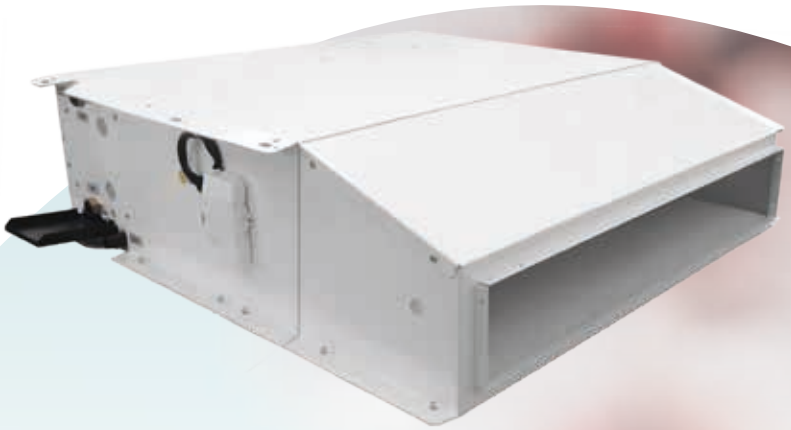
Aertesi airpower

# LNH

## FAN COIL UNITS WITH SILENCED PLENUM FOR HOTELS, HOSPITALS, HOMES



SOMETHING DIFFERENT

GB

# LNH

## FAN COIL UNITS WITH SILENCED PLENUM FOR HOTELS, HOSPITALS, HOMES

LNH has been designed to ensure maximised energy comfort and lowest-noise operation - which are difficult to achieve with traditional air units (split units, fancoils).

The solution implemented allows the natural turbulence of the convective air flow to be reduced. By necessarily integrating a silencer into the unit, suitably insulated at the delivery end, extremely low sound levels are achieved, making it suitable for installation in hotel rooms ("LOW NOISE HOTELS").

Its performance makes it the ideal product for installations that require compliance with strict noise control regulations.

### VERY LOW-NOISE

EXTREMELY LOW NOISE THANKS TO ITS TECHNICAL SOLUTIONS: THE EFFECTIVE DESIGN OF THE SILENCED PLENUM AND THE USE OF A SPECIAL HIGH SOUND-ABSORBING INSULATION MATERIAL. THE FAN AND SILENCER SECTIONS ARE INSULATED WITH TEXTURED POLYURETHANE.

### ADVANCED CONTROL

ADVANCED CONTROL ENABLES TO MANAGE MASTER/SLAVE COMBINATIONS OF UP TO 24 UNITS AND TO USE WALL MOUNTED OR REMOTE CONTROLS.

### BMS COMPATIBLE

POSSIBILITY OF CONTROLLING UP TO 240 UNITS WITH OUR TOP3 MULTIFUNCTIONAL DIGITAL THERMOSTAT AND MODBUS PROTOCOL SP3 BOARD, ALSO IN COMBINATION WITH ALL AERTESI TERMINAL UNITS.

### ECO

THE INSULATING MATERIAL OF THE SILENCER PLENUM AND OF THE STRUCTURE IS MADE OF ECO-FRIENDLY MATERIALS (RECYCLED POLYESTER FIBRE) WITH LOW ENVIRONMENTAL IMPACT.

### ACCESSIBILITY

LNH IS DESIGNED FOR MAXIMUM CONVENIENCE DURING MAINTENANCE: THE FAN, AS WELL AS THE MAIN TANK AND THE COIL, CAN BE INSPECTED AND REMOVED WITH THE SAME PROCEDURE.

COOLING

**0.8/8.6**kw

HEATING

**0.7/9.5**kw

AIR FLOW

**90-1579**m³/h

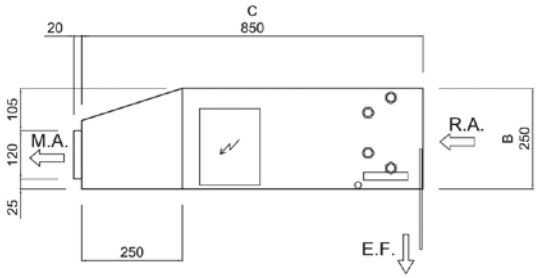
CONSUMPTION REDUCED UP TO

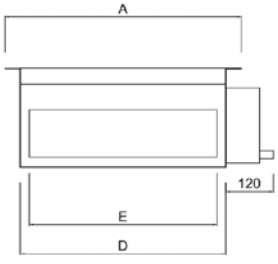
**58%**

## DIMENSIONAL DWGS

| SIZE | A | B | C | D | E | **WEIGHT** Kg |
|---|---|---|---|---|---|---|
| **3** | 600 | 250 | 850 | 520 | 475 | 25 |
| **6** | 860 | 250 | 850 | 780 | 735 | 33 |
| **8** | 1120 | 250 | 850 | 1040 | 995 | 42 |
| **12** | 1120 | 250 | 850 | 1040 | 995 | 42 |

