Medium-pressure axial fans. High-performance for a variety of areas of application.

With capacities of up to 32 000 m³/h and very high pressures of up to 1400 Pa, the range of medium-pressure axial fans is ideally suited to the requirements of professional ventilation technology. Universal installation possibilities (horizontal and vertical positioning) allow for flexible use in a number of areas of application.

INNOVATIVE

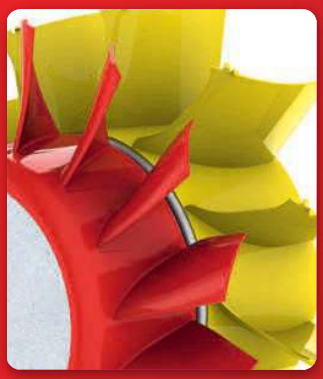
THE NEW AMD / AMW: Innovative axial impeller and a new type of guide wheel.

The new, optimally tailored system, consisting of a polymer impeller with perfectly integrated inflow geometry, a new type of guide wheel with maximal pressure recovery and specially coordinated motors ensure an optimal degree of efficiency.

In the AMD/AMW, a product was created that fulfills the maximum physical demands.

The well-known and tried-and-tested range with adjustable vanes was enhanced by the AMD / AMW with diameters from 225 to 400 mm with motors with controllable voltages in three-phase and direct current and a fixed pitch angle.

ENERGY-EFFICIENT



This has enormous benefits:

- High pressures and volumes with the smallest of dimensions.
- Minimal noise.
- Minimal energy costs with maximum performance.
- Maximum pressure recovery thanks to the new guide wheel.
- Very little residual spin.
- Low impact and outlet losses.

UNIVERSAL

The entire AMD range with over 300 types in 12 sizes (NG 315–1120) and volume > 113 000 m³/h is included in a separate catalogue.

Includes B AMD types for machine-based smoke extraction systems (MRA) in temperature classes F300 and F400 as well as assembly kits for two-level series Z or parallel P designs.

This information supplements the "General technical information".

Features
The new AMD/AMWs are a range of medium-pressure fans with a compact design and excellent power density in relation to their size. The new axial impeller with optimised pressure and efficiency achieves an optimal degree of efficiency, high pressure and large volume conveyed in conjunction with the fixed guide wheel.

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

Impeller
Polymer axial impeller with 14 spatially curved vanes and inflow geometry perfectly integrated into the impeller. Maximum pressure recovery in combination with the new guide wheel, a high degree of efficiency, low noise during operation, high corrosion-resistance, low-vibration operation thanks to dynamic balancing in accordance with DIN ISO 1940 T.1 – grade 6.3.

Air flow temperatures
The standard design can be used in the range of -30 to at least +40 °C. See the product page for information. An approval for higher long-term temperatures is possible upon request.

Airflow direction
The airflow direction cannot be changed, but it is defined by the method of installation. The correct motor rotation and airflow direction is marked with an arrow on the fan.

Installation position, mounting, condensation outlets
Given a length of 2.5 times the duct diameter and when placed in the middle of ducting, a corresponding straight section of ducting is required to achieve the stated performance values given unimpeded outflow of air (Figure 1). The ideal inflow of the fan is only guaranteed if a suction nozzle with sufficient free suction space or a straight line with the same diameter and length 2.5 times the diameter is placed upstream in the duct construction.

☐ The installation position and fastening should be designed so that the fan is free from deformation and can be securely fastened. AMD/AMW can be installed and operated in any chosen location. When dealing with equipment with condensate drain holes, their location must be chosen carefully.

☐ The fans must not be operated when in contact with water. When installed outdoors, effective weather protection must be ensured.

☐ For operation under difficult conditions, such as high humidity, excessive strain due to climatic, technical and electronic influences, approval for use must be requested and received, as the default design may not be suitable under certain circumstances.

Positioning
The use of vibration dampers is recommended to prevent the transfer of vibrations (accessories SDD, SDZ). Motors with a large construction size can protrude at the back and cause an uneven distribution due to their high weight. An extension tube (VR, accessories) is to be provided to find the centre of gravity!

Installation examples
☐ **Horizontal**

– **Fig. 2**
Free suction, pressure-side operation with an attenuator with an intermediate flange. To reduce the sound pressure on the suction or pressure side, corresponding ducting attenuator can be fitted with an intermediate flange.

– **Fig. 3**
Hanging from the ceiling
Figure 3 shows the typical installation for use as ventilation technology. The installation of AMD/AMW systems on ceilings is possible by way of direct suspension using mounting brackets (MK) and vibration dampers (accessories SDD, SDZ). The ducting casing with flanges on both sides (according to DIN 24155 page 3) is designed for direct installation in the ducting.

☐ **Vertical**

– **Fig. 4**
Integrated in the ducting with attenuator on the intake-side. Mounting on the wall with brackets or through the ceiling. The elements are to be hung separately according to the weight. Do not install the fan with load balancing when making changes. From a construction size of 315, mounting rings MRV are available for fitting the fan vertically. The weight of the fan including the attached accessories must not exceed the load bearing capacity of the MRV.

Fig. 1

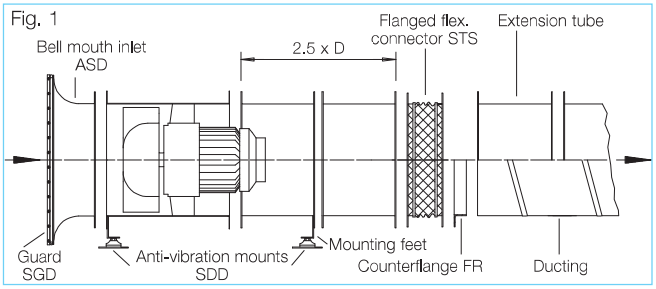


Fig. 2

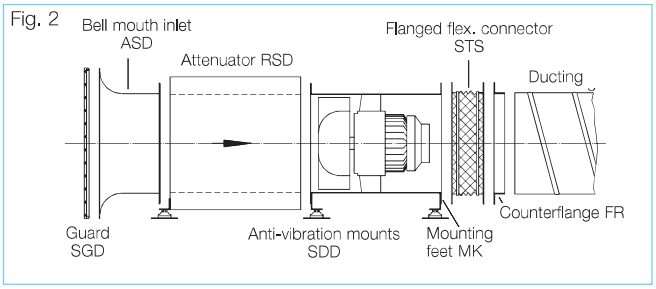
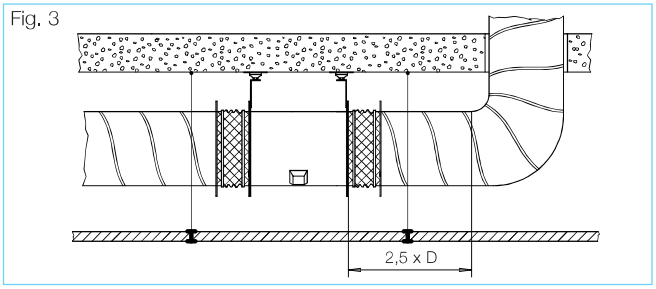
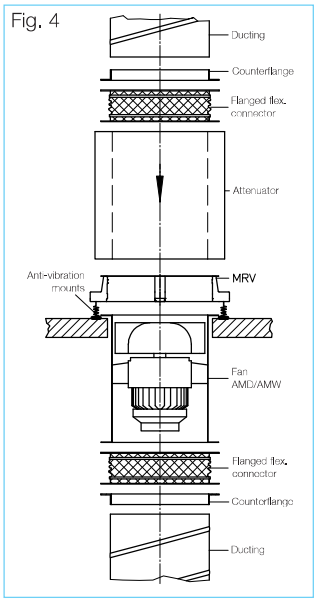


Fig. 3



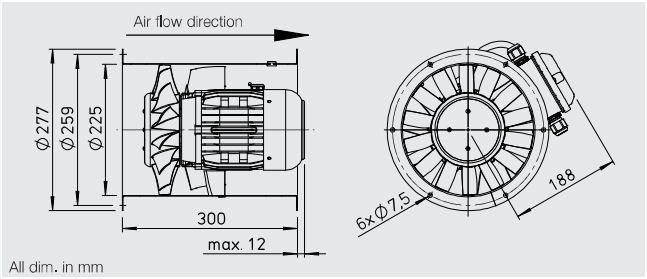
Information	Page
Information for project planning, Acoustics	10 on
General techn. information, speed control	15 on

Fig. 4



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

Diameter	R.P.M.	Sound pressure Intake	Air flow volume $\dot{V}$ m^3/h in relation to static pressure = N / m^2 = freely available pressure												
mm	min^{-1}	L_{PA} dB(A)	(Δp_{fa}) in Pa												
		at 4 m	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						



Specification

Casing
Manufactured in galvanised sheet steel with flanges on both sides to DIN 24155, Pt. 3. with fixed guide vanes and motor support.

Impeller / guide vanes
Impeller with 3D profiled blades and integrated inflow geometry made from high quality polymers. Connected to an optimised guide vane made from galvanised steel. Impeller and guide vane efficiency and pressure optimised for high volume flows by means of CFD. Dynamically balanced according to DIN ISO 1940-1. Operating range -30 to +40 °C.

Motor
Direct driven, maintenance free flange motor, totally enclosed with an aluminium casing and cooling fins, protected to IP 54. Sealed for life ball bearings and interference-free. Optional drainage holes made to order (please state installation position). Optional tropicalized protection of windings with humidity protection waterproofing.

Speed control
The voltage-controllable models the current are marked by a value in the "regular power consumption" column of the table below which must be used when selecting a controller (see controller column). The air flow volumes can be seen from the characteristic curves. If the fan is to be controlled by a frequency inverter without a sine filter, this must be stated when ordering. This requires a change of fan design and potential additional costs.

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

Installation
Installation in any position. Ensure that motor drainage holes (where used) face downwards.

Motor protection
All models have thermal contacts as standard which must be connected to a full motor protection unit (see table below) for effective motor protection.

Sound levels
Data shown within the performance curves refers to sound power and pressure levels in 4 m free field conditions, for medium operating point intake/exhaust. Sound emission and acoustic information on page 10 on.

Information	Page
Selection chart	183
Information for planning	10 on

Made to order designs
Alternative voltages, frequencies, protection classes, acid protection, high temperatures etc. are available on request.

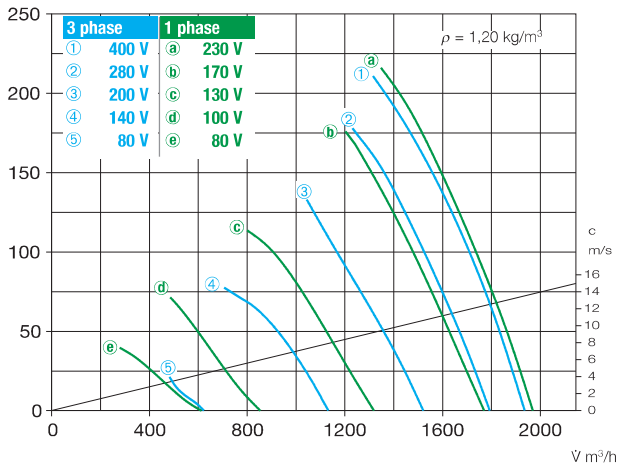
Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current standard supply	Current speed controlled	Wiring diagram	Maximum air flow temp. standard supply	Maximum air flow temp. speed controlled	Weight (net) approx.	5 step transformer controller		Frequency inverter with integrated sine filter		
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	
1 phase motor, 50 Hz, protection to IP 54																
AMW 225/4	2242	1425	965	0.6	230	0.3	0.3	966.1	60	40	8.7	**MWS 1,5** [1]	1947	–	–	
AMW 225/2	2243	2750	1955	0.26	230	1.2	1.4	966.1	60	40	9	**MWS 1,5** [1]	1947	–	–	
3 phase motor, 50 Hz, protection to IP 54																
AMD 225/4	2244	1430	960	0.6	400	0.2	0.25	469	60	40	8.3	**RDS 1** [1]	1314	–	–	
AMD 225/2	2245	2760	1950	0.25	400	0.6	0.65	469	60	40	8.8	**RDS 1** [1]	1314	–	–	

