EN

DUCTED UNITS

# EBH
# EDS

EUROPO

INTEGRATED
COMFORT
SYSTEMS

# EBH | EDS HIGH PRESSURE UNITS

EBH high pressure ducted units and EDS Double Skin units, thanks to their high pressure fan decks, permit to satisfy every request of heating and cooling applications in big environments, where ducted air distribution is requested. They are suitable for horizontal installation.
These are units for COOLING and HEATING applications; they are fed with cold and hot water and used according to their relevant performance features. EBH and EDS units are components of cooling and/or heating systems; consequently, they are without any safety devices on the water circuit. These units have been designed for temperatures up to 100 °C.
When you want to connect this high pressure unit to a condensing unit in COOLING mode, it must be ordered with a direct expansion coil (optional upon request, except for sizes 060-070).

**EDS**
HIGH PRESSURE UNIT

**EBH**
HIGH PRESSURE UNIT

## EBH features

• 6 SIZES for horizontal ducted installation, 2 and 4 pipe system.
• HIGH PRESSURE: they are designed for ducted installation with external static pressure up to 300 Pa.
• STRUCTURE is realized in galvanized metal sheet, insulated internally; in order to facilitate all maintenance operations, the structure is divided in three separate and independent sections (condensate tray, fan deck, air filter).
• HEAT EXCHANGERS can have 2, 3 or 4 rows, made by copper pipes and aluminium fin pack; 5-row coils are available for sizes 060 and 070. Up to size 050 all coils are provided with air vent valves. For sizes 060 and 070, the air vent valve is supplied only with the valve kit (optional).
• REVERSIBLE WATER CONNECTIONS: these high-pressure units can be ordered with right (standard) or left water connections; it is possible to reverse the water connections on site, if necessary.
• FAN DECK is composed by a 3 speed motor and two centrifugal galvanized steel scrolls. All motors are provided with a permanently connected capacitor and thermal protection of the windings with automatic reset.
• CONDENSATE TRAY is realized in galvanized steel with water discharge pipes on both sides.
• AIR FILTER consists of a washable polyester acrylic fibre, pleated and protected by a metal frame.
The filter section can be easily removed for cleaning and maintenance. Filtration class G3.
• ELECTRIC PANEL is composed by a terminal board with screw terminals contained in an ABS plastic box (IP30). A supporting relay is supplied as standard starting from size 040.
• 4 BRACKETS are supplied along with the unit, to fix it to the ceiling.

**EBH**
UNIT WITH AIR SUPPLY PLENUM

# EDS features

- 9 SIZES for horizontal ducted installation, 2 pipe system.
- HIGH PRESSURE: they are designed for ducted installation with external static pressure up to 300 Pa.
- DOUBLE SKIN STRUCTURE is composed by insulated 25 mm thick panels, colour RAL9002, and aluminium supporting frame.
- HEAT EXCHANGERS can have 2, 3 or 4 rows, made by copper pipes and aluminium fin pack; 5-row coils are available for sizes 060 and 070. Up to size 050 all coils are provided with air vent valves.
- NOT REVERSIBLE WATER CONNECTIONS: EDS units can be ordered with right (standard) or left water connections.
- FAN DECK is composed by a 3 speed motor and two centrifugal galvanized steel scrolls. All motors are provided with a permanently connected capacitor and thermal protection of the windings with automatic reset.
- CONDENSATE TRAY is realized in galvanized steel with water discharge pipe located on the water connections' side.
- AIR FILTER consists of a washable polyester acrylic fibre, pleated and protected by a metal frame. The filter section can be easily removed for cleaning and maintenance. Filtration class G3.
- ELECTRIC PANEL is composed by a terminal board with screw terminals contained in a high protection box (IP44). A supporting relay is supplied as standard starting from size 040.
- 4 BRACKETS are supplied along with the unit, to fix it to the ceiling.

