



HIGH VOLUME LOW SPEED FANS

APPLICATION

The MHS range of High Volume Low Speed fans are designed to be installed in high ceilings to redistribute air towards floor level.

They generate a gentle and slowly moving airstream which covers a large area and create a cooling effect in summer while they de-stratify the air in winter pushing the warm air down at floor level.

They are suitable for commercial, industrial and agricultural applications such as warehouses, manufacturing facilities, industry, shopping malls, airports, sports centres, greenhouses, dairy farms.

CONSTRUCTION

- Upper frame made of painted steel structure to protect the motor.
- Safety cables and 800mm length downrod provided as standard.
- Specially designed airfoil made from aluminium EN AW 6063 T6. The surface is anodized to avoid corrosion.
- Hub provided with safety ring.
- Stylish hub cover.
- High efficiency three-phase EC brushless motor, which are specifically designed for HVLS application, 380-440Vac/3ph/50/60Hz, IP55, with integrated electronic system and EMC filters. Suitable for S1 continuous service. Speed controllable.

FEATURES & BENEFITS

- "Wide cone" air distribution under the fan.
- Top silent operation thanks to the gearless motor and the special airfoil design.
- Ideal to integrate the HVAC system, for energy saving and CO2 emission reduction.
- In winter months they are suitable to de-stratify the air pushing the warm air towards the floor level, so to even the temperature and to prevent the HVAC system to run as hard.
- In summer time the constant and gentle breeze eliminates hot and cool spots in the building by improving the internal environment and creating a natural cooling effect.
- No ordinary maintenance.
- Robust steel structure for long life.
- Key safety features (main security wire, additional stabilising cables, hub safety ring).
- Hub cover to protect the motor from dust and for a better aesthetics.
- Simplified electrical connection.
- Integrated EMC filters to prevent electromagnetic interference from other devices.
- Fan are suitable for operating temperatures from 0°C to +50°C.
- Unit performances are tested to the latest AMCA standard meaning accurate information that can be relied upon.

- Designed and manufactured in accordance with Machinery Directive (MD), Low Voltage Directive (LVD), Electromagnetic Compatibility Directive (EMC).

ACCESSORIES

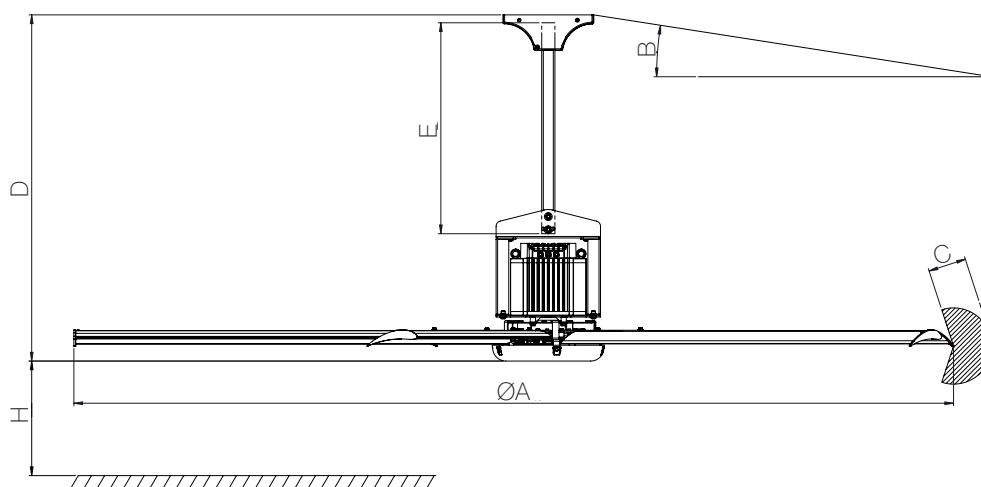
- Remote controllers
- I-Beam fixing kit
- Glulam fixing kit

Performance @ 400Vac 50Hz

| Description | Nr. Blades | Max Rotation Speed | Max absorbed power | Max Thrust | Max Air Flow AMCA 230-15 | | | Max Air Flow AMCA 230-99 | | |
|-------------|------------|--------------------|--------------------|------------|--------------------------|-------------------|--|--------------------------|-------------------|--|
| | | | | | cfm | m ³ /h | SPI ⁽¹⁾ W/(m ³ /s) | cfm | m ³ /h | SPI ⁽¹⁾ W/(m ³ /s) |
| MHS12-360 | 5 | 110 | 0,57 | 121 | 67883 | 115333 | 17,8 | 96001 | 163105 | 12,6 |
| MHS18-540 | 5 | 65 | 0,66 | 162 | 117818 | 200174 | 11,9 | 166620 | 283089 | 8,4 |
| MHS24-730 | 5 | 43 | 0,75 | 213 | 182631 | 310291 | 8,7 | 258279 | 438818 | 6,2 |

