Special features of the MegaBox models are:

- ☐ Acoustically insulated high performance centrifugal fan.
- ☐ Swing out ventilaton unit for easy cleaning and maintenance.
- ☐ Speed controllable IEC flange mounted motor out of the air stream with thermal overload protection.
- ☐ High total efficiency, small energy consumption and low sound levels using high performance-centrifugal impellers.
- ☐ Low cost speed control.

The optimized design of the centrifugal impeller, casing and motor provides the properties mentioned above and offers efficient operation with easy installation reducing costs.

The MegaBox meets the highest specifications. Typical applications are handling dirty, greasy, hot (up to 100 °C) and humid air, against high resistances in a variety of commercial and industrial applications.

For commercial kitchen applications DW 172 requires that centrifugal fans have backward curved impellers and the Megabox sizes 315 to 400 mm meet that requirement. The ability of the fan to open for cleaning is particularly useful in kitchen applications.

E Exe II 2G according to 94/9 EG

For areas in which an explosive atmosphere is likely to occur in normal operation, explosion proof models are available from 1 000 to 5 000 m^3/h. Approved for operation in Zone 1 or 2 according to DIN EN 60079-10 and 94/9 (ATEX).

Excellent, sound and thermal insulation. All of the casing is double skinned and manufactured from galvanised sheet steel, acoustically lined with 50 mm thick mineral fibreboard. Non-flammable to DIN 4102.

Inner fan surface is made entirely from galvanised sheet steel and allows fast and efficient cleaning e.g. with a steam cleaner.

Powerful centrifugal fans for easy cleaning for high pressure systems. For commercial kitchen extract systems to DW 172.

Stable mounting rails supplied with 4 anti vibration mounts for effective vibration insolation and a quiet operation.

Operation
Acoustically insulated centrifugal fan with swing out motor and impeller unit, with motor out of the air stream. Suitable for handling dust laden, greasy, hot (up to +100 °C) and humid air against high resistances. An ideal exhaust fan for commercial kitchen systems.

Casing
Acoustically lined double skinned galvanised steel casing with 50 mm thick mineral fibreboard. Swing out motor and impeller unit, fixed with robust die-cast hinges. Intake and exhaust spigots with twin-seal rubber gasket. Easy installation with 2 sturdy mounting rails, manufactured from galvanised steel complete with anti vibration mounts.

Impeller
High efficiency, low noise level, aerodynamically optimised scroll. Up to size 280 forward curved centrifugal-impellers manufactured from galvanised steel; from size 315 onwards backwards curved centrifugal impellers manufactured in aluminium. Dynamically balanced to DIN ISO 1940 Pt.1 – G .3.

Motor
Maintenance free squirrel cage motor in IEC-dimensions, mounted out of the air stream. Conforming to VDE 0530, DIN EN 60034 and DIN EN 60335-1/VDE 0700-1 and suitable for most applications. Motor, flange mounted and self cooling. Thermal overload protection through built-in thermal contacts. Approved for continuous operation S1. Insulation class F. Enclosed casing, protection to IP 55.

Speed control
All models are speed controllable using transformer controllers. The 3 phase models may be 2 speed using star/delta connection with a switch or M 4 full motor protection unit. Therefore the performance can be matched to suit the system requirements. Our speed controllers are suitable to control various fans up to their maximum nominal output. When selecting a controller not shown allow for a 10% safety margin.

Electrical connection
The terminal box is fitted externally on the motor as standard (IP 55). Note the flexible cable needed for the swing out motor and impeller unit when connecting the power.

Explosion proof
The explosion proof models relate to product group II, class 2G for operation in Zone 1 or 2 according to 94/9/EG.

Air flow direction
The air flow direction of centrifugal fans is fixed and can not be reversed. The correct direction of rotation and the direction of air flow are marked on the units and must be checked when installing.

Incorrect direction of rotation
If the fan is operated in the wrong direction of rotation the motor will overheat and the thermal contact will trip. Typical indication for this is a very low air flow combined with high noise levels and vibration.

Air flow temperature
Standard operation –40 °C to +100 °C.

Ambient temperature
From –40 °C to +40 °C.

Installation
Can be mounted in any position. Please note swinging area and weight of the motor impeller unit as well as free access when positioning.

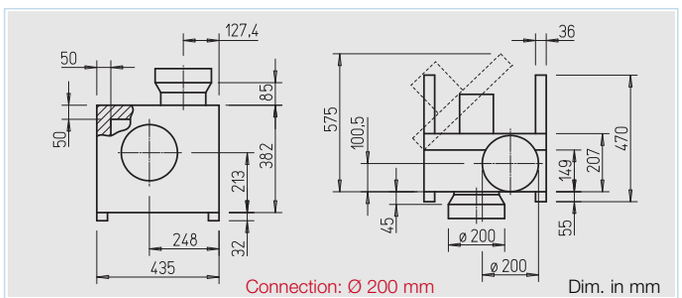
Noise/vibration transmission
To avoid noise and vibration transmission from the fan to the ducting and the building use anti vibration mounts (accessory: SDD) and flexible connectors (accessory: FM).

Information	Pages
Design of systems, acoustic	12 on
General technical information, speed control	17 on

Accessory-Details	Pages
Flexible sleeve	172
Speed controller and full motor protection unit	397 on

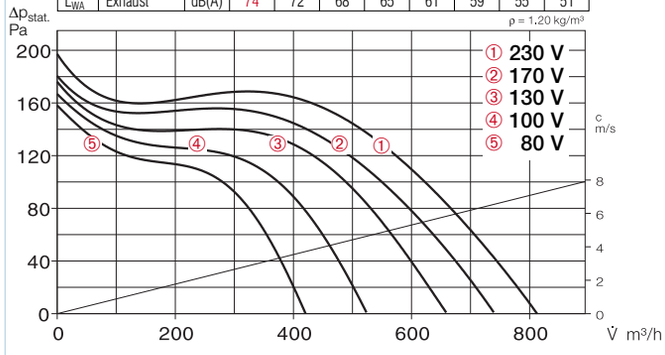
	Sound press. lvl. -breakout	Sound press. lvl. -intake	Air flow volume in Vol m^3/s against static pressure												
Type	L_{PA} dB(A)	L_{PA} dB(A)	($\Delta P_{stat.}$) in Pa												
	at 1 metre	at 1 metre	**0**	**50**	**100**	**200**	**300**	**400**	**500**	**600**	**700**	**800**	**1000**	**1500**	**2000**
MBW 160/4	48	64	0.226	0.200	0.172										
MBD 160/4/4	48	64	0.231	0.204	0.174	0.134									
MBD 160/2/2	63	79	*	*	0.494	0.469	0.438	0.406	0.370	0.330	0.278				
MBD 160/4 Ex	48	64	0.267	0.236	0.203										
MBD 160/2 Ex	63	79	0.561	0.547	0.533	0.506	0.472	0.436	0.394	0.353	0.308				
MBW 180/4	51	67	0.358	0.331	0.303	0.219									
MBD 180/4/4	51	67	0358	0.331	0.303	0.219									
MBD 180/2/2	66	82	0.781	0.770	0.758	0.729	0.698	0.666	0.628	0.590	0.549	0.500			
MBD 180/4 Ex	51	67	0.386	0.358	0.328	0.239									
MBW 200/6	45	61	0.300	0.261	0.194										
MBW 200/4	54	70	*	*	0.447	0.367									
MBD 200/4/4	54	70	0.492	0.467	0.436	0.356									
MBD 200/4 Ex	54	70	*	*	0.511	0.425	0.300								
MBW 225/6	48	64	0.478	0.422	0.361										
MBW 225/4	56	74	*	*	0.686	0.606	0.508								
MBD 225/4/4	56	74	0.714	0.733	0.650	0.575	0.475								
MBD 225/4 Ex	56	74	*	0.756	0.714	0.625	0.511	0.261							
MBW 250/6	52	68	0.769	0.708	0.642	0.417									
MBW 250/4	62	78	*	*	1.025	0.942	0.847	0.728							
MBD 250/4/4	62	78	*	*	*	0.967	0.869	0.747	0.486						
MBD 250/4 Ex	62	78	1.147	1.108	1.067	0.978	0.875	0.742	0.542						
MBW 280/6	56	72	*	*	0.900	0.761									
MBD 280/6/6	56	72	*	*	0.872	0.700									
MBD 280/4/4	65	81	*	*	*	*	*	1.175	1.033	0.833					
MBD 280/4 Ex	65	81	*	*	*	*	1.333	0.1225	1.083	0.875					
MBW 315/6	34	50	0.375	0.303	0.217										
MBW 315/4	46	62	0.535	0.494	0.425	0.300									
MBD 315/4/4	46	62	0.569	0.533	0.478	0.356	0.258	0.174							
MBD 315/2/2	64	80	1.106	1.086	1.061	1.017	0.958	0.972	0.847	0.764	0.731	0.678	0.581	0.222	
MBW 355/6	37	53	*	0.447	0.336	0.097									
MBW 355/4	49	65	*	0.719	0.656	0.369	0.419	0.283							
MBD 355/4/4	49	65	0.783	0.739	0.733	0.547	0.431	0.294							
MBD 355/2/2	68	84	1.611	1.603	1.578	1.522	1.467	1.397	1.333	1.269	1.129	1.156	1.028	0.750	
MBW 400/6	39	55	0.614	0.525	0.447	0.256									
MBW 400/4	52	68	0.992	0.931	0.881	0.778	0.678	0.569	0.375	0.183					
MBD 400/4/4	52	68	0.978	0.919	0.864	0.769	0.667	0.564	0.417						
MBD 400/2/2	74	90	2.083	2.050	2.019	1.964	1.897	1.850	1.800	1.753	1.703	1.664	1.558	1.314	0.972

