

**■ Specification for all models**

**□ Casing**

Manufactured in galvanised sheet steel. Model HQ and HW have an additional two-layer finishing in papyrus white. Ex-models without paint.

**□ Impeller**

Highly efficient, profiled blade impeller, dynamically balanced and manufactured from impact resistant polymers. Suitable for -30 to +60 °C. Deviation for ex-models.

**□ Motor**

Totally enclosed motor with a die-cast aluminium casing, protected to IP 55. Ball bearing mounted. Maintenance-free and interference-free. Humidity protection of windings. For maximum air flow temp. see table below. Deviation for ex-models.

**□ Motor protection**

All models (explosion proof excluded) have thermal contacts as standard which must be connected to a motor protection unit (see below).

**□ Electrical connection**

Terminal box (IP 55) mounted on rear of motor as standard. Also on outside of piping for HRF. Deviation for ex-models.

**□ Guard**

Powder-coated steel wire for HQ and HW (HQ ex-models galvanised) according to DIN EN ISO 13857.

**□ Speed control**

For all speed controllable models the current are identified with a value in the "speed controlled" column of the table below which must be used when selecting a controller. Possible allocations of

frequency inverters are specified in the table below. The planned use of a frequency inverter without Sine filter must be stated when ordering. This requires a change of fan design and potential additional costs. The air flow rates are shown in the performance curves.

**□ Reversed operation**

All models are reversible when wired to a reversing switch. For reverse air flow direction allow a loss in performance of approx. 1/3.

**□ Installation**

Installation in any position. Ensure that the motor drainage holes face downwards.

**□ Dimensions**

Pole-switch and explosion proof models may deviate from the information above.

**□ Sound levels**

See characteristic curve. The sound power and sound pressure are specified at 4 m distances under free field conditions, for average operating point suction/pressure side. See page 10 on for sound emission and acoustics. Deviation for ex-models.

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Information for planning	10 on
<b>Made to order designs</b>	
Alternative voltages, protection classes, air flow direction, air flow temperature, acid protection and cast aluminium impellers are available on request.	