[1] includes full motor protection device

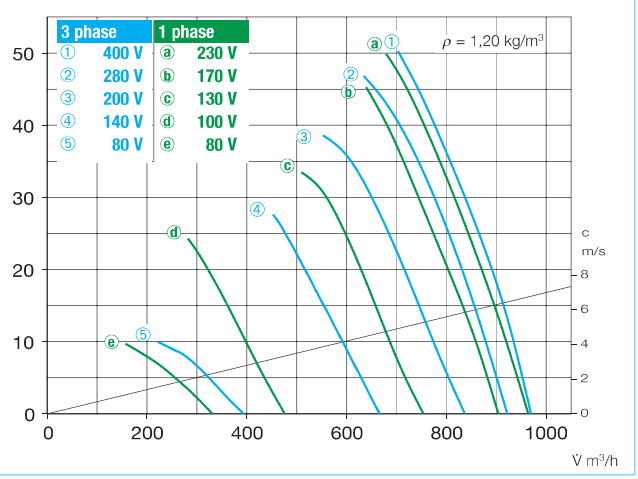
225/2

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

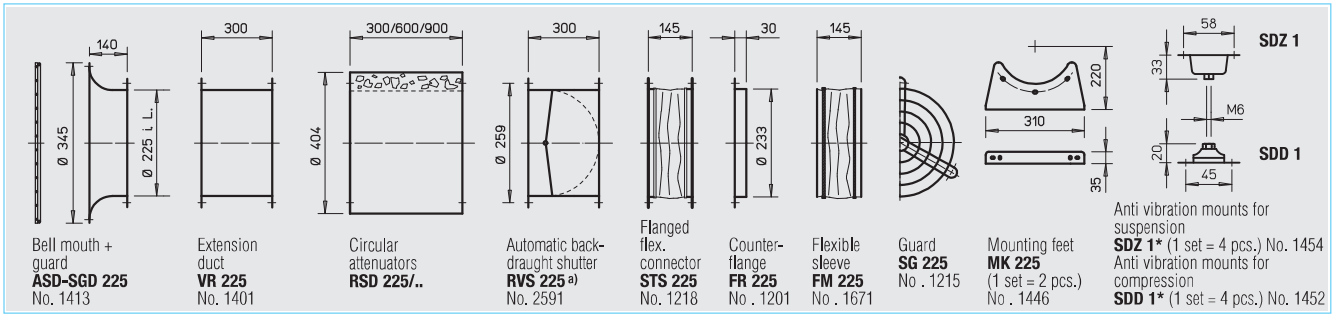


225/4

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



* 3 phase motor sound information. 1 phase motor sound information see www.HeliosSelect.de



Bell mouth + guard **ASD-SGD 225** No. 1413

Extension duct **VR 225** No. 1401

Circular attenuators **RSD 225/..**

Automatic back-draught shutter **RVS 225** a) No. 2591

Flanged flex. connector **STS 225** No. 1218

Counter-flange **FR 225** No . 1201

Flexible sleeve **FM 225** No . 1671

Guard **SG 225** No . 1215

Mounting feet **MK 225** (1 set = 2 pcs.) No . 1446

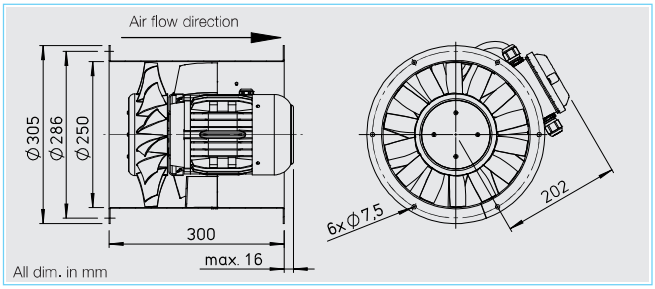
Anti vibration mounts for suspension **SDZ 1*** (1 set = 4 pcs.) No. 1454

Anti vibration mounts for compression **SDD 1*** (1 set = 4 pcs.) No. 1452

a) For motorised shutters see accessory pages

* Type allocation see table, last column

	Full motor protection device for connection of thermal contacts		Vibration dampers			
			Compression		Suspension	
			Type	Ref. no.	Type	Ref. no.
	MW	1579	**SDD 1**	1452	**SDZ 1**	1454
	MW	1579	**SDD 1**	1452	**SDZ 1**	1454
	MD	5849	**SDD 1**	1452	**SDZ 1**	1454
	MD	5849	**SDD 1**	1452	**SDZ 1**	1454



Specification

Casing
Manufactured in galvanised sheet steel with flanges on both sides to DIN 24155, Pt. 3. with fixed guide vanes and motor support.

Impeller / guide vanes
Impeller with 3D profiled blades and integrated inflow geometry made from high quality polymers. Connected to an optimised guide vane made from galvanised steel. Impeller and guide vane efficiency and pressure optimised for high volume flows by means of CFD. Dynamically balanced according to DIN ISO 1940-1. Operating range -30 to +40 °C.

Motor
Direct driven, maintenance free flange motor, totally enclosed with an aluminium casing and cooling fins, protected to IP 54. Sealed for life ball bearings and interference-free. Optional drainage holes made to order (please state installation position). Optional tropicalized protection of windings with humidity protection waterproofing.

Speed control
The voltage-controllable models the current are marked by a value in the "regular power consumption" column of the table below which must be used when selecting a controller (see controller column). The air flow volumes can be seen from the characteristic curves. If the fan is to be controlled by a frequency inverter without a sine filter, this must be stated when ordering. This requires a change of fan design and potential additional costs.

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

Installation
Installation in any position. Ensure that motor drainage holes (where used) face downwards.

Motor protection
All models have thermal contacts as standard which must be connected to a full motor protection unit (see table below) for effective motor protection.

Sound levels
Data shown within the performance curves refers to sound power and pressure levels in 4 m free field conditions, for medium operating point intake/exhaust. Sound emission and acoustic information on page 10 on.

Information	Page
Selection chart	183
Information for planning	10 on

Made to order designs
Alternative voltages, frequencies, protection classes, acid protection, high temperatures etc. are available on request.

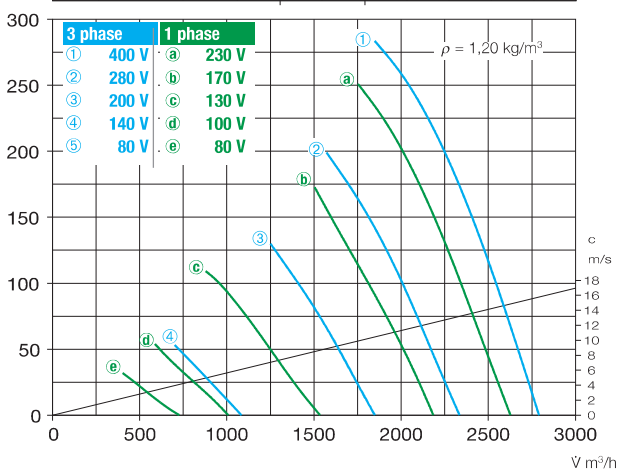
Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current standard supply	Current speed controlled	Wiring diagram	Maximum air flow temp. standard supply	Maximum air flow temp. speed controlled	Weight (net) approx.	5 step transformer controller	Ref. no.	Frequency inverter with integrated sine filter	Ref. no.
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+°C	+°C	kg	Type		Type	
1 phase motor, 50 Hz, protection to IP 54															
AMW 250/4	2248	1435	1360	0.1	230	0.6	0.6	966.1	60	40	9	**MWS 1,5** [1]	1947	–	–
AMW 250/2	2249	2630	2620	0.4	230	1.9	1.9	966.1	60	40	9.5	**MWS 3** [1]	1948	–	–
3 phase motor, 50 Hz, protection to IP 54															
AMD 250/4	2250	1430	1380	0.08	400	0.3	0.3	469	60	40	9.2	**RDS 1** [1]	1314	–	–
AMD 250/2	2251	2830	2790	0.43	400	1	1	469	60	40	11	**RDS 2** [1]	1315	**FU-BS 2,5**	5459

[1] includes full motor protection device

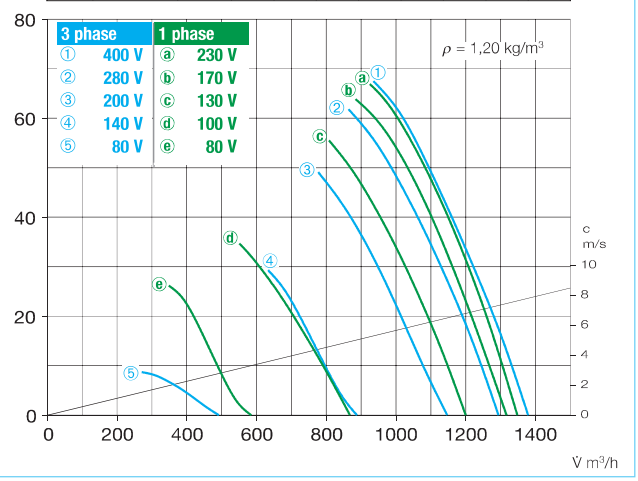
250/2

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

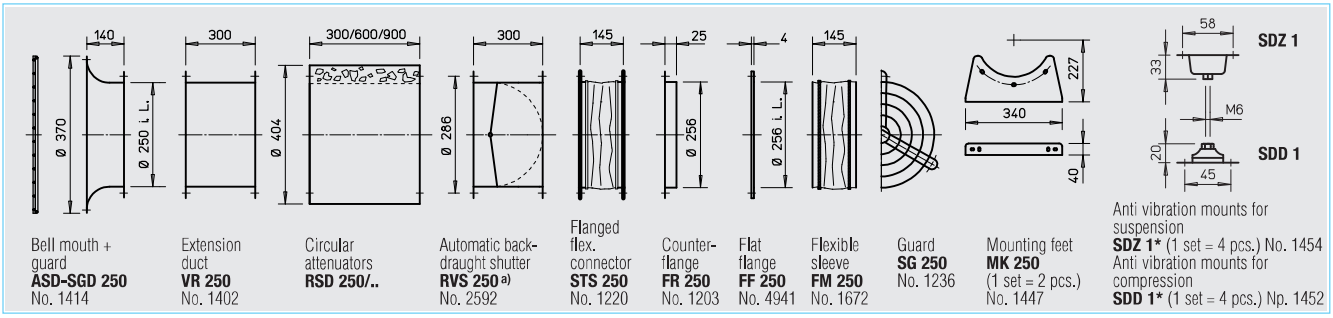


250/4

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



* 3 phase motor sound information. 1 phase motor sound information see www.HeliosSelect.de



Bell mouth + guard **ASD-SGD 250** No. 1414

Extension duct **VR 250** No. 1402

Circular attenuators **RSD 250/..**

Automatic back-draught shutter **RVS 250** a) No. 2592

Flanged flex. connector **STS 250** No. 1220

Counter-flange **FR 250** No. 1203

Flat flange **FF 250** No. 4941

Flexible sleeve **FM 250** No. 1672

Guard **SG 250** No. 1236

Mounting feet **MK 250** (1 set = 2 pcs.) No. 1447

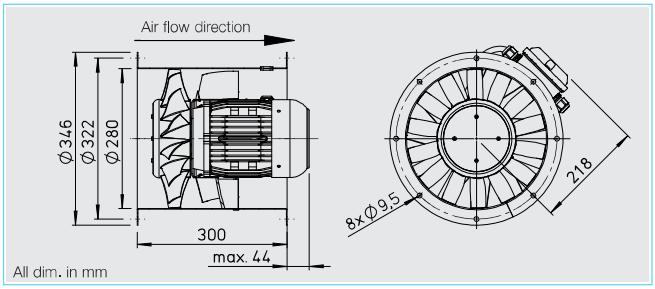
Anti vibration mounts for suspension **SDZ 1*** (1 set = 4 pcs.) No. 1454

Anti vibration mounts for compression **SDD 1*** (1 set = 4 pcs.) Np. 1452

a) For motorised shutters see accessory pages

* Type allocation see table, last column

	Full motor protection device for connection of thermal contacts		Vibration dampers			
			Compression		Suspension	
			Type	Ref. no.	Type	Ref. no.
	MW	1579	**SDD 1**	1452	**SDZ 1**	1454
	MW	1579	**SDD 1**	1452	**SDZ 1**	1454
	MD	5849	**SDD 1**	1452	**SDZ 1**	1454
	MD	5849	**SDD 1**	1452	**SDZ 1**	1454



