

EtaMax

Air handling unit for all fresh air with high energy efficiency with thermodynamic recovery and indirect adiabatic recovery.

Air flow rates from 4.000 to 25.000 m³/h.

The units of the EtaMax series represent the maximum expression of the technological innovation in all fresh air handling. The EtaMax series has been specifically designed in order to **reduce to the minimum the energy consumptions** during operation, which represent about 80% of the whole Life Cycle Cost (L.C.C.) of an air handling unit. **The double heat recovery system (static and active) and the innovative adiabatic cooling and humidifying system allow to bring the air to the desired supply conditions into the room with the minimum energetic consumption.**

The presence of a total by-pass damper allows the free-cooling in the intermediate seasons, taking the maximum advantage of the free thermal loads of the external air. The EtaMax series is manufactured in full compliance with the EN1886 norm for what concerns the mechanical resistance, the limited air leakage, the thermal and acoustic insulation of the casing.



>Versions

5 available sizes

EtaMax Std: standard version, with double static and active heat recovery systems, adiabatic cooling and humidification systems.

EtaMax Eco: version with recirculation damper

EtaMax Dry: version with hot gas re-heating coil, in combination with floor heating systems

Plug and play: the unit is supplied complete with automatics and controls, cooling circuit completely wired and assembled in order to minimize the installation costs and times.

Bearing frame

Sandwich panels with 50mm thickness

Wide choice of accessories





> Main technical data

| EtaMax Std/Eco | | 040 | 060 | 100 | 160 | 250 |
|---|-------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|
| Supply air flow – min. exhaust airflow | m ³ /h | 3.600 | 5.100 | 8.500 | 13.000 | 20.000 |
| Supply air flow – nominal exhaust airflow | m ³ /h | 4.000 | 6.000 | 10.000 | 16.000 | 25.000 |
| Supply air flow – max. exhaust airflow | m ³ /h | 4.800 | 7.200 | 11.500 | 17.600 | 25.000 |
| Tot. power (rotary heat recovery unit + thermodynamic) | | | | | | |
| Compressors type / no. | | Scroll/1with inverter | Scroll/1with inverter | Scroll/2with 1inverter | Scroll/2with 1inverter | Scroll/2with 1inverter |
| Max. total cooling power (Rec. + refig. circ.) | kW | 37,3 | 54,0 | 94,8 | 148,6 | 167,3 |
| Input power | kW | 8,7 | 11,2 | 19,8 | 28,1 | 33,1 |
| Total E.E.R. (Rec. + Ref. circ.) | | 4,3 | 4,8 | 4,8 | 5,3 | 5,0 |
| Max. tot. heating power (Rec. + refig. erant circ.) | kW | 59,7 | 88,0 | 145,8 | 229,4 | 266,2 |
| Input power | kW | 5,4 | 8,7 | 13,1 | 18,9 | 21,1 |
| Total C.O.P. (Rec. + Ref. circ.) | | 11,0 | 10,1 | 11,1 | 12,1 | 12,6 |
| Thermodynamic recovery (refrigerant circ.) | | | | | | |
| Max. total cooling power | kW | 22,1 | 31,3 | 59,2 | 87,0 | 93,5 |
| Absorbed power | kW | 9,1 | 11,3 | 20,1 | 28,5 | 33,5 |
| Max. hating power | kW | 21,0 | 32,1 | 54,9 | 78,6 | 86,6 |
| Absorbed power | kW | 5,8 | 8,7 | 13,2 | 18,9 | 21,1 |
| Adiabatic + static recovery | | | | | | |
| Summer max recovered power | kW | 15,2 | 22,7 | 35,5 | 61,6 | 73,8 |
| Summer static efficiency sensitive | % | 72 | 71 | 69 | 74 | 69 |
| Winter max recovered power | kW | 38,7 | 55,9 | 90,8 | 150,8 | 179,6 |
| Winter static efficiency sensitive | % | 84 | 82 | 80 | 80 | 79 |
| Supply fans | | | | | | |
| Available static pressure | Pa | 300 | 300 | 300 | 300 | 300 |
| Input power | kW | 2,0 | 3,1 | 5,0 | 8,7 | 10,1 |
| Installed power | kW | 3,0 | 4,0 | 7,5 | 11,0 | 15,0 |
| Exhaust fans | | | | | | |
| Available static pressure | Pa | 200 | 200 | 200 | 200 | 200 |
| Input power | kW | 1,5 | 2,5 | 4,0 | 7,1 | 7,5 |
| Installed power | kW | 2,2 | 3,0 | 5,5 | 11,0 | 11,0 |
| Electrical data | | | | | | |
| Power Supply | V/ph/Hz | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 |
| Total max absorbed power | kW | 25,1 | 26,9 | 46,8 | 70,5 | 78,0 |
| Total max absorbed current | A | 50,3 | 53,6 | 80,3 | 113,4 | 123,7 |