**EDS**
HIGH PRESSURE UNIT

HIGH PRESSURE UNIT **EDS**

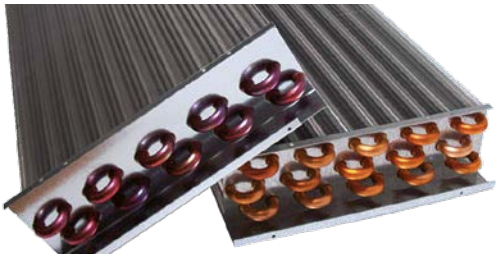
## The big advantages of the EURAPO high pressure units are:

- quiet operation
- reliability
- excellent quality/price ratio
- high coefficient of performance
- sturdiness and solid construction
- accurate choice of each single component
- environmentally friendly sandwich panels (EDS model)
- high protection electric panel (IP44), available also on EBH models
- easy installation and maintenance operations

**EBH** WITH VALVE

# Accessories for EBH units:

- VALVE KIT 3 way 4-port regulating valves with ON/OFF or modulating actuators, provided with copper connection kit and insulation shell (supplied loose).
- CONDENSATE PUMP with 6 m maximum head.
- CONDENSATE TRAY in stainless steel.
- SPECIAL FILTER made of washable polyester acrylic fibre, filtration class F5.
- ADDITIONAL COILS for hot water with 2 or 3 rows, for units to be installed in 4-pipe systems.
- DISTRICT COOLING COILS: Heat exchangers with a reduced number of circuits, suitable for applications where the water thermal head is about 9 °C.
- ELECTRIC HEATER it is an additional section to be mounted on the air outlet, provided with all necessary safety thermostats. The heating capacity is different from size to size, up to 9 kW.
- AIR DELIVERY/AIR INTAKE PLENUM with several frontal spigots.
- RAL 9001 PAINTING with oven dried epoxy powders. All RAL colours are available.
- REGULATING SYSTEMS: the whole range of EURAPO regulators is available: fan speed selectors, electro-mechanical controllers, electronic controllers with microprocessor, digital regulators with a centralized supervision system communicating via Bus based on standard protocols. For more information, please either refer to the specific EURAPO technical literature or visit the official web site www.eurapo.it.



Additional coils

Electric heater

Valve kit

Condensate pump

Air delivery/air intake plenum

RAL 9001 painting

# Accessories for EDS units:

- VALVE KIT 3 way 4-port regulating valves with ON/OFF or modulating actuators, provided with copper connection kit.
- CONDENSATE PUMP with 6 m maximum head.
- SPECIAL FILTER made of washable polyester acrylic fibre, filtration class F5.
- DISTRICT COOLING COILS: Heat exchangers with a reduced number of circuits, suitable for applications where the water thermal head is about 9 °C.
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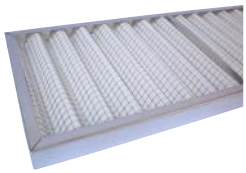
Valve kit



Special filter

Electric heater

Air delivery/air intake plenum

Display console

Analogue plus console

## Technical data EBH UNIT:

**STANDARD TECHNICAL DATA AT DIFFERENT Pa OF EXTERNAL STATIC PRESSURE-ASYNCHRONOUS**

| Models | | | EBH 020 | EBH 030 | EBH 040 | EBH 050 | EBH 060 (4) | EBH 070 (4) |
|---|---|---|---|---|---|---|---|---|
| MAX External static pressure [Pa] | | | 125 | 175 | 200 | 250 | 300 | 300 |
| Total cooling capacity [kW] | (1) | MAX | 6,95 | 9,49 | 11,80 | 13,72 | 23,44 | 27,62 |
| | | MED | 5,90 | 8,23 | 10,40 | 12,60 | 20,94 | 25,56 |
| | | MIN | 4,30 | 7,11 | 8,91 | 11,36 | 16,37 | 23,55 |
| Heating capacity [kW] | (2) | MAX | 7,08 | 11,40 | 14,30 | 17,40 | 27,46 | 34,03 |
| | | MED | 6,20 | 9,62 | 12,20 | 15,53 | 24,05 | 30,96 |
| | | MIN | 4,55 | 8,20 | 10,40 | 13,90 | 18,00 | 28,05 |
| Air volume [m³/h] | | MAX | 1145 | 1910 | 2680 | 3250 | 4414 | 5548 |
| | | MED | 920 | 1520 | 2130 | 2870 | 3750 | 4936 |
| | | MIN | 620 | 1205 | 1655 | 2470 | 2649 | 4374 |
| Sound pressure level [dB(A)] | (3) | MAX | 53 | 54 | 58 | 61 | 65 | 70 |
| | | MED | 47 | 50 | 52 | 57 | 62 | 68 |
| | | MIN | 37 | 46 | 46 | 54 | 54 | 65 |
| Absorbed current [A] | | MAX | 0,72 | 1,76 | 2,03 | 2,85 | 7,50 | 8,19 |
| | | MED | 0,52 | 1,45 | 1,64 | 2,39 | 4,29 | 7,61 |
| | | MIN | 0,32 | 1,30 | 1,28 | 2,06 | 2,61 | 6,85 |
| Power input [W] | | MAX | 171 | 352 | 451 | 588 | 1060 | 1801 |
| | | MED | 119 | 305 | 361 | 512 | 790 | 1631 |
| | | MIN | 72 | 267 | 274 | 440 | 543 | 1446 |
| N° rows (standard) | | | 4 | 4 | 4 | 4 | 4 | 4 |
| Power supply [V-ph-Hz] | | | 230-1-50/60 | | | | | |