Specification

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Electrical connection
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Selection chart	183
Information for planning	10 on

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Other accessories	Page
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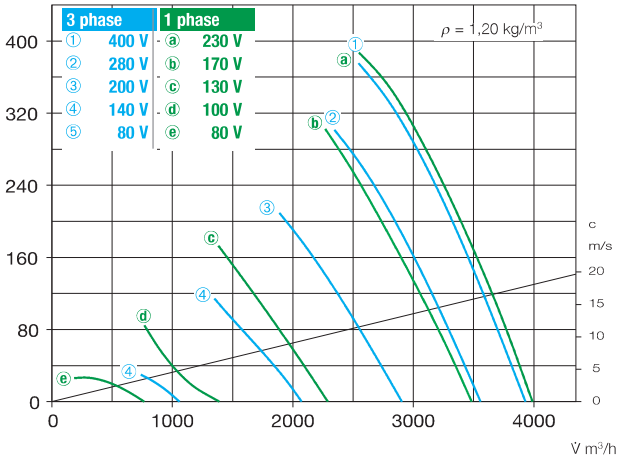
Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current standard supply	Current speed controlled	Wiring diagram	Maximum air flow temp. standard supply	Maximum air flow temp. speed controlled	Weight (net) approx.	5 step transformer controller		Frequency inverter with integrated sine filter		
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.	
1 phase motor, 50 Hz, protection to IP 54																
AMW 280/4	2254	1345	1930	0.1	230	0.5	0.5	966.1	60	40	11.5	**MWS 1,5** [1]	1947	–	–	
AMW 280/2	2255	2755	3970	0.7	230	3.2	4.3	976.1	60	40	15.5	**MWS 5** [1]	1949	–	–	
3 phase motor, 50 Hz, protection to IP 54																
AMD 280/4	2256	1385	2000	0.1	400	0.3	0.3	469	60	40	10.5	**RDS 1** [1]	1314	–	–	
AMD 280/2	2257	2745	3960	0.7	400	1.4	1.5	469	60	40	13.8	**RDS 2** [1]	1315	**FU-BS 2,5**	5459	

[1] includes full motor protection device

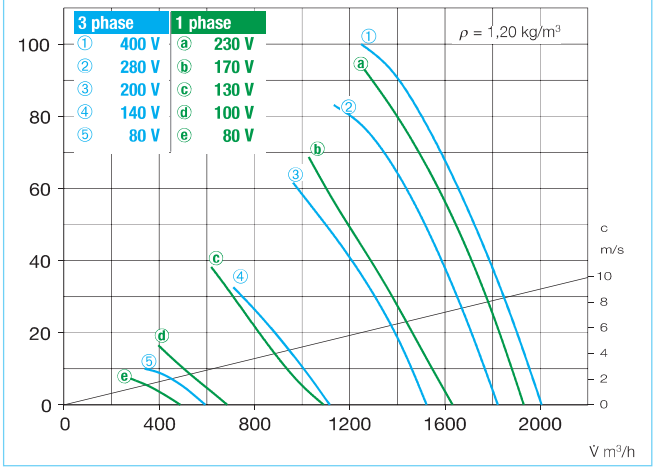
280/2

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

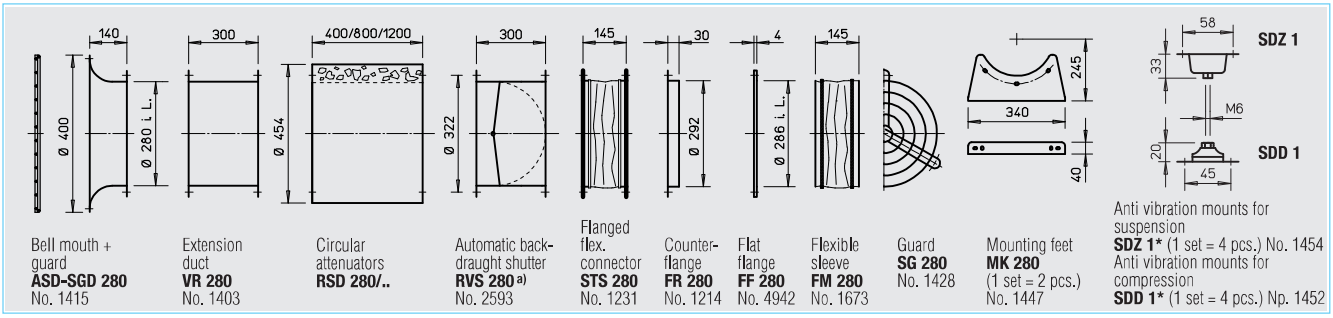


280/4

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



* 3 phase motor sound information. 1 phase motor sound information see www.HeliosSelect.de



Bell mouth + guard **ASD-SGD 280** No. 1415

Extension duct **VR 280** No. 1403

Circular attenuators **RSD 280/..**

Automatic back-draught shutter **RVS 280** a) No. 2593

Flanged flex. connector **STS 280** No. 1231

Counter-flange **FR 280** No. 1214

Flat flange **FF 280** No. 4942

Flexible sleeve **FM 280** No. 1673

Guard **SG 280** No. 1428

Mounting feet **MK 280** (1 set = 2 pcs.) No. 1447

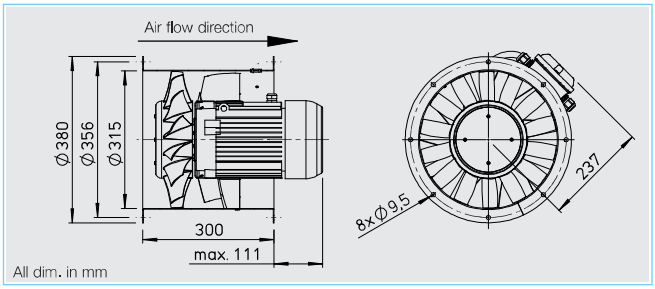
Anti vibration mounts for suspension **SDZ 1*** (1 set = 4 pcs.) No. 1454

Anti vibration mounts for compression **SDD 1*** (1 set = 4 pcs.) Np. 1452

a) For motorised shutters see accessory pages

* Type allocation see table, last column

	Full motor protection device for connection of thermal contacts		Vibration dampers Compression		Suspension	
			Type	Ref. no.	**Type**	Ref. no.
	MW	1579	**SDD 1**	1452	**SDZ 1**	1454
	MW	1579	**SDD 1**	1452	**SDZ 1**	1454
	MD	5849	**SDD 1**	1452	**SDZ 1**	1454
	MD	5849	**SDD 1**	1452	**SDZ 1**	1454



Specification

Casing
Manufactured in galvanised sheet steel with flanges on both sides to DIN 24155, Pt. 3. with fixed guide vanes and motor support.

Impeller / guide vanes
Impeller with 3D profiled blades and integrated inflow geometry made from high quality polymers. Connected to an optimised guide vane made from galvanised steel. Impeller and guide vane efficiency and pressure optimised for high volume flows by means of CFD. Dynamically balanced according to DIN ISO 1940-1. Operating range -30 to +40 °C.

Motor
Direct driven, maintenance free flange motor, totally enclosed with an aluminium casing and cooling fins, protected to IP 54. Sealed for life ball bearings and interference-free. Optional drainage holes made to order (please state installation position). Optional tropicalized protection of windings with humidity protection waterproofing.

Speed control
The voltage-controllable models the current are marked by a value in the "regular power consumption" column of the table below which must be used when selecting a controller (see controller column). The air flow volumes can be seen from the characteristic curves. If the fan is to be controlled by a frequency inverter without a sine filter, this must be stated when ordering. This requires a change of fan design and potential additional costs.

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

Installation
Installation in any position. Ensure that motor drainage holes (where used) face downwards.

Motor protection
All models have thermal contacts as standard which must be connected to a full motor protection unit (see table below) for effective motor protection.

Sound levels
Data shown within the performance curves refers to sound power and pressure levels in 4 m free field conditions, for medium operating point intake/exhaust. Sound emission and acoustic information on page 10 on.

Information	Page
Selection chart	183
Information for planning	10 on

Made to order designs
Alternative voltages, frequencies, protection classes, acid protection, high temperatures etc. are available on request.

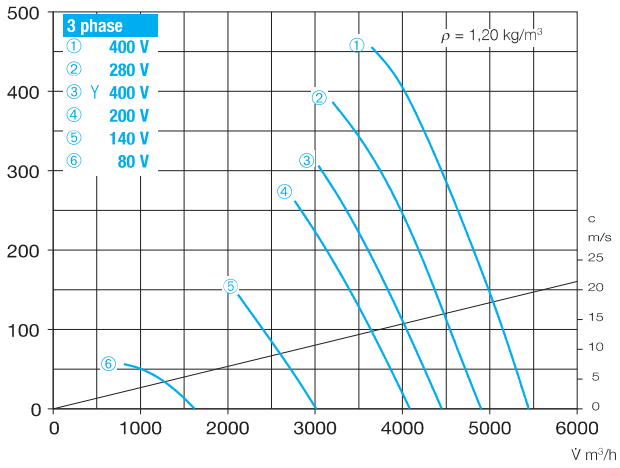
Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current standard supply	Current speed controlled	Wiring diagram	Maximum air flow temp. standard supply	Maximum air flow temp. speed controlled	Weight (net) approx.	5 step transformer controller		Frequency inverter with integrated sine filter	
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+°C	+°C	kg	Type	Ref. no.	Type	Ref. no.
1 phase motor, 50 Hz, protection to IP 54															
AMW 315/4	2265	1395	2860	0.2	230	1	1.1	966.1	60	40	13.1	**MWS 1,5**[1]	1947	–	–
3 phase motor, 50 Hz, protection to IP 54															
AMD 315/4	2266	1455	2950	0.2	400	0.6	0.6	469	60	40	12.2	**RDS 1**[1]	1314	–	–
Two-speed, 3 phase motor, 50 Hz, Y/△ wiring, protection to IP 54															
AMD 315/2/2	2267	2200/2650	7640/8610	0.7/1.1	400/400	1.6/2.5	2.3	520	60	40	18.5	**RDS 4**[1]	1316	**FU-BS 5,0**	5460

[1] includes full motor protection device

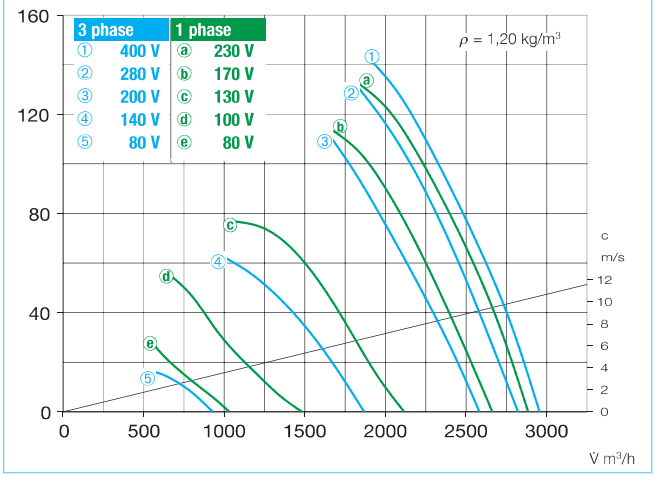
315/2

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

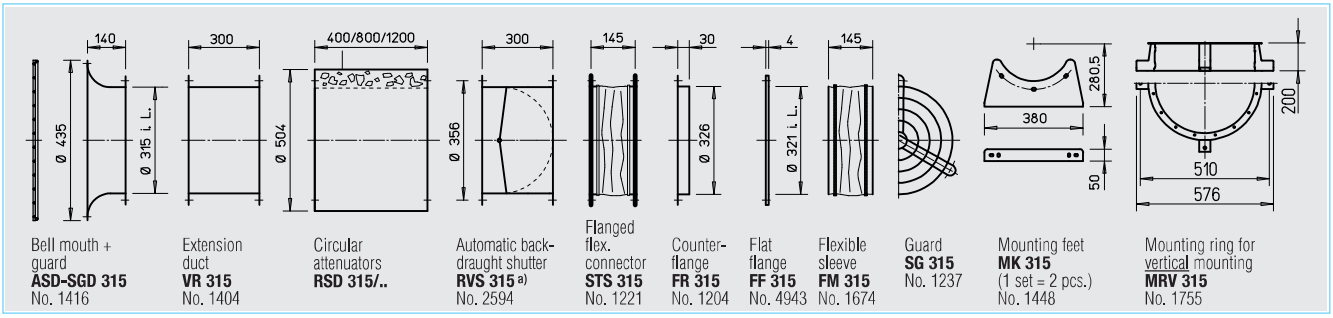


315/4

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



* 3 phase motor sound information. 1 phase motor sound information see www.HeliosSelect.de



