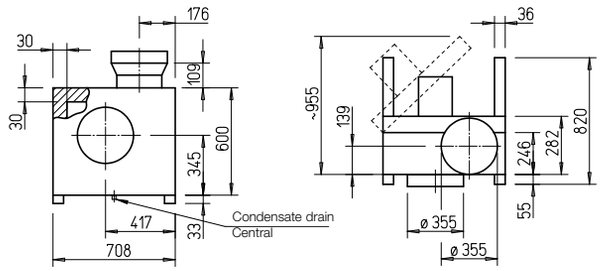
## MB EC 355



## Dimensions MB EC 355




Dim. in mm

Connection: Ø 355 mm

### Casing
Double-walled, made of galvanised steel sheet. Sound insulated by lining with 30 mm thick mineral wool insulation boards. Duct connectors on inlet side and outlet side, with rubber lip seal, adapted to standard diameter. Motor-impeller unit fully retractable for inspection and cleaning, suspended on stable hinges. Comes with condensate drain and drip protection with the doors open as standard. Includes mounting rails made of galvanised steel with screwed-on vibration dampers for easy installation.

### Impeller
Backward curved, free-running high performance centrifugal impeller made of aluminium, mounted directly on motor shaft. High efficiency, low noise. Dynamically balanced in accordance with DIN ISO 21940-11 – quality grade 6.3.

### Drive
Energy-saving, speed-controllable EC internal rotor motor in protection category IP55 with the highest level of efficiency, located outside of the air flow. Maintenance-free and radio interference-free, ball bearing mounted.

### Electrical connection
Standard terminal box (IP55) on outside of motor, mounted to external cable for 1~ type.

### Motor protection
Integrated electronic temperature monitoring system for EC motor and electronics. If the maximum permissible motor temperature is exceeded, 3~ types will automatically reduce the speed which then returns back to the originally set value after cooling down. The motors in 1~ types will be deactivated if the maximum permissible temperature is exceeded.

### Power control
Continuously variable speed control with potentiometer or continuously variable speed control with universal control system (see table).
Performance levels are shown in the performance curve as an example.

### Noise
The total level and range are specified above the performance diagram for:
- ☐ Case-radiated sound power
- ☐ Inlet side sound power
- ☐ Outlet side sound power

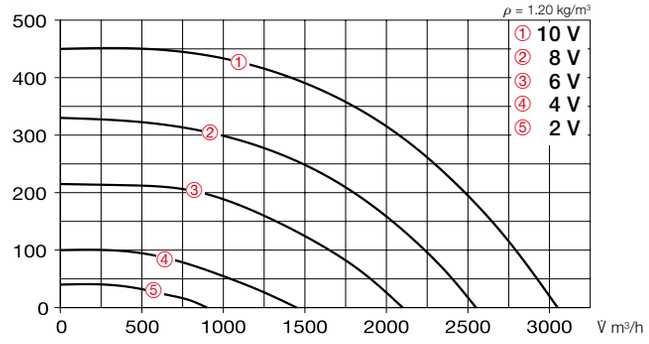
The case-radiated noise as sound pressure at 1 m (free field conditions) is also specified in the type table and the table below the performance curve.

