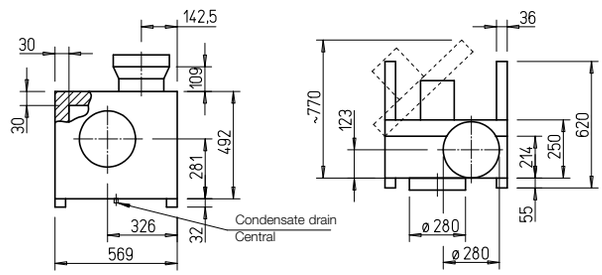
MB EC 280



Dimensions MB EC 280



Dim. in mm

Connection: Ø 280 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 280 with EC external rotor motor) in protection category IP55 with a high level of efficiency, located outside of the air flow.
Maintenance-free and 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 280: 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

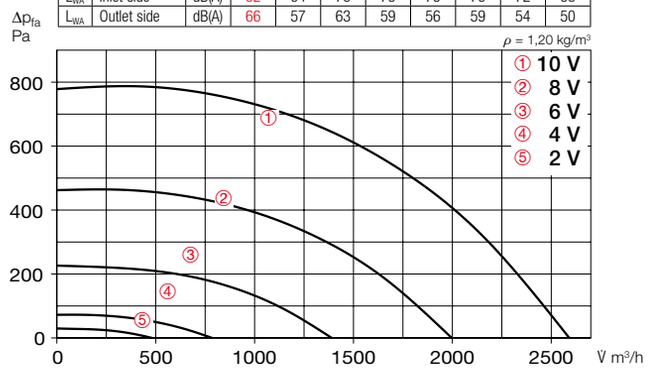
The case-radiated noise as sound pressure at 1 m (free field conditions) is also specified in the type table and the table below the performance curve.

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 280	05850	280	2630	2450	56	0.41	3.2	1568	100	33.0	**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 280	05845	280	3050	3000	58	0.78	1.2	1582	120	34.0	**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).

Performance curves MBW EC 280

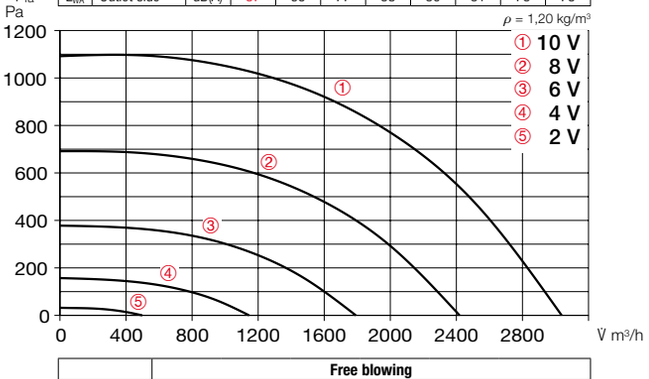
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	83	63	79	80	73	72	72	68
L_{WA}	Inlet side	dB(A)	82	64	78	75	75	76	72	68
L_{WA}	Outlet side	dB(A)	66	57	63	59	56	59	54	50



	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2500	2600	410	2.71	58	0.56
8	1950	2000	190	1.46	54	0.35
6	1350	1400	80	0.70	48	0.20
4	750	800	30	0.26	42	0.11

Performance curves MBD EC 280

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Radiation	dB(A)	66	56	59	61	54	56	52	42
L_{WA}	Inlet side	dB(A)	85	64	74	81	78	77	78	75
L_{WA}	Outlet side	dB(A)	87	69	77	83	80	81	78	75



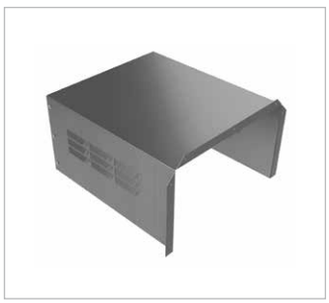
	Free blowing					
Voltage V	**n** min⁻¹	**V̇** m³/h	**P** W	**I** A	**Lp** dB(A)	**SFP** kW/m³/s
10	2980	3050	640	1,00	58	0,76
8	2360	2400	330	0,55	56	0,50
6	1740	1800	150	0,31	49	0,30
4	1120	1100	60	0,18	40	0,20

Accessories

Wall bracket
Bracket for wall installation, made of galvanised steel sheet.
MB-WK EC280 Ref. no. 05527



Weather protection cover
For protected outdoor coverage. Made of galvanised steel sheet, mounted above motor.
MB-WSD EC280 No. 01856



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 280 Ref. no. 01673
– Max. temperature +120 °C
FM 280 T120 Ref. no. 01656



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.



Accessory details	**Page**
Universal control system, electronic controller, speed potentiometer	615 ff.