Bell mouth + guard **ASD-SGD 315** No. 1416

Extension duct **VR 315** No. 1404

Circular attenuators **RSD 315/..**

Automatic back-draught shutter **RVS 315** a) No. 2594

Flanged flex. connector **STS 315** No. 1221

Counter-flange **FR 315** No. 1204

Flat flange **FF 315** No. 4943

Flexible sleeve **FM 315** No. 1674

Guard **SG 315** No. 1237

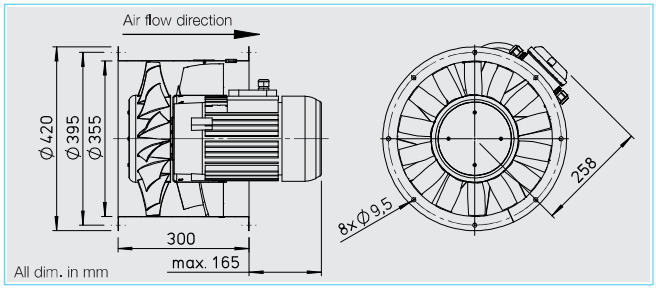
Mounting feet **MK 315** (1 set = 2 pcs.) No. 1448

Mounting ring for vertical mounting **MRV 315** No. 1755

a) For motorised shutters see accessory pages

* Type allocation see table, last column

	Full motor protection device for connection of thermal contacts		Vibration dampers			
			Compression		Suspension	
			Type	Ref. no.	Type	Ref. no.
	MW	1579	SDD 1	1452	SDZ 1	1454
	MD	5849	SDD 1	1452	SDZ 1	1454
	M 4	1571	SDD 1	1452	SDZ 1	1454



Specification

Casing
Manufactured in galvanised sheet steel with flanges on both sides to DIN 24155, Pt. 3. with fixed guide vanes and motor support.

Impeller / guide vanes
Impeller with 3D profiled blades and integrated inflow geometry made from high quality polymers. Connected to an optimised guide vane made from galvanised steel. Impeller and guide vane efficiency and pressure optimised for high volume flows by means of CFD. Dynamically balanced according to DIN ISO 1940-1. Operating range -30 to +40 °C.

Motor
Direct driven, maintenance free flange motor, totally enclosed with an aluminium casing and cooling fins, protected to IP 54. Sealed for life ball bearings and interference-free. Optional drainage holes made to order (please state installation position). Optional tropicalized protection of windings with humidity protection waterproofing.

Speed control
The voltage-controllable models the current are marked by a value in the "regular power consumption" column of the table below which must be used when selecting a controller (see controller column). The air flow volumes can be seen from the characteristic curves. If the fan is to be controlled by a frequency inverter without a sine filter, this must be stated when ordering. This requires a change of fan design and potential additional costs.

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

Installation
Installation in any position. Ensure that motor drainage holes (where used) face downwards.

Motor protection
All models have thermal contacts as standard which must be connected to a full motor protection unit (see table below) for effective motor protection.

Sound levels
Data shown within the performance curves refers to sound power and pressure levels in 4 m free field conditions, for medium operating point intake/exhaust. Sound emission and acoustic information on page 10 on.

Information	Page
Selection chart	183
Information for planning	10 on

Made to order designs
Alternative voltages, frequencies, protection classes, acid protection, high temperatures etc. are available on request.

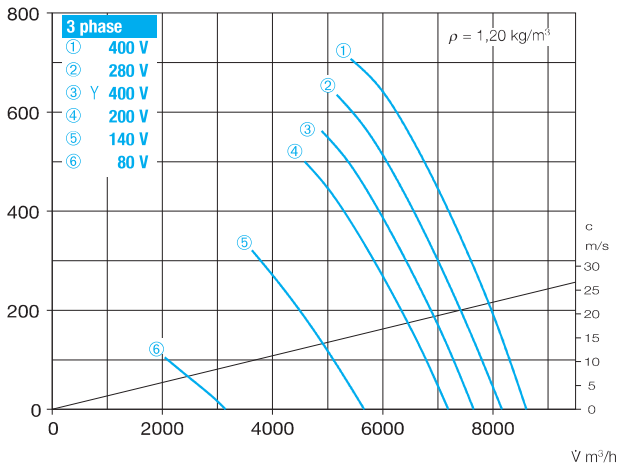
Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current standard supply	Current speed controlled	Wiring diagram	Maximum air flow temp. standard supply	Maximum air flow temp. speed controlled	Weight (net) approx.	5 step transformer controller	Ref. no.	Frequency inverter with integrated sine filter	Ref. no.
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+°C	+°C	kg	Type		Type	
1 phase motor, 50 Hz, protection to IP 54															
AMW 355/4	2275	1430	4170	0.4	230	1.8	2.4	968.1	60	40	16.9	**MWS 3**[1)]	1948	–	–
3 phase motor, 50 Hz, protection to IP 54															
AMD 355/4	2276	1445	4300	0.35	400	0.9	1.1	469	60	40	15.7	**RDS 2**[1)]	1315	**FU-BS 2,5**	5459
Two-speed, 3 phase motor, 50 Hz, Y/△ wiring, protection to IP 54															
AMD 355/2/2	2277	2200/2775	8610/7640	1.3 /2.3	400/400	3.0/5.4	5.6	520	60	40	30.3	**RDS 7**[1)]	1578	**FU-BS 8,0**	5461

[1)] includes full motor protection device

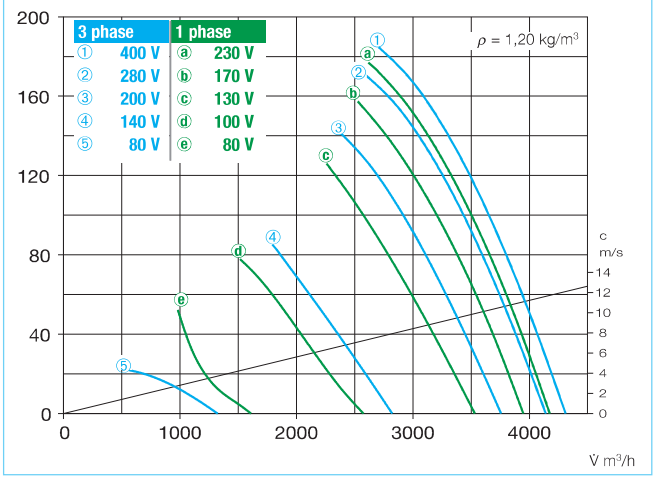
355/2

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

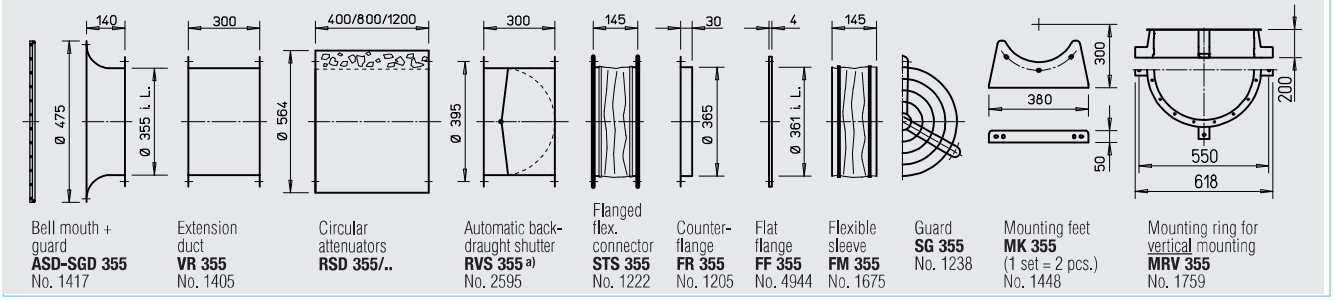


355/4

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



* 3 phase motor sound information. 1 phase motor sound information see www.HeliosSelect.de



Bell mouth + guard **ASD-SGD 355** No. 1417

Extension duct **VR 355** No. 1405

Circular attenuators **RSD 355/..**

Automatic back-draught shutter **RVS 355** a) No. 2595

Flanged flex. connector **STS 355** No. 1222

Counter-flange **FR 355** No. 1205

Flat flange **FF 355** No. 4944

Flexible sleeve **FM 355** No. 1675

Guard **SG 355** No. 1238

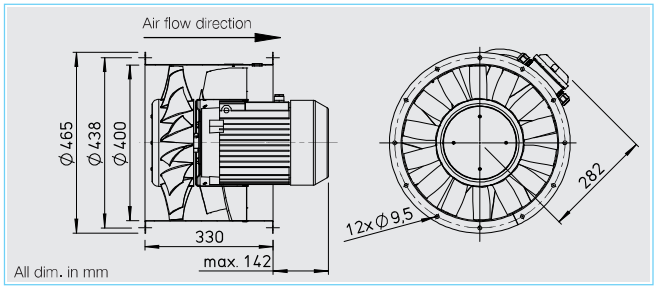
Mounting feet **MK 355** (1 set = 2 pcs.) No. 1448

Mounting ring for vertical mounting **MRV 355** No. 1759

a) For motorised shutters see accessory pages

* Type allocation see table, last column

	Full motor protection device for connection of thermal contacts		Vibration dampers			
			Compression		Suspension	
			Type	Ref. no.	Type	Ref. no.
	MW	1579	SDD 1	1452	SDZ 1	1454
	MD	5849	SDD 1	1452	SDZ 1	1454
	M 4	1571	SDD 1	1452	SDZ 1	1454



Specification

Casing
Manufactured in galvanised sheet steel with flanges on both sides to DIN 24155, Pt. 3. with fixed guide vanes and motor support.

Impeller / guide vanes
Impeller with 3D profiled blades and integrated inflow geometry made from high quality polymers. Connected to an optimised guide vane made from galvanised steel. Impeller and guide vane efficiency and pressure optimised for high volume flows by means of CFD. Dynamically balanced according to DIN ISO 1940-1. Operating range -30 to +40 °C.

Motor
Direct driven, maintenance free flange motor, totally enclosed with an aluminium casing and cooling fins, protected to IP 54. Sealed for life ball bearings and interference-free. Optional drainage holes made to order (please state installation position). Optional tropicalized protection of windings with humidity protection waterproofing.

Speed control
The voltage-controllable models the current are marked by a value in the "regular power consumption" column of the table below which must be used when selecting a controller (see controller column). The air flow volumes can be seen from the characteristic curves. If the fan is to be controlled by a frequency inverter without a sine filter, this must be stated when ordering. This requires a change of fan design and potential additional costs.

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

Installation
Installation in any position. Ensure that motor drainage holes (where used) face downwards.

Motor protection
All models have thermal contacts as standard which must be connected to a full motor protection unit (see table below) for effective motor protection.

Sound levels
Data shown within the performance curves refers to sound power and pressure levels in 4 m free field conditions, for medium operating point intake/exhaust. Sound emission and acoustic information on page 10 on.

Information	Page
Selection chart	183
Information for planning	10 on

Made to order designs
Alternative voltages, frequencies, protection classes, acid protection, high temperatures etc. are available on request.