| Type | Ref. no. | Connection Ø | Flow rate free blowing | Rated speed | Case-rad. sound pressure | Power consumption | Current consumption | Wiring diagram | Max. air flow temp. | Weight net aprx. | Universal control system | | Speed potentiometer flush-mounted | | Speed potentiometer surf.-mounted | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | V̇ m³/h | min⁻¹ | dB(A) at 1 m | kW | A | No. | + °C | kg | Type | Ref. no. | Type | Ref. no. | Type | Ref. no. |
| **Alternating current, 1~, 230 V, 50/60 Hz, EC motor, protection category IP55** | | | | | | | | | | | | | | | | |
| **MBW EC 355** | 05854 | 355 | 3050 | 1500 | 54 | 0.33 | 1.50 | 985 | 100 | 50.0 | **EUR EC** [1) 2)] | 01347 | **PU 10** [1)] | 01734 | **PA 10** [1)] | 01735 |
| **Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP55** | | | | | | | | | | | | | | | | |
| **MBD EC 355 A** | 05853 | 355 | 5000 | 2500 | 66 | 1.45 | 2.20 | 988 | 120 | 56.0 | **EUR EC** [1) 2)] | 01347 | **PU 10** [1)] | 01734 | **PA 10** [1)] | 01735 |
| **MBD EC 355 B** | 05847 | 355 | 5600 | 2800 | 68 | 1.90 | 3.10 | 988 | 120 | 63.0 | **EUR EC** [1) 2)] | 01347 | **PU 10** [1)] | 01734 | **PA 10** [1)] | 01735 |

[1)] Multiple EC fans can normally be connected. [2)] Alternative electronic diff. pressure/temperature controller (EDR/ETR, No. 01437/01438) or three level speed switch (SU/SA, No. 04266/04267), see Accessories.

## Performance curves MBW EC 355

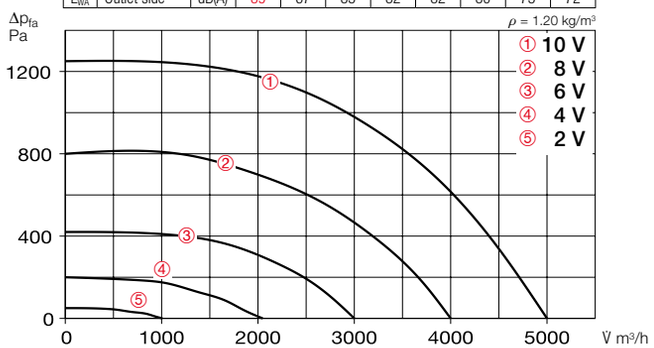
| Frequency | | Hz | Tot. | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|---|---|---|---|---|---|---|---|---|---|---|
| $L_{WA}$ | Radiation | dB(A) | 62 | 52 | 58 | 55 | 54 | 51 | 52 | 50 |
| $L_{WA}$ | Inlet side | dB(A) | 75 | 57 | 72 | 67 | 64 | 65 | 64 | 65 |
| $L_{WA}$ | Outlet side | dB(A) | 78 | 58 | 74 | 71 | 70 | 69 | 65 | 64 |




| | Free blowing | | | | | |
|---|---|---|---|---|---|---|
| **Voltage** V | **n** min⁻¹ | **V̇** m³/h | **P** W | **I** A | **Lp** dB(A) | **SFP** kW/m³/s |
| 10 | 1500 | 3050 | 300 | 1,20 | 54 | 0.35 |
| 8 | 1250 | 2550 | 180 | 0.78 | 52 | 0.25 |
| 6 | 1000 | 2100 | 100 | 0.50 | 47 | 0.17 |
| 4 | 700 | 1450 | 50 | 0.27 | 42 | 0.13 |

## Performance curves MBD EC 355 A

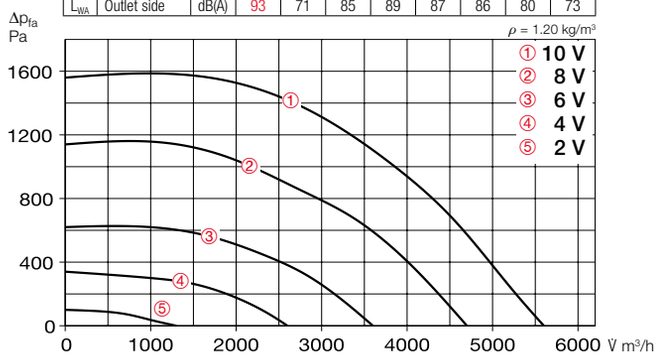
| Frequency | | Hz | Tot. | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|---|---|---|---|---|---|---|---|---|---|---|
| $L_{WA}$ | Radiation | dB(A) | 74 | 57 | 69 | 66 | 65 | 62 | 62 | 60 |
| $L_{WA}$ | Inlet side | dB(A) | 86 | 65 | 82 | 78 | 76 | 75 | 76 | 71 |
| $L_{WA}$ | Outlet side | dB(A) | 89 | 67 | 85 | 82 | 82 | 80 | 75 | 72 |