(1) Max absorbed power / max airflow

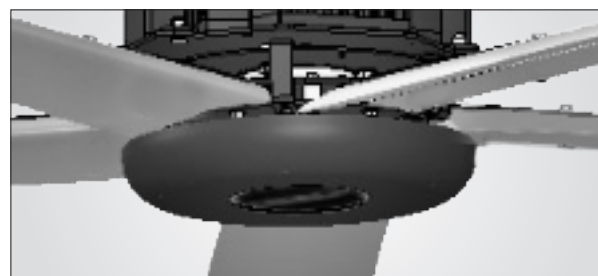
Dimensions



| Description | ØA | B max ceiling slope | C min safety distance from side obstruction | D fan height with standard downrod | E standard downrod length | H min fan installation height | Weight |
|-------------|------|---------------------|---|------------------------------------|---------------------------|-------------------------------|--------|
| | mm | ° | mm | mm | mm | mm | kg |
| MHS12-360 | 3610 | 20 | 550 | 1315 | 800 | 2700 | 97 |
| MHS18-540 | 5410 | | 650 | | | | 123 |
| MHS24-730 | 7220 | | 750 | | | | 142 |








Straight blade profile



Aesthetic hub cover

Accessories

| Description |  Control panel |  Potentiometer |  Control panel |  Anemometer |  Temperature probe | | | | | |
|-------------|---|---|---|---|---|--------|-------------|--------|-------------|--------|
| | Description | Code | Description | Code | Description | Code | Description | Code | Description | Code |
| MHS12-360 | CTRL-HS | 004154 | CTRL-A | 002049 | CTRL-XWS | 005324 | AN-SY | 002741 | SV-10K | 005327 |
| MHS18-540 | | | | | | | | | | |
| MHS24-730 | | | | | | | | | | |
| Description |  Control panel | Humidity probe | | I-Beam | | Glulam | | | | |
| | Description | Code | Description | Code | Description | Code | Description | Code | | |
| MHS12-360 | CTRL-XTHI | 005325 | YGRO-100 | 005326 | KT-I-BEAM | 003357 | KT-GLULAM | 004009 | | |
| MHS18-540 | | | | | | | | | | |
| MHS24-730 | | | | | | | | | | |

CTRL-HS



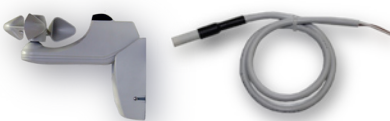
- 3,5" TFT full touch-screen colour graphic display control panel
- Provides a single point of control for up to 4 units
- To control:
 - ✓ Speed
 - ✓ Airflow direction
 - ✓ Alarm warning
- RS-485 ModBus connection
- 24 VaC 50/60Hz (max 4 VA) or 12 ÷ 30VDC (max 2W)
- IP30

CTRL-A



- Potentiometer with front knob to adjust the motor speed
- Provided with two-pole switch (ON/OFF)
- Front yellow led to indicate that the load is active
- Controls one fan only
- 230V~ 50/60Hz
- Supplied with IP55 wall surface box

CTRL-XWS



AN-SY

SV-10K

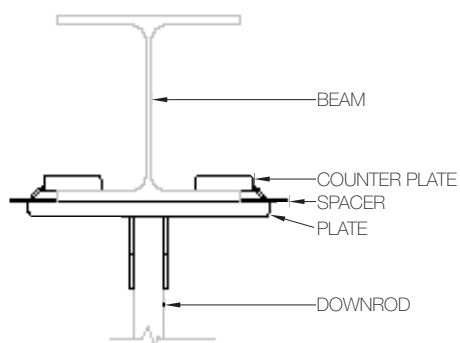
- To control the ventilation units according to temperature and wind speed
- Can control up to 10 units
- Three operating modes:
 - Mode A: control of ventilation according to wind speed by means of an anemometer (accessory on request) and blocking of the fan according to temperature
 - Mode B: control of ventilation according to room temperature using 1 temperature probe (supplied as standard) and blocking of the fan according to wind speed
 - Mode C: control of ventilation according to room temperature by means of 2 temperature probes (additional temperature probe on request) to manage winter destratification and summer comfort ventilation
- Regulation 0-10V
- 230Vac - 50/60Hz
- IP65 wall-mounted casing
- 1 temperature probe included
- Wind speed probe (anemometer) available on request
- Additional temperature probe for Mode C available on request

CTRL-XTHI



- To control the ventilation units according to temperature and THI level
- Can control up to 10 units
- Shower control and auxiliary ventilation activation
- Regulation 0-10V
- 230Vac - 50/60Hz
- IP65 wall-mounted casing
- Temperature probe included
- Humidity probe available on request

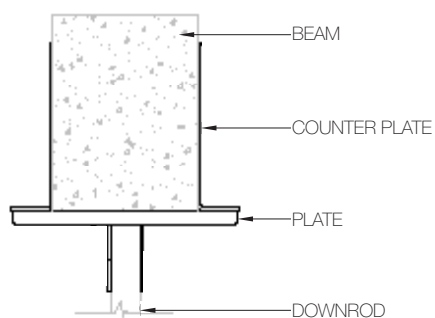
I-Beam



- I-Beam fixing kit suitable for standard IPE, HEA and HEB profiles
- Fixing screws supplied

| Model | Range |
|-------|-----------------------|
| IPE | from IPE180 to IPE600 |
| HEA | from HEA100 to HEA400 |
| HEB | from HEB100 to HEB300 |

Glulam



- Fixing kit suitable for rectangular beams with base between 100mm and 260mm
- Fixing screws supplied