Medium pressure axial fans. **Maximum performance for a range of applications.**

With diameter sizes from 225 to 630 mm, flow rates up to 32000 m^3/h and very high pressure rates up to 1400 Pa, the Helios medium pressure axial fans provide for maximum volume flows in the smallest of spaces.

Universal installation options in horizontal and vertical positions allow flexible use in a variety of applications.

Innovative

Maximum efficiency is ensured by the new optimally tuned system consisting of a plastic impeller with perfectly integrated flow geometry, an innovative guide wheel with maximum pressure recovery and specially tuned motors.
With AMD / AMW, we have created a product which meets the highest physical requirements.

Energy-efficient

- High pressure and volume rates with very small dimensions.
- Minimal noise levels.
- Minimal energy costs at maximum performance.
- Maximum pressure recovery due to innovative guide wheel.
- Very low residual torque.
- Low impact and outlet losses.

Universal

The complete AMD range with more than 300 types in 12 sizes (NS 315 – 1120) and V. > 113000 m^3/h is included in the Helios TGA Catalogue. Includes B AMD types for mechanical smoke extraction systems (MRA) in temperature classes F300 and F400 as well as installation kits for two level serial Z or parallel P designs.

See TGA-catalogue Ref. no. 86979

F300 F400

This information supplements the "General technical information".

Features
AMD/AMW is a series of medium pressure fans in compact design with excellent power density in relation to its size. The new axial impeller, which has been optimised for pressure and efficiency, achieves the best levels of efficiency, high pressure levels and large flow rates in combination with the fixed guide wheel.

Casing
Tubular casing with flanges on both sides in accordance with DIN 24155 p. 3 with integrated guide wheel and motor mount made of galvanised steel.
Terminal box on outside of duct.

Impeller
Axial impeller made of plastic with 14 spatially curved blades as well as perfectly integrated flow geometry in the impeller. Maximum pressure recovery in combination with the innovative guide wheel, high level of efficiency, low operating noise level, high corrosion resistance, low-vibration operation through dynamic balancing in accordance with DIN ISO 21940-11 – quality grade 6.3.

Air flow temperatures
The standard version can be used in the range from –30 up to at least +60 °C. See information on product page. Approval for higher continuous temperatures is possible upon request.

Air flow direction
The air flow direction cannot be changed, but it can be set by the installation method. The correct motor rotation direction and air flow direction is marked by arrows on the fan.

Installation position, installation, condensate outlets
A duct section with length = 2.5 x pipe diameter for free discharge and a corresponding straight duct section for intermediate positioning in a pipeline are required (Figure 1) to achieve the specified performance values.
The ideal flow through the fan is only ensured if there is an upstream intake nozzle with sufficient intake space or a 2.5 x Ø long straight duct section in the duct installation with the same diameter.

☐ The installation site and mounting should be such that the fan can be mounted securely and without warping.
AMD/AMW can be installed and operated in any position. In case of equipment with condensate drain holes, please be aware of their position.

☐ The fans must not be operated in contact with water and effective weather protection must be provided in case of outdoor installation.

☐ In case of operation under more difficult conditions, such as high humidity, excessive strain due to climatic, technical, electronic influences, consultation and approval are required because the standard version is not suitable for this.

Positioning
The use of vibration dampers is recommended (accessories SDD, SDZ) to prevent vibration transmission. Larger motors may protrude from the back and cause uneven distribution due to their high weight. An extension duct VR (accessories) should be provided to adjust the centre of gravity!

Installation examples
☐ **Horizontal**
– **Figure 2**
Free intake, outlet-side operation with silencer provided with intermediate flanges.
Duct silencers can be provided with intermediate flanges to reduce the inlet-side or outlet-side sound power.

– **Figure 3**
Ceiling suspension
Figure 3 shows a typical installation in a ventilation application. The installation of AMD/AMW systems is possible through direct ceiling suspension via mounting bracket (MK) and vibration damper (accessories SDD, SDZ).
The tubular casing with double-sided flanges (according to DIN 24155 p. 3) is designed for direct installation in the pipeline.

Figure 1

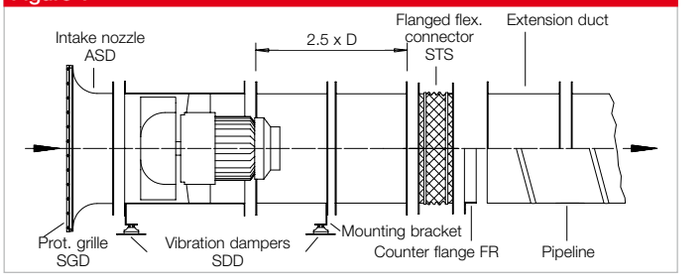


Figure 2

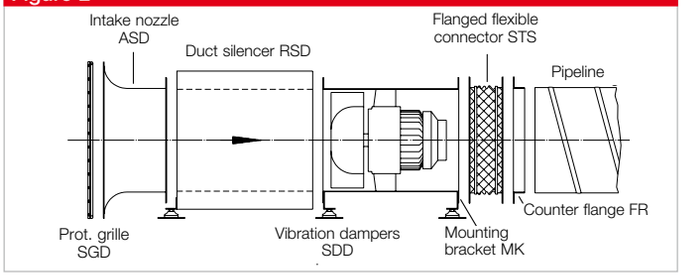
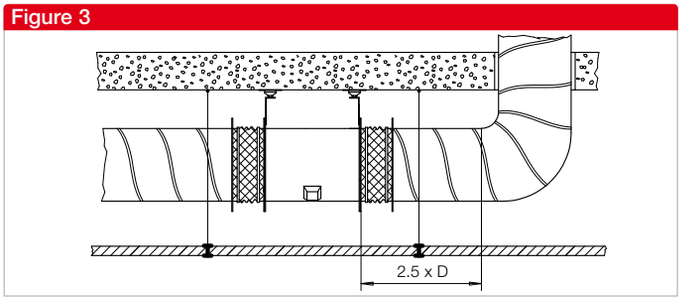
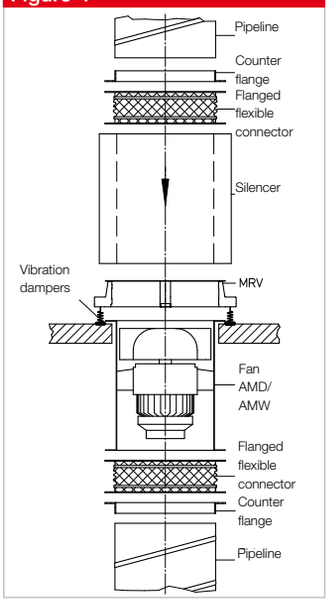


Figure 3



☐ **Vertical**
– **Figure 4**
Integrated in the pipeline with inlet-side silencer.
Wall mounted with brackets or through the ceiling. The elements must be suspended separately according to weight.
Do not mount the fan with combined loads for inspection.
Mounting rings MRV are available for the vertical attachment of the fan for size 315 and above.
The fan weight including the attached accessories must not exceed the load-bearing capacity of the MRV.

Figure 4



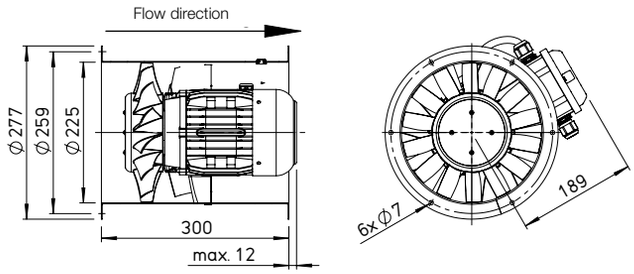
Reference	Page
Planning information, Acoustics	14 ff.
General techn. information, power control	19 ff.

By combining the parameters of static pressure increase Δp_{fa}, flow rate $\dot{V}$, speed min^{-1}, sound pressure level dB(A) and impeller diameter DN mm, the following table facilitates the selection of AMD/AMW medium pressure fans.

Diameter	Speed	Sound press. inlet side	Flow rate $\dot{V}$ m^3/h depending on static pressure = N / m^2 = freely available pressure												
mm	min^{-1}	L_{PA} dB(A)	(ΔP_{fa}) in Pa												
		at 4 m dist.	**0**	**25**	**50**	**75**	**100**	**150**	**200**	**300**	**400**	**500**	**600**	**700**	**800**
225	2800	53	1950	1900	1860	1780	1720	1590	1400						
225	1400	38	950	840	710										
250	2800	56	2620	2550	2480	2410	2340	2180	1980						
250	1400	42	1360	1250	1080										
280	2800	59	3970	3910	3850	3760	3690	3540	3360	3020					
280	1400	44	1930	1810	1650	1450									
315	2800	63	5440	5360	5300	5240	5160	4970	4810	4450	4020				
315	1400	48	2870	2730	2590	2390	2210								
355	2800	68	8610	8540	8470	8390	8310	8140	7970	7600	7180	6760	6260	5490	
355	1400	52	4170	4040	3860	3660	3470	3070							
400	2800	73	12420	12330	12250	12160	12060	11870	11700	11310	10870	10420	9890	9260	8450
400	1400	56	6000	5810	5600	5400	5200	4740	3940						

AMD and AMW 225

Dimensions AMD and AMW 225



Dim. in mm

Casing
Duct with double-sided flange DIN 24155 p. 3. Made of galvanised steel sheet, fixed guide wheel with inner hub for mounting the flange motor.

Impeller / guide wheel
Impeller with 3D profiled blades and integrated flow geometry made of high-quality plastic. An optimised guide wheel made of galvanised steel is connected to the impeller. The impeller and guide wheel are efficiency-optimised and pressure-optimised for high volume flows by means of CFD. Dynamically balanced in accordance with ISO 21940-11. Operating range –30 to +60 °C.

Drive
Directly through maintenance-free flange motor. Closed design type IP54. Aluminium casing with cooling fins. Radio interference-free, sealed ball bearings. With condensate drain holes upon request and the installation method must be indicated when placing the order. Tropicalised winding with moisture proof coating upon request.

Power control
The voltage-controllable types are identified in the “Current consumption with control mode” column with a value which must be observed when determining the controller (see “speed controller” column). The flow rates are shown in the performance diagram. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) on outside of duct.

Installation
Installation possible in any position. Condensate drain holes in the motor depending on usage are possible upon request.

Motor protection
All types are equipped with thermal contacts. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection.

Noise levels
See performance diagram. The sound power and sound pressure at 4 m distance under free field conditions are specified for the average operating point on the inlet/outlet side. See page 14 f for noise emissions and room acoustics.

Reference	Page
Selection table	229
Planning information	14 ff.

Special design
Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

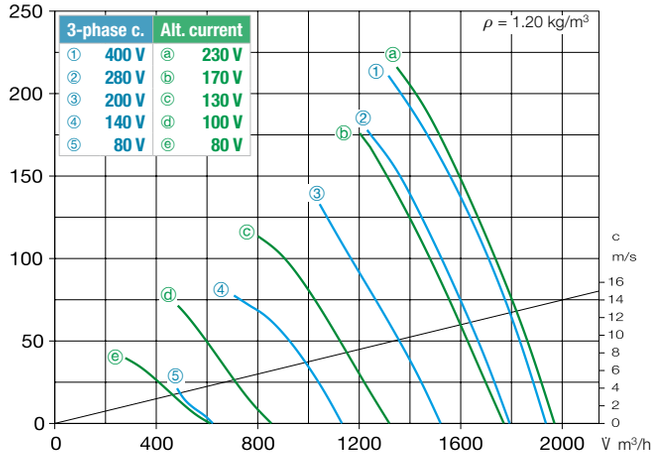
Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

Type	Ref. no.	Speed	Flow rate free blowing	Power consump.	Voltage	Current consumption at rated voltage	Current consumption with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Speed controller 5-step Type	Speed controller 5-step Ref. no.	Frequency inverter with integrated sine filter Type	Frequency inverter with integrated sine filter Ref. no.
		min^{-1}	V̇ m^3/h	kW	V	A	A	No.	+ °C	+ °C	aprx. kg				
Single-phase alternating current.50 Hz, protection category IP54															
AMW 225/4	02242	1425	965	0.6	230	0.3	0.3	966.1	60	40	8.7	**MWS 1.5** [1]	01947	—	
AMW 225/2	02243	2750	1955	0.26	230	1.2	1.4	966.1	60	40	9.0	**MWS 1.5** [1]	01947	—	
Three-phase current, 50 Hz, protection category IP54															
AMD 225/4	02244	1430	960	0.06	400	0.2	0.25	469	60	40	8.3	**RDS 1** [1]	01314	—	
AMD 225/2	02245	2760	1950	0.25	400	0.6	0.65	469	60	40	8.8	**RDS 1** [1]	01314	—	

[1] incl. motor protection circuit breaker.