* Do not use at this pressure, minimum system resistance needed.



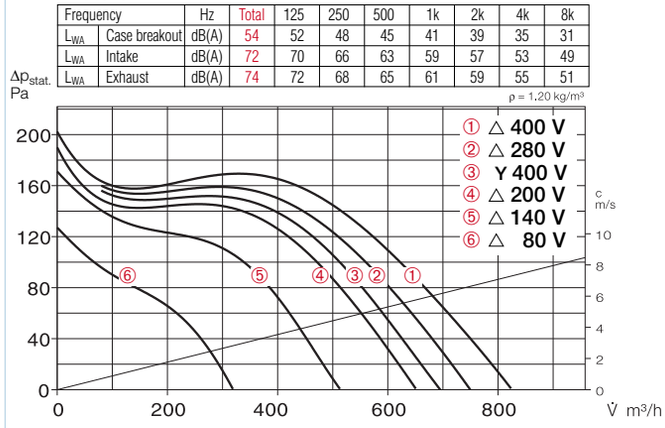
MBW 160/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	54	52	48	45	41	39	35	31
L_{WA}	Intake	dB(A)	72	70	66	63	59	57	53	49
L_{WA}	Exhaust	dB(A)	74	72	68	65	61	59	55	51



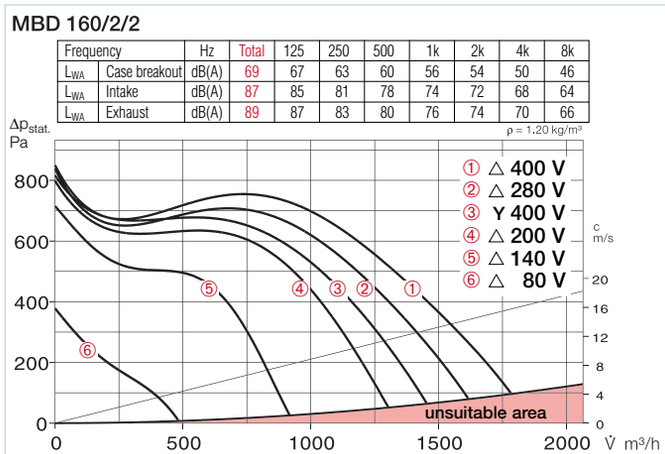
MBD 160/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	54	52	48	45	41	39	35	31
L_{WA}	Intake	dB(A)	72	70	66	63	59	57	53	49
L_{WA}	Exhaust	dB(A)	74	72	68	65	61	59	55	51



MBD 160/2/2

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	69	67	63	60	56	54	50	46
L_{WA}	Intake	dB(A)	87	85	81	78	74	72	68	64
L_{WA}	Exhaust	dB(A)	89	87	83	80	76	74	70	66



☐ **Casing**
See “general information”, page 194.

☐ **Impeller**
Forward curved high output centrifugal-impeller, made from galvanised sheet steel, mounted directly to the motor shaft. High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ **Motor**
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ **Electrical connection**
Terminal box fitted externally on the motor as standard (IP 55).

☐ **Motor protection**
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ **Speed control**
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ **Accessories**

Wall bracket, from galv. steel
MB-WK 160 Ref. No. 5526

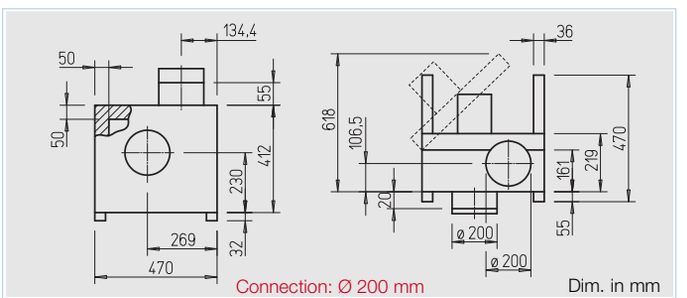
Rain repellent roof, from galv. sheet steel, mounting above the motor.
MB-WSD Ref. No. 1856

Flexible sleeve for installation between fan and ducting.
FM 200 Ref. No. 1670
FM 200 Ex Ref. No. 1686

On/off switch for 2 speed Y/△-motor 3 phase fans
DS 2 [4] Ref. No. 1351

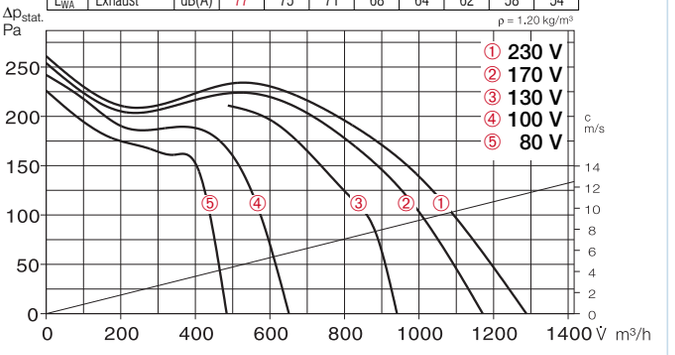
Type	Ref. No.	Air flow volume (FID	R.P.M.	Sound press. level case breakout	Motor power (nominal)*	Current* full load	Current* speed controlled	Wiring diagram	Maximum air flow temperature full load +°C	Maximum air flow temperature controlled +°C	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit Type	Ref. No.
		Vol m^3/h	min^{-1}	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 160/4	5930	815	1350	48	0.18	0.90	1.10	751	100	60	25	**MWS 1.5**	1947	**TSW 1.5**	1495	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 160/4/4	5931	720/830	1200/1390	45/48	0.13/0.19	0.25/0.65	0.65	520	100	60	24	**RDS 1**	1314	**TSD 0.8**[4]	1500	**M4**[2]	1571
MBD 160/2/2	5932	1420/1770	2250/2800	58/63	0.90/1.10	1.60/2.20	2.50	520	100	60	34	**RDS 4**	1316	**TSD 3.0**[4]	1502	**M4**[2]	1571
Explosion proof E Exe II, 400 V / 3 ph. / 50 Hz, temperature class T1-T3, protection to IP 54																	
MBD 160/4 Ex[3]	6001	970	1420	48	0.37	1.14	—	470	40	—	25	not permitted		not permitted		—	—
MBD 160/2 Ex[3]	6002	2020	2840	63	1.50	3.15	—	470	40	—	34	not permitted		not permitted		—	—