**(1)** Air temperature: 27 °C d.b., 47% rel. humidity - Water temperature: 7/12 °C
**(2)** Air temperature: 20 °C, 50% rel. humidity - Water inlet temperature: 45/50 °C.
**(3)** Pressure level in open field at 1 m distance.
**(4)** Performances are out of scope Eurovent FCP.
**In order to select the EBH or EDS ducted fancoil with District Cooling coils, please use the EURAPO software for selection.**

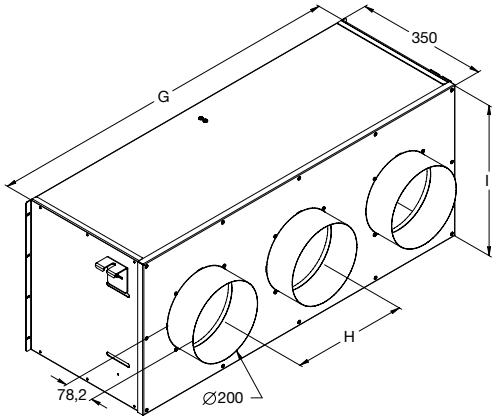
## Technical data EDS UNIT:

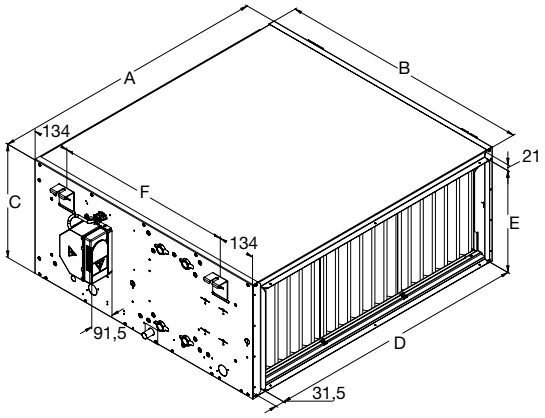
**STANDARD TECHNICAL DATA 50 Pa EXTERNAL STATIC PRESSURE-ASYNCHRONOUS**

| Models | | | EDS 004 | EDS 006 | EDS 008 | EDS 020 | EDS 030 | EDS 040 | EDS 050 | EDS 060 | EDS 070 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAX External static pressure [Pa] | | | 50 | 50 | 50 | 125 | 175 | 200 | 250 | 300 | 300 |
| Total cooling capacity [kW] | (1) | MAX | 2,54 | 3,10 | 4,13 | 7,33 | 9,77 | 12,85 | 13,64 | 24,06 | 27,13 |
| | | MED | 1,87 | 2,40 | 3,54 | 5,51 | 7,73 | 10,25 | 12,14 | 21,52 | 25,08 |
| | | MIN | 1,10 | 1,61 | 2,69 | 3,28 | 6,63 | 8,25 | 10,83 | 16,80 | 23,09 |
| Heating capacity [kW] | (2) | MAX | 2,65 | 3,61 | 4,77 | 7,89 | 12,09 | 15,21 | 17,14 | 25,09 | 31,95 |
| | | MED | 1,97 | 2,77 | 4,07 | 5,75 | 9,21 | 11,79 | 14,96 | 22,09 | 29,16 |
| | | MIN | 1,07 | 1,70 | 3,16 | 3,37 | 7,75 | 9,30 | 13,13 | 16,74 | 26,50 |
| Air volume [m³/h] | | MAX | 400 | 596 | 848 | 1383 | 2230 | 3026 | 3472 | 4414 | 5548 |
| | | MED | 283 | 432 | 693 | 932 | 1577 | 2162 | 2894 | 3750 | 4936 |
| | | MIN | 143 | 245 | 506 | 494 | 1273 | 1598 | 2438 | 2649 | 4374 |
| Sound pressure level [dB(A)] | (3) | MAX | 42 | 44 | 46 | 53 | 56 | 56 | 60 | 65 | 70 |
| | | MED | 40 | 41 | 44 | 46 | 50 | 51 | 57 | 62 | 68 |