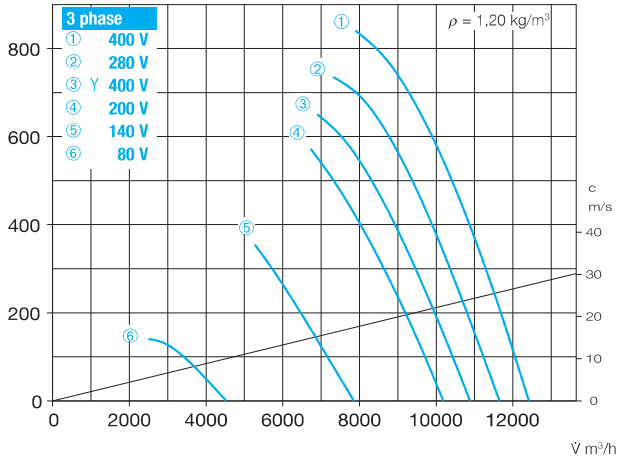
Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current standard supply	Current speed controlled	Wiring diagram	Maximum air flow temp. standard supply	Maximum air flow temp. speed controlled	Weight (net) approx.	5 step transformer controller	Ref. no.	Frequency inverter with integrated sine filter	Ref. no.
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	A	No.	+°C	+°C	kg	Type		Type	
1 phase motor, 50 Hz, protection to IP 54															
AMW 400/4	2280	1395	6000	0.6	230	2.6	3.1	967.1	60	40	23.2	**MWS 5**[1]	1949	–	–
3 phase motor, 50 Hz, protection to IP 54															
AMD 400/4	2281	1420	5980	0.6	400	1.9	2	469	60	40	22	**RDS 4**[1]	1316	**FU-BS 2,5**	5459
Two-speed, 3 phase motor, 50 Hz, Y/△ wiring, protection to IP 54															
AMD 400/2/2	2282	2280/2780	10880/12430	2.4/4.4	400/400	5.5/9.5	9.5	520	50	30	44.9	**RDS 11**[1]	1332	**FU-BS 14**	5463

[1] includes full motor protection device

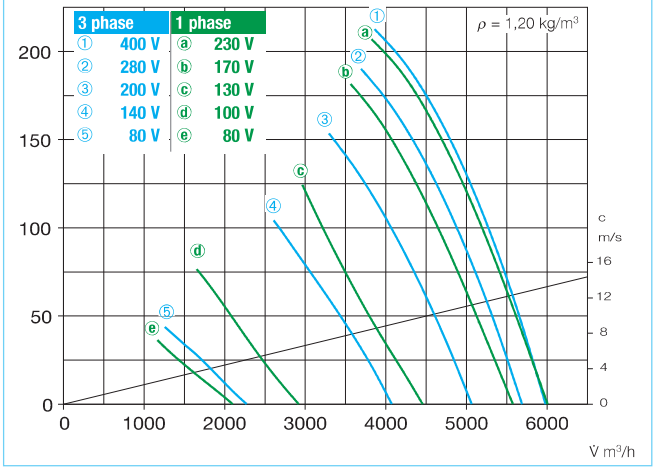
400/2

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

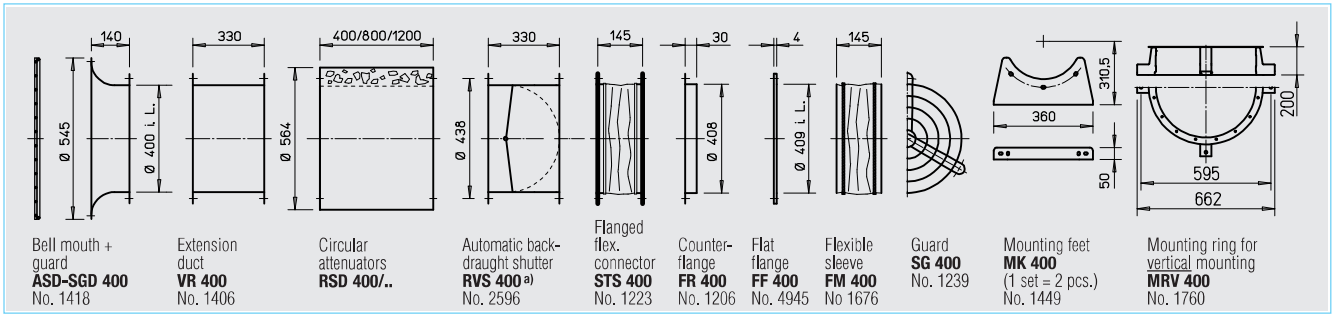


400/4

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



* 3 phase motor sound information. 1 phase motor sound information see www.HeliosSelect.de



Bell mouth + guard **ASD-SGD 400** No. 1418

Extension duct **VR 400** No. 1406

Circular attenuators **RSD 400/..**

Automatic back-draught shutter **RVS 400** a) No. 2596

Flanged flex. connector **STS 400** No. 1223

Counter-flange **FR 400** No. 1206

Flat flange **FF 400** No. 4945

Flexible sleeve **FM 400** No 1676

Guard **SG 400** No. 1239

Mounting feet **MK 400** (1 set = 2 pcs.) No. 1449

Mounting ring for vertical mounting **MRV 400** No. 1760

a) For motorised shutters see accessory pages

* Type allocation see table, last column

	Full motor protection device for connection of thermal contacts		Vibration dampers			
			Compression		Suspension	
			Type	Ref. no.	Type	Ref. no.
	MW	1579	SDD 1	1452	SDZ 1	1454
	MD	5849	SDD 1	1452	SDZ 1	1454
	M 4	1571	SDD 1	1452	SDZ 1	1454

Solutions for technical building equipment. Helios TGA.

In addition to the series range, Helios Ventilators offers an extensive product portfolio for technical building equipment (TGA). In addition to the medium-pressure axial fans on the pages below, further ND and various fire gas fan series are available in the temperature classes F300, F400 and F600, as well as impulse fans. Modern control and regulation solutions ensure the efficient and safe operation. With smarter properties, for example, gas warning systems fulfil the strictest demands in terms of safety, performance and energy and cost efficiency.
See separate catalogue or get in touch with local representation for details.

AXIAL AND RADAX® VAR FANS

For areas of application in smoke extraction with conveyance temperatures of 300 °C or 400 °C and 600 °C for 120 minutes (F300, F400, F600) or 40 °C for continuous ventilation operations, the Helios TGA range comprises axial low-pressure, medium-pressure and RADAX® VAR high-pressure in-line fans in ND 280 to 1000 mm with a volume of 2500 – 115 000 m³/h.

40 °C F300 F400 F600

IMPULSE FANS (JET FANS)

impulse fans are used in underground car parks for ventilation and exhaust air extraction and guarantee the extraction of smoke in the case of a fire.

Low-noise and with universal applications, the Helios axial impulse fans are setting benchmarks when it comes to thrust and weight. The centrifugal models have an impressive ultra-flat, compact and light design and are ideal for restricted spaces.

40 °C F300 F400

FIRE GAS ROOF AND RECTANGULAR FANS

Fire gas roof fans are available with ND 315 to 710 mm with volumes of 3700 to 40 000 m³/h. They have DIBt application certificates and are CE-certified.

Fire gas rectangular fans for rectangular ducts and connections are ideally suited to areas of application with conveyor temperatures of 400 °C for 120 minutes (smoke extraction operation).

F400

SMOKE PROTECTION FANS

Smoke protection pressure systems (RDA) and stairway flush ventilation systems (TSA) ensure that stairways, fire-fighting lifts and the like remain free from smoke in order to save lives.

The RDA / TSA concept from Helios has a modular design. With preconfigured packages, the entire system is put together in just a few steps and adapted to the structural conditions and property requirements. This guarantees seamless planning, installation and commissioning, as well as the all-round safe operation of the system.

Casing
- ☐ Duct casing with welded-in motor mounting plate and a guide wheel made of sheet steel. Flange pressed on both sides with DIN 24155 page 3 for direct placement of flanges in the middle of ducting.
- ☐ Surface protection through powder coating RAL 7015 (grey).

Impeller
- ☐ Hubs and vanes made of corrosion-resistant aluminium alloy.
- ☐ Dynamically balanced in accordance with DIN ISO 1940-1, grade 6.3 for low-vibration operation.
- ☐ Ten vanes with aerodynamic profiles work together with the guide wheel to achieve maximum efficiency and pressure.
- ☐ The pitch angle of the vanes can be factory pre-set according to the optimal bespoke operating point.

Motor
- ☐ A direct start connection is intended for single-speed fans with a three-phase motor and rated motor power of 3.00 kW, fans with rated motor power of 4.00 kW for the star-delta starting.
- ☐ Directly through an efficient IE 2 and IE3 three-phase standard motor. Pole-changeable fans with IEC standard motor. Degree of protection IP 55, insulation class F.

Speed control
Stepless (0–100 %) thanks to the use of a frequency inverter (excluding pole-changeable models). The planned use of a frequency inverter without sinus filter is to be stated when the contract is placed. It triggers a change of the fan design and added costs where applicable.

Motor protrusion
- ☐ In some types, the motor extends beyond the casing. Protrusion measurement B in mm is to be observed according to the type table.

Motor protection
- ☐ All AMD types have a PTC thermistor for motor protection as standard. This means that effective motor protection is possible using a full motor protection device (type MSA, Ref. no. 1289, accessory) or FU (accessory).

Electrical connection
- ☐ Polymer terminal box (degree of protection IP 55) as standard, fitted on the outside of the fan casing.

Ordering data
The desired pitch angle of the vanes must be stated during the order.
Example:
AMD 355/2 1.5 kW 34°

- Pitch angle
- Motor rated power
- Pole number
- Impeller diameter
- Type name

Air flow temperatures
- ☐ For ventilation and exhaust air extraction with long-term temperatures from -20 °C to +60 °C. Types for higher conveyor temperatures available upon request.

Airflow direction
- ☐ The fans have a pressed design with airflow direction B = above the motor (Fig. 1).

Sound levels
- ☐ The sound power values over the frequency and as summation of sound levels for various angles of incidence are stated above the characteristic curves on the product pages.

Installation
- ☐ Horizontal and vertical positioning, depending on the installation location.
- ☐ The use of vibration dampers (accessory) is recommended in order to prevent the transfer of vibrations.
- ☐ **Duct installation (tilting)**
  An extension tube (type VR, accessory) (Figure 2) may need to be fitted in order to prevent overturning when fitting the medium-pressure axial fan with canvas connecting pieces on the intake side and exhaust side (type STS, accessory).
- ☐ **Duct installation**
  Arrangement of the mounting brackets (type MK) for horizontal mounting or a mounting ring (type MRV) for vertical mounting with vibration dampers on the fan. Use of vibration dampers for pressure load (Type SDD, accessory) or tensile load (Type SDZ, accessory, when hanging from the ceiling).
  In order to prevent the noise and the transfer of vibrations, canvas connecting pieces (Type STS, accessories) are to be provided on suction and pressure side (Figure 3).
- ☐ **Duct installation with attenuators on intake and exhaust sides**
  According to the local circumstances, on-site brackets are necessary to attach the attenuator and to retain the weight. The attenuator on the intake side placed at the inlet, with the attenuator on the pressure side placed at the outlet must both be equipped with canvas connecting pieces (Type STS, accessory, figure 4).
- ☐ **Wall mounting (horizontal)**
  On the on-site brackets. Wall entrance with pipe or duct, immurement with mineral wool. Canvas connecting pieces (Type STS, accessory) on the suction and pressure side with extension duct (Type VR, accessory) and protective grille (Type SG, accessory, figure 5).