* Ex-Models: for nominal value of motor see information on page 18. [1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request
[4] required full motor protection unit: model MD, Ref. No. 5849



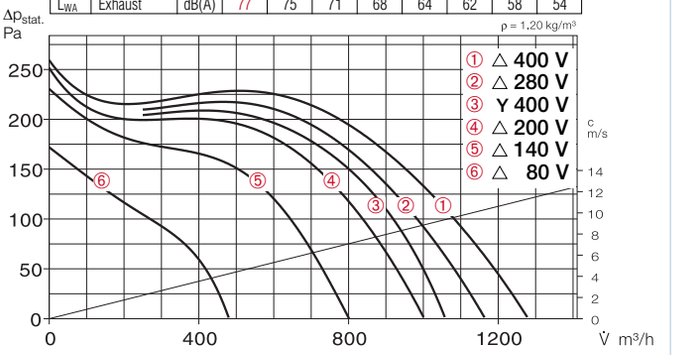
MBW 180/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	57	55	51	48	44	42	38	34
L_{WA}	Intake	dB(A)	75	73	69	66	62	60	56	52
L_{WA}	Exhaust	dB(A)	77	75	71	68	64	62	58	54



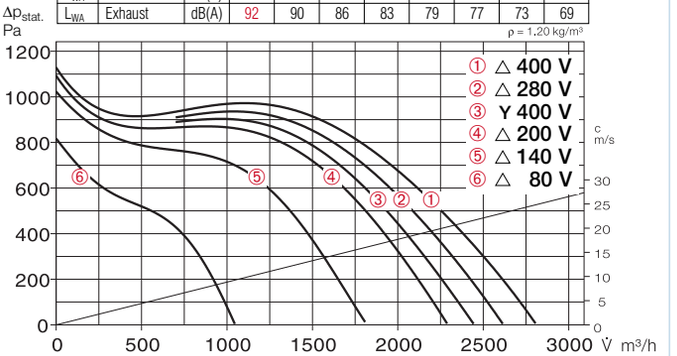
MBD 180/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	57	55	51	58	44	42	38	34
L_{WA}	Intake	dB(A)	75	73	69	66	62	60	56	52
L_{WA}	Exhaust	dB(A)	77	75	71	68	64	62	58	54



MBD 180/2/2

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	72	70	68	63	59	57	53	49
L_{WA}	Intake	dB(A)	90	88	84	81	77	75	71	67
L_{WA}	Exhaust	dB(A)	92	90	86	83	79	77	73	69



☐ **Casing**
See “general information”, page 194.

☐ **Impeller**
Forward curved high output centrifugal-impeller, made from galvanised sheet steel, mounted directly to the motor shaft. High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ **Motor**
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ **Electrical connection**
Terminal box fitted externally on the motor as standard (IP 55).

☐ **Motor protection**
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ **Speed control**
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ **Accessories**

Wall bracket, from galv. steel

MB-WK 180	Ref. No. 5526

Rain repellent roof, from galv. sheet steel, mounting over the motor.

MB-WSD	Ref. No. 1856

Flexible Connector for installation between fan and ducting.

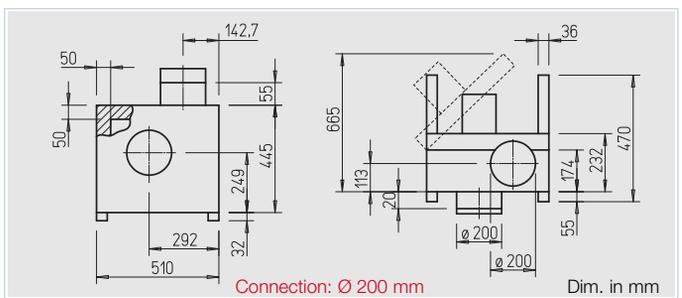
FM 200	Ref. No. 1670
FM 200 Ex	Ref. No. 1686

On/off switch for 2 speed Y/△-motor 3 phase fans

DS 2 [4]	Ref. No. 1351

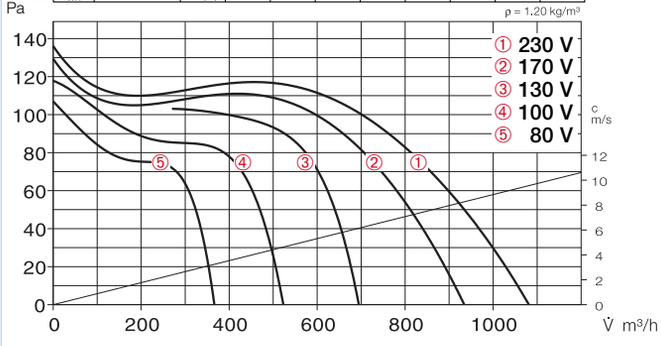
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)*	Current* full load	Current* speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit		5 step transformer controller without motor protect. unit		Full motor protection unit	
		V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 180/4	5933	1290	1380	51	0.34	1.80	1.80	751	100	60	29	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 180/4/4	5934	1170/1290	1250/1380	49/51	0.20/0.31	0.60/0.90	0.90	520	100	60	29	**RDS 1**	1314	**TSD 1.5**[4]	1501	**M4**[2]	1571
MBD 180/2/2	5925	2410/2810	2450/2850	63/66	1.90/2.46	3.00/5.10	5.50	520	100	60	36	**RDS 7**	1578	**TSD 7.0**[4]	1504	**M4**[2]	1571
Explosion proof E Exe II, 400 V / 3 ph. / 50 Hz, temperature class T1-T3, protection to IP 54																	
MBD 180/4 Ex[3]	6004	1400	1420	51	0.37	1.14	—	470	40	—	29	not permitted		not permitted		—	—

* Ex-Models: for nominal value of motor see information on page 18.
[1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request
[4] required full motor protection unit: model MD, Ref. No. 5849



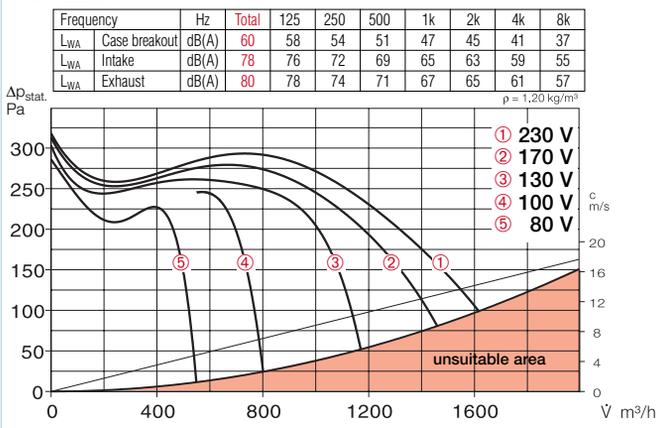
MBW 200/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	51	49	45	42	38	36	32	28
L_{WA}	Intake	dB(A)	69	67	63	60	56	54	50	46
L_{WA}	Exhaust	dB(A)	71	69	65	62	58	56	52	48