A = length mm
B = height mm
C = depth mm



# LNH AC

## AC MOTOR
### 2-PIPE SYSTEM

| | | 3 | | | 6 | | | 8 | | | 12 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 rows | | | 4 rows | | | 4 rows | | | 4 rows | | |
| SPEED | | min | med | max | min | med | max | min | med | max | min | med | max |
| Air flow | m3/h | 191 | 313 | 361 | 308 | 495 | 577 | 439 | 708 | 835 | 719 | 1131 | 1263 |
| **COOLING - air 27°C dry bulb, 19°C wet bulb - water inlet 7°C, outlet 12°C** | | | | | | | | | | | | | |
| Total capacity | kW | 1.44 | 2.14 | 2.39 | 2.11 | 3.08 | 3.47 | 3.32 | 4.86 | 5.50 | 4.92 | 6.88 | 7.44 |
| Sensitive capacity | kW | 1.01 | 1.54 | 1.73 | 1.48 | 2.22 | 2.53 | 2.31 | 3.48 | 3.98 | 3.52 | 5.09 | 5.54 |
| Water flow rate | l/h | 249 | 372 | 415 | 366 | 537 | 604 | 577 | 848 | 962 | 858 | 1204 | 1302 |
| Δp (water) | kPa | 8.7 | 18.3 | 22.5 | 4.0 | 8.1 | 10.9 | 10.9 | 22.2 | 28.1 | 22.7 | 42.6 | 49.4 |
| **HEATING - air 20°C - water inlet 45°C, outlet 40°C** | | | | | | | | | | | | | |
| Capacity | kW | 1.39 | 2.16 | 2.44 | 2.04 | 3.15 | 3.59 | 3.19 | 4.89 | 5.64 | 4.95 | 7.29 | 7.98 |
| Water flow rate | l/h | 237 | 369 | 416 | 350 | 537 | 614 | 544 | 833 | 961 | 844 | 1240 | 1356 |
| Δp (water) | kPa | 7.1 | 16.2 | 20.4 | 3.3 | 7.3 | 9.4 | 8.7 | 19.25 | 25.15 | 19.8 | 40.6 | 48.0 |
| **MOTOR ELECTRIC POWER DRAW** | | | | | | | | | | | | | |
| Power draw | W | 15 | 28 | 32 | 21 | 36 | 43 | 44 | 73 | 89 | 68 | 116 | 137 |
| Max power draw | A | | 0.19 | | | 0.24 | | | 0.47 | | | 0.74 | |
| **SOUND DATA** | | | | | | | | | | | | | |
| Return + radiated sound power | dB(A) | 32 | 39 | 42 | 29 | 36 | 40 | 32 | 41 | 45 | 40 | 51 | 54 |
| Delivery sound power | dB(A) | 20 | 27 | 30 | 17 | 24 | 28 | 20 | 29 | 33 | 26 | 37 | 40 |
| Return + radiated sound pressure (*) | dB(A) | 29 | 36 | 39 | 26 | 33 | 37 | 29 | 38 | 42 | 37 | 48 | 51 |
| Delivery sound pressure (*) | dB(A) | 17 | 24 | 27 | 14 | 21 | 25 | 17 | 26 | 30 | 23 | 34 | 37 |