Fig. 1

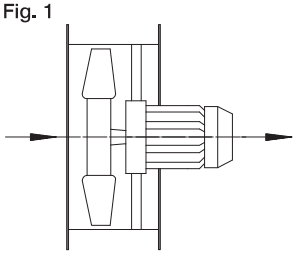


Fig. 2

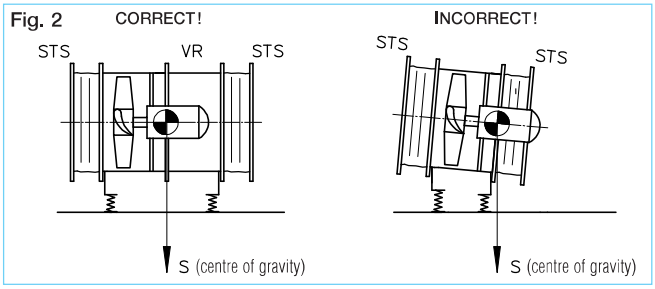


Fig. 3

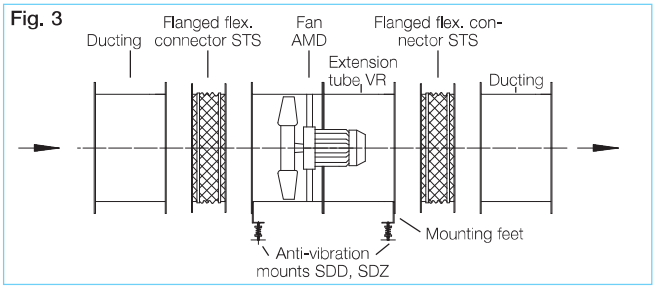


Fig. 4

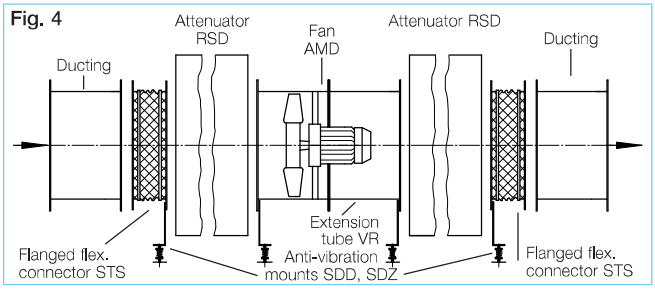
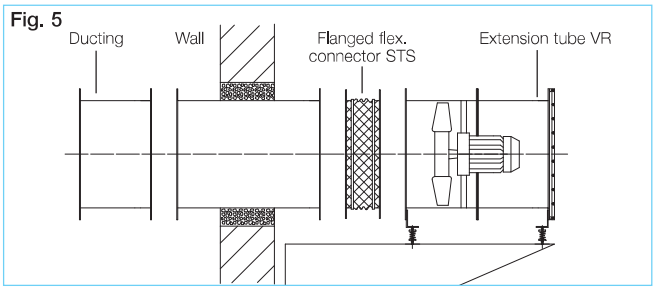
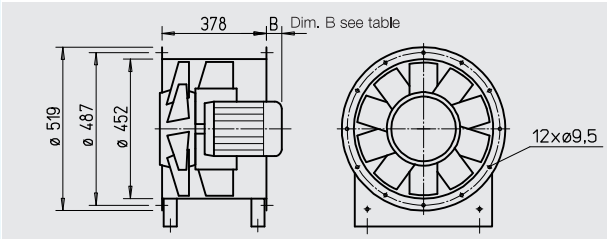


Fig. 5



Information	Page
Information for planning	10 on
Installation accessories	230 on
Attenuators	436
Speed controller, pole switch	525 on

Fig. incl. mounting feet (MK, accessories)



All dim. in mm

Specification

Casing
Cylindrical duct with welded motor supporting plate and guide vane made of sheet steel. With flanges on both ends (except AVD DK) steel to DIN 24155 PT3. For direct in-line installation in ducting. Surface protection by powder coating RAL 7015 (grey).

Impeller
Hub and blades in corrosion resistant aluminium alloy. Dynamically balanced to DIN ISO 1940-1, class 6.3 for low vibration operation.
Ten aerodynamically profiled blades achieve highest efficiency and pressure rates in cooperation with the guide vane. The pitch angle of the blades is adjustable at standstill and factory set.

Motor
Direct through efficient IE 2 or IE 3 standard three phase motor. Pole-switchable fans with IEC standard motor. Protection to IP 55, insulation class F.

Speed control
Stepless (0-100 %) by use of frequency inverters.
The planned use of a frequency inverter without sine filter must be stated when ordering. This causes a change of the fan execution and if necessary additional costs.

Electrical connection
Standard terminal box (protection to IP 55) from polymer, mounted on the outside of the casing.

Motor protection
All AMD types are equipped with PTC thermistors as motor protection as standard. Effective motor protection is possible by means of full motor protection device (Type MSA, Ref. no. 1289, accessories) or FU (accessories).

Dimensions
For some types, the motor protrudes out of the casing. Overhang dim. B in mm can be seen in the table below.

Sound levels
The sound power values concernig the frequency and as sum levels for different pitch angles are indicated on the product pages above the characteristic curves.

Information	Page
Information for planning	10 on

Made to order designs
Special design with inspection opening (add. price) on request.

Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

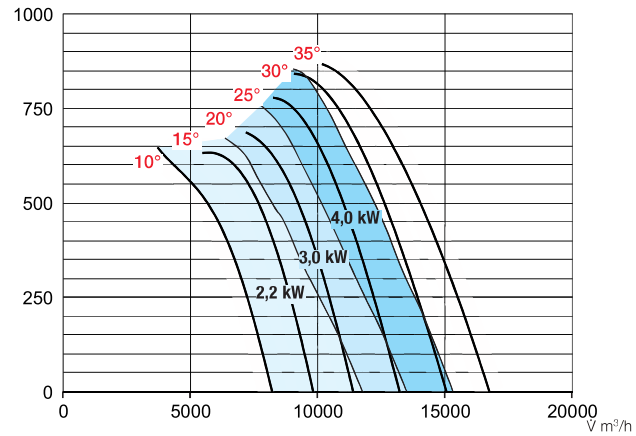
Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power (output)	Voltage	Current	Dim. B motor overhang	Wiring diagram	Max. air flow temp.	Weight net approx.	Frequency inverter with integrated sine filter		Full motor protection or pole switch	
		min^{-1}	V m^3/h	kW	V	A	mm	No.	+°C	kg	Type	Ref. no.	Type	Ref. no.
3 phase motor, 400 V, 50 Hz, protection to IP 55														
AMD 450/4 0,75 kW	3109	1420	8930	0.75	400	1.8	15	796	60	40	**FU-BS 2,5**	5459	**MSA**	1289
AMD 450/4 1,1 kW	3110	1390	10120	1.1	400	2.6	40	796	60	44	**FU-BS 5,0**	5460	**MSA**	1289
AMD 450/2 2,2 kW	3106	2880	10850	2.2	400	4.5	65	796	60	47	**FU-BS 5,0**	5460	**MSA**	1289
AMD 450/2 3 kW	3107	2880	12380	3	400	5.9	105	796	60	54	**FU-BS 8,0**	5461	**MSA**	1289
AMD 450/2 4 kW	3108	2900	14970	4	400*	7.6	155	776	60	57	**FU-BS 8,0**	5461	**MSA**	1289
Pole-switchable, 2-speed, 3 phase motor, Dahlander winding Y/YY, 400 V, 50 Hz, protection to IP 55													Pole switch surface	
AMD 450/4/2 0,65/2,5 kW	3121	1380/2855	5660/11660	0.65/2.5	400	1.9/5.0	40	777	60	61	—	—	**PDA 12** [1]	5081
AMD 450/4/2 0,8/3,1 kW	3111	1380/2860	6200/12380	0.8/3.1	400	2.1/6.1	65	777	60	61	—	—	**PDA 12** [1]	5081
AMD 450/4/2 1,1/4,4 kW	3113	1390/2860	7630/15780	1.1/4.4	400	3.0/8.7	155	777	60	67	—	—	**PDA 12** [1]	5081

The pitch angle should be stated when ordering. [1] Flush mounted version see switch product page. * Y/Δ start-up

450/2

R.P.M. = 2900

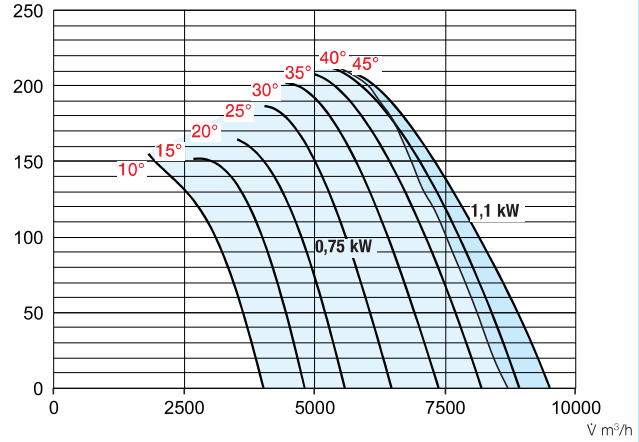
Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	100	77	90	95	99	99	94	85
L_{WA}	20°	dB(A)	101	79	91	99	100	100	96	87
L_{WA}	30°	dB(A)	104	81	93	101	103	102	98	89

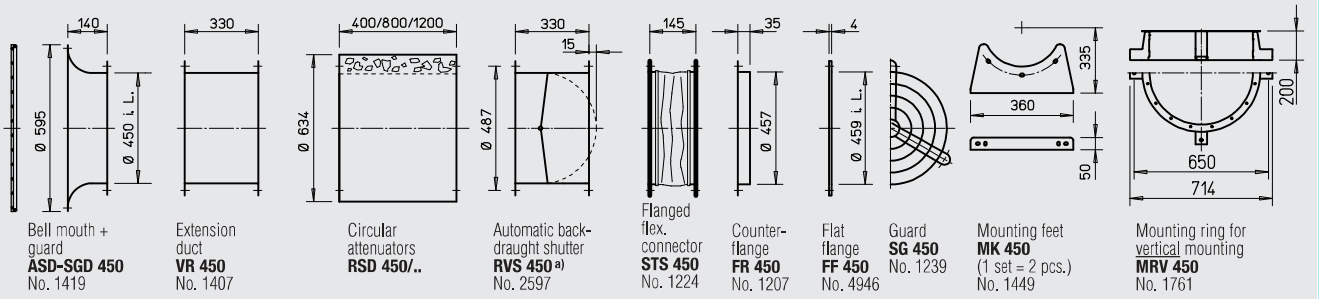


450/4

R.P.M. = 1420

Frequency		Hz	total	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





Bell mouth + guard **ASD-SGD 450** No. 1419

Extension duct **VR 450** No. 1407

Circular attenuators **RSD 450/..**

Automatic back-draught shutter **RVS 450** a) No. 2597

Flanged flex. connector **STS 450** No. 1224

Counter-flange **FR 450** No. 1207

Flat flange **FF 450** No. 4946

Guard **SG 450** No. 1239

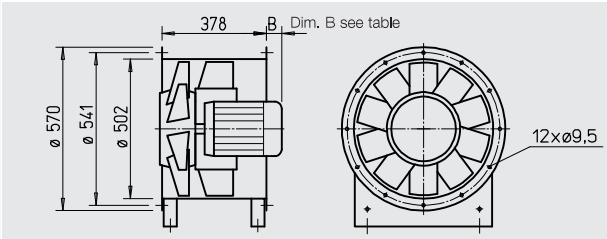
Mounting feet **MK 450** (1 set = 2 pcs.) No. 1449

Mounting ring for vertical mounting **MRV 450** No. 1761

a) For motorised shutters see accessory pages

	Vibration dampers			
	Compression		Suspension	
	Type	Ref. no.	Type	Ref. no.
	SDD 1	1452	**SDZ 1**	1454
	SDD 1	1452	**SDZ 1**	1454
	SDD 1	1452	**SDZ 1**	1454
	SDD 1	1452	**SDZ 1**	1454
	SDD 1	1452	**SDZ 1**	1454
	SDD 1	1452	**SDZ 2**	1455
	SDD 1	1452	**SDZ 2**	1455
	SDD 1	1452	**SDZ 2**	1455

Fig. incl. mounting feet (MK, accessories)



Specification

Casing
Cylindrical duct with welded motor supporting plate and guide vane made of sheet steel. With flanges on both ends (except AVD DK) steel to DIN 24155 PT3. For direct in-line installation in ducting. Surface protection by powder coating RAL 7015 (grey).

Impeller
Hub and blades in corrosion resistant aluminium alloy. Dynamically balanced to DIN ISO 1940-1, class 6.3 for low vibration operation. Ten aerodynamically profiled blades achieve highest efficiency and pressure rates in cooperation with the guide vane. The pitch angle of the blades is adjustable at standstill and factory set.

Motor
Direct through efficient IE 2 or IE 3 standard three phase motor. Pole-switchable fans with IEC standard motor. Protection to IP 55, insulation class F.

Speed control
Stepless (0-100 %) by use of frequency inverters. The planned use of a frequency inverter without sine filter must be stated when ordering. This causes a change of the fan execution and if necessary additional costs.

Electrical connection
Standard terminal box (protection to IP 55) from polymer, mounted on the outside of the casing.

Motor protection
All AMD types are equipped with PTC thermistors as motor protection as standard. Effective motor protection is possible by means of full motor protection device (Type MSA, Ref. no. 1289, accessories) or FU (accessories).

Dimensions
For some types, the motor protrudes out of the casing. Overhang dim. B in mm can be seen in the table below.