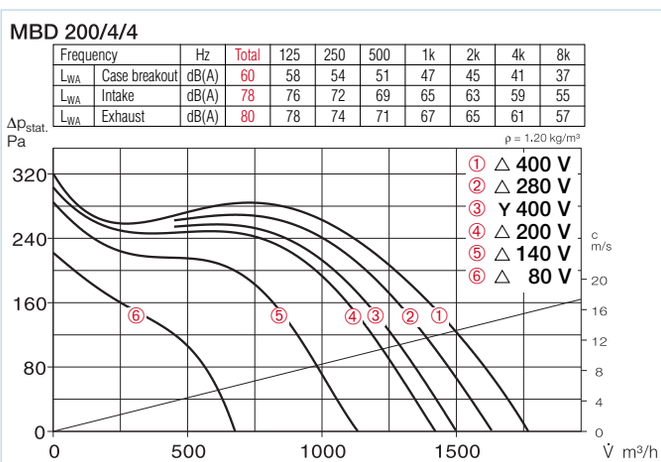
MBW 200/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	60	58	54	51	47	45	41	37
L_{WA}	Intake	dB(A)	78	76	72	69	65	63	59	55
L_{WA}	Exhaust	dB(A)	80	78	74	71	67	65	61	57



MBD 200/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	60	58	54	51	47	45	41	37
L_{WA}	Intake	dB(A)	78	76	72	69	65	63	59	55
L_{WA}	Exhaust	dB(A)	80	78	74	71	67	65	61	57



☐ **Casing**
See “general information”, page 194.

☐ **Impeller**
Forward curved high output centrifugal-impeller, made from galvanised sheet steel, mounted directly to the motor shaft. High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ **Motor**
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ **Electrical connection**
Terminal box fitted externally on the motor as standard (IP 55).

☐ **Motor protection**
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ **Speed control**
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ **Accessories**

Wall bracket, from galv. steel
MB-WK 200 Ref. No. 5526

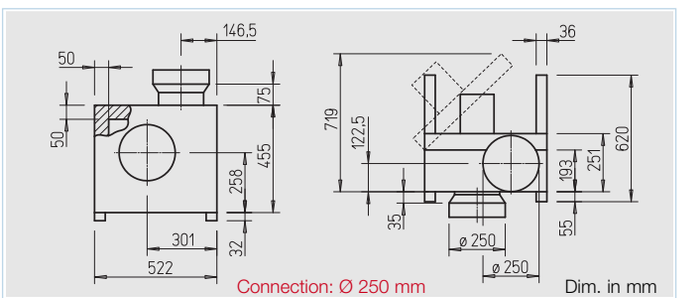
Rain repellent roof, from galv. sheet steel, mounting over the motor.
MB-WSD Ref. No. 1856

Flexible connector for installation between fan and ducting.
FM 200 Ref. No. 1670
FM 200 Ex Ref. No. 1686

On/off switch for 2 speed Y/△-motor 3 phase fans
DS 2 [4] Ref. No. 1351

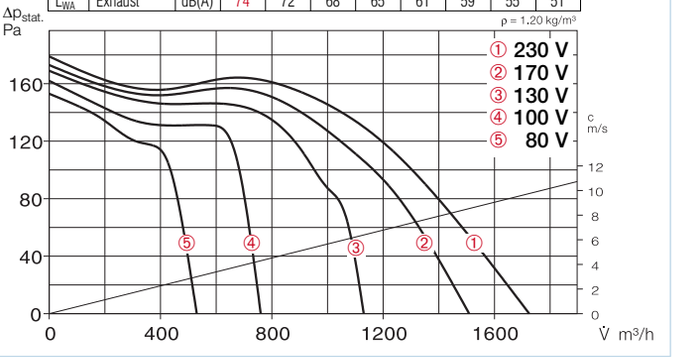
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)*	Current* full load	Current* speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit	Ref. No.	5 step transformer controller without motor protect. unit	Ref. No.	Full motor protection unit	Ref. No.
		Vol m^3/h	min^{-1}	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg	Type		Type		Type	
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 200/6	5935	1080	870	45	0.18	0.92	0.92	751	100	60	35	**MWS 1.5**	1947	**TSW 1.5**	1495	**MW**[1]	1579
MBW 200/4	5936	1600	1380	54	0.54	2.40	2.80	751	100	60	35	**MWS 5**	1949	**TSW 5.0**	1497	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 200/4/4	5938	1510/1770	1160/1360	51/54	0.34/0.55	0.65/1.70	1.70	520	100	60	38	**RDS 2**	1315	**TSD 3.0**[4]	1502	**M4**[2]	1571
Explosion proof E Exe II, 400 V / 3 ph. / 50 Hz, temperature class T1-T3, protection to IP 54																	
MBD 200/4 Ex[3]	6008	1840	1415	54	0.55	1.51	—	470	40	—	35	not permitted		not permitted		—	—

* Ex-Models: for nominal value of motor see information on page 18. [1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request
[4] required full motor protection unit: model MD, Ref. No. 5849



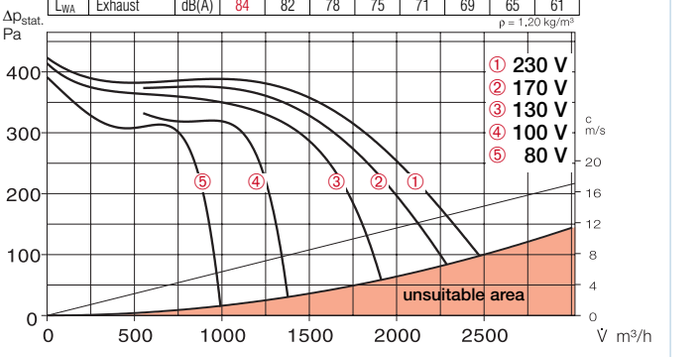
MBW 225/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	54	52	48	45	41	39	35	31
L_{WA}	Intake	dB(A)	72	70	66	63	59	57	53	49
L_{WA}	Exhaust	dB(A)	74	72	68	65	61	59	55	51



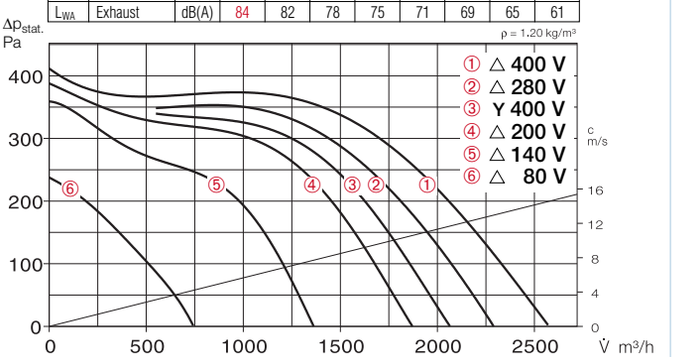
MBW 225/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	62	58	55	51	49	45	41
L_{WA}	Intake	dB(A)	82	80	76	73	69	67	63	59
L_{WA}	Exhaust	dB(A)	84	82	78	75	71	69	65	61



MBD 225/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	62	58	55	51	49	45	41
L_{WA}	Intake	dB(A)	82	80	76	73	69	67	63	59
L_{WA}	Exhaust	dB(A)	84	82	78	75	71	69	65	61



☐ Casing
See “general information”, page 194.

☐ Impeller
Forward curved high output centrifugal-impeller, made from galvanised sheet steel, mounted directly to the motor shaft. High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ Motor
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ Electrical connection
Terminal box fitted externally on the motor as standard (IP 55).

☐ Motor protection
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ Accessories

Wall bracket, from galv. steel

MB-WK 225	Ref. No. 5527

Rain repellent roof, from galv. sheet steel, mounting over the motor.