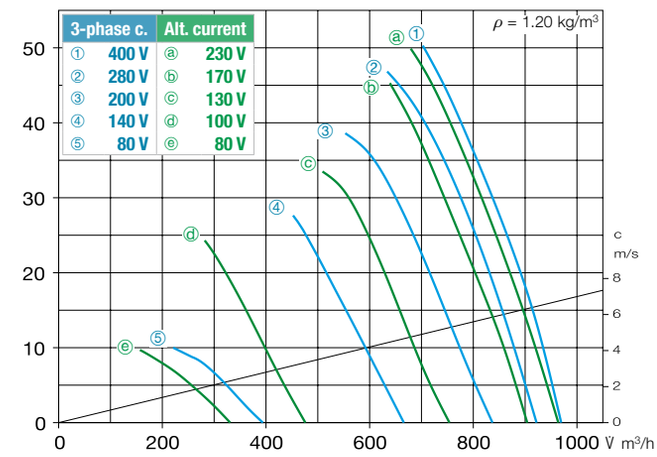
Performance curves AMD and AMW 225/2

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	74	45	57	67	69	69	65	58
$L_{PA,\ 4m}$	Air noise	dB(A)	54	25	37	47	49	49	45	38



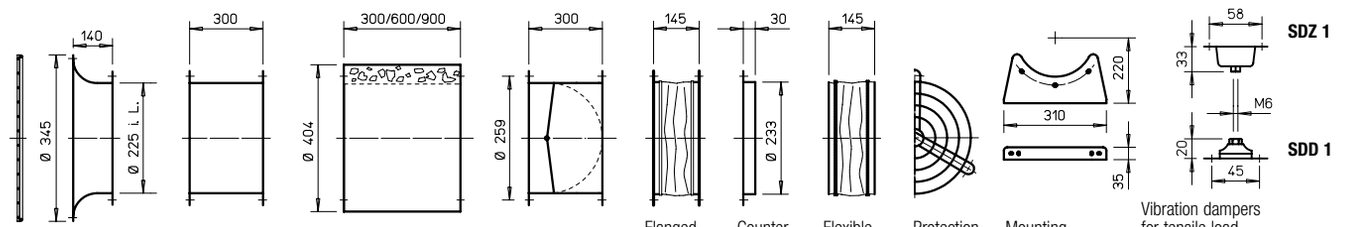
Performance curves AMD and AMW 225/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	59	35	49	53	54	52	45	35
$L_{PA,\ 4m}$	Air noise	dB(A)	39	15	29	33	34	32	25	15



* Three-phase current noise data. Alternating current noise data see www.HeliosSelect.de.

Accessories AMD and AMW 225



Intake nozzle with prot. grille **ASD-SGD 225** No. 01413

Extension duct **VR 225** No. 01401

Duct silencer **RSD 225/..**

Duct shutter, automatic **RVS 225** No. 02591

Flanged flexible connector **STS 225** No. 01218

Counter flange **FR 225** No. 01201

Flexible connecting sleeve **FM 225** No. 01671

Protection grille duct side **SG 225** No. 01215

Mounting brackets **MK 225** (1 Set = 2 pcs) No. 01446

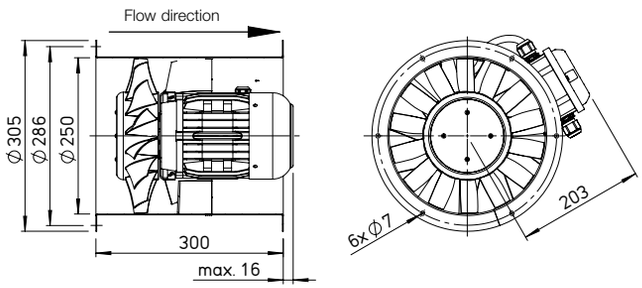
Vibration dampers for tensile load **SDZ 1*** (1 set = 4 Pc) No. 01454
Vibration dampers for compression load **SDD 1*** (1 set = 4 Pc) No. 01452

[a] Shutter, motorised see Accessories product pages. * Type assignment see table, last column.

	Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers			
			Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454

AMD and AMW 250

Dimensions AMD and AMW 250



Dim. in mm

Casing
Duct with double-sided flange DIN 24155 p. 3. Made of galvanised steel sheet, fixed guide wheel with inner hub for mounting the flange motor.

Impeller / guide wheel
Impeller with 3D profiled blades and integrated flow geometry made of high-quality plastic. An optimised guide wheel made of galvanised steel is connected to the impeller. The impeller and guide wheel are efficiency-optimised and pressure-optimised for high volume flows by means of CFD. Dynamically balanced in accordance with ISO 21940-11. Operating range –30 to +60 °C.

Drive
Directly through maintenance-free flange motor. Closed design type IP54. Aluminium casing with cooling fins. Radio interference-free, sealed ball bearings. With condensate drain holes upon request and the installation method must be indicated when placing the order. Tropicalised winding with moisture proof coating upon request.

Power control
The voltage-controllable types are identified in the “Current consumption with control mode” column with a value which must be observed when determining the controller (see “speed controller” column). The flow rates are shown in the performance diagram. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) on outside of duct.

Installation
Installation possible in any position. Condensate drain holes in the motor depending on usage are possible upon request.

Motor protection
All types are equipped with thermal contacts. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection.

Noise levels
See performance diagram. The sound power and sound pressure at 4 m distance under free field conditions are specified for the average operating point on the inlet/outlet side. See page 14 f for noise emissions and room acoustics.

Reference	Page
Selection table	229
Planning information	14 ff.

Special design
Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

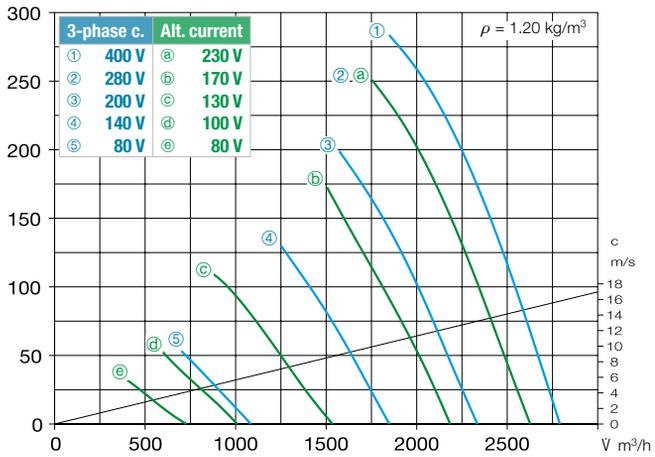
Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

Type	Ref. no.	Speed	Flow rate free blowing	Power consump.	Voltage	Current consumption at rated voltage	Current consumption with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Speed controller 5-step Type	Speed controller 5-step Ref. no.	Frequency inverter with integrated sine filter Type	Frequency inverter with integrated sine filter Ref. no.
		min^{-1}	V̇ m^3/h	kW	V	A	A	No.	+ °C	+ °C	aprx. kg				
Single-phase alternating current.50 Hz, protection category IP54															
AMW 250/4	02248	1435	1360	0.1	230	0.6	0.6	966.1	60	40	9.0	**MWS 1.5** [1]	01947	—	
AMW 250/2	02249	2630	2620	0.4	230	1.9	1.9	966.1	60	40	9.5	**MWS 3** [1]	01948	—	
Three-phase current, 50 Hz, protection category IP54															
AMD 250/4	02250	1430	1380	0.08	400	0.3	0.3	469	60	40	9.2	**RDS 1** [1]	01314	—	
AMD 250/2	02251	2830	2790	0.43	400	1	1	469	60	40	11.0	**RDS 2** [1]	01315	**FU-BS 2.5**	05459

[1] incl. motor protection circuit breaker.

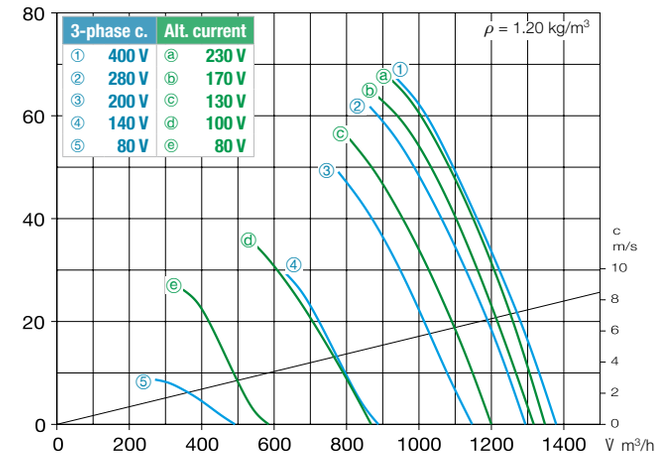
Performance curves AMD and AMW 250/2

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	78	49	61	71	72	72	70	64
$L_{PA,\ 4m}$	Air noise	dB(A)	58	29	41	51	52	52	50	44



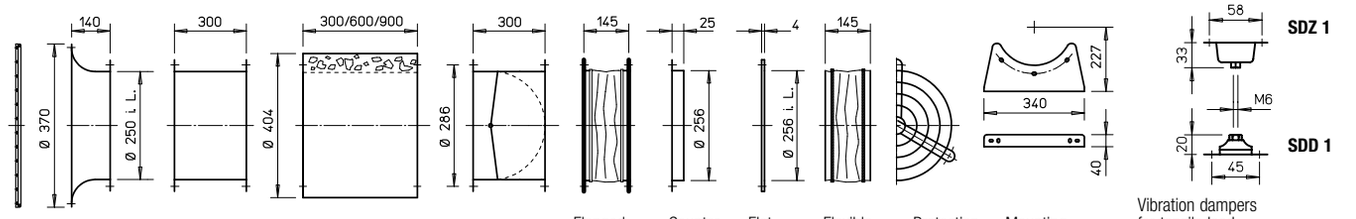
Performance curves AMD and AMW 250/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	66	45	56	61	62	57	51	40
$L_{PA,\ 4m}$	Air noise	dB(A)	46	25	36	41	42	37	31	20



* Three-phase current noise data. Alternating current noise data see www.HeliosSelect.de.

Accessories AMD and AMW 250



Intake nozzle with prot. grille **ASD-SGD 250** No. 01414

Extension duct **VR 250** No. 01402

Duct silencer **RSD 250/..**

Duct shutter, automatic **RVS 250** [a] No. 02592

Flanged flexible connector **STS 250** No. 01220

Counter flange **FR 250** No. 01203

Flat flange **FF 250** No. 04941

Flexible connecting sleeve **FM 250** No. 01672

Protection grille duct side **SG 250** No. 01236

Mounting brackets **MK 250** (1 Set = 2 pcs) No. 01447

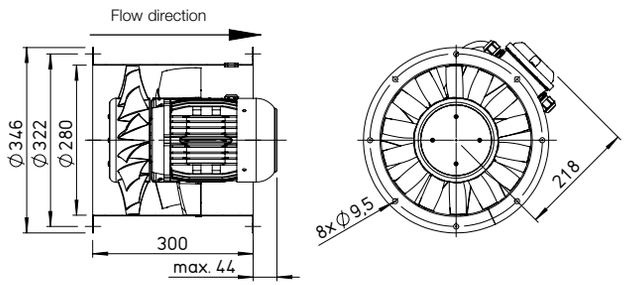
Vibration dampers for tensile load **SDZ 1*** (1 set = 4 Pc) No. 01454
Vibration dampers for compression load **SDD 1*** (1 set = 4 Pc) No. 01452

[a] Shutter, motorised see Accessories product pages. * Type assignment see table, last column.

	Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers			
			Compression		Tension	
	Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454

AMD and AMW 280

Dimensions AMD and AMW 280



Dim. in mm

Casing
Duct with double-sided flange DIN 24155 p. 3. Made of galvanised steel sheet, fixed guide wheel with inner hub for mounting the flange motor.