| | Free blowing | | | | | |
|---|---|---|---|---|---|---|
| **Voltage** V | **n** min⁻¹ | **V̇** m³/h | **P** W | **I** A | **Lp** dB(A) | **SFP** kW/m³/s |
| 10 | 2500 | 5000 | 1200 | 1.80 | 66 | 0.86 |
| 8 | 2000 | 4000 | 630 | 1.10 | 62 | 0.57 |
| 6 | 1500 | 3000 | 300 | 0.58 | 56 | 0.36 |
| 4 | 1000 | 2050 | 100 | 0.23 | 48 | 0.18 |

## Performance curves MBD EC 355 B

| Frequency | | Hz | Tot. | 125 | 250 | 500 | 1k | 2k | 4k | 8k |
|---|---|---|---|---|---|---|---|---|---|---|
| $L_{WA}$ | Radiation | dB(A) | 76 | 58 | 69 | 72 | 68 | 69 | 67 | 60 |
| $L_{WA}$ | Inlet side | dB(A) | 88 | 69 | 81 | 85 | 80 | 80 | 77 | 71 |
| $L_{WA}$ | Outlet side | dB(A) | 93 | 71 | 85 | 89 | 87 | 86 | 80 | 73 |



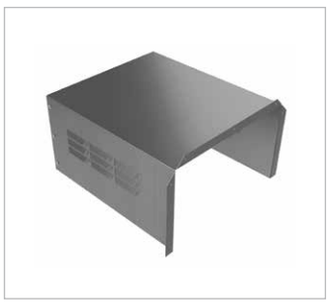

| | Free blowing | | | | | |
|---|---|---|---|---|---|---|
| **Voltage** V | **n** min⁻¹ | **V̇** m³/h | **P** W | **I** A | **Lp** dB(A) | **SFP** kW/m³/s |
| 10 | 2800 | 5600 | 1600 | 2.60 | 68 | 1.03 |
| 8 | 2350 | 4700 | 1000 | 1.70 | 65 | 0.75 |
| 6 | 1800 | 3600 | 500 | 0.90 | 59 | 0.50 |
| 4 | 1300 | 2600 | 230 | 0.51 | 52 | 0.31 |

## Accessories

### Wall bracket
Bracket for wall installation, made of galvanised steel sheet.
**MB-WK EC355** Ref. no. 05528



### Weather protection cover
For protected outdoor coverage. Made of galvanised steel sheet, mounted above motor.
**MB-WSD EC355** No. 01865



### Flexible connecting sleeve
Includes 2 hose clamps; for installation between fan and duct system. Prevents structure-borne noise transmission and bridges installation tolerances.
– Max. temperature +70 °C
**FM 355** Ref. no. 01675
– Max. temperature +120 °C
**FM 355 T120** Ref. no. 01658



### Universal control system
For continuously variable control or regulation of single phase and three-phase EC fans with a setpoint input of 0–10 V DC.
**EUR EC** Ref. no. 01347



### Speed potentiometer
For direct control/setpoint setting for EC fans with potentiometer input.
**PU 10** Ref. no. 01734
For flush-mounting.
**PA 10** Ref. no. 01735
For surface-mounting.



### Five-step speed switch
**SA-5 10** Ref. no. 40229
Five-step switch for surface mounting. For five-step control of EC fans or frequency inverters. Steps from 2 to 10 V can be set via offset. Protection class IP54.

| **Accessory details** | **Page** |
|---|---|
| Universal control system, electronic controller, speed potentiometer | 617 ff. |