MB-WSD	Ref. No. 1856

Flexible connector for installation between fan and ducting.

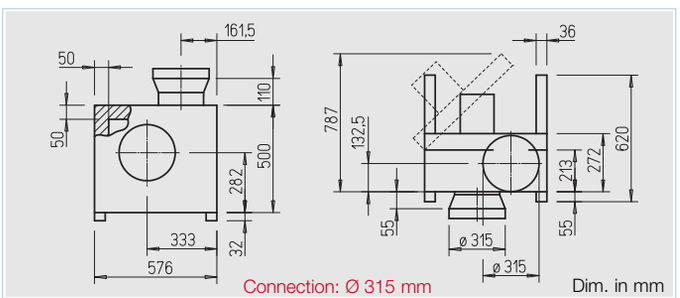
FM 250	Ref. No. 1672
FM 250 Ex	Ref. No. 1688

On/off switch for 2 speed Y/△-motor 3 phase fans

DS 2 [4]	Ref. No. 1351

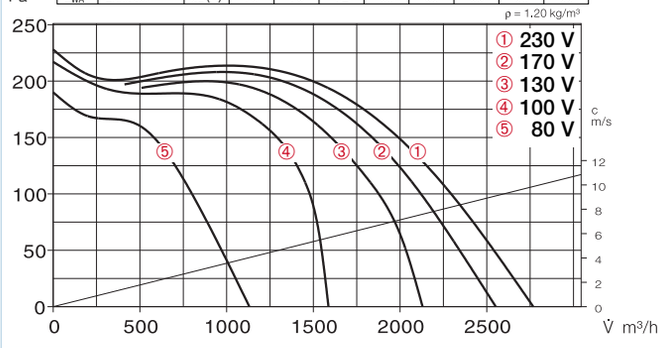
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)*	Current* full load	Current* speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit		5 step transformer controller without motor protect. unit		Full motor protection unit	
		$\dot{V}$ m³/h	min⁻¹	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg	**Type**	Ref. No.	**Type**	Ref. No.	**Type**	Ref. No.
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 225/6	5926	1720	890	48	0.33	1.80	1.90	751	100	60	35	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1]	1579
MBW 225/4	5939	2470	1400	56	0.85	4.50	5.50	751	100	60	40	**MWS 7.5**	1950	**TSW 7.5**	1596	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 225/4/4	5940	2040/2570	1070/1350	51/56	0.59/0.88	0.95/1.80	1.80	520	100	60	38	**RDS 2**	1315	**TSD 3.0**[4]	1502	**M4**[2]	1571
Explosion proof E Exe II, 400 V / 3 ph. / 50 Hz, temperature class T1-T3, protection to IP 54																	
MBD 225/4 Ex[3]	6011	2770	1390	56	0.75	2.00	—	470	40	—	40	not permitted		not permitted		—	—

* Ex-Models: for nominal value of motor see information on page 18.
[1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request
[4] required full motor protection unit: model MD, Ref. No. 5849



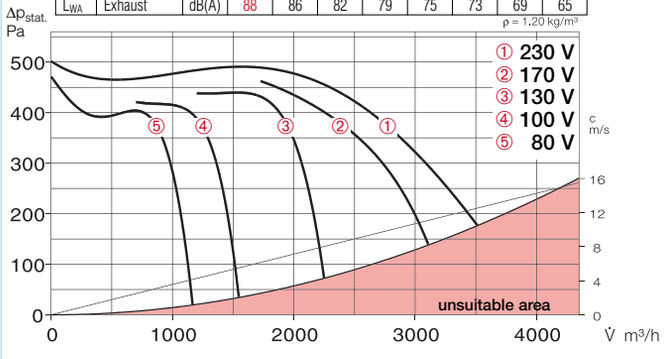
MBW 250/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	56	52	49	45	43	39	35
L_{WA}	Intake	dB(A)	76	74	70	67	63	61	57	53
L_{WA}	Exhaust	dB(A)	78	76	72	69	65	63	59	55



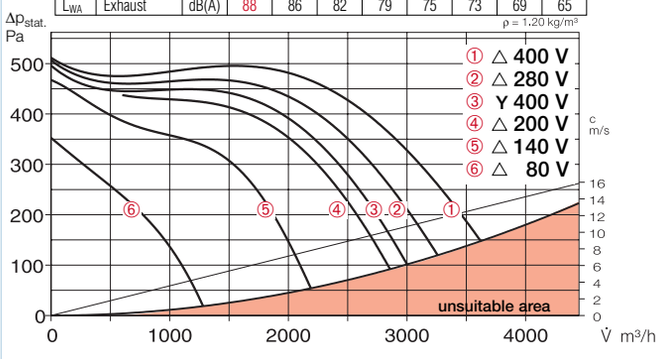
MBW 250/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	68	66	62	59	55	53	49	45
L_{WA}	Intake	dB(A)	86	84	80	77	73	71	67	63
L_{WA}	Exhaust	dB(A)	88	86	82	79	75	73	69	65



MBD 250/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	68	66	62	59	55	53	49	45
L_{WA}	Intake	dB(A)	86	84	80	77	73	71	67	63
L_{WA}	Exhaust	dB(A)	88	86	82	79	75	73	69	65



☐ **Casing**
See “general information”, page 194.

☐ **Impeller**
Forward curved high output centrifugal-impeller, made from galvanised sheet steel, mounted directly to the motor shaft. High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ **Motor**
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ **Electrical connection**
Terminal box fitted externally on the motor as standard (IP 55).

☐ **Motor protection**
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ **Speed control**
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ **Accessories**

Wall bracket, from galv. steel
MB-WK 250 Ref. No. 5527

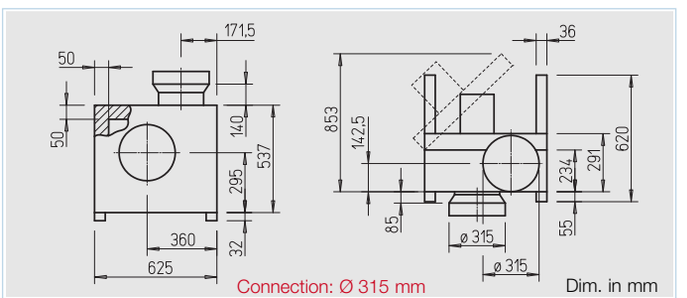
Rain repellent roof, from galv. sheet steel, mounting over the motor.
MB-WSD Ref. No. 1856

Flexible connector for installation between fan and ducting.
FM 315 Ref. No. 1674
FM 315 Ex Ref. No. 1690

On/off switch for 2 speed Y/△-motor 3 phase fans
DS 2 [4] Ref. No. 1351

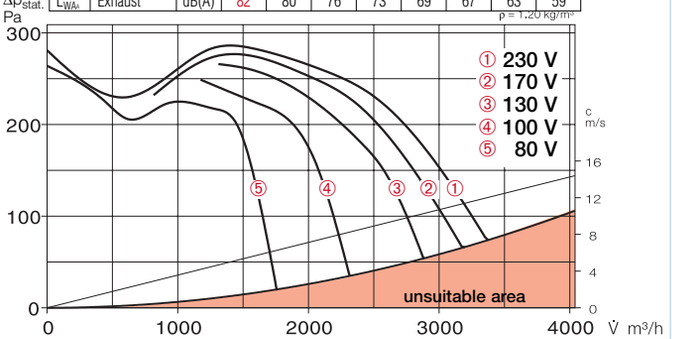
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)*	Current* full load	Current* speed controlled	Wiring diagram	Maximum air flow temperature full load +°C	Maximum air flow temperature controlled +°C	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit Type	Ref. No.
		Vol m^3/h	min^{-1}	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 250/6	5927	2770	915	52	0.76	3.90	3.90	751	100	60	48	**MWS 5**	1949	**TSW 5.0**	1497	**MW**[1]	1579
MBW 250/4	5941	3500	1370	62	1.78	8.20	8.20	751	100	60	52	**MWS 10**	1946	**TSW 10**	1498	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 250/4/4	5942	2740/3620	1030/1360	56/62	1.10/1.50	2.00/3.20	3.20	520	100	60	51	**RDS 4**	1316	**TSD 5.5**[4]	1503	**M4**[2]	1571
Explosion proof E Exe II, 400 V / 3 ph. / 50 Hz, temperature class T1-T3, protection to IP 54																	
MBD 250/4 Ex[3]	6014	4140	1405	62	1.50	3.35	—	470	40	—	52	not permitted		not permitted		—	—