Impeller / guide wheel
Impeller with 3D profiled blades and integrated flow geometry made of high-quality plastic. An optimised guide wheel made of galvanised steel is connected to the impeller. The impeller and guide wheel are efficiency-optimised and pressure-optimised for high volume flows by means of CFD. Dynamically balanced in accordance with ISO 21940-11. Operating range –30 to +60 °C.

Drive
Directly through maintenance-free flange motor. Closed design type IP54. Aluminium casing with cooling fins. Radio interference-free, sealed ball bearings. With condensate drain holes upon request and the installation method must be indicated when placing the order. Tropicalised winding with moisture proof coating upon request.

Power control
The voltage-controllable types are identified in the “Current consumption with control mode” column with a value which must be observed when determining the controller (see “speed controller” column). The flow rates are shown in the performance diagram. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) on outside of duct.

Installation
Installation possible in any position. Condensate drain holes in the motor depending on usage are possible upon request.

Motor protection
All types are equipped with thermal contacts. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection.

Noise levels
See performance diagram. The sound power and sound pressure at 4 m distance under free field conditions are specified for the average operating point on the inlet/outlet side. See page 14 f for noise emissions and room acoustics.

Reference	Page
Selection table	229
Planning information	14 ff.

Special design
Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

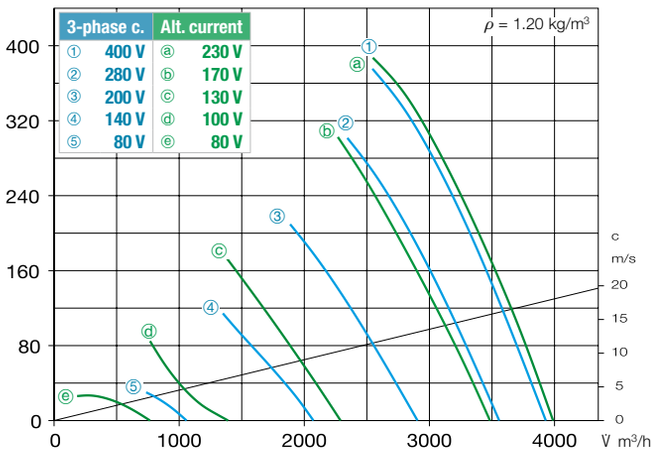
Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

Type	Ref. no.	Speed	Flow rate free blowing	Power consump.	Voltage	Current consumption at rated voltage	Current consumption with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Speed controller 5-step Type	Speed controller 5-step Ref. no.	Frequency inverter with integrated sine filter Type	Frequency inverter with integrated sine filter Ref. no.
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+ °C	+ °C	aprx. kg				
Single-phase alternating current.50 Hz, protection category IP54															
AMW 280/4	02254	1345	1930	0.1	230	0.5	0.5	966.1	60	40	11.5	**MWS 1.5** [1]	01947	—	
AMW 280/2	02255	2755	3970	0.7	230	3.2	4.3	976.1	60	40	15.5	**MWS 5** [1]	01949	—	
Three-phase current, 50 Hz, protection category IP54															
AMD 280/4	02256	1385	2000	0.1	400	0.3	0.3	469	60	40	10.5	**RDS 1** [1]	01314	—	
AMD 280/2	02257	2745	3960	0.7	400	1.4	1.5	469	60	40	13.8	**RDS 2** [1]	01315	**FU-BS 2.5**	05459

[1] incl. motor protection circuit breaker.

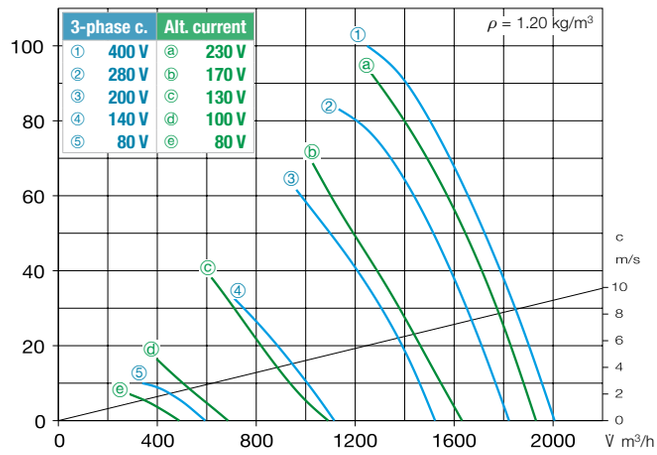
Performance curves AMD and AMW 280/2

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	80	52	60	72	74	74	72	65
$L_{PA,\ 4m}$	Air noise	dB(A)	60	32	40	52	54	54	52	45



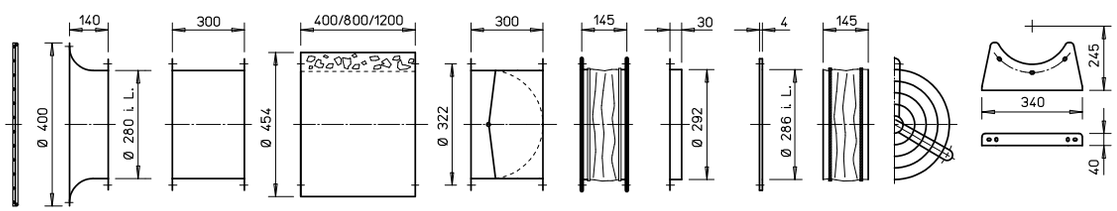
Performance curves AMD and AMW 280/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	64	36	52	57	59	58	54	45
$L_{PA,\ 4m}$	Air noise	dB(A)	44	16	32	37	39	38	34	25



* Three-phase current noise data. Alternating current noise data see www.HeliosSelect.de.

Accessories AMD and AMW 280



Intake nozzle with prot. grille **ASD-SGD 280** No. 01415

Extension duct **VR 280** No. 01403

Duct silencer **RSD 280/..**

Duct shutter, automatic **RVS 280** [a] No. 02593

Flanged flexible connector **STS 280** No. 01231

Counter flange **FR 280** No. 01214

Flat flange **FF 280** No. 04942

Flexible connecting sleeve **FM 280** No. 01673

Protection grille duct side **SG 280** No. 01428

Mounting brackets **MK 280** (1 Set = 2 pcs) No. 01447

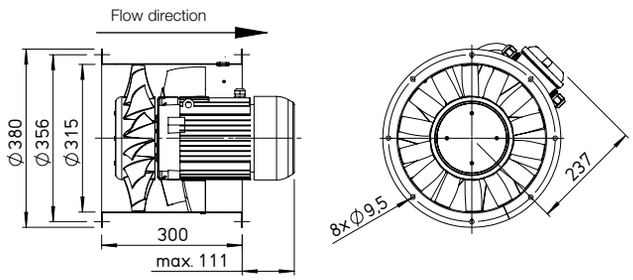
Vibration dampers for tensile load **SDZ 1*** (1 set = 4 Pc) No. 01454
Vibration dampers for compression load **SDD 1*** (1 set = 4 Pc) No. 01452

[a] Shutter, motorised see Accessories product pages. * Type assignment see table, last column.

	Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers			
			Compression		Tension	
	Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454

AMD and AMW 315

Dimensions AMD and AMW 315



Dim. in mm

Casing
Duct with double-sided flange DIN 24155 p. 3. Made of galvanised steel sheet, fixed guide wheel with inner hub for mounting the flange motor.

Impeller / guide wheel
Impeller with 3D profiled blades and integrated flow geometry made of high-quality plastic. An optimised guide wheel made of galvanised steel is connected to the impeller. The impeller and guide wheel are efficiency-optimised and pressure-optimised for high volume flows by means of CFD. Dynamically balanced in accordance with ISO 21940-11. Operating range –30 to +60 °C.

Drive
Directly through maintenance-free flange motor. Closed design type IP54. Aluminium casing with cooling fins. Radio interference-free, sealed ball bearings. With condensate drain holes upon request and the installation method must be indicated when placing the order. Tropicalised winding with moisture proof coating upon request.

Power control
The voltage-controllable types are identified in the “Current consumption with control mode” column with a value which must be observed when determining the controller (see “speed controller” column). The flow rates are shown in the performance diagram. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) on outside of duct.

Installation
Installation possible in any position. Condensate drain holes in the motor depending on usage are possible upon request.

Motor protection
All types are equipped with thermal contacts. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection.

Noise levels
See performance diagram. The sound power and sound pressure at 4 m distance under free field conditions are specified for the average operating point on the inlet/outlet side. See page 14 f for noise emissions and room acoustics.

Reference	Page
Selection table	229
Planning information	14 ff.

Special design
Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

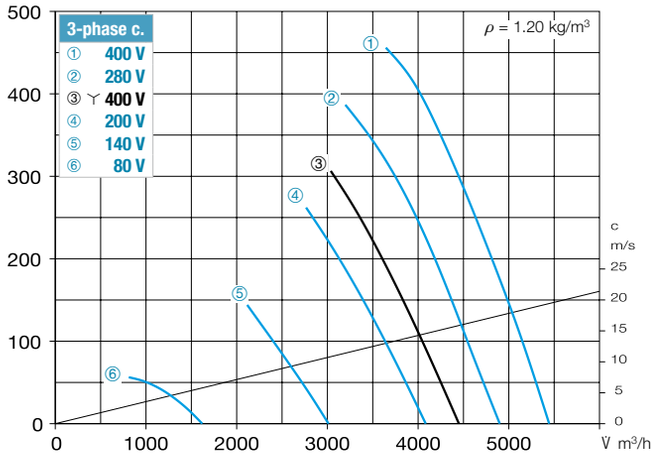
Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

Type	Ref. no.	Speed	Flow rate free blowing	Power consump.	Voltage	Current consumption at rated voltage	Current consumption with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Speed controller 5-step Type	Speed controller 5-step Ref. no.	Frequency inverter with integrated sine filter Type	Frequency inverter with integrated sine filter Ref. no.
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+ °C	+ °C	aprx. kg				
Single-phase alternating current.50 Hz, protection category IP54															
AMW 315/4	02265	1395	2860	0.2	230	1	1.1	966.1	60	40	13.1	**MWS 1.5** [1]	01947	—	
Three-phase current, 50 Hz, protection category IP54															
AMD 315/4	02266	1455	2950	0.2	400	0.6	0.6	469	60	40	12.2	**RDS 1** [1]	01314	—	
Two-speed, three-phase current, 50 Hz, Y/Δ connection, protection category IP54															
AMD 315/2/2	02267	2200/2650	4450/5450	0.7/1.1	400/400	1.6/2.5	2.3	520	60	40	18.5	**RDS 4** [1]	01316	**FU-BS 5.0**	05460

[1] incl. motor protection circuit breaker.

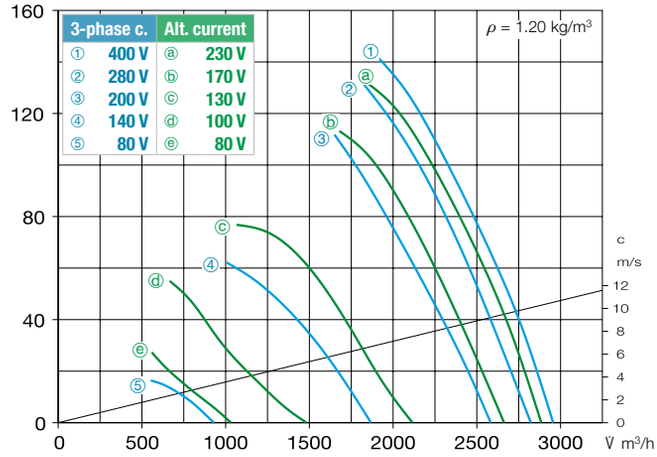
Performance curves AMD 315/2

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	83	57	67	77	78	78	75	68
$L_{PA,\ 4m}$	Air noise	dB(A)	63	37	47	57	58	58	55	48



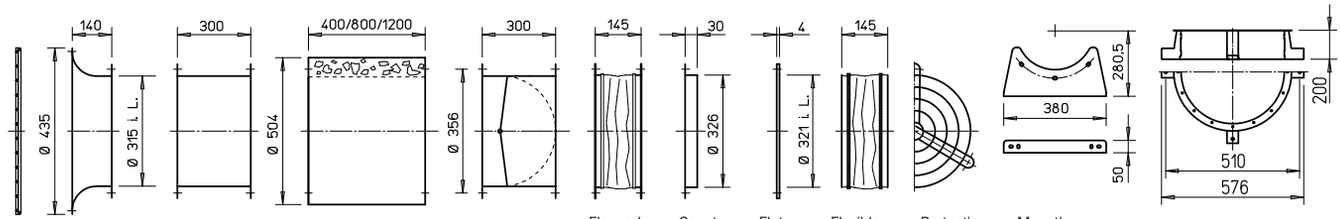
Performance curves AMD and AMW 315/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	70	42	58	63	64	64	61	53
$L_{PA,\ 4m}$	Air noise	dB(A)	50	22	38	43	44	44	41	33



* Three-phase current noise data. Alternating current noise data see www.HeliosSelect.de.