## AC MOTOR
### 4-PIPE SYSTEM

| | | 3 + B1 | | | 6 + B1 | | | 8 + B1 | | | 12 + B1 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 rows + 1 | | | 4 rows + 1 | | | 4 rows + 1 | | | 4 rows + 1 | | |
| SPEED | | min | med | max | min | med | max | min | med | max | min | med | max |
| Air flow | m3/h | 191 | 313 | 361 | 308 | 495 | 577 | 439 | 708 | 835 | 719 | 1131 | 1263 |
| **COOLING - air 27°C dry bulb, 19°C wet bulb - water inlet 7°C, outlet 12°C** | | | | | | | | | | | | | |
| Total capacity | kW | 1.44 | 2.14 | 2.39 | 2.11 | 3.08 | 3.47 | 3.32 | 4.86 | 5.50 | 4.92 | 6.88 | 7.44 |
| Sensitive capacity | kW | 1.01 | 1.54 | 1.73 | 1.48 | 2.22 | 2.53 | 2.31 | 3.48 | 3.98 | 3.52 | 5.09 | 5.54 |
| Water flow rate | l/h | 249 | 372 | 415 | 366 | 537 | 604 | 577 | 848 | 962 | 858 | 1204 | 1302 |
| Δp (water) | kPa | 8.7 | 18.3 | 22.5 | 4.0 | 8.1 | 10.0 | 10.9 | 22.2 | 28.1 | 22.7 | 42.6 | 49.4 |
| **HEATING - air 20°C - water inlet 65°C, outlet 55°C** | | | | | | | | | | | | | |
| Capacity | kW | 1.26 | 1.80 | 1.99 | 1.95 | 2.77 | 3.09 | 2.89 | 4.09 | 4.60 | 4.13 | 5.55 | 5.97 |
| Water flow rate | l/h | 108 | 155 | 171 | 168 | 238 | 266 | 248 | 350 | 393 | 354 | 473 | 508 |
| Δp (water) | kPa | 3.2 | 6.3 | 7.7 | 9.05 | 17.4 | 21.4 | 5.7 | 10.9 | 13.6 | 11.2 | 19.5 | 22.3 |
| **MOTOR ELECTRIC POWER DRAW** | | | | | | | | | | | | | |
| Power draw | W | 15 | 28 | 32 | 21 | 36 | 43 | 44 | 73 | 89 | 68 | 116 | 137 |
| Max power draw | A | | 0.19 | | | 0.24 | | | 0.47 | | | 0.74 | |
| **SOUND DATA** | | | | | | | | | | | | | |
| Return + radiated sound power | dB(A) | 32 | 39 | 42 | 29 | 36 | 40 | 32 | 41 | 45 | 40 | 51 | 54 |
| Delivery sound power | dB(A) | 20 | 27 | 30 | 17 | 24 | 28 | 20 | 29 | 33 | 26 | 37 | 40 |
| Return + radiated sound pressure (*) | dB(A) | 29 | 36 | 39 | 26 | 33 | 37 | 29 | 38 | 42 | 37 | 48 | 51 |
| Delivery sound pressure (*) | dB(A) | 17 | 24 | 27 | 14 | 21 | 25 | 17 | 26 | 30 | 23 | 34 | 37 |

(*) Values given as a guideline for units with non-ducted intake and with ducted discharge, and for room and installation attenuation of 12 dB (size 3 to 8) and 14 dB (size 12).

# LNH EC

## EC MOTOR
### 2-PIPE SYSTEM

| | | 3 | | | 6 | | | 8 | | | 12 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 rows | | | 4 rows | | | 4 rows | | | 4 rows | | |
| SPEED (DRIVE VOLTAGE) | V | 3 | 4 | 7 | 4 | 5 | 7 | 5 | 7 | 9 | 4 | 5 | 8 |
| Air flow | m3/h | 190 | 236 | 368 | 424 | 499 | 652 | 525 | 681 | 824 | 646 | 811 | 1231 |
| **COOLING - air 27°C dry bulb, 19°C wet bulb - water inlet 7°C, outlet 12°C** | | | | | | | | | | | | | |
| Total capacity | kW | 1.44 | 1.72 | 2.44 | 2.75 | 3.13 | 3.84 | 3.88 | 4.76 | 5.51 | 4.57 | 5.45 | 7.35 |
| Sensitive capacity | kW | 1.01 | 1.22 | 1.77 | 1.97 | 2.27 | 2.83 | 2.74 | 3.41 | 4.00 | 3.26 | 3.95 | 5.49 |
| Water flow rate | l/h | 249 | 297 | 421 | 475 | 540 | 663 | 669 | 822 | 952 | 789 | 943 | 1276 |
| Δp (water) | kPa | 8.7 | 12.1 | 23.05 | 6.4 | 8.1 | 11.9 | 14.3 | 21.0 | 27.5 | 19.4 | 27.1 | 47.5 |
| **HEATING - air 20°C - water inlet 45°C, outlet 40°C** | | | | | | | | | | | | | |
| Capacity | kW | 1.37 | 1.67 | 2.46 | 2.72 | 3.14 | 3.96 | 3.71 | 4.68 | 5.52 | 4.47 | 5.45 | 7.74 |
| Water flow rate | l/h | 236 | 287 | 423 | 468 | 541 | 682 | 640 | 806 | 950 | 769 | 937 | 1328 |
| Δp (water) | kPa | 7.0 | 10.2 | 21.0 | 5.6 | 7.4 | 11.4 | 11.8 | 18.1 | 24.7 | 16.6 | 24.0 | 46.1 |
| **MOTOR ELECTRIC POWER DRAW** | | | | | | | | | | | | | |
| Power draw | W | 7 | 8 | 13 | 10 | 13 | 19 | 13 | 19 | 27 | 18 | 28 | 74 |
| Max power draw | A | | 0.19 | | | 0.27 | | | 0.26 | | | 0.67 | |
| **SOUND DATA** | | | | | | | | | | | | | |
| Return + radiated sound power | dB(A) | 31 | 34 | 42 | 33 | 36 | 42 | 35 | 41 | 45 | 39 | 44 | 53 |
| Delivery sound power | dB(A) | 19 | 22 | 30 | 21 | 24 | 30 | 23 | 29 | 33 | 25 | 30 | 39 |
| Return + radiated sound pressure (*) | dB(A) | 28 | 31 | 39 | 30 | 33 | 39 | 32 | 38 | 42 | 36 | 41 | 50 |
| Delivery sound pressure (*) | dB(A) | 16 | 19 | 27 | 18 | 21 | 27 | 20 | 26 | 30 | 22 | 27 | 36 |