| | | MIN | 38 | 39 | 41 | 42 | 48 | 47 | 54 | 54 | 65 |
| Absorbed current [A] | | MAX | 0,26 | 0,35 | 0,46 | 0,84 | 2,28 | 2,37 | 3,98 | 7,50 | 8,19 |
| | | MED | 0,21 | 0,28 | 0,37 | 0,53 | 1,20 | 1,69 | 2,81 | 4,29 | 7,61 |
| | | MIN | 0,15 | 0,19 | 0,29 | 0,31 | 1,00 | 1,29 | 2,21 | 2,61 | 6,85 |
| Power input [W] | | MAX | 59 | 80 | 102 | 187 | 352 | 511 | 666 | 1060 | 1801 |
| | | MED | 46 | 62 | 84 | 121 | 235 | 365 | 557 | 790 | 1631 |
| | | MIN | 33 | 44 | 65 | 69 | 191 | 267 | 456 | 543 | 1446 |
| N° rows (standard) | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Power supply [V-ph-Hz] | | | 230-1-50/60 | | | | | | | | |

## Dimensions [mm] EBH UNIT

| Model | A | B | C | D | E | F | G | H | I | Connections | Spigots |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **020÷030** | 990 | 902 | 408 | 927 | 366 | 634 | 963 | 307 | 404 | G 1/2" F | 3 |
| **040÷050** | 1240 | 902 | 408 | 1177 | 366 | 634 | 1213 | 300 | 404 | G 1/2" F | 4 |
| **060÷070** | 1635 | 1160 | 518 | 1572 | 476 | 892 | 1608 | 311 | 514 | G 1" M | 5 |

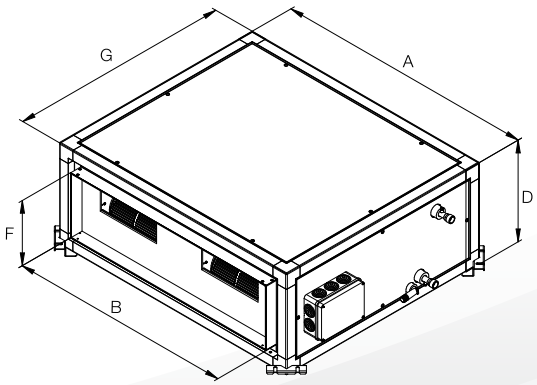


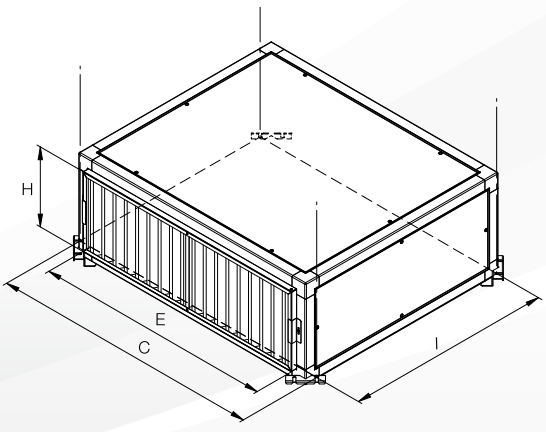




OPTIONAL PLENUM

## Dimensions [mm] EDS UNIT

| Model | A | B | C | D | E | F | G | H | I | Connections |
|---|---|---|---|---|---|---|---|---|---|---|
| **004** | 882 | 742 | 924 | 390 | 799 | 250 | 855 | 306 | 798 | G 3/4" M |
| **006÷008** | 1007 | 867 | 1049 | 390 | 924 | 250 | 855 | 306 | 798 | G 3/4" M |
| **020÷030** | 1132 | 992 | 1174 | 440 | 1049 | 300 | 855 | 357 | 798 | G 3/4" M |
| **040÷050** | 1382 | 1242 | 1424 | 440 | 1299 | 300 | 855 | 357 | 798 | G 3/4" M |
| **060÷070** | 1777 | 1637 | 1819 | 550 | 1694 | 410 | 1030 | 467 | 978 | G 1" M |