Sound levels
The sound power values concernig the frequency and as sum levels for different pitch angles are indicated on the product pages above the characteristic curves.

Information	Page
Information for planning	10 on

Made to order designs
Special design with inspection opening (add. price) on request.

Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

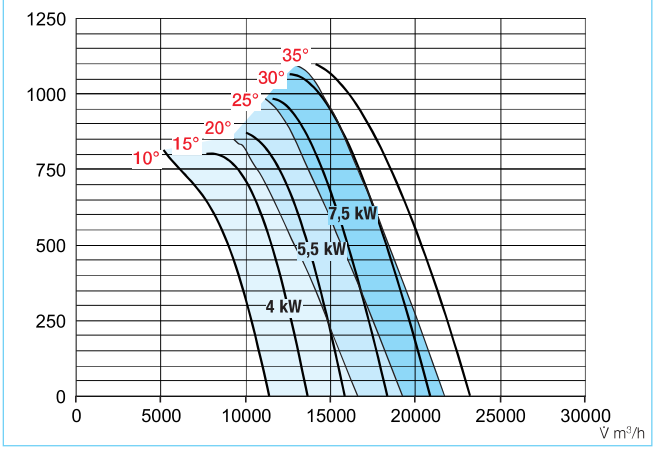
Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power (output)	Voltage	Current	Dim. B motor overhang	Wiring diagram	Max. air flow temp.	Weight net approx.	Frequency inverter with integrated sine filter		Full motor protection or pole switch	
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	mm	No.	+°C	kg	Type	Ref. no.	Type	Ref. no.
3 phase motor, 400 V, 50 Hz, protection to IP 55														
AMD 500/4 0,75 kW	3118	1420	9420	0.75	400	1.8	35	796	60	46	**FU-BS 2,5**	5459	**MSA**	1289
AMD 500/4 1,1 kW	3119	1390	11600	1.1	400	2.6	60	796	60	50	**FU-BS 5,0**	5460	**MSA**	1289
AMD 500/4 1,5 kW	3122	1420	13250	1.5	400	3.5	85	796	60	53	**FU-BS 5,0**	5460	**MSA**	1289
AMD 500/2 4 kW	3115	2900	15620	4	400*	7.6	175	776	60	83	**FU-BS 8,0**	5461	**MSA**	1289
AMD 500/2 5,5 kW	3116	2910	17600	5.5	400*	10.4	180	776	60	97	**FU-BS 14**	5463	**MSA**	1289
AMD 500/2 7,5 kW	3117	2940	21570	7.5	400*	13.7	220	776	60	102	**FU-BS 14**	5463	**MSA**	1289
Pole-switchable, 2-speed, 3 phase motor, Dahlander winding Y/YY, 400 V, 50 Hz, protection to IP 55													Pole switch surface	
AMD 500/8/4 0,22/1,0 kW	3275	645/1390	5660/11400	0.22/1.0	400	0.9/2.4	60	777	60	55	—	—	**PDA 12** [1]	5081
AMD 500/8/4 0,3/1,3 kW	3276	645/1390	6250/12630	0.3/1.3	400	1.6/3.3	85	777	60	58	—	—	**PDA 12** [1]	5081
AMD 500/4/2 1,4/5,9 kW	3273	1400/2900	9030/18600	1.4/5.9	400	3.6/11.4	180	777	60	118	—	—	**PDA 12** [1]	5081
AMD 500/4/2 2,0/8,0 kW	3274	1410/2900	10900/22600	2.0/8.0	400	4.7/14.9	220	777	60	129	—	—	**PDA 25**	5060

The pitch angle should be stated when ordering. 1) Flush mounted version see switch product page. 2) Extension duct VR.. required over the motor overhang. * Y/Δ start-up

500/2

R.P.M. = 2930

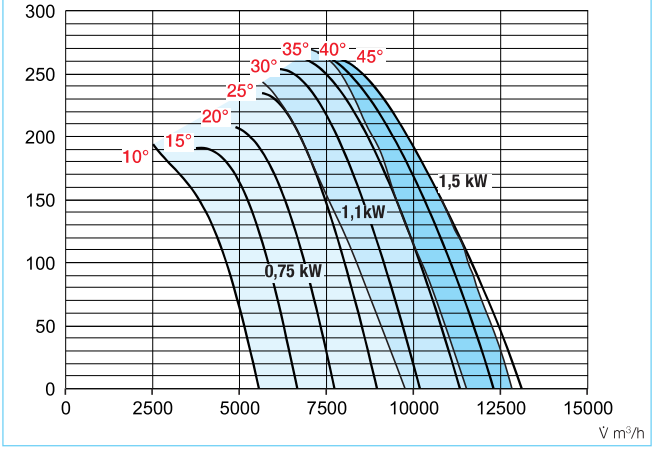
Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	103	80	93	99	102	100	97	88
L_{WA}	20°	dB(A)	105	82	94	100	104	102	99	90
L_{WA}	30°	dB(A)	107	84	96	104	106	104	101	92

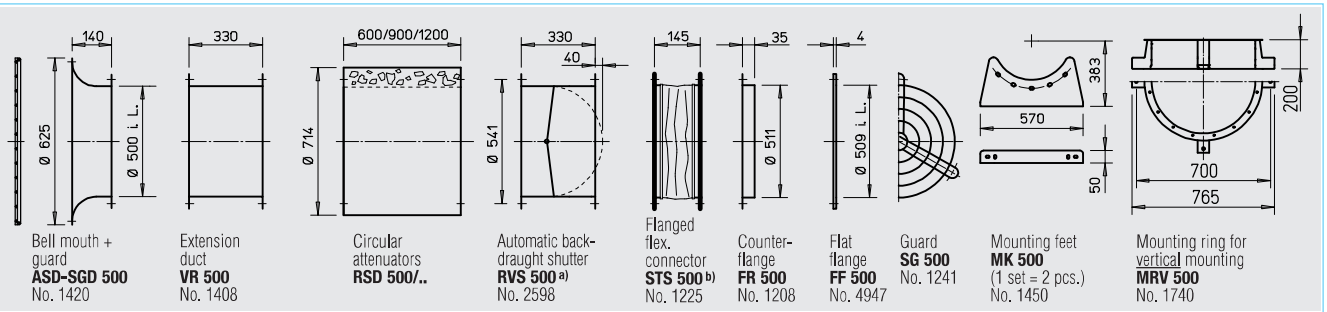


500/4

R.P.M. = 1430

Frequency		Hz	total	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

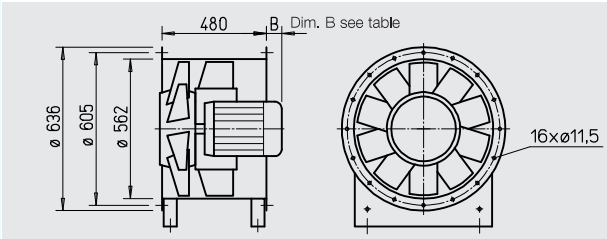




a) For motorised shutters see accessory pages

	Vibration dampers			
	Compression		Suspension	
	Type	Ref. no.	Type	Ref. no.
	SDD 1	1452	SDZ 1	1454
	SDD 1	1452	SDZ 1	1454
	SDD 1	1452	SDZ 1	1454
	SDD 2	1453	SDZ 2	1455
	SDD 2 2)	1453	SDZ 2 2)	1455
	SDD 2 2)	1453	SDZ 2 2)	1455
	SDD 1	1452	SDZ 1	1454
	SDD 1	1452	SDZ 2	1455
	SDD 2 2)	1453	SDZ 2 2)	1455
	SDD 2 2)	1453	SDZ 2 2)	1455

Fig. incl. mounting feet (MK, accessories)



All dim. in mm

Accessories MK (see below)

Specification

Casing
Cylindrical duct with welded motor supporting plate and guide vane made of sheet steel. With flanges on both ends (except AVD DK) steel to DIN 24155 PT3. For direct in-line installation in ducting. Surface protection by powder coating RAL 7015 (grey).

Impeller
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Ten aerodynamically profiled blades achieve highest efficiency and pressure rates in cooperation with the guide vane. The pitch angle of the blades is adjustable at standstill and factory set.

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Direct through efficient IE 2 or IE 3 standard three phase motor. Pole-switchable fans with IEC standard motor. Protection to IP 55, insulation class F.

Speed control
Stepless (0-100 %) by use of frequency inverters.
The planned use of a frequency inverter without sine filter must be stated when ordering. This causes a change of the fan execution and if necessary additional costs.

Electrical connection
Standard terminal box (protection to IP 55) from polymer, mounted on the outside of the casing.

Motor protection
All AMD types are equipped with PTC thermistors as motor protection as standard. Effective motor protection is possible by means of full motor protection device (Type MSA, Ref. no. 1289, accessories) or FU (accessories).

Dimensions
For some types, the motor protrudes out of the casing. Overhang dim. B in mm can be seen in the table below.

Sound levels
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Information	Page
Information for planning	10 on

Made to order designs
Special design with inspection opening (add. price) on request.

Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

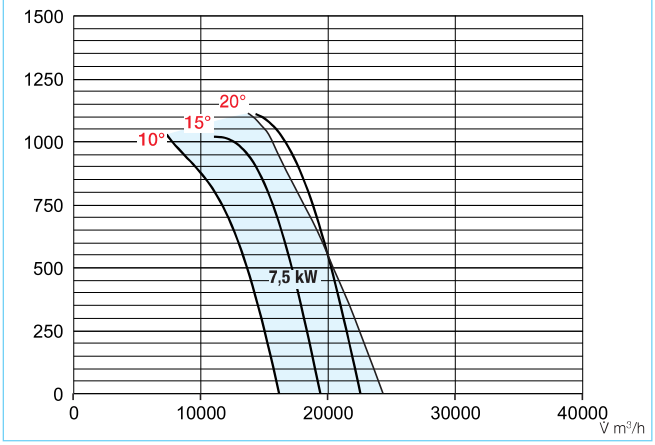
Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power (output)	Voltage	Current	Dim. B motor overhang	Wiring diagram	Max. air flow temp.	Weight net approx.	Frequency inverter with integrated sine filter		Full motor protection or pole switch		
		min^{-1}	V m^3/h	kW	V	A	mm	No.	+°C	kg	Type	Ref. no.	Type	Ref. no.	
3 phase motor, 400 V, 50 Hz, protection to IP 55															
AMD 560/4 1,1 kW	3281	1390	11870	1.1	400	2.6	0	796	60	61	**FU-BS 5,0**	5460	**MSA**	1289	
AMD 560/4 1,5 kW	3282	1420	14750	1.5	400	3.5	0	796	60	64	**FU-BS 5,0**	5460	**MSA**	1289	
AMD 560/4 2,2 kW	3285	1440	17600	2.2	400	4.7	40	796	60	74	**FU-BS 5,0**	5460	**MSA**	1289	
AMD 560/4 3 kW	3286	1440	19520	3	400	6,2	40	796	60	80	**FU-BS 8,0**	5461	**MSA**	1289	
AMD 560/2 7,5 kW	3279	2940	22000	7.5	400*	13.7	100	776	60	123	**FU-BS 14**	5463	**MSA**	1289	
Pole-switchable, 2-speed, 3 phase motor, Dahlander winding Y/YY, 400 V, 50 Hz, protection to IP 55														Pole switch surface	
AMD 560/8/4 0,55/2,0 kW	3272	680/1410	8150/16500	0.55/2.0	400	2.0/4.5	0	777	60	79	—	—	**PDA 12** [1]	5081	
AMD 560/8/4 0,65/2,4 kW	3290	680/1410	8740/18160	0.65/2.4	400	2.5/5.5	40	777	60	79	—	—	**PDA 12** [1]	5081	
AMD 560/4/2 2,0/8,0 kW	3287	1410/2900	11280/23150	2.0/8.0	400	4.7/14.9	100	777	60	149	—	—	**PDA 25**	5060	

The pitch angle should be stated when ordering. 1) Flush mounted version see switch product page. * Y/Δ start-up