## EC MOTOR
### 4-PIPE SYSTEM

| | | 3 + B1 | | | 6 + B1 | | | 8 + B1 | | | 12 + B1 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4 rows + 1 | | | 4 rows + 1 | | | 4 rows + 1 | | | 4 rows + 1 | | |
| SPEED (DRIVE VOLTAGE) | V | 3 | 4 | 7 | 4 | 5 | 7 | 5 | 7 | 9 | 4 | 5 | 8 |
| Air flow | m3/h | 190 | 236 | 368 | 424 | 499 | 652 | 525 | 681 | 824 | 646 | 811 | 1231 |
| **COOLING - air 27°C dry bulb, 19°C wet bulb - water inlet 7°C, outlet 12°C** | | | | | | | | | | | | | |
| Total capacity | kW | 1.44 | 1.72 | 2.44 | 2.75 | 3.13 | 3.84 | 3.88 | 4.76 | 5.51 | 4.57 | 5.45 | 7.35 |
| Sensitive capacity | kW | 1.01 | 1.22 | 1.77 | 1.97 | 2.27 | 2.83 | 2.74 | 3.41 | 4.00 | 3.26 | 3.95 | 5.49 |
| Water flow rate | l/h | 249 | 297 | 421 | 475 | 540 | 663 | 669 | 822 | 952 | 789 | 943 | 1276 |
| Δp (water) | kPa | 8.7 | 12.1 | 23.1 | 6.4 | 8.1 | 11.9 | 14.3 | 21.0 | 27.5 | 19.4 | 27.1 | 47.5 |
| **HEATING - air 20°C - water inlet 65°C, outlet 55°C** | | | | | | | | | | | | | |
| Capacity | kW | 1.25 | 1.46 | 2.00 | 2.45 | 2.75 | 3.34 | 3.25 | 3.93 | 4.50 | 3.79 | 4.45 | 5.80 |
| Water flow rate | l/h | 108 | 126 | 173 | 213 | 239 | 290 | 283 | 341 | 390 | 328 | 386 | 500 |
| Δp (water) | kPa | 3.2 | 4.3 | 7.8 | 14.1 | 17.6 | 25.2 | 7.25 | 10.4 | 13.4 | 9.6 | 13.2 | 21.7 |
| **MOTOR ELECTRIC POWER DRAW** | | | | | | | | | | | | | |
| Power draw | W | 7 | 8 | 13 | 10 | 13 | 19 | 13 | 19 | 27 | 18 | 28 | 74 |
| Max power draw | A | | 0.19 | | | 0.27 | | | 0.26 | | | 0.67 | |
| **SOUND DATA** | | | | | | | | | | | | | |
| Return + radiated sound power | dB(A) | 31 | 34 | 42 | 33 | 36 | 42 | 35 | 41 | 45 | 39 | 44 | 53 |
| Delivery sound power | dB(A) | 19 | 22 | 30 | 21 | 24 | 30 | 23 | 29 | 33 | 25 | 30 | 39 |
| Return + radiated sound pressure (*) | dB(A) | 28 | 31 | 39 | 30 | 33 | 39 | 32 | 38 | 42 | 36 | 41 | 50 |
| Delivery sound pressure (*) | dB(A) | 16 | 19 | 27 | 18 | 21 | 27 | 20 | 26 | 30 | 22 | 27 | 36 |

(*) = the sound pressure levels are lower than power levels by 9 dB(A) for a 100 m3 space and a reverberation time of 0.5 sec.
The human hearing is more perceivable to frequencies above 2000 Hz while the sound data here declared include all the band middle frequencies.
For more details, refer to the technical manual.

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tipografia **battagin** s. zenone e. (tv)

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