Accessories AMD and AMW 315



Intake nozzle with prot. grille **ASD-SGD 315** No. 01416

Extension duct **VR 315** No. 01404

Duct silencer **RSD 315/..**

Duct shutter, automatic **RVS 315** [a] No. 02594

Flanged flexible connector **STS 315** No. 01221

Counter flange **FR 315** No. 01204

Flat flange **FF 315** No. 04943

Flexible connecting sleeve **FM 315** No. 01674

Protection grille duct side **SG 315** No. 01237

Mounting brackets **MK 315** (1 Set = 2 pcs) No. 01448

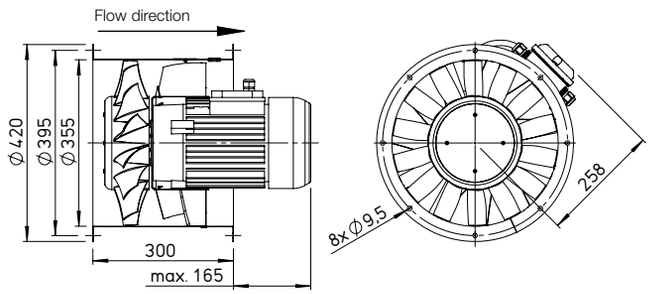
Mounting ring for vertical attachment **MRV 315** No. 01755

[a] Shutter, motorised see Accessories product pages. * Type assignment see table, last column.

	Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers			
			Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454
	M 4	01571	**SDD 1**	01452	**SDZ 1**	01454

AMD and AMW 355

Dimensions AMD and AMW 355



Dim. in mm

Casing
Duct with double-sided flange DIN 24155 p. 3. Made of galvanised steel sheet, fixed guide wheel with inner hub for mounting the flange motor.

Impeller / guide wheel
Impeller with 3D profiled blades and integrated flow geometry made of high-quality plastic. An optimised guide wheel made of galvanised steel is connected to the impeller. The impeller and guide wheel are efficiency-optimised and pressure-optimised for high volume flows by means of CFD. Dynamically balanced in accordance with ISO 21940-11. Operating range –30 to +60 °C.

Drive
Directly through maintenance-free flange motor. Closed design type IP54. Aluminium casing with cooling fins. Radio interference-free, sealed ball bearings. With condensate drain holes upon request and the installation method must be indicated when placing the order. Tropicalised winding with moisture proof coating upon request.

Power control
The voltage-controllable types are identified in the “Current consumption with control mode” column with a value which must be observed when determining the controller (see “speed controller” column). The flow rates are shown in the performance diagram. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) on outside of duct.

Installation
Installation possible in any position. Condensate drain holes in the motor depending on usage are possible upon request.

Motor protection
All types are equipped with thermal contacts. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection.

Noise levels
See performance diagram. The sound power and sound pressure at 4 m distance under free field conditions are specified for the average operating point on the inlet/outlet side. See page 14 f for noise emissions and room acoustics.

Reference	Page
Selection table	229
Planning information	14 ff.

Special design
Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

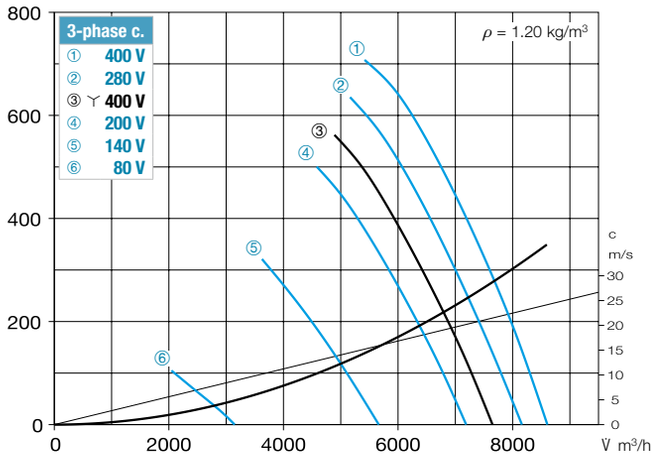
Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

Type	Ref. no.	Speed	Flow rate free blowing	Power consump.	Voltage	Current consumption at rated voltage	Current consumption with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Speed controller 5-step Type	Speed controller 5-step Ref. no.	Frequency inverter with integrated sine filter Type	Frequency inverter with integrated sine filter Ref. no.
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+ °C	+ °C	aprx. kg				
Single-phase alternating current.50 Hz, protection category IP54															
AMW 355/4	02275	1430	4170	0.4	230	1.8	2.4	968.1	60	40	16.9	**MWS 3** [1]	01948	—	
Three-phase current, 50 Hz, protection category IP54															
AMD 355/4	02276	1445	4300	0.35	400	0.9	1.1	469	60	40	15.7	**RDS 2** [1]	01315	**FU-BS 2.5**	05459
Two-speed, three-phase current, 50 Hz, Y/Δ connection, protection category IP54															
AMD 355/2/2	02277	2200/2775	8610/7640	1.3/2.3	400/400	3.0/5.4	5.6	520	60	40	30.3	**RDS 7** [1]	01578	**FU-BS 8.0**	05461

[1] incl. motor protection circuit breaker.

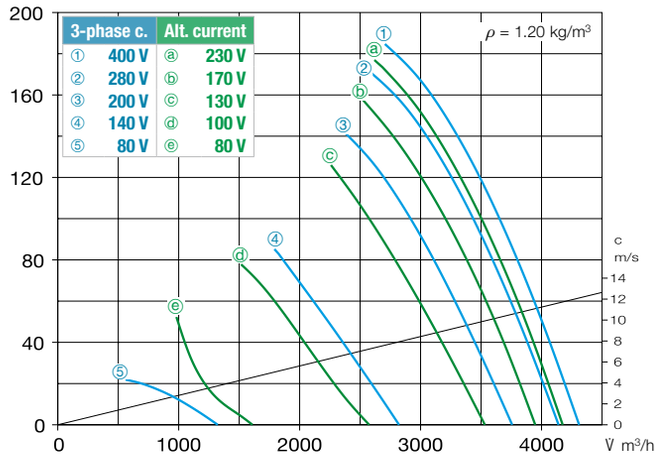
Performance curves AMD 355/2

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	88	63	71	81	82	83	80	74
$L_{PA,\ 4m}$	Air noise	dB(A)	68	43	51	61	62	63	60	54



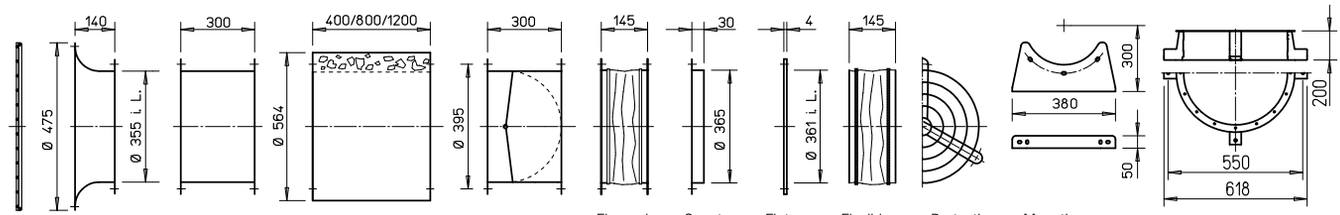
Performance curves AMD and AMW 355/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	73	48	61	66	67	66	65	56
$L_{PA,\ 4m}$	Air noise	dB(A)	53	28	41	46	47	46	45	36



* Three-phase current noise data. Alternating current noise data see www.HeliosSelect.de.

Accessories AMD and AMW 355



Intake nozzle with prot. grille **ASD-SGD 355** No. 01417

Extension duct **VR 355** No. 01405

Duct silencer **RSD 355/..**

Duct shutter, automatic **RVS 355** a) No. 02595

Flanged flexible connector **STS 355** No. 01222

Counter flange **FR 355** No. 01205

Flat flange **FF 355** No. 04944

Flexible connecting sleeve **FM 355** No. 01675

Protection grille duct side **SG 355** No. 01238

Mounting brackets **MK 355** (1 Set = 2 pcs) No. 01448

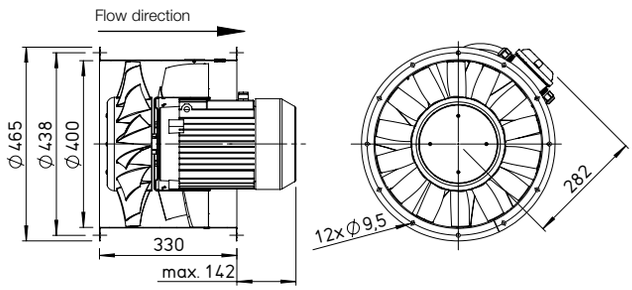
Mounting ring for vertical attachment **MRV 355** No. 01759

a) Shutter, motorised see Accessories product pages. * Type assignment see table, last column.

	Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers			
			Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454
	M 4	01571	**SDD 1**	01452	**SDZ 1**	01454

AMD and AMW 400

Dimensions AMD and AMW 400



Dim. in mm

Casing
Duct with double-sided flange DIN 24155 p. 3. Made of galvanised steel sheet, fixed guide wheel with inner hub for mounting the flange motor.

Impeller / guide wheel
Impeller with 3D profiled blades and integrated flow geometry made of high-quality plastic. An optimised guide wheel made of galvanised steel is connected to the impeller. The impeller and guide wheel are efficiency-optimised and pressure-optimised for high volume flows by means of CFD. Dynamically balanced in accordance with ISO 21940-11. Operating range –30 to +60 °C.

Drive
Directly through maintenance-free flange motor. Closed design type IP54. Aluminium casing with cooling fins. Radio interference-free, sealed ball bearings. With condensate drain holes upon request and the installation method must be indicated when placing the order. Tropicalised winding with moisture proof coating upon request.

Power control
The voltage-controllable types are identified in the “Current consumption with control mode” column with a value which must be observed when determining the controller (see “speed controller” column). The flow rates are shown in the performance diagram. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) on outside of duct.

Installation
Installation possible in any position. Condensate drain holes in the motor depending on usage are possible upon request.

Motor protection
All types are equipped with thermal contacts. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection.

Noise levels
See performance diagram. The sound power and sound pressure at 4 m distance under free field conditions are specified for the average operating point on the inlet/outlet side. See page 14 f for noise emissions and room acoustics.

Reference	Page
Selection table	229
Planning information	14 ff.

Special design
Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

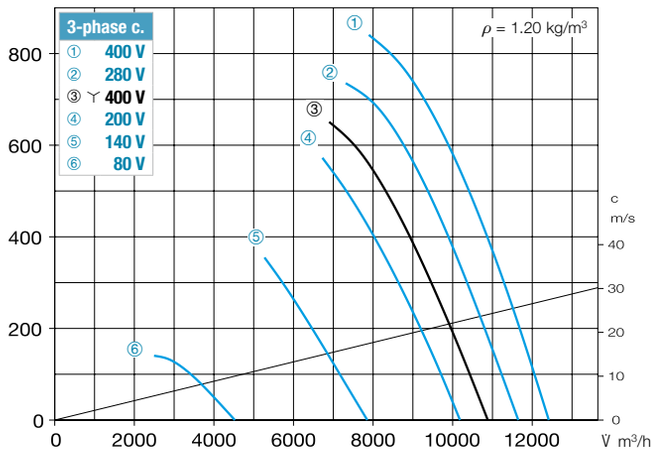
Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

Type	Ref. no.	Speed	Flow rate free blowing	Power consump.	Voltage	Current consumption at rated voltage	Current consumption with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Speed controller 5-step Type	Speed controller 5-step Ref. no.	Frequency inverter with integrated sine filter Type	Frequency inverter with integrated sine filter Ref. no.
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+ °C	+ °C	aprx. kg				
Single-phase alternating current.50 Hz, protection category IP54															
AMW 400/4	02280	1395	6000	0.6	230	2.6	3.1	967.1	60	40	23.2	**MWS 5** [1]	01949	—	
Three-phase current, 50 Hz, protection category IP54															
AMD 400/4	02281	1420	5980	0.6	400	1.9	2	469	60	40	22.0	**RDS 4** [1]	01316	**FU-BS 2.5**	05459
Two-speed, three-phase current, 50 Hz, Y/Δ connection, protection category IP54															
AMD 400/2/2	02282	2280/2780	10880/12430	2.4/4.4	400/400	5.5/9.5	9.5	520	50	30	44.9	**RDS 11** [1]	01332	**FU-BS 16**	05463

[1] incl. motor protection circuit breaker.