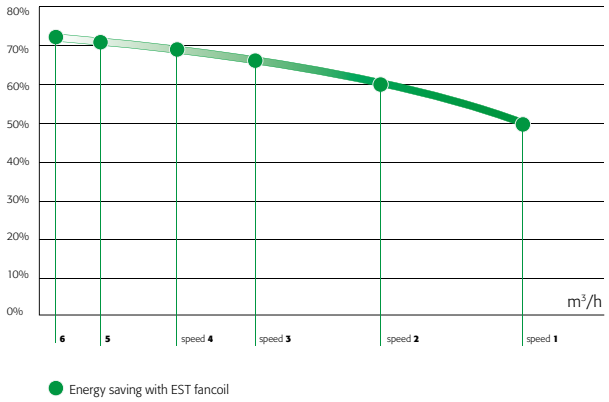
EST

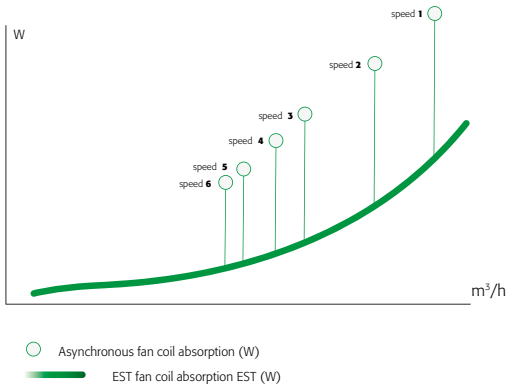
ENERGY SAVING TECHNOLOGY

**EST (Energy Saving Technology)** is applied to the **EURAPO** fan coil units and cassette units. It permits to obtain extremely low electrical absorption and a continuous modulation of the air flow, constantly related to the concrete need of energy in the room.

**EST** technology is composed by a brushless motor combined to a dedicated electronic device (inverter), managed by specific regulators developed by **EURAPO**.

In comparison to the traditional units equipped with asynchronous three-speed-motors, the fan coil and cassette units with brushless motors can obtain a considerable **energy saving**, by reducing the power consumption **up to 70%.**




Thanks to the step-less modulation of the fan speeds it is possible to accurately regulate the air volume in a very precise way, in strict relation to the real need of air conditioning in the room. Oscillations in the temperature and relative humidity are reduced at lowest level: a guarantee for the **highest comfort in the room.**

The possibility to reach very low air volumes makes the units **extremely quiet** at the **lowest motor revolutions**.**EST** technology is designed in particular for offices, hospitals, nursing homes and hotels.

It is available for the **EURAPO** range of fan coil units, cassette units and ducted units.