560/2

R.P.M. = 2930

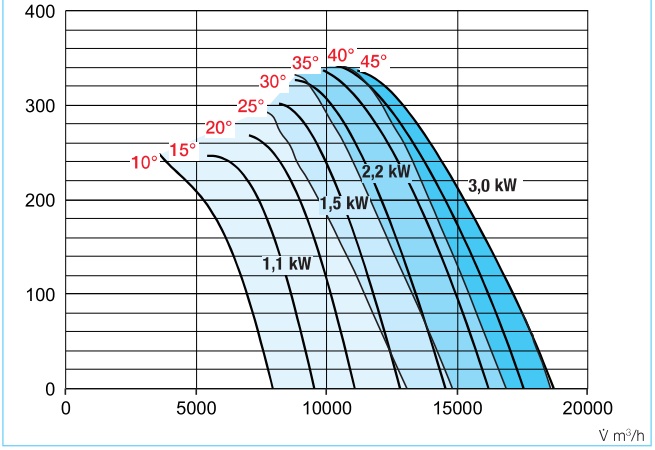
Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	107	84	96	104	106	105	101	91
L_{WA}	20°	dB(A)	108	85	97	105	107	105	102	93
L_{WA}	30°	dB(A)	111	87	100	107	110	109	105	95

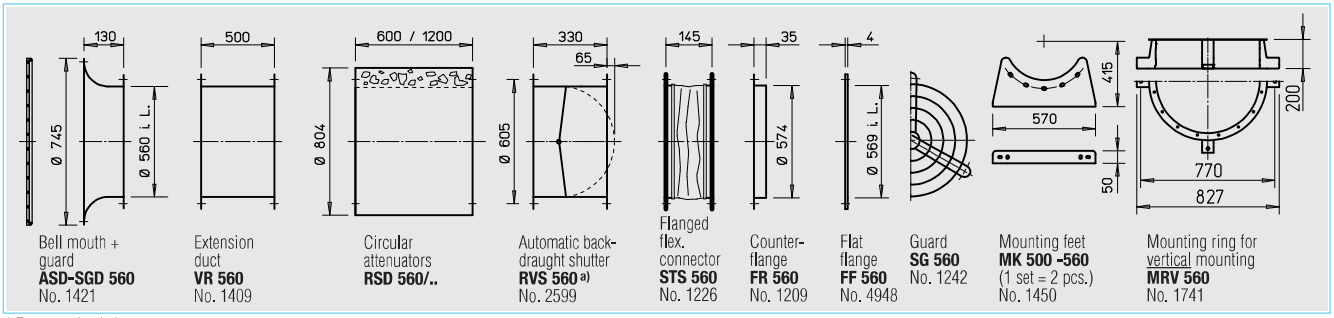


560/4

R.P.M. = 1440

Frequency		Hz	total	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





Bell mouth + guard **ASD-SGD 560** No. 1421

Extension duct **VR 560** No. 1409

Circular attenuators **RSD 560/..**

Automatic back-draught shutter **RVS 560** a) No. 2599

Flanged flex. connector **STS 560** No. 1226

Counter-flange **FR 560** No. 1209

Flat flange **FF 560** No. 4948

Guard **SG 560** No. 1242

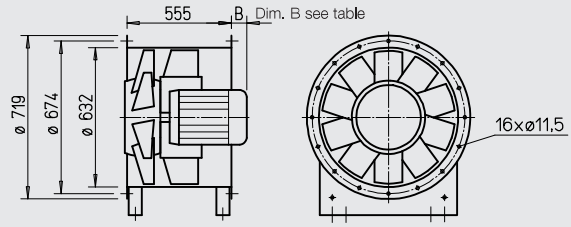
Mounting feet **MK 500 -560** (1 set = 2 pcs.) No. 1450

Mounting ring for vertical mounting **MRV 560** No. 1741

a) For motorised shutters see accessory pages

	Vibration dampers			
	Compression		Suspension	
	Type	Ref. no.	Type	Ref. no.
	SDD 1	1452	**SDZ 2**	1455
	SDD 1	1452	**SDZ 2**	1455
	SDD 1	1452	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455

Fig. incl. mounting feet (MK, accessories)



All dim. in mm

Accessories MK (see below)

Specification

Casing

Cylindrical duct with welded motor supporting plate and guide vane made of sheet steel. With flanges on both ends (except AVD DK) steel to DIN 24155 PT3. For direct in-line installation in ducting. Surface protection by powder coating RAL 7015 (grey).

Impeller

Hub and blades in corrosion resistant aluminium alloy. Dynamically balanced to DIN ISO 1940-1, class 6.3 for low vibration operation.
Ten aerodynamically profiled blades achieve highest efficiency and pressure rates in cooperation with the guide vane. The pitch angle of the blades is adjustable at standstill and factory set.

Motor

Direct through efficient IE 2 or IE 3 standard three phase motor. Pole-switchable fans with IEC standard motor. Protection to IP 55, insulation class F.

Speed control

Stepless (0-100 %) by use of frequency inverters.
The planned use of a frequency inverter without sine filter must be stated when ordering. This causes a change of the fan execution and if necessary additional costs.

Electrical connection

Standard terminal box (protection to IP 55) from polymer, mounted on the outside of the casing.

Motor protection

All AMD types are equipped with PTC thermistors as motor protection as standard. Effective motor protection is possible by means of full motor protection device (Type MSA, Ref. no. 1289, accessories) or FU (accessories).

Dimensions

For some types, the motor protrudes out of the casing. Overhang dim. B in mm can be seen in the table below.

Sound levels

The sound power values concernig the frequency and as sum levels for different pitch angles are indicated on the product pages above the characteristic curves.

Information	Page
Information for planning	10 on

Made to order designs
Special design with inspection opening (add. price) on request.

Other accessories	Page
Installation accessories	230 on
Attenuators	436 on
Switch and control technology	525 on

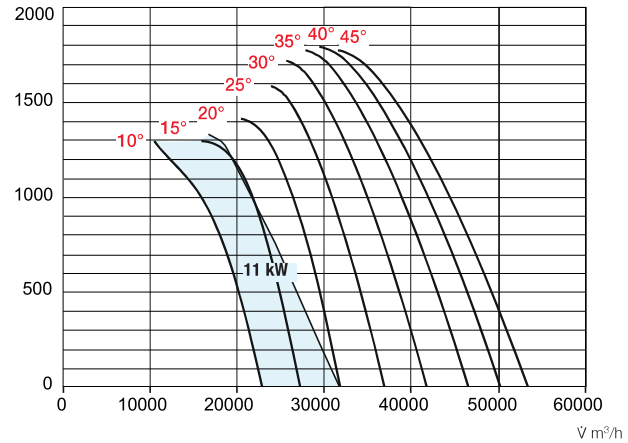
Type	Ref. no.	R.P.M.	Air flow volume (FID)	Motor power (output)	Voltage	Current	Dim. B motor overhang	Wiring diagram	Max. air flow temp.	Weight net approx.	Frequency inverter with integrated sine filter		Full motor protection or pole switch		
		min^{-1}	$\dot{V}$ m^3/h	kW	V	A	mm	No.	+°C	kg	Type	Ref. no.	Type	Ref. no.	
3 phase motor, 400 V, 50 Hz, protection to IP 55															
AMD 630/4 1,5 kW	3291	1420	14390	1.5	400	3.5	0	796	60	84	**FU-BS 5,0**	5460	**MSA**	1289	
AMD 630/4 2,2 kW	3292	1440	18500	2.2	400	4.7	0	796	60	84	**FU-BS 5,0**	5460	**MSA**	1289	
AMD 630/4 3 kW	3293	1440	21400	3.0	400	6.2	0	796	60	99	**FU-BS 8,0**	5461	**MSA**	1289	
AMD 630/4 4 kW	3294	1445	25130	4.0	400*	8.1	30	776	60	94	**FU-BS 10**	5462	**MSA**	1289	
AMD 630/4 5,5 kW	3295	1450	27700	5.5	400*	11.1	40	776	60	115	**FU-BS 14**	5463	**MSA**	1289	
AMD 630/2 11 kW	3376	2940	32000	11.0	400*	20.0	145	776	60	210	—	—	**MSA**	1289	
Pole-switchable, 2-speed, 3 phase motor, Dahlander winding Y/YY, 400 V, 50 Hz, protection to IP 55														Pole switch surface	
AMD 630/8/4 0,55/2,0 kW	3297	680/1410	8030/16660	0.55/2.0	400	2.00/4.5	0	777	60	98	—	—	**PDA 12** [1]	5081	
AMD 630/8/4 0,9/3,2 kW	3298	680/1420	11000/21750	0.9/3.2	400	3.2/7.1	30	777	60	104	—	—	**PDA 12** [1]	5081	
AMD 630/8/4 1,1/4,5 kW	3299	680/1435	13260/26450	1.1/4.5	400	3.6/9.3	40	777	60	130	—	—	**PDA 12** [1]	5081	

The pitch angle should be stated when ordering. 1) Flush mounted version see switch product page. * Y/Δ start-up

630/2

R.P.M. = 2940

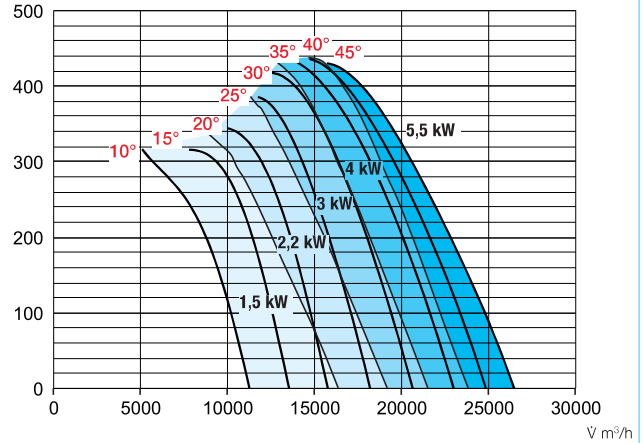
Frequency		Hz	total	125	250	500	1k	2k	4k	8k
L_{WA}	10°	dB(A)	112	84	97	104	108	106	101	92
L_{WA}	20°	dB(A)	114	87	99	107	110	109	104	95
L_{WA}	30°	dB(A)	116	89	101	109	112	111	106	97

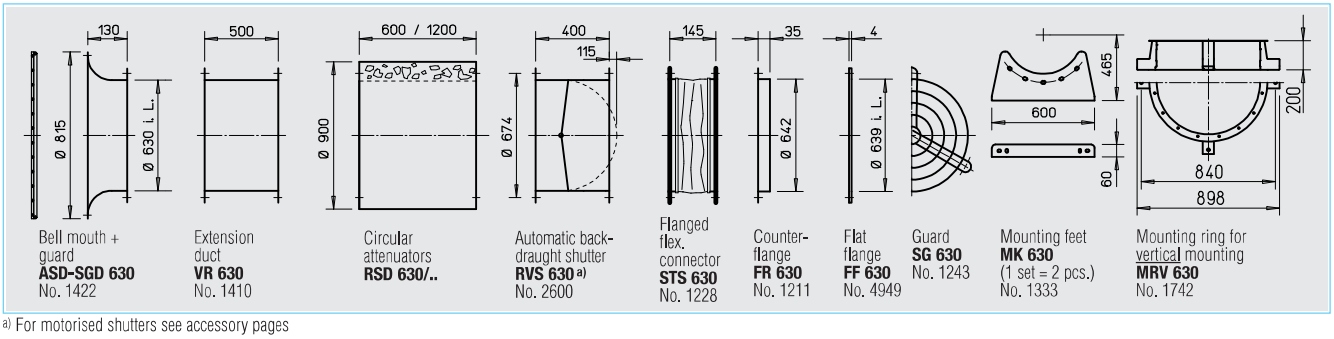


630/4

R.P.M. = 1450

Frequency		Hz	total	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





Bell mouth + guard **ASD-SGD 630** No. 1422

Extension duct **VR 630** No. 1410

Circular attenuators **RSD 630/..**

Automatic back-draught shutter **RVS 630** [a] No. 2600

Flanged flex. connector **STS 630** No. 1228

Counter-flange **FR 630** No. 1211

Flat flange **FF 630** No. 4949

Guard **SG 630** No. 1243

Mounting feet **MK 630** (1 set = 2 pcs.) No. 1333

Mounting ring for vertical mounting **MRV 630** No. 1742

[a] For motorised shutters see accessory pages

	Vibration dampers			
	Compression		**Suspension**	
	Type	Ref. no.	**Type**	Ref. no.
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	—	—	—	—
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455
	SDD 2	1453	**SDZ 2**	1455