## Box

A complete, ready-made solution


## Adaptable system

Box fan coil units are designed to meet performance and space requirements set by lobbies and other similar public spaces. The units are compatible with 2 - and 4-pipe systems and water and liquid circuits.
Each device is dimensioned separately with the Option program, ensuring that optimal coil sizes, routes and air volumes are selected for the system. All units are individually configured and tested with an automated testing system.

The Box device is available in two sizes designed for mounting on a modular ceiling: $600 \times 600 \mathrm{~mm}$ and $600 \times 1,200 \mathrm{~mm}$. For spaces without a false ceiling, the device can be equipped with a protective cover.

- The coil unit's EC grille guarantees silent and draught-free cooling operations. The Coanda effect takes place even with low air volumes, resulting in significant reductions in energy consumption and sound levels. The grille enables the use of different airflow directions.
- Box fan coil units can be equipped with a fresh air supply connection
- All the Box fan coil units are available in MagiCloud and MagiCAD


## Easy to install, easy to maintain

Thanks to the comprehensive configuration, less work is required on the worksite. The units and their automation systems are always tailored for the application. Unit configurations can be replicated and unit components can be replaced without it affecting the system as a whole. These properties ensure a long and carefree service life for the unit.
As an additional service, the units can be marked with position codes to make it easier to position the machines in correct places and to speed up the progress of large-scale projects.


Dimensions


Technical data

| $7^{\circ} \mathrm{C} / 12^{\circ} \mathrm{C}, 25^{\circ} \mathrm{C} / 50 \%$ | Total capacity (kW) | Sensible capacity (kW) | Sound level (dB(A), $\left.10 \mathrm{~m}^{2}\right)^{*}$ | Liquid flow rate ( $1 / \mathrm{h}$ ) | Air volume ( $\mathrm{m}^{3} / \mathrm{h}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 0.9-1.5 | 0.7-1.2 | 23-44 | 151-256 | 126-533 |
| 40 | 1.4-2.9 | 1.0-2.1 | 21-44 | 241-500 | 126-533 |
| 60 | 1.6-4.5 | 1.1-3.2 | 21-53 | 274-778 | 126-749 |
| 80 | 1.7-5.0 | 1.2-3.5 | 21-53 | 284-850 | 126-749 |
| 100 | 2.5-6.6 | 1.8-4.8 | 23-56 | 436-1,138 | 256-1,238 |
| 120 | 2.8-8.1 | 2.0-5.8 | 23-56 | 486-1,393 | 256-1,238 |
| 160 | 2.9-8.8 | 2.1-6.8 | 23-56 | 500-1,516 | 256-1,238 |
| $10^{\circ} \mathrm{C} / 18^{\circ} \mathrm{C}, 25^{\circ} \mathrm{C} / 50 \%$ | Total capacity (kW) | Sensible capacity (kW) | Sound level (dB(A), $\left.10 \mathrm{~m}^{2}\right)^{*}$ | Liquid flow rate ( $1 / \mathrm{h}$ ) | Air volume ( $\mathrm{m}^{3} / \mathrm{h}$ ) |
| Size 20 | 0.4-0.7 | 0.4-0.7 | 23-44 | 47-76 | 126-533 |
| Size 40 | 0.9-1.7 | 0.8-1.5 | 21-44 | 94-184 | 126-533 |
| Size 60 | 1.0-2.7 | 0.9-2.4 | 21-53 | 108-292 | 126-749 |
| Size 80 | 1.1-3.0 | 0.9-2.6 | 21-53 | 115-328 | 126-749 |
| Size 100 | 1.6-3.9 | 1.4-3.4 | 23-56 | 166-418 | 256-1,238 |
| Size 120 | 1.8-4.9 | 1.6-4.3 | 23-56 | 194-529 | 256-1,238 |
| Size 160 | 1.9-5.4 | 1.6-4.7 | 23-56 | 205-583 | 256-1,238 |
| $7^{\circ} \mathrm{C} / 12^{\circ} \mathrm{C}, 27^{\circ} \mathrm{C} / 50 \%$ | Total capacity (kW) | Sensible capacity (kW) | Sound level (dB(A), $\left.10 \mathrm{~m}^{2}\right)^{*}$ | Liquid flow rate ( $1 / \mathrm{h}$ ) | Air volume ( $\mathrm{m}^{3} / \mathrm{h}$ ) |
| Size 20 | 1.2-2.0 | 0.8-1.4 | 23-44 | 198-338 | 126-533 |
| Size 40 | 1.8-3.7 | 1.1-2.4 | 21-44 | 302-626 | 126-533 |
| Size 60 | 2.0-5.7 | 1.3-3.6 | 21-53 | 338-972 | 126-749 |
| Size 80 | 2.0-6.2 | 1.3-4.0 | 21-53 | 349-1,058 | 126-749 |
| Size 100 | 3.1-8.1 | 2.0-5.2 | 23-56 | 533-1,390 | 256-1,238 |
| Size 120 | 3.5-10.1 | 2.2-6.5 | 23-56 | 598-1,739 | 256-1,238 |
| Size 160 | 3.6-11.0 | 2.3-7.0 | 23-56 | 616-1,886 | 256-1,238 |
| $60^{\circ} \mathrm{C} / 40^{\circ} \mathrm{C}, 18^{\circ} \mathrm{C} / 40 \%$ | Total capacity (kW) | Sensible capacity (kW) | Sound level (dB(A), $\left.10 \mathrm{~m}^{2}\right)^{*}$ | Liquid flow rate ( $1 / \mathrm{h}$ ) | Air volume ( $\mathrm{m}^{3} / \mathrm{h}$ ) |
| Size 20 | 1.5-2.7 | 1.5-2.7 | 23-44 | 65-119 | 126-533 |
| Size 40 | 2.2-4.8 | 2.2-4.8 | 21-44 | 94-209 | 126-533 |
| Size 60 | 2.5-7.7 | 2.5-7.7 | 21-53 | 108-335 | 126-749 |
| Size 80 | 2.6-8.3 | 2.6-8.3 | 21-53 | 115-364 | 126-749 |
| Size 100 | 3.7-11.1 | 3.7-11.1 | 23-56 | 162-482 | 256-1,238 |
| Size 120 | 4.4-13.6 | 4.4-13.6 | 23-56 | 194-594 | 256-1,238 |
| Size 160 | 4.7-14.7 | 4.7-14.7 | 23-56 | 202-641 | 256-1,238 |
| More detalied measurements at Option selection program |  |  |  |  | *Sabine |