* Ex-Models: for nominal value of motor see information on page 18. [1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request
[4] required full motor protection unit: model MD, Ref. No. 5849



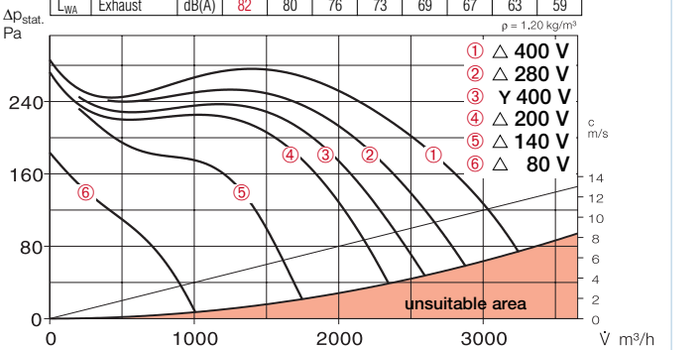
MBW 280/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	62	60	56	53	49	47	43	39
L_{WA}	Intake	dB(A)	80	78	74	71	67	65	61	57
L_{WA}	Exhaust	dB(A)	82	80	76	73	69	67	63	59



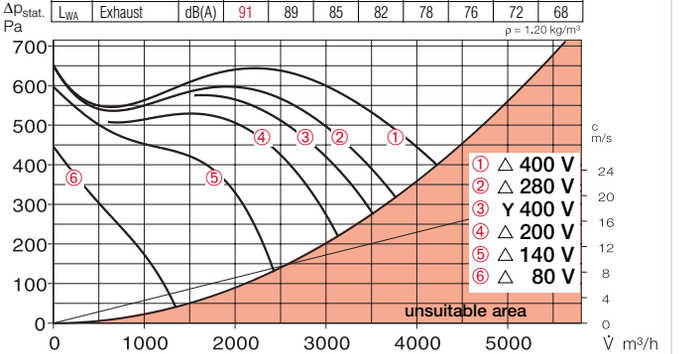
MBD 280/6/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	62	60	56	53	49	47	43	39
L_{WA}	Intake	dB(A)	80	78	74	71	67	65	61	57
L_{WA}	Exhaust	dB(A)	82	80	76	73	69	67	63	59



MBD 280/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	71	69	65	62	58	56	52	48
L_{WA}	Intake	dB(A)	89	87	83	80	76	74	70	66
L_{WA}	Exhaust	dB(A)	91	89	85	82	78	76	72	68



☐ **Casing**
See “general information”, page 194.

☐ **Impeller**
Forward curved high output centrifugal-impeller, made from galvanised sheet steel, mounted directly to the motor shaft. High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ **Motor**
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ **Electrical connection**
Terminal box fitted externally on the motor as standard (IP 55).

☐ **Motor protection**
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ **Speed control**
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ **Accessories**

Wall bracket, from galv. steel
MB-WK 280 Ref. No. 5527

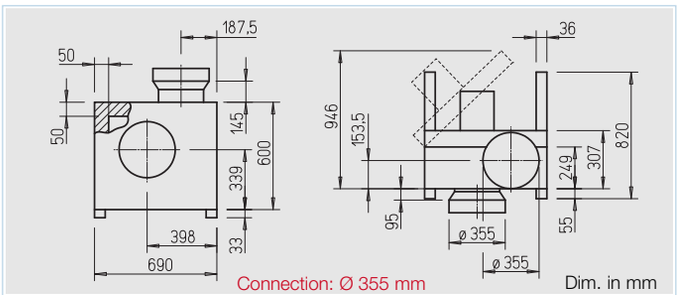
Rain repellent roof, from galv. sheet steel, mounting over the motor.
MB-WSD Ref. No. 1856

Flexible connector for installation between fan and ducting.
FM 315 Ref. No. 1674
FM 315 Ex Ref. No. 1690

On/off switch for 2 speed Y/△-motor 3 phase fans
DS 2 [4] Ref. No. 1351

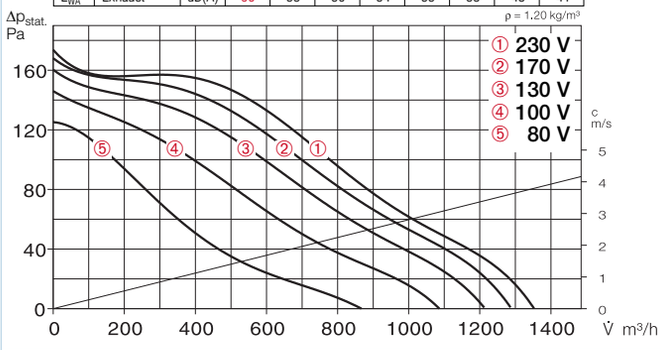
Type	Ref. No.	Air flow volume (FID)	Nenn-drehzahl	Sound press. level case breakout	Motor power (nominal)*	Current* full load	Current* speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 280/6	5928	3370	920	56	1.25	6.80	6.80	751	100	60	60	**MWS 7.5**	1950	**TSW 7.5**	1596	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 280/6/6	5943	2590/3250	695/870	51/56	0.53/0.89	1.00/2.00	2,00	520	100	60	60	**RDS 4**	1316	**TSD 3.0**[4]	1502	**M4**[2]	1571
MBD 280/4/4	5944	3650/4270	1170/1370	62/65	1.60/2.10	2.50/4.00	4.00	520	100	60	68	**RDS 7**	1578	**TSD 5.5**[4]	1503	**M4**[2]	1571
Explosion proof E Exe II, 400 V / 3 ph. / 50 Hz, temperature class T1-T3, protection to IP 54																	
MBD 280/6 Ex[3]	6016	2960	925	56	0.95	2.70	—	498	40	—	60	not permitted		not permitted		—	—
MBD 280/4 Ex[3]	6017	4960	1420	65	2.00	4.65	—	498	40	—	68	not permitted		not permitted		—	—

* Ex-Models: for nominal value of motor see information on page 18.
[1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request
[4] required full motor protection unit: model MD, Ref. No. 5849



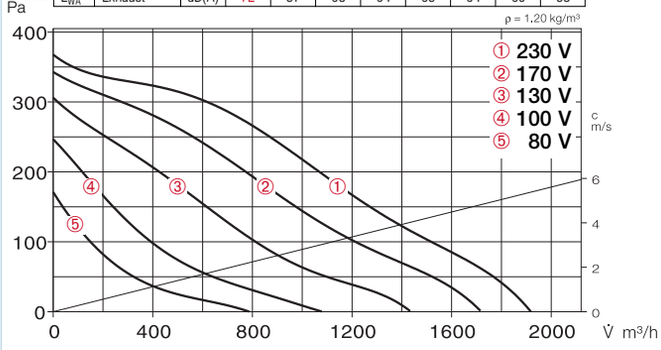
MBW 315/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	40	33	30	34	35	33	28	21
L_{WA}	Intake	dB(A)	58	51	48	52	53	51	46	39
L_{WA}	Exhaust	dB(A)	60	53	50	54	55	53	48	41