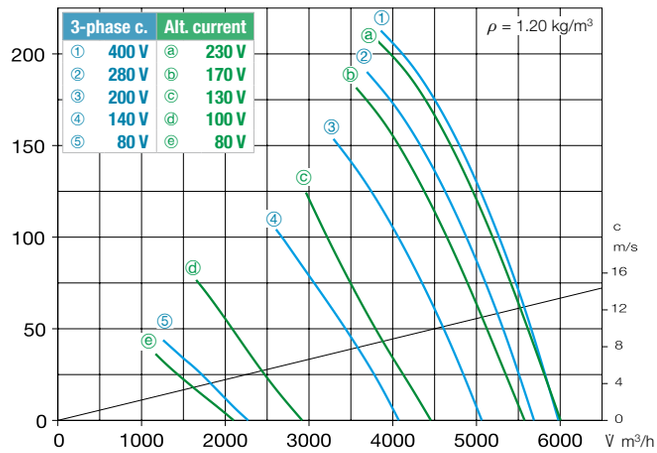
Performance curves AMD 400/2

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	93	65	74	88	88	88	83	75
$L_{PA,\ 4m}$	Air noise	dB(A)	73	45	54	68	68	68	63	55



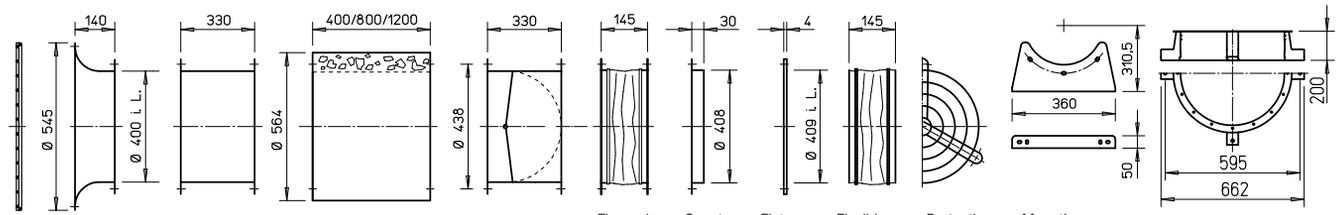
Performance curves AMD and AMW 400/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	76	55	66	70	70	70	68	58
$L_{PA,\ 4m}$	Air noise	dB(A)	56	35	46	50	50	50	48	38



* Three-phase current noise data. Alternating current noise data see www.HeliosSelect.de.

Accessories AMD and AMW 400



Intake nozzle with prot. grille **ASD-SGD 400** No. 01418

Extension duct **VR 400** No. 01406

Duct silencer **RSD 400/..**

Duct shutter, automatic **RVS 400** [a] No. 02596

Flanged flexible connector **STS 400** No. 01223

Counter flange **FR 400** No. 01206

Flat flange **FF 400** No. 04945

Flexible connecting sleeve **FM 400** No. 01676

Protection grille duct side **SG 400** No. 01239

Mounting brackets **MK 400** (1 Set = 2 pcs) No. 01449

Mounting ring for vertical attachment **MRV 400** No. 01760

[a] Shutter, motorised see Accessories product pages. * Type assignment see table, last column.

	Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers			
			Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
	MW	01579	**SDD 1**	01452	**SDZ 1**	01454
	MD	05849	**SDD 1**	01452	**SDZ 1**	01454
	M 4	01571	**SDD 1**	01452	**SDZ 1**	01454

Discover the Helios TGA catalogue.

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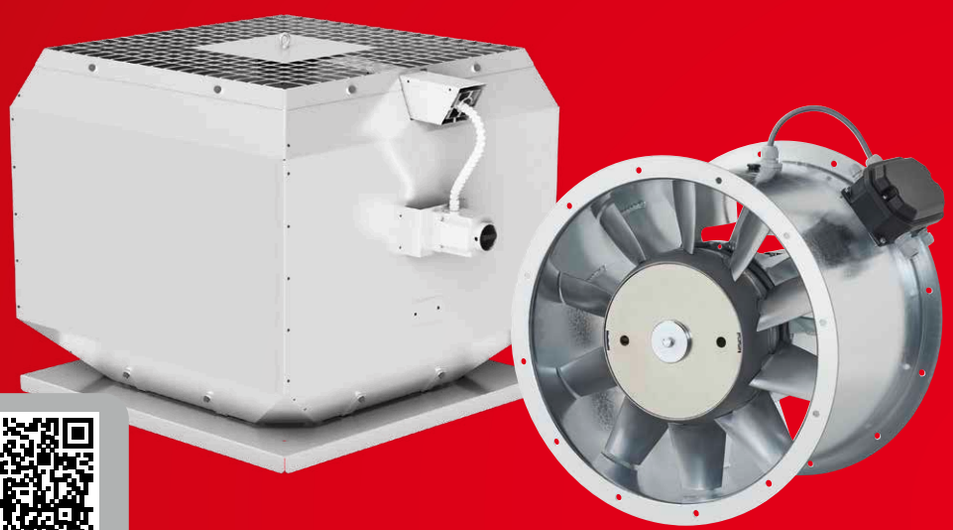


Axial and RADAX® VAR fans

The Helios TGA range includes low pressure and medium pressure axial fans as well as RADAX® VAR high pressure round duct fans in ND 280 to 1250 mm, $\dot{V}$ = 1000 – 150 000 m^3/h for smoke extraction applications with air flow temperatures of 300 °C, 400 °C and 600 °C over 120 min. (F300, F400, F600) or 40 °C for continuous ventilation.

Jet fans

Jet fans are used in parking garages for supply and extract ventilation and they ensure smoke extraction in case of fire.

Low-noise and universally applicable, the Helios axial jet fans set new standards in terms of thrust and weight. The centrifugal models excel on account of their ultra-flat, compact lightweight design and they are ideal when space is limited.

Smoke extraction roof fans and rectangular duct fans

Smoke extraction roof fans are available in ND 315 to 900 mm with flow rates from 1000 to 70 000 m^3/h. The versions in temperature class F400 and F600 allow use in mechanical smoke extraction systems.
These fans can also be used for daily ventilation. Smoke extraction rectangular duct fans for rectangular ducts and connectors are ideal for applications with air flow temperatures of 400 °C / 120 min.

Smoke protection pressure systems

In case of fire, smoke protection pressure systems (RDA) and stairway scavenging air systems (TSA) ensure life-saving smoke extraction in stairways and fire service lifts. The Helios RDA/TSA concept has a modular structure. The entire system is assembled in just a few steps with pre-configured packages. This guarantees smooth planning, installation and commissioning as well as completely secure system operation.

Request TGA catalogue
Ref. no. 86 979

Casing
- Tubular casing with welded-in motor support plate and guide wheel made of steel sheet. Flanges pressed on both sides according to DIN 24155, p. 3, for direct intermediate flanges in pipelines.
- Surface protection from hot-dip galvanising.

Impeller
- Hub and blades made of corrosion-resistant aluminium alloy.
- Dynamically balanced according to DIN ISO 21940-11, quality grade 6.3 for low-vibration operation.
- Ten aerodynamically profiled blades achieve the highest levels of efficiency and pressure rates in combination with the guide wheel.
- The angle of attack of the blades can be adjusted in the factory according to the ordered, optimal operating point.

Drive
- With regard to single-speed fans with a three-phase current motor and rated motor power ≤ 2.20 kW, the connection for direct start-up is provided (star-delta start-up for fans with rated motor power ≥ 3.00 kW.

- **AMD series**
  Directly through efficient IE 3 three-phase current standard motor. Pole-changeable fans with IEC standard motor. Protection category IP55, insulation class F.

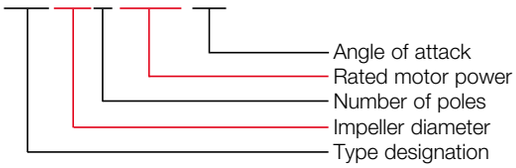
Power control
Continuously variable (0-100 %) through the use of a frequency inverter. The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Motor protrusion
- The motor protrudes over the casing for some types. The protrusion dim. B in mm pursuant to the type table must be taken into account.

Motor protection
- All AMD types come with PTC thermistors as standard motor protection. Effective motor protection is possible by means of motor protection circuit breaker (type MSA, Ref. no. 01289, accessories) or FU (accessories).

Electrical connection
- Standard terminal box (protection category IP55) made of plastic, mounted on the outside of the fan casing.

Order data
The desired angle of attack must be specified when ordering.
Example:
AMD 355/2 1.5 kW 34°



Air flow temperatures
- For supply and extract ventilation from –20 °C to +60 °C continuous temperature. Types for higher air flow temperatures upon request.

Air flow direction
- The fans are designed with air flow direction B = outlet over motor (Figure 1).

Noise levels
- The sound power values are specified over the frequency and as total levels for various angles of attack above the performance curves on the product pages.

Installation
- Horizontal and vertical installation depending on installation location.
- The use of vibration dampers (accessories) is recommended to prevent vibration transmission.

- **Duct installation (tipping over)**
  An extension duct (type VR, accessories) must be provided (Figure 2) to prevent the tendency of tipping over when installing medium pressure axial fans with inlet-side and outlet-side flanged flexible connectors (type STS, accessories).

- **Duct installation**
  Arrangement of mounting brack-ets (type MK) for horizontal attachment or a mounting ring (type MRV) for vertical attachment to the fan with vibration dampers. Use of vibration dampers for compression (type SDD, accessories) or tensile loads (type SDZ, accessories, for ceiling suspension). Inlet-side and outlet-side flanged flexible connectors (type STS, accessories) must be provided (Figure 3) to prevent the transmission of noise and vibrations.

- **Duct installation with inlet-side and outlet-side silencers**
  On-site brackets are necessary for attaching the silencers and supporting the weight depending on the local conditions. The inlet-side silencer must be provided with flanged flexible connectors (type STS, accessories) at the inlet (Figure 4) and the outlet-side silencer must be provided with these at the outlet.