(the technical data are related to the nominal air flow)

Summer conditions related to: External air 35°C; RH 40%; exhaust air 26°C; RH 50%

Winter conditions related to: External air -10 °C; RH 90%; exhaust air 20 °C; RH 50%

Modular units for
the air treatment

FM - FE

Air handling units for
-specific sectors

FM-H EtaMax

HygRoMax-AlfaMini/Max

Air conditioning units

FTA - TFA

Heat recovery units

NRC- HRC - HRR
RCFA - RHE

Roof-top units

RTSA - RTPA - RTLA
MFS - MFSE

Other products

FG – Hot air generator
ESC – Air extractor

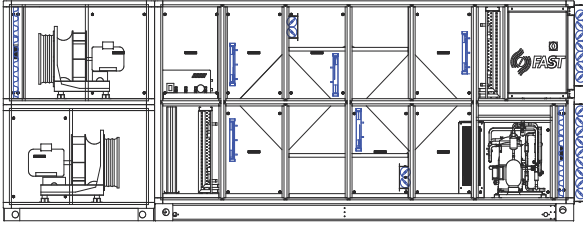
> Main technical data

| EtaMax Dry | | 040 | 060 | 100 | 160 | 250 |
|---|-------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|
| Supply air flow – min. exhaust airflow | m ³ /h | 3.600 | 5.100 | 8.500 | 13.000 | 20.000 |
| Supply air flow – nominal exhaust airflow | m ³ /h | 4.000 | 6.000 | 10.000 | 16.000 | 25.000 |
| Supply air flow – max. exhaust airflow | m ³ /h | 4.800 | 7.200 | 11.500 | 17.600 | 25.000 |
| Tot. power (rotary heat recovery unit + thermodynamic) | | | | | | |
| Compressors type / no. | | Scroll/1with inverter | Scroll/1with inverter | Scroll/2with 1inverter | Scroll/2with 1inverter | Scroll/2with 1inverter |
| Max. total cooling power (Rec. + refrig. circ.) | kW | 39,6 | 57,1 | 99,0 | 154,7 | 175,6 |
| Input power | kW | 6,7 | 9,0 | 16,7 | 23,3 | 27,4 |
| Total E.E.R. (Rec. + Ref. circ.) | | 5,9 | 6,3 | 5,9 | 6,6 | 6,4 |
| Max. tot. heating power (Rec. + refrig. erant circ.) | kW | 67,2 | 88,0 | 145,8 | 229,4 | 266,2 |
| Input power | kW | 10,0 | 8,7 | 13,1 | 18,9 | 21,1 |
| Total C.O.P. (Rec. + Ref. circ.) | | 6,7 | 10,1 | 11,1 | 12,1 | 12,6 |
| Thermodynamic recovery (refrigerant circ.) | | | | | | |
| Max. total cooling power | kW | 24,4 | 34,4 | 63,5 | 93,0 | 101,9 |
| Absorbed power | kW | 7,1 | 9,1 | 17,0 | 23,7 | 27,8 |
| Max. heating power | kW | 28,5 | 32,1 | 54,9 | 78,6 | 86,6 |
| Absorbed power | kW | 10,4 | 8,7 | 13,2 | 18,9 | 21,1 |
| Adiabatic + static recovery | | | | | | |
| Summer max recovered power | kW | 15,2 | 22,7 | 35,5 | 61,6 | 73,8 |
| Summer static efficiency sensitive | % | 72 | 71 | 69 | 74 | 69 |
| Winter max recovered power | kW | 38,7 | 55,9 | 90,8 | 150,8 | 179,6 |
| Winter static efficiency sensitive | % | 84 | 82 | 80 | 80 | 79 |
| Supply fans | | | | | | |
| Available static pressure | Pa | 300 | 300 | 300 | 300 | 300 |
| Input power | kW | 2,0 | 3,1 | 5,0 | 8,7 | 10,1 |
| Installed power | kW | 3,0 | 4,0 | 7,5 | 11,0 | 15,0 |
| Exhaust fans | | | | | | |
| Available static pressure | Pa | 200 | 200 | 200 | 200 | 200 |
| Input power | kW | 1,5 | 2,5 | 4,0 | 7,1 | 7,5 |
| Installed power | kW | 2,2 | 3,0 | 5,5 | 11,0 | 11,0 |
| Electrical data | | | | | | |
| Power Supply | V/ph/Hz | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 | 400/3+N/50 |
| Total max absorbed power | kW | 25,1 | 26,9 | 46,8 | 70,5 | 78,0 |
| Total max absorbed current | A | 50,3 | 53,6 | 80,3 | 113,4 | 123,7 |

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Winter conditions related to: External air -10 °C; RH 90%; exhaust air 20 °C; RH 50%



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