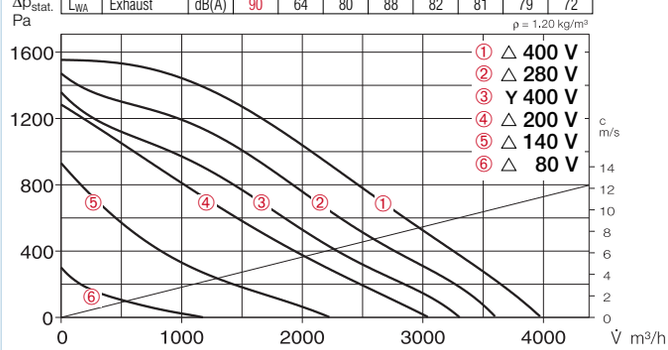
MBW 315/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	52	37	48	44	45	44	40	33
L_{WA}	Intake	dB(A)	70	55	66	62	63	62	58	51
L_{WA}	Exhaust	dB(A)	72	57	68	64	65	64	60	53



MBD 315/2/2

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	70	44	60	68	62	61	59	52
L_{WA}	Intake	dB(A)	88	62	78	86	80	79	77	70
L_{WA}	Exhaust	dB(A)	90	64	80	88	82	81	79	72



☐ **Casing**
See “general information”, page 194.

☐ **Impeller**
Backward curved high output centrifugal-impeller, made from aluminium, mounted directly to the motor shaft.
High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ **Motor**
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ **Electrical connection**
Terminal box fitted externally on the motor as standard (IP 55).

☐ **Motor protection**
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ **Speed control**
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ **Accessories**

Wall bracket, from galv. steel
MB-WK 315 Ref. No. 5528

Rain repellent roof, from galv. sheet steel, mounting over the motor.
MB-WSD Ref. No. 1856

Flexible Connector
FM 355 Ref. No. 1675

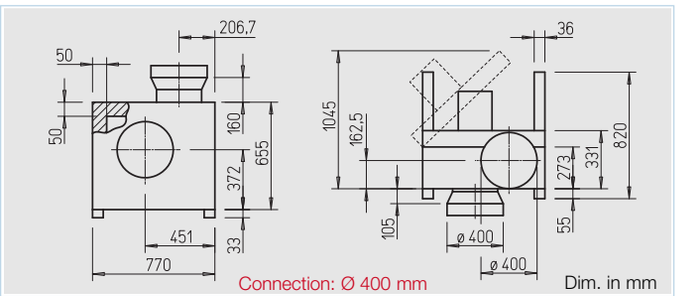
On/off switch for 2 speed Y/△-motor 3 phase fans
DS 2 [4] Ref. No. 1351

☐ Information	Pages
Technical description, selection chart	194

☐ Other accessories	Pages
Speed controller and full motor protection unit	397 on

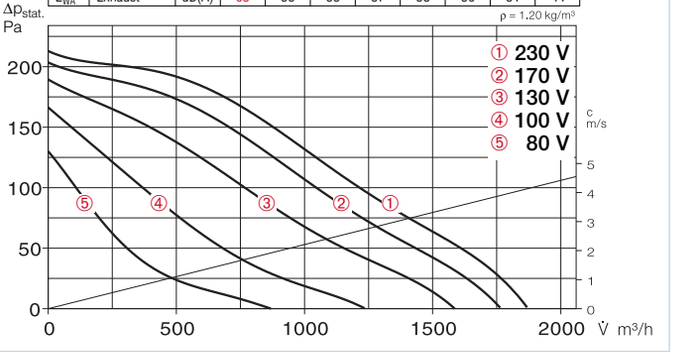
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load +°C	Maximum air flow temperature controlled +°C	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit Type	Ref. No.
		Vol m³/h	min⁻¹	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 315/6	5950	1350	940	34	0.14	0.80	0.80	751	100	60	71	**MWS 1.5**	1947	**TSW 1.5**	1495	**MW**[1]	1579
MBW 315/4	5929	1920	1420	46	0.25	1.50	1.50	751	100	60	72	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 315/4/4[3]	5945	1880/2050	1305/1425	44/46	0.15/0.22	0.34/0.90	0.90	520	100	60	72	**RDS 2**	1315	**TSD 1.5**[4]	1501	**M4**[2]	1571
MBD 315/2/2	5946	3300/3980	2270/2780	60/64	0.86/1.16	1.40/2.20	2.40	520	100	60	75	**RDS 4**	1316	**TSD 3.0**[4]	1502	**M4**[2]	1571

[1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request [4] required full motor protection unit: model MD, Ref. No. 5849



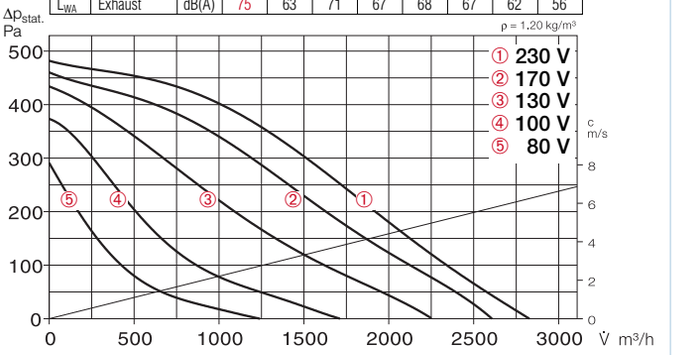
MBW 355/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	43	35	33	37	38	36	31	34
L_{WA}	Intake	dB(A)	61	53	51	55	56	54	49	42
L_{WA}	Exhaust	dB(A)	63	55	53	57	58	56	51	44



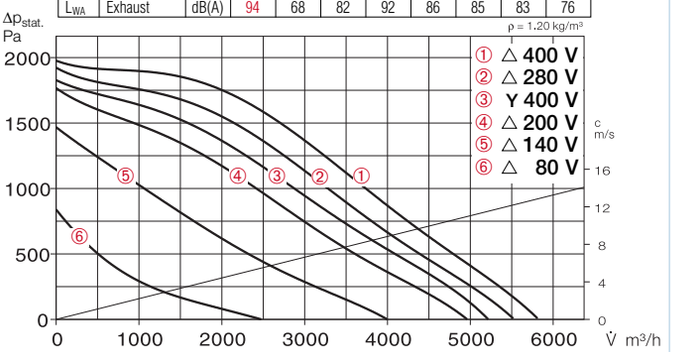
MBW 355/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	55	43	51	47	48	47	42	36
L_{WA}	Intake	dB(A)	73	61	69	65	66	65	60	54
L_{WA}	Exhaust	dB(A)	75	63	71	67	68	67	62	56



MBD 355/2/2

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	74	46	62	72	66	65	63	56
L_{WA}	Intake	dB(A)	92	66	80	90	84	83	81	74
L_{WA}	Exhaust	dB(A)	94	68	82	92	86	85	83	76



☐ **Casing**
See “general information”, page 194.

☐ **Impeller**
Backward curved high output centrifugal-impeller, made from aluminium, mounted directly to the motor shaft.
High efficiency, low noise level, aerodynamicly optimised scroll. Dynamically balanced to DIN ISO 1940 Pt. 1 – class G 6.3.

☐ **Motor**
Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ **Electrical connection**
Terminal box fitted externally on the motor as standard (IP 55).