Figure 1

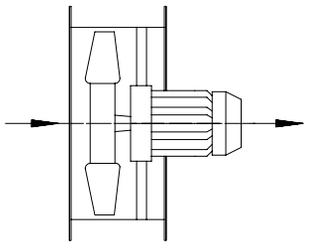


Figure 2

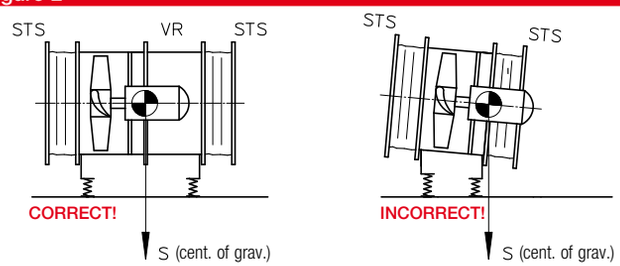


Figure 3

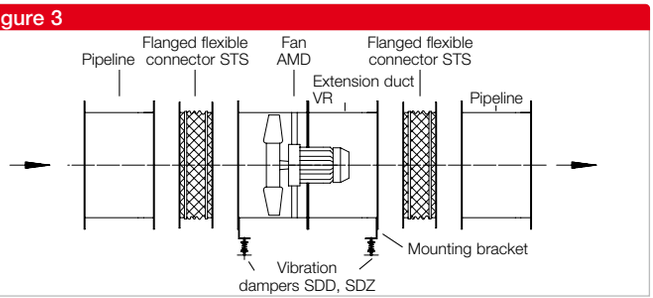


Figure 4

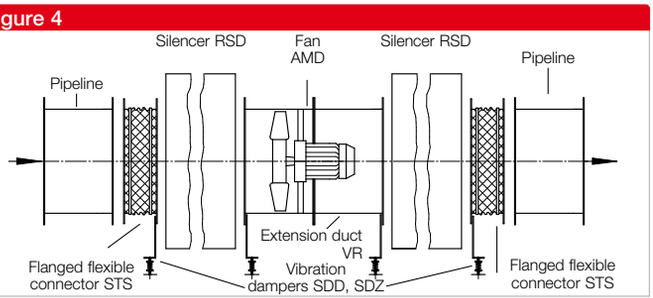
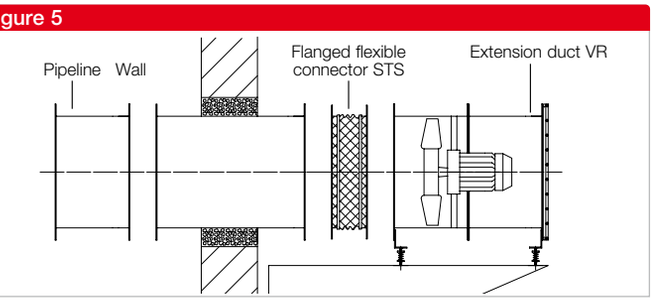


Figure 5

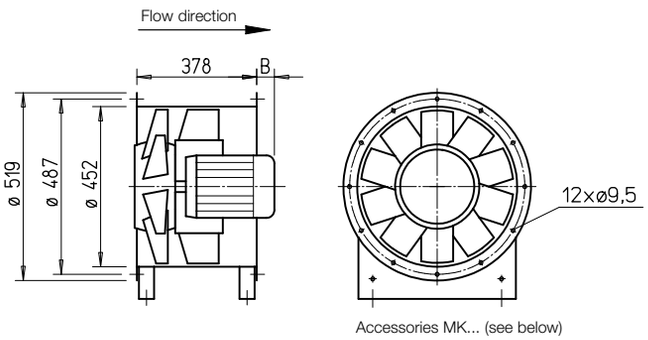


- **Wall installation (horizontal)**
  On on-site bracket. Wall outlet with round duct or rectangular duct, wall with mineral wool. Inlet-side and outlet-side flanged flexible connector (type STS, accessories) with extension duct (type VR, accessories) and protection grille (type SG, accessories) (Figure 5).

Reference	Page
Planning information	14 ff.
Installation accessories	276 ff.
Silencers	494
Speed controllers, pole changing switches	599 ff.

AMD 450

Dimensions AMD 450



Dim. in mm

Dim. B see table

Casing
Tubular casing with welded-in motor support plate and guide wheel made of steel sheet. Flanges pressed on both sides according to DIN 24155, p. 3, for direct intermediate flanges in pipelines. Surface protection from hot-dip galvanising.

Impeller
Hub and blades made of corrosion-resistant aluminium alloy. Dynamically balanced according to DIN ISO 21940-11, quality grade 6.3 for low-vibration operation.
Ten aerodynamically profiled blades achieve the highest levels of efficiency and pressure rates in combination with the guide wheel. The angle of attack of the blades can be adjusted in the factory according to the ordered, optimal operating point.

Drive
Directly through efficient IE 3 three-phase current standard motor.
Pole-changeable fans with IEC standard motor. Protection category IP55, insulation class F.

Power control
Continuously variable (0-100 %) through the use of a frequency inverter.
The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) made of plastic, mounted on the outside of the fan casing.

Motor protection
All AMD types come with PTC thermistors as standard motor protection. Effective motor protection is possible by means of motor protection circuit breaker (type MSA, Ref. no. 01289, accessories) or FU (accessories).

Dimensions
The motor protrudes over the casing for some types. The protrusion dim. B in mm pursuant to the type table must be taken into account.

Noise levels
The sound power values are specified over the frequency and as total levels for various angles of attack above the performance curves on the product pages.

Reference	Page
Planning information	14 ff.

Special design
Special design w/ inspect. opening (extra charge) upon request.

Other accessories	Page
Installation accessories	276 ff.
Silencers	496 ff.
Switching and control technology	599 ff.

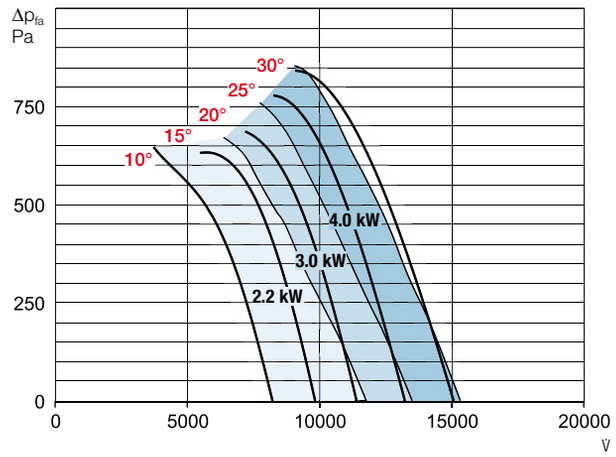
Type	Ref. no.	Speed	Rated motor power (output)	Voltage	Current consump. nominal	Dim. B Motor protrusion	Wiring diagram	Max. air flow temp.	Weight net	Frequency inverter with integrated sine filter		Motor protection circuit breaker or pole changing switch		
		min^{-1}	kW	V	A	mm	No.	+ °C	kg	**Type**	Ref. no.	**Type**	Ref. no.	
Three-phase current, 400 V, 50 Hz, protection category IP55														
AMD 450/4 0.75 kW	03109	1430	0.75	400	1.8	15	796	60	40	**FU-BS 2.5**	05459	**MSA**	01289	
AMD 450/4 1.1 kW	03110	1440	1.1	400	2.5	40	796	60	44	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 450/2 2.2 kW	03106	2890	2.2	400	4.3	65	796	60	47	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 450/2 3 kW	03107	2880	3	400*	5.7	105	776	60	54	**FU-BS 8.0**	05461	**MSA**	01289	
AMD 450/2 4 kW	03108	2910	4	400*	7.4	155	776	60	57	**FU-BS 8.0**	05461	**MSA**	01289	
Pole-changeable, 2 speeds, three-phase current, Dahlander winding ⅄/⅄⅄, 400 V, 50 Hz, protection category IP55												Surface-mounted pole changing switch		
AMD 450/4/2 0.65/2.5 kW	03121	1380/2855	0.65/2.5	400	1.9/5.0	40	777	60	61	—	—	**PDA 12**[1)]	05081	
AMD 450/4/2 0.8/3.1 kW	03111	1380/2860	0.8/3.1	400	2.1/6.1	65	777	60	61	—	—	**PDA 12**[1)]	05081	
AMD 450/4/2 1.1/4.4 kW	03113	1390/2860	1.1/4.4	400	3.0/8.7	155	777	60	67	—	—	**PDA 12**[1)]	05081	

The angle of attack must be specified when ordering. [1)] Flush-m. version see Switch product page. * ⅄/△ Start-up.

Performance curves AMD 450/2

n=2900 1/min

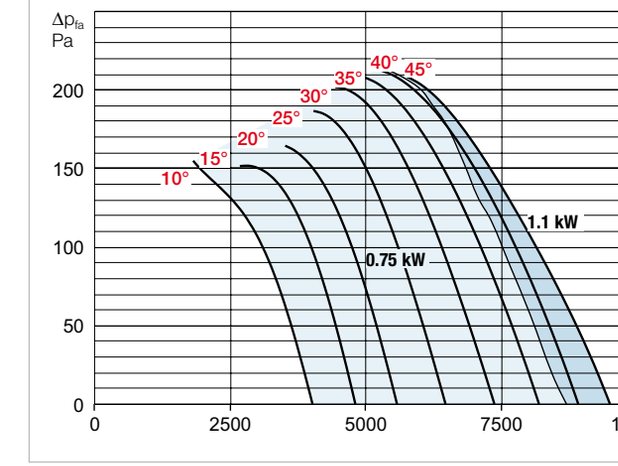
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	100	77	90	95	99	99	94	85
L_{WA}	20°	dB(A)	101	79	91	99	100	100	96	87
L_{WA}	30°	dB(A)	104	81	93	101	103	102	98	89



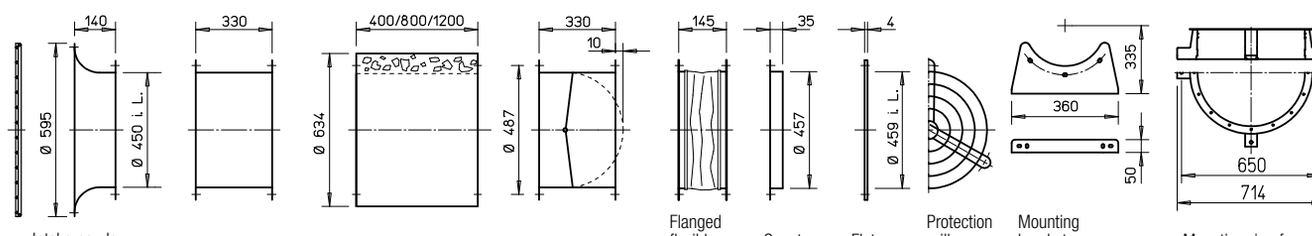
Performance curves AMD 450/4

n=1420 1/min

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	83	68	78	81	82	80	73	61
L_{WA}	20°	dB(A)	85	69	79	84	84	82	74	63
L_{WA}	30°	dB(A)	86	71	81	83	85	82	76	65



Accessories AMD 450



Intake nozzle with prot. grille **ASD-SGD 450** No. 01419

Extension duct **VR 450** No. 01407

Duct silencer **RSD 450/..**

Duct shutter **RVS 450** [a] No. 02597

Flanged flexible connector **STS 450** No. 01224

Counter flange **FR 450** No. 01207

Flat flange **FF 450** No. 04946

Protection grille duct side **SG 450** No. 01240

Mounting brackets **MK 400-450** (1 Set = 2 pcs) No. 01449

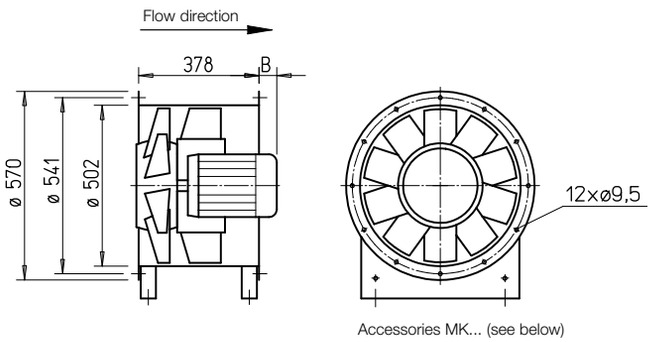
Mounting ring for vertical attachment **MRV 450** No. 01761

[a] Shutter, motorised, see Accessories product page.

	Vibration dampers			
	Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 2**	01455
	SDD 1	01452	**SDZ 2**	01455
	SDD 1	01452	**SDZ 2**	01455

AMD 500

Dimensions AMD 500



Dim. in mm

Dim. B see table

Casing
Tubular casing with welded-in motor support plate and guide wheel made of steel sheet. Flanges pressed on both sides according to DIN 24155, p. 3, for direct intermediate flanges in pipelines. Surface protection from hot-dip galvanising.

Impeller
Hub and blades made of corrosion-resistant aluminium alloy. Dynamically balanced according to DIN ISO 21940-11, quality grade 6.3 for low-vibration operation.
Ten aerodynamically profiled blades achieve the highest levels of efficiency and pressure rates in combination with the guide wheel. The angle of attack of the blades can be adjusted in the factory according to the ordered, optimal operating point.

Drive
Directly through efficient IE 3 three-phase current standard motor.
Pole-changeable fans with IEC standard motor. Protection category IP55, insulation class F.

Power control
Continuously variable (0-100 %) through the use of a frequency inverter.
The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) made of plastic, mounted on the outside of the fan casing.

Motor protection
All AMD types come with PTC thermistors as standard motor protection. Effective motor protection is possible by means of motor protection circuit breaker (type MSA, Ref. no. 01289, accessories) or FU (accessories).

Dimensions
The motor protrudes over the casing for some types. The protrusion dim. B in mm pursuant to the type table must be taken into account.

Noise levels
The sound power values are specified over the frequency and as total levels for various angles of attack above the performance curves on the product pages.

Reference	Page
Planning information	14 ff.