## Electronics

Supply 230-50-1 [V - Hz - Ph]
Box 20-80 (EH) [fan] $40 / 0.33$ [W / A]
Box 100-160 (EH) [Fans] 74 / 0.66 [W / A]
KP 11 / 0.09 [W / A]

## Accessories

## Control valve (cooling/heating)

CVPT/HVPT: Pressure-independent 2-way control valve
CV2/HV2: Two-way valve
CV3/HV3: Three-way valve

## Valve actuator (cooling/heating)

AC10/AH10: 0-10 V Actuator control
AC24/AH24: 24 V Actuator control

## Removal of condensate

KP: Condensate pump lifting height 1.0 m KPO: Without pump/with gravity drainage HI High version (an increased slope of 170 mm )

## Power supply

P15: 2 m cable with a plug
P30: 3 m cable with a plug
Fresh air supply connection
R3: Connection on the sides on top
(on all four sides, mounting depth $>40 \mathrm{~mm}$ )
R1: Right-handed connection
(special mounting for ceilings with limited depth)
R2: Left-handed connection
(special mounting for ceilings with limited depth)
Box protective cover:
EXT: External protective cover in RAL 9010
EXT: External protective cover in a special colour
Special colours: Grille's special colour

## Automation

## Vari Pro [Modbus RTU]

## Controller

T8C: VariPro controller with a 10 m cable and quick connector
T8: VariPro controller [BL: Black, WH: White]
TO: Control via the BMS
Digital outlet (1 pcs.)
DO2: Control of the circulation water pump in cooling
DO3: Control of the circulation water pump in heating
DO6: Control of radiator heating for a single actuator
(on/off, 24V PWM)
'DO9: Heater Kit - Control of radiator heating for 2 to 5 actuators (on/off 24V PWM) [Corresponds to the DO6 feature, which includes the delivery of an actuator power source: six actuator connectors
(the total energy consumption by the actuators is max. 1A)]'
Analogue input (1 pcs.)
All: Presence (e.g. key card)
AI2: Cooling off
AI3: Heating off
AI5: All functions off (heating/cooling)
Al6: Generic measurement [mV]
AI7: Humidity measurement [RH\%]
Al8: CO2 measurement [ppm]
AI9: Temperature measurement [ ${ }^{\circ} \mathrm{C}$ ]
Al10: Condensate alarm, switches cooling off
Al11: Window switch, switches cooling off

## Vari [Analogue voltage control]

## Controller

T7: HLS-44 controller
T5: VariTec 300 controller (no heating control)
TO: No controller; Control via the BMS ( $0-10 \mathrm{~V}$ or 24 V )

