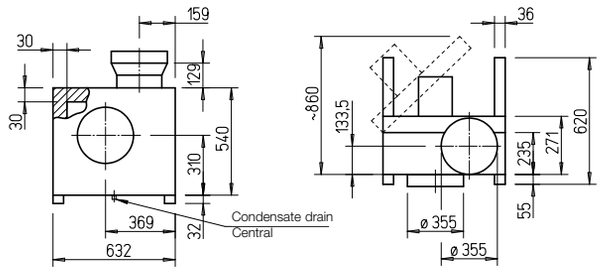
MB EC 315



Dimensions MB EC 315



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 (MBD EC 315 A EC with external 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.
MBD EC 315 A: Stepless speed control with internal push buttons (scope of delivery).

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

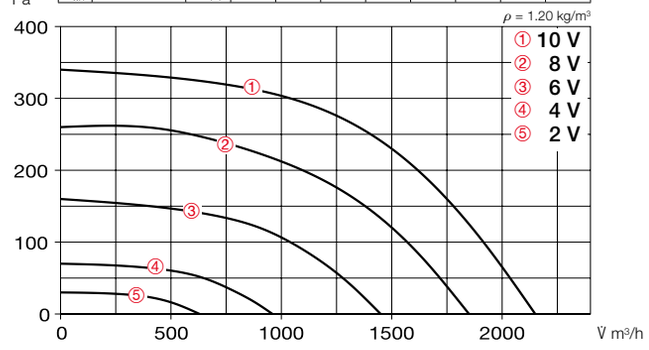
The case-radiated noise as sound pressure at 1 m (free field conditions) is also specified in the type table and the table below the performance curve.

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 315	05852	355	2150	1500	50	0.20	0.85	985	100	43.0	**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 315 A	05851	355	3500	2500	59	0.83	1.30	1582	120	44.0	**EUR EC** [1) 2)]	01347	**PU 10** [1)]	01734	**PA 10** [1)]	01735
MBD EC 315 B	05846	355	4200	3000	65	1.38	2.20	988	120	50.0	**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).04266/04267), see accessories.

Performance curves MBW EC 315

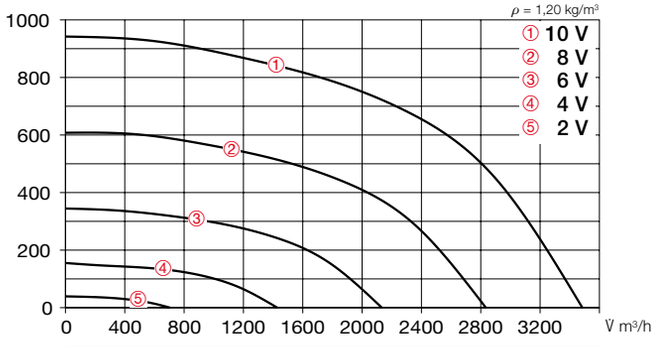
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	58	47	51	52	49	47	45	41
L_{WA}	Inlet side	dB(A)	70	56	64	65	62	63	59	52
L_{WA}	Outlet side	dB(A)	72	56	66	68	65	65	58	51



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	1500	2150	150	0.69	50	0.25
8	1300	1850	110	0.50	46	0.21
6	1000	1450	70	0.35	40	0.17
4	700	960	30	0.24	33	0.12

Performance curves MBD EC 315 A

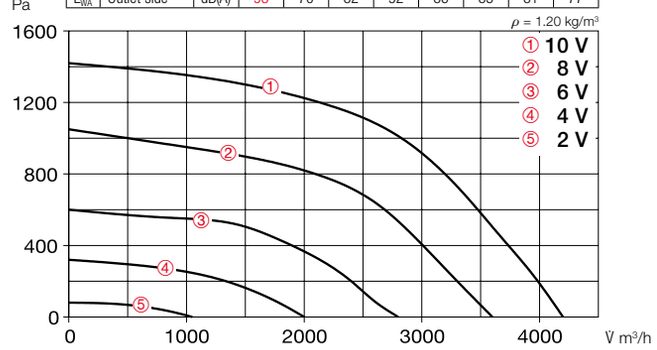
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	67	52	64	60	58	53	55	56
L_{WA}	Inlet side	dB(A)	84	66	79	79	74	75	76	73
L_{WA}	Outlet side	dB(A)	86	52	64	60	58	53	55	56



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2500	3500	660	1,00	59	0,68
8	2020	2830	350	0,59	54	0,45
6	1510	2130	160	0,33	48	0,27
4	1010	1420	60	0,18	40	0,15

Performance curves MBD EC 315 B

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	73	50	62	72	66	65	71	57
L_{WA}	Inlet side	dB(A)	89	66	75	86	78	80	81	76
L_{WA}	Outlet side	dB(A)	93	70	82	92	86	85	81	77



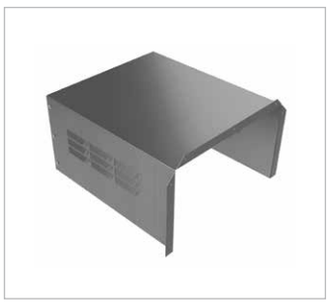
	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	3000	4200	1200	1.80	65	1.01
8	2600	3600	750	1,20	62	0.75
6	2000	2800	370	0.65	56	0.48
4	1400	2000	190	0.41	49	0.34

Accessories

Wall bracket
Bracket for wall installation, made of galvanised steel sheet.
MB-WK EC315 Ref. no. 05527



Weather protection cover
For protected outdoor coverage. Made of galvanised steel sheet, mounted above motor.
MB-WSD EC315 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.