Special design
Special design w/ inspect. opening (extra charge) upon request.

Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

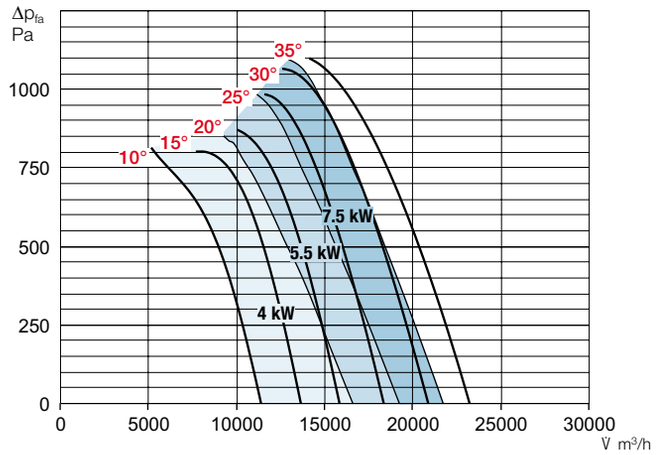
Type	Ref. no.	Speed	Rated motor power (output)	Voltage	Current consump. nominal	Dim. B Motor protrusion	Wiring diagram	Max. air flow temp.	Weight net	Frequency inverter with integrated sine filter		Motor protection circuit breaker or pole changing switch		
		min^{-1}	kW	V	A	mm	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.	
Three-phase current, 400 V, 50 Hz, protection category IP55														
AMD 500/4 0.75 kW	03118	1430	0.75	400	1.8	35	796	60	46	**FU-BS 2.5**	05459	**MSA**	01289	
AMD 500/4 1.1 kW	03119	1440	1.1	400	2.5	60	796	60	50	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 500/4 1.5 kW	03122	1440	1.5	400	3.3	85	796	60	53	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 500/2 4 kW	03115	2910	4	400*	7.4	175	776	60	83	**FU-BS 8.0**	05461	**MSA**	01289	
AMD 500/2 5.5 kW	03116	2940	5.5	400*	10.1	180	776	60	97	**FU-BS 16**	05463	**MSA**	01289	
AMD 500/2 7.5 kW	03117	2930	7.5	400*	14.1	220	776	60	102	**FU-BS 16**	05463	**MSA**	01289	
Pole-changeable, 2 speeds, three-phase current, Dahlander winding Y/YY, 400 V, 50 Hz, protection category IP55												Surface-mounted pole changing switch		
AMD 500/8/4 0.22/1.0 kW [3]	03275	645/1390	0.22/1.0	400	0.9/2.4	60	777	60	55	—	—	**PDA 12** [1]	05081	
AMD 500/8/4 0.3/1.5 kW [3]	03276	645/1390	0.3/1.5	400	1.1/3.0	85	777	60	58	—	—	**PDA 12** [1]	05081	
AMD 500/8/4 1.4/5.9 kW [3]	03273	1400/2900	1.4/5.9	400	3.6/11.4	180	777	60	118	—	—	**PDA 12** [1]	05081	
AMD 500/8/4 2.0/8.0 kW [3]	03274	1410/2900	2.0/8.0	400	4.7/14.9	220	777	60	129	—	—	**PDA 25**	05060	

The angle of attack must be specified when ordering. * Y/Δ Start-up.
[1] Flush-m. version see Switch product page. [2] Extension duct VR over motor protrusion required. [3] Performance curves for low speed available on request.

Performance curves AMD 500/2

n=2930 1/min

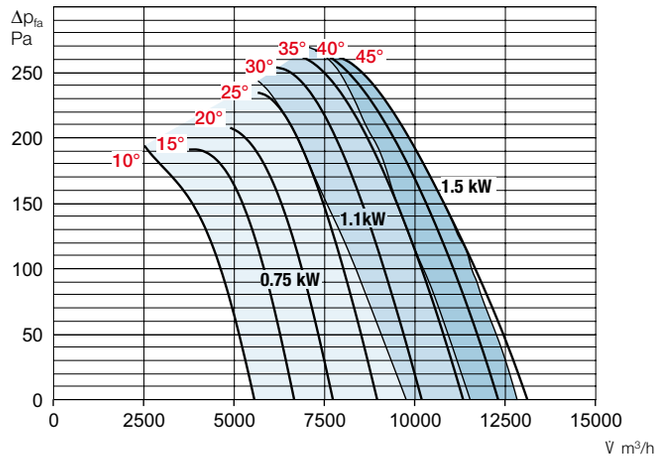
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	103	80	93	99	102	100	97	88
L_{WA}	20°	dB(A)	105	82	94	100	104	102	99	90
L_{WA}	30°	dB(A)	107	84	96	104	106	104	101	92



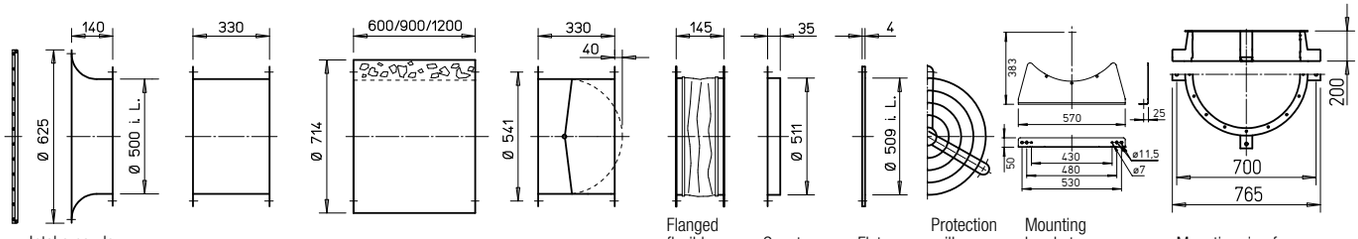
Performance curves AMD 500/4

n=1430 1/min

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	87	71	81	86	86	83	76	64
L_{WA}	20°	dB(A)	88	72	82	86	87	85	77	66
L_{WA}	30°	dB(A)	90	74	84	88	89	87	79	68



Accessories AMD 500



Intake nozzle with prot. grille **ASD-SGD 500** No. 01420

Extension duct **VR 500** No. 01408

Duct silencer **RSD 500/..**

Duct shutter **RVS 500** [a] No. 02598

Flanged flexible connector **STS 500** No. 01225

Counter flange **FR 500** No. 01208

Flat flange **FF 500** No. 04947

Protection grille duct side **SG 500** No. 01241

Mounting brackets **MK 500** (1 Set = 2 pcs) No. 00674

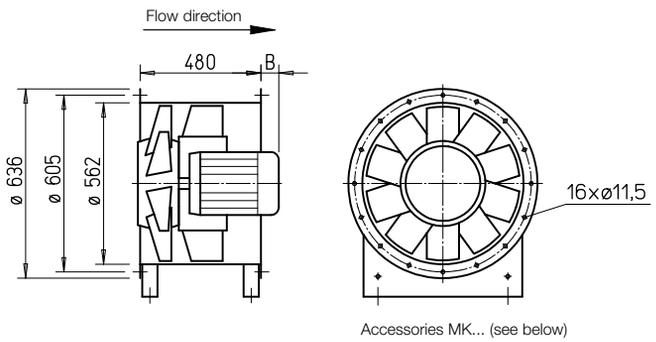
Mounting ring for vertical attachment **MRV 500** No. 01740

[a] Shutter, motorised, see Accessories product page.

	Vibration dampers			
	Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 1**	01454
	SDD 2	01453	**SDZ 2**	01455
	SDD 2 [2]	01453	**SDZ 2** [2]	01455
	SDD 2 [2]	01453	**SDZ 2** [2]	01455
	SDD 1	01452	**SDZ 1**	01454
	SDD 1	01452	**SDZ 2**	01455
	SDD 2 [2]	01453	**SDZ 2** [2]	01455
	SDD 2 [2]	01453	**SDZ 2** [2]	01455

AMD 560

Dimensions AMD 560



Dim. in mm

Dim. B see table

Casing
Tubular casing with welded-in motor support plate and guide wheel made of steel sheet. Flanges pressed on both sides according to DIN 24155, p. 3, for direct intermediate flanges in pipelines. Surface protection from hot-dip galvanising.

Impeller
Hub and blades made of corrosion-resistant aluminium alloy. Dynamically balanced according to DIN ISO 21940-11, quality grade 6.3 for low-vibration operation.
Ten aerodynamically profiled blades achieve the highest levels of efficiency and pressure rates in combination with the guide wheel. The angle of attack of the blades can be adjusted in the factory according to the ordered, optimal operating point.

Drive
Directly through efficient IE 3 three-phase current standard motor.
Pole-changeable fans with IEC standard motor. Protection category IP55, insulation class F.

Power control
Continuously variable (0-100 %) through the use of a frequency inverter.
The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) made of plastic, mounted on the outside of the fan casing.

Motor protection
All AMD types come with PTC thermistors as standard motor protection. Effective motor protection is possible by means of motor protection circuit breaker (type MSA, Ref. no. 01289, accessories) or FU (accessories).

Dimensions
The motor protrudes over the casing for some types. The protrusion dim. B in mm pursuant to the type table must be taken into account.

Noise levels
The sound power values are specified over the frequency and as total levels for various angles of attack above the performance curves on the product pages.

Reference	Page
Planning information	14 ff.

Special design
Special design w/ inspect. opening (extra charge) upon request.

Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

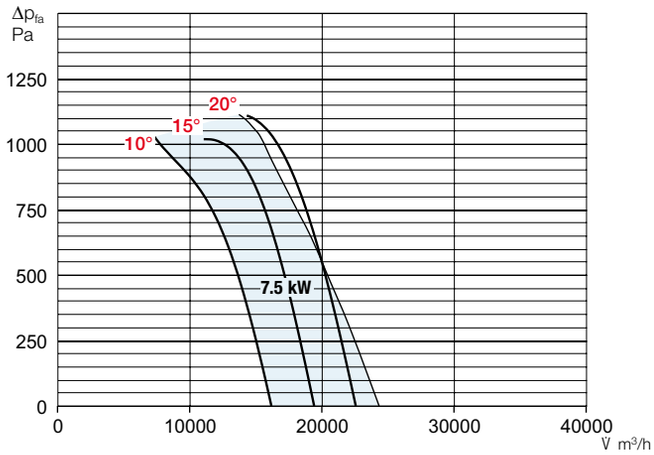
Type	Ref. no.	Speed	Rated motor power (output)	Voltage	Current consump. nominal	Dim. B Motor protrusion	Wiring diagram	Max. air flow temp.	Weight net	Frequency inverter with integrated sine filter		Motor protection circuit breaker or pole changing switch		
		min^{-1}	kW	V	A	mm	No.	+ °C	kg	**Type**	Ref. no.	**Type**	Ref. no.	
Three-phase current, 400 V, 50 Hz, protection category IP55														
AMD 560/4 1.1 kW	03281	1440	1.1	400	2.5	0	796	60	61	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 560/4 1.5 kW	03282	1440	1.5	400	3.3	0	796	60	64	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 560/4 2.2 kW	03285	1455	2.2	400	4.5	40	796	60	74	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 560/4 3 kW	03286	1440	3	400*	6.0	40	776	60	80	**FU-BS 8.0**	05461	**MSA**	01289	
AMD 560/2 7.5 kW	03279	2930	7.5	400*	14.1	100	776	60	123	**FU-BS 16**	05463	**MSA**	01289	
Pole-changeable, 2 speeds, three-phase current, Dahlander winding ⅄/⅄⅄, 400 V, 50 Hz, protection category IP55												Surface-mounted pole changing switch		
AMD 560/8/4 0.55/2.0 kW [2]	03272	680/1410	0.55/2.0	400	2.0/4.5	0	777	60	79	—	—	**PDA 12** [1]	05081	
AMD 560/8/4 0.65/2.4 kW [2]	03290	680/1410	0.65/2.4	400	2.5/5.5	40	777	60	79	—	—	**PDA 12** [1]	05081	
AMD 560/4/2 2.0/8.0 kW	03287	1410/2900	2.0/8.0	400	4.7/14.9	100	777	60	149	—	—	**PDA 25**	05060	

The angle of attack must be specified when ordering. [1] Flush-m. version see Switch product page. [2] Performance curves for low speed available on request. * ⅄/△ Start-up.