## Technical data HIGH PRESSURE UNIT ESTEBH

**STANDARD TECHNICAL DATA AT DIFFERENT Pa OF EXTERNAL STATIC PRESSURE-EST**

| Models | | | ESTEBH 020 | ESTEBH 030 | ESTEBH 040 | ESTEBH 050 | ESTEBH 060 (4) |
|---|---|---|---|---|---|---|---|
| MAX External static pressure [Pa] | | | 125 | 175 | 200 | 250 | 300 |
| Total cooling capacity [kW] | (1) | MAX | 6,75 | 9,94 | 13,64 | 14,40 | 23,16 |
| | | MED | 5,62 | 8,13 | 11,22 | 13,25 | 17,84 |
| | | MIN | 4,23 | 7,11 | 8,43 | 11,90 | 11,16 |
| Heating capacity [kW] | (2) | MAX | 7,07 | 11,52 | 16,24 | 18,07 | 27,08 |
| | | MED | 5,65 | 9,07 | 12,87 | 16,25 | 19,99 |
| | | MIN | 4,11 | 7,81 | 9,35 | 14,37 | 11,70 |
| Air volume [m³/h] | | MAX | 1040 | 1948 | 2848 | 3217 | 4337 |
| | | MED | 796 | 1471 | 2160 | 2834 | 2999 |
| | | MIN | 549 | 1241 | 1484 | 2442 | 1609 |
| Sound pressure level [dB(A)] | (3) | MAX | 54 | 57 | 60 | 64 | 68 |
| | | MED | 47 | 50 | 55 | 61 | 62 |
| | | MIN | 38 | 46 | 46 | 58 | 59 |
| Absorbed current [A] | | MAX | 1,08 | 1,12 | 1,85 | 2,17 | 3,93 |
| | | MED | 0,58 | 0,68 | 0,97 | 1,59 | 2,12 |
| | | MIN | 0,29 | 0,53 | 0,53 | 1,12 | 0,56 |
| Power input [W] | | MAX | 161 | 261 | 405 | 478 | 771 |
| | | MED | 75 | 132 | 196 | 341 | 351 |
| | | MIN | 36 | 91 | 82 | 234 | 96 |
| N° rows (standard) | | | 4 | 4 | 4 | 4 | 4 |
| Power supply [V-ph-Hz] | | | 230-1-50/60 | | | | |

**(1)** Air temperature: 27 °C d.b., 47% rel. humidity - Water temperature: 7/12 °C
**(2)** Air temperature: 20 °C, 50% rel. humidity Water inlet temperature: 45/40 °C
**(3)** Pressure level in open field at 1 m distance.
**In order to select the EBH or EDS ducted fancoil with District Cooling coils, please use the EURAPO software for selection**.

## Technical data HIGH PRESSURE UNIT ESTEDS

**STANDARD TECHNICAL DATA 50 Pa EXTERNAL STATIC PRESSURE-EST**

| Models | | | ESTEDS 004 | ESTEDS 008 | ESTEDS 020 | ESTEDS 030 | ESTEDS 040 | ESTEDS 050 | ESTEDS 060 |
|---|---|---|---|---|---|---|---|---|---|
| MAX External static pressure MAX [Pa] | | | 50 | 50 | 125 | 175 | 200 | 250 | 300 |
| Total cooling capacity [kW] | (1) | 9 V | 4,32 | 4,36 | 8,33 | 8,96 | 12,65 | 14,37 | 23,77 |
| | | 7 V | 3,58 | 3,64 | 7,04 | 7,77 | 11,30 | 13,01 | 20,93 |
| | | 6 V | 2,37 | 2,44 | 5,07 | 7,11 | 10,77 | 11,71 | 18,39 |
| Air volume [m³/h] | | 9 V | 798 | 914 | 1659 | 1961 | 2956 | 3787 | 4337 |
| | | 7 V | 619 | 718 | 1301 | 1589 | 2500 | 3223 | 3599 |
| | | 6 V | 367 | 443 | 836 | 1402 | 2333 | 2739 | 2999 |
| Sound pressure level [dB(A)] | (3) | 9 V | 50 | 49 | 57 | 57 | 61 | 63 | 68 |
| | | 7 V | 46 | 45 | 54 | 54 | 58 | 60 | 66 |
| | | 6 V | 43 | 42 | 48 | 52 | 56 | 57 | 62 |
| Absorbed current [A] | | 9 V | 0,55 | 0,65 | 1,90 | 1,48 | 1,79 | 3,05 | 3,93 |
| | | 7 V | 0,40 | 0,44 | 1,23 | 0,96 | 1,28 | 2,24 | 2,93 |
| | | 6 V | 0,24 | 0,26 | 0,61 | 0,97 | 1,03 | 1,65 | 2,12 |
| Power input [W] | | 9 V | 61 | 69 | 231 | 233 | 372 | 616 | 771 |
| | | 7 V | 42 | 48 | 146 | 159 | 257 | 430 | 541 |
| | | 6 V | 24 | 27 | 71 | 130 | 221 | 294 | 351 |
| N° rows (standard) | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Power supply [V-ph-Hz] | | | 230-1-50/60 | | | | | | |

*ESTEDS unit is available for cooling operation only.*

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As programs and technologies are always improving, description, data and drawings must be intended as merely indicative and can be modified without any notice.

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