EC version) (5) | | dB(A) | 57 | 57 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 |
| \A/=:==== | Transport weight | Kg | 1715 | 1800 | 1980 | 2090 | 2110 | 2370 | 2800 | 2850 | 3370 | 3720 | 4720 |
| vveignts | Operating weight | Kg | 1690 | 1775 | 1955 | 2065 | 2085 | 2345 | 2770 | 2820 | 3335 | 3685 | 4680 |
| Weights | Transport weight | Kg | 1645 | 1720 | 1910 | 2020 | 2040 | 2210 | 2640 | 2690 | 3260 | 3590 | 4390 |
| (EC version) | Operating weight | Kg | 1620 | 1695 | 1885 | 1995 | 2015 | 2185 | 2610 | 2660 | 3225 | 3555 | 4350 |

ECO/REC-WH

ECO/REC-WH - Economizer and Wheel Heat Recovery. Further to components of the basic section, includes: high efficiency wheel-type recovery device made of aluminium with hygroscopic treatment, managed by a constant-speed electric motor, with moisture drain pan, flat filters with inspection possible through hinged door with spring return (external air damper + 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
- UMI/EN Section Humidifier with electrodes immersed

F/CD Condensation endothermic hot air generator with modulating gas burner

| DIMENSIONS | | | 182 | 202 | 242 | 262 | 302 | 363 | 393 | 453 | 524 | 604 | 804 |
|------------|--------|----|------|------|------|------|------|------|------|------|------|------|-------|
| L | STD/EC | mm | 6060 | 6060 | 6270 | 6270 | 6450 | 7050 | 7870 | 7870 | 9120 | 9380 | 11650 |
| W | STD/EC | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| Н | STD/EC | mm | 2100 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2340 | 2510 | 2510 |

CLEARANCE AREA

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RTA/K/ECO/REC-WH 182÷363
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NOTES

- Evaporator inlet air temperature 27 °C d.b./19 °C w.b.; ambient air temperature 35 °C.
- 2. Excluded the power absorbed by fans of air treatment section
- 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.
- 5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- N.B. Weights of WP and EC versions are specified on technical brochure.