Performance curves AMD 560/2

n=2930 1/min

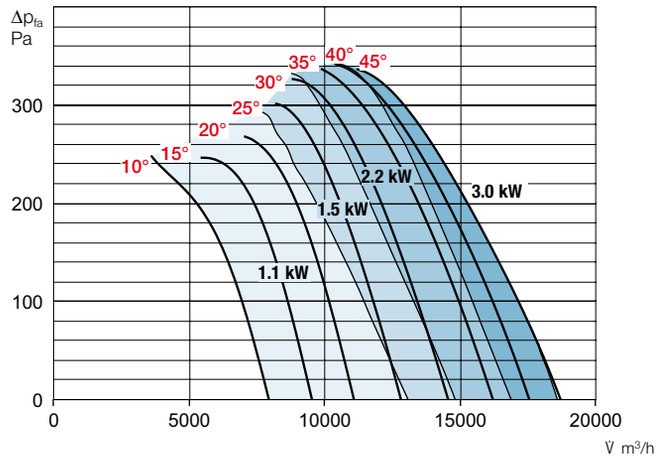
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	107	84	96	104	106	105	101	91
L_{WA}	20°	dB(A)	108	85	97	105	107	105	102	93
L_{WA}	30°	dB(A)	111	87	100	107	110	109	105	95



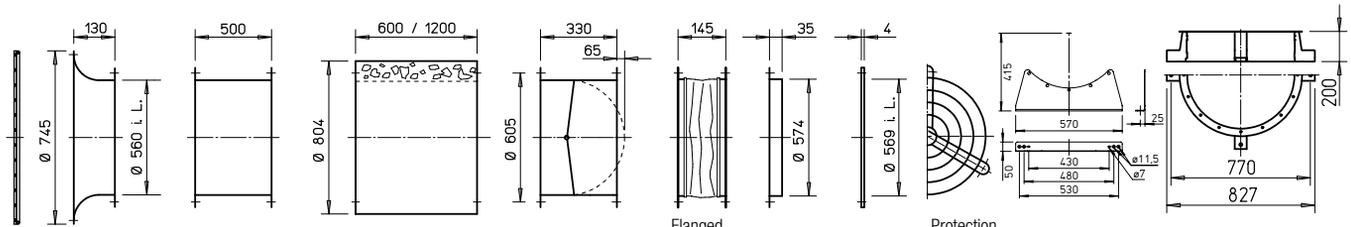
Performance curves AMD 560/4

n=1440 1/min

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	90	74	84	89	89	87	79	68
L_{WA}	20°	dB(A)	92	76	85	91	91	88	81	69
L_{WA}	30°	dB(A)	93	77	87	91	92	90	82	71



Accessories AMD 560



Intake nozzle with prot. grille **ASD-SGD 560** No. 01421

Extension duct **VR 560** No. 01409

Duct silencer **RSD 560/..**

Duct shutter **RVS 560** [a] No. 02599

Flanged flexible connector **STS 560** No. 01226

Counter flange **FR 560** No. 01209

Flat flange **FF 560** No. 04948

Protection grille duct side **SG 560** No. 01242

Mounting brackets **MK 560** (1 Set = 2 pcs) No. 00675

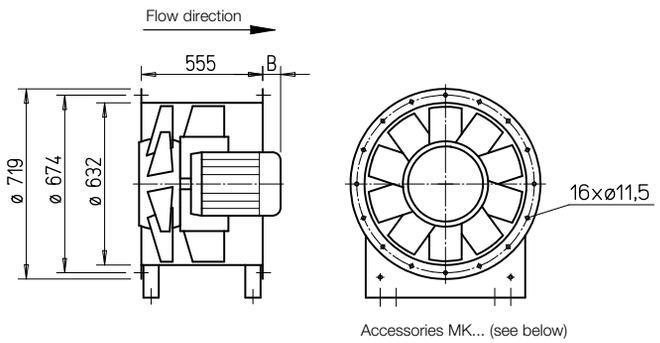
Mounting ring for vertical attachment **MRV 560** No. 01741

[a] Shutter, motorised, see Accessories product page.

	Vibration dampers			
	Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.
	SDD 1	01452	**SDZ 2**	01455
	SDD 1	01452	**SDZ 2**	01455
	SDD 1	01452	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455

AMD 630

Dimensions AMD 630



Dim. in mm

Dim. B see table

Casing
Tubular casing with welded-in motor support plate and guide wheel made of steel sheet. Flanges pressed on both sides according to DIN 24155, p. 3, for direct intermediate flanges in pipelines. Surface protection from hot-dip galvanising.

Impeller
Hub and blades made of corrosion-resistant aluminium alloy. Dynamically balanced according to DIN ISO 21940-11, quality grade 6.3 for low-vibration operation.
Ten aerodynamically profiled blades achieve the highest levels of efficiency and pressure rates in combination with the guide wheel. The angle of attack of the blades can be adjusted in the factory according to the ordered, optimal operating point.

Drive
Directly through efficient IE 3 three-phase current standard motor.
Pole-changeable fans with IEC standard motor. Protection category IP55, insulation class F.

Power control
Continuously variable (0-100 %) through the use of a frequency inverter.
The planned use of a frequency inverter without a sine filter should be indicated when placing the order. This requires a change of fan version and additional costs, if necessary.

Electrical connection
Standard terminal box (protection category IP55) made of plastic, mounted on the outside of the fan casing.

Motor protection
All AMD types come with PTC thermistors as standard motor protection. Effective motor protection is possible by means of motor protection circuit breaker (type MSA, Ref. no. 01289, accessories) or FU (accessories).

Dimensions
The motor protrudes over the casing for some types. The protrusion dim. B in mm pursuant to the type table must be taken into account.

Noise levels
The sound power values are specified over the frequency and as total levels for various angles of attack above the performance curves on the product pages.

Reference	Page
Planning information	14 ff.

Special design
Special design w/ inspect. opening (extra charge) upon request.

Other accessories	Page
Installation accessories	276 ff.
Silencers	494 ff.
Switching and control technology	599 ff.

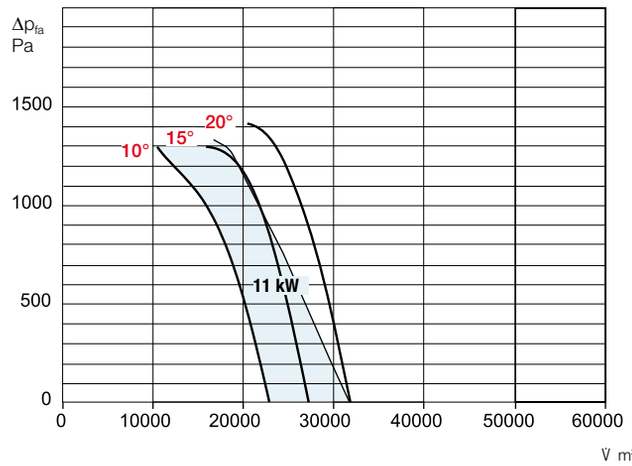
Type	Ref. no.	Speed	Rated motor power (output)	Voltage	Current consump. nominal	Dim. B Motor protrusion	Wiring diagram	Max. air flow temp.	Weight net	Frequency inverter with integrated sine filter		Motor protection circuit breaker or pole changing switch		
		min^{-1}	kW	V	A	mm	No.	+ °C	kg	Type	Ref. no.	Type	Ref. no.	
Three-phase current, 400 V, 50 Hz, protection category IP55														
AMD 630/4 1.5 kW	03291	1440	1.5	400	3.3	0	796	60	84	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 630/4 2.2 kW	03292	1455	2.2	400	4.5	0	796	60	84	**FU-BS 5.0**	05460	**MSA**	01289	
AMD 630/4 3 kW	03293	1440	3.0	400*	6.0	0	776	60	99	**FU-BS 8.0**	05461	**MSA**	01289	
AMD 630/4 4 kW	03294	1500	4.0	400*	7.4	30	776	60	94	**FU-BS 10.0**	05462	**MSA**	01289	
AMD 630/4 5.5 kW	03295	1470	5.0	400*	10.7	40	776	60	115	**FU-BS 16**	05463	**MSA**	01289	
AMD 630/2 11 kW	03376	2945	11.0	400*	20.0	145	776	60	210	**FU-CS 22**	05470	**MSA**	01289	
Pole-changeable, 2 speeds, three-phase current, Dahlander winding ⅄/⅄⅄, 400 V, 50 Hz, protection category IP55												Surface-mounted pole changing switch		
AMD 630/8/4 0.55/2.0 kW [2]	03297	680/1410	0.55/2.0	400	2.0/4.5	0	777	60	98	—	—	**PDA 12** [1]	05081	
AMD 630/8/4 0.9/3.2 kW [2]	03298	680/1420	0.9/3.2	400	3.2/7.1	30	777	60	104	—	—	**PDA 12** [1]	05081	
AMD 630/8/4 1.1/4.5 kW [2]	03299	680/1435	1.1/4.5	400	3.6/9.3	40	777	60	130	—	—	**PDA 12** [1]	05081	

The angle of attack must be specified when ordering. [1] Flush-m. version see Switch product page. [2] Performance curves for low speed available on request. * ⅄/△ Start-up.

Performance curves AMD 630/2

n=2940 1/min

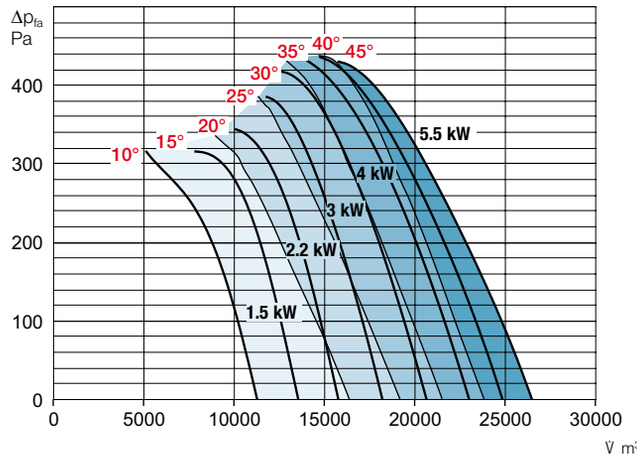
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	112	84	97	104	108	106	101	92
L_{WA}	20°	dB(A)	114	87	99	107	110	109	104	95
L_{WA}	30°	dB(A)	116	89	101	109	112	111	106	97



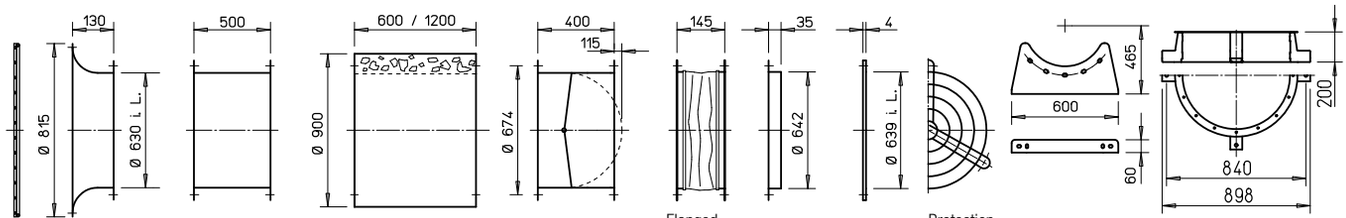
Performance curves AMD 630/4

n=1450 1/min

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	94	78	87	93	93	90	83	71
L_{WA}	20°	dB(A)	95	79	89	92	94	91	84	72
L_{WA}	30°	dB(A)	97	81	91	95	96	93	86	74



Accessories AMD 630



Intake nozzle with prot. grille **ASD-SGD 630** No. 01422

Extension duct **VR 630** No. 01410

Duct silencer **RSD 630/..**

Duct shutter **RVS 630** [a] No. 02600

Flanged flexible connector **STS 630** No. 01228

Counter flange **FR 630** No. 01211

Flat flange **FF 630** No. 04949

Protection grille duct side **SG 630** No. 01243

Mounting brackets **MK 630** (1 Set = 2 pcs) No. 01333

Mounting ring for vertical attachment **MRV 630** No. 01742

[a] Shutter, motorised, see Accessories product page.

	Vibration dampers			
	Compression		**Tension**	
	Type	Ref. no.	**Type**	Ref. no.
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 3	01367	**SDZ 3**	01366
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455
	SDD 2	01453	**SDZ 2**	01455