☐ **Motor protection**
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ **Speed control**
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ **Accessories**

Wall bracket, from galv. steel
MB-WK 355 Ref. No. 5528

Rain repellent roof, from galv. sheet steel, mounting over the motor.
MB-WSD Ref. No. 1856

Flexible connector
FM 400 Ref. No. 1676

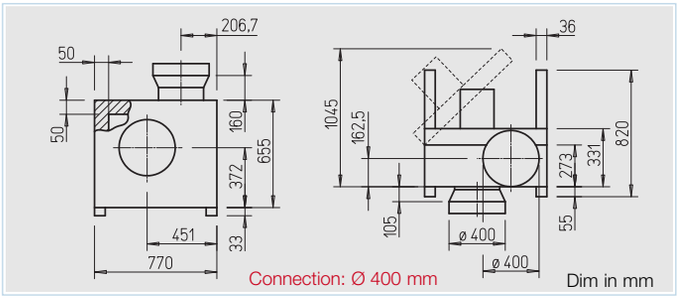
On/off switch for 2 speed Y/△-motor 3 phase fans
DS 2 [4] Ref. No. 1351

☐ Information	Pages
Technical description, selection chart	194

☐ Other accessories	Pages
Speed controller and full motor protection unit	394 on

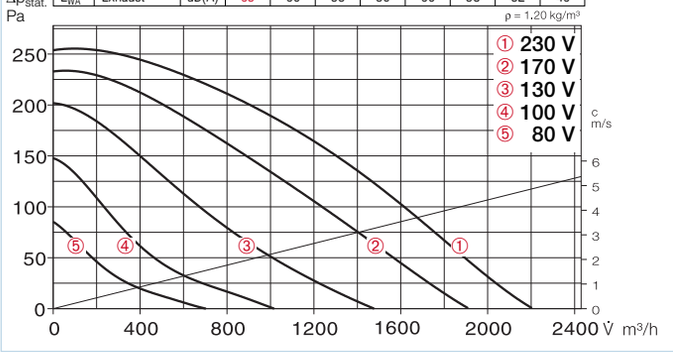
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load +°C	Maximum air flow temperature controlled +°C	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 355/6	5952	1880	910	37	0.16	0.84	0.84	751	100	60	79	**MWS 1.5**	1947	**TSW 1.5**	1495	**MW**[1]	1579
MBW 355/4	5951	2830	1370	49	0.33	1.75	1.75	751	100	60	81	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1]	1579
2 speed motor, 400 V /3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 355/4/4[3]	5947	2430/2820	1175/1370	46/49	0.20/0.32	0.40/0.95	0.95	520	100	60	81	**RDS 2**	1315	**TSD 1.5**[4]	1501	**M4**[2]	1571
MBD 355/2/2	5948	5210/5800	2510/2840	65/68	1.65/2.20	2.90/5.00	5.50	520	100	60	100	**RDS 7**	1578	**TSD 7.0**[4]	1504	**M4**[2]	1571

[1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request [4] required full motor protection unit: model MD, Ref. No. 5849



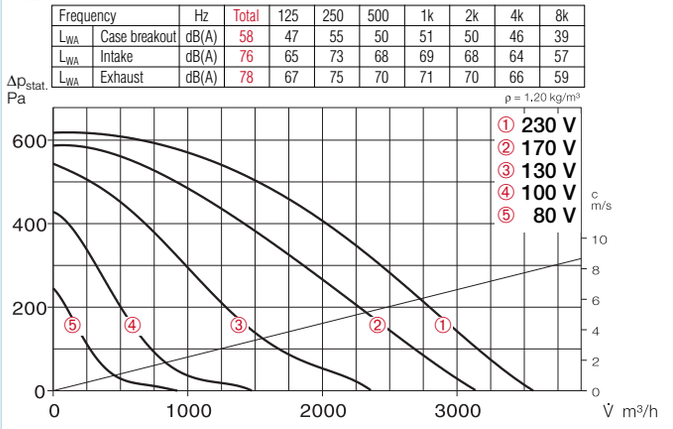
MBW 400/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	45	40	35	39	40	38	32	26
L_{WA}	Intake	dB(A)	63	58	53	57	58	56	50	44
L_{WA}	Exhaust	dB(A)	65	60	55	59	60	58	52	46



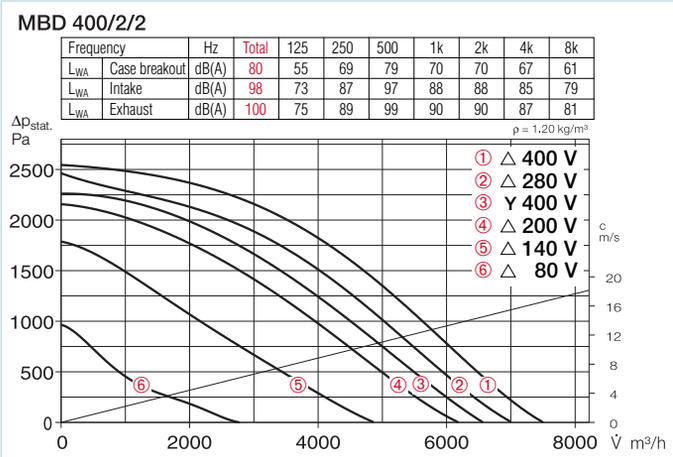
MBW 400/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	47	55	50	51	50	46	39
L_{WA}	Intake	dB(A)	76	65	73	68	69	68	64	57
L_{WA}	Exhaust	dB(A)	78	67	75	70	71	70	66	59



MBD 400/2/2

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	80	55	69	79	70	70	67	61
L_{WA}	Intake	dB(A)	98	73	87	97	88	88	85	79
L_{WA}	Exhaust	dB(A)	100	75	89	99	90	90	87	81



☐ Casing
See “general information”, page 194.

☐ Impeller
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Maintenance free, speed controllable IEC-flange motor, out of the air stream, protected to IP 55. With ball bearings and radio suppression.

☐ Electrical connection
Terminal box fitted externally on the motor as standard (IP 55).

☐ Motor protection
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control
All models are speed controllable through transformer controllers (accessory). The 3 phase models can be 2 speed controlled by star/delta switch or full motor protection unit M4. The sound power levels are shown with the performance curves.

■ Accessories

Wall bracket, from galv. steel
MB-WK 400 Ref. No. 5528

Rain repellent roof, from galv. sheet steel, mounting over the motor.
MB-WSD Ref. No. 1856

Flexible connector
FM 400 Ref. No. 1676

On/off switch for 2 speed Y/△-motor 3 phase fans
DS 2 [4] Ref. No. 1351

☐ Information	Pages
Technical description, selection chart	194

☐ Other accessories	Pages
Speed controller and full motor protection unit	397 on

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load +°C	Maximum air flow temperature controlled +°C	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit Type	Ref. No.
		Vol m³/h	min⁻¹	dB(A) in 1 m	kW	A	A	No.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55																	
MBW 400/6	5954	2210	850	39	0.19	0.95	0.95	751	100	60	82	**MWS 1.5**	1947	**TSW 1.5**	1495	**MW**[1]	1579
MBW 400/4	5953	3570	1360	52	0.50	2.30	3.00	751	100	60	85	**MWS 5**	1949	**TSW 5.0**	1497	**MW**[1]	1579
2 speed motor, 400 V / 3 ph. / 50 Hz, Y/△-motor, protection to IP 55																	
MBD 400/4/4[3]	5955	3000/3520	1160/1370	48/52	0.30/0.52	0.61/1.74	1.74	520	100	60	82	**RDS 2**	1315	**TSD 3.0**[4]	1502	**M4**[2]	1571
MBD 400/2/2	5949	6570/7500	2510/2840	71/74	3.07/3.75	4.80/6.10	9.00	520	100	60	110	**RDS 11**	1332	**TSD 11**[4]	1513	**M4**[2]	1571

[1] incl. operation switch [2] incl. operation and speed switch [3] Performance curve on request [4] required full motor protection unit: model MD, Ref. No. 5849