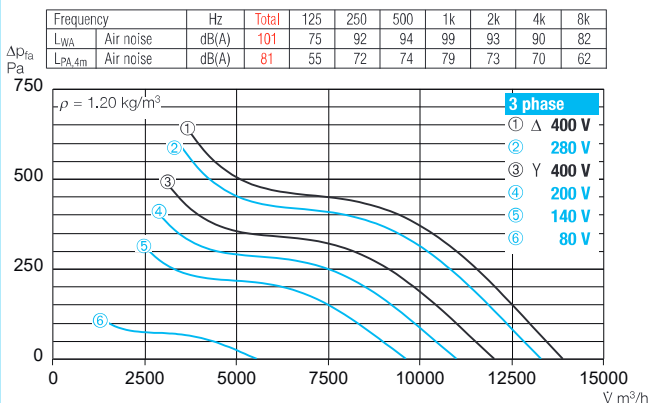
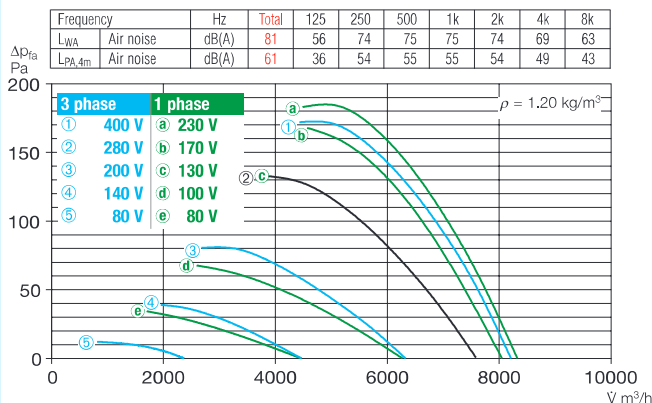
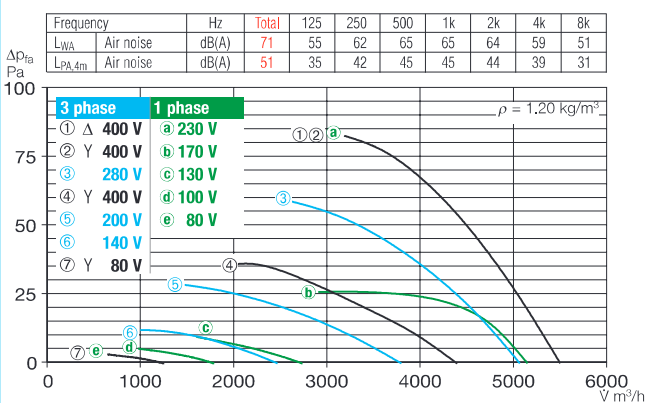
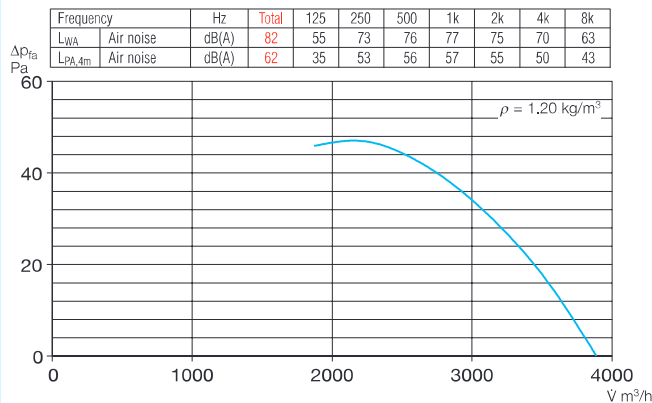
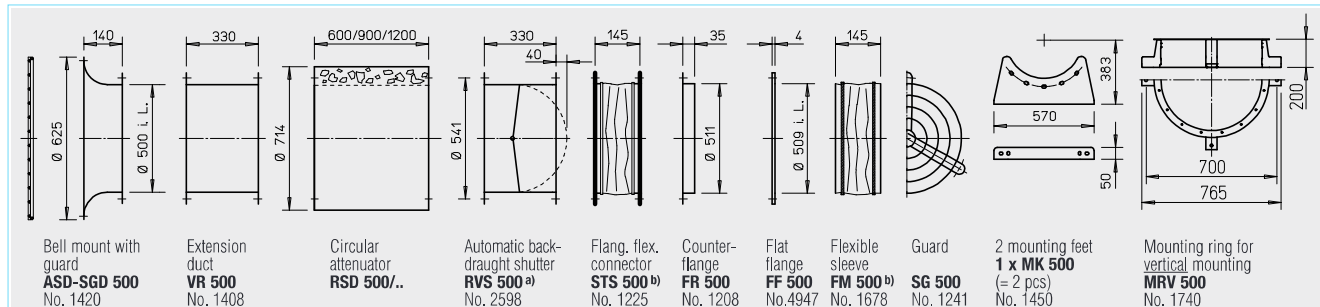
R.P.M.	Air flow volume (FID)	Motor power	Current*		Wiring diagram	max. air flow temp. speed controlled		Weight net	Model						
			standard-supply	max. controlled		standard supply	speed controlled		HQ incl. guard	Ref. no.	HW incl. guard	Ref. no.	HRF	Ref. no.	
min <sup>-1</sup>	V m <sup>3</sup> /h	W	A	A	No.	+°C	+°C	kg							
<b>1 Phase motor, 230 Volt / 50 Hz, capacitor motor, protection to IP 55</b>															
935	5500	233	1.05	1.25	475 <sup>1)</sup>	60	40	19.0	HQW 500/6	1112	—	—	HRFW 500/6 <sup>1)</sup>	0210	
1375	8320	1100*	5.90*	4.94	475 <sup>1)</sup>	40	40	25.0	HQW 500/4	1113	—	—	HRFW 500/4 <sup>1)</sup>	0211	
<b>3 Phase motor, 400 Volt / 50 Hz, squirrel cage motor protection to IP 55</b>															
920	5480	218	0.48	0.55	469	60	40	19.0	HQD 500/6	1126	—	—	HRFD 500/6	0232	
1345	8200	620	1.22	1.32	469	40	40	19.5	HQD 500/4	1127	HWD 500/4	1030	HRFD 500/4	0233	
<b>Two-speed, 3 ph., 400 V, 50 Hz, Y/Δ switch, protection to IP 55</b>															
615/920	4330/5450	133/214	0.29/0.46	—	520	60	—	18.0	HQD 500/6/6	1471	—	—	—	—	
1030/1350	6720/8150	416/617	0.76/1.19	—	520	60	—	24.0	HQD 500/4/4	1469	—	—	HRFD 500/4/4	1470	
2450/2830	13615/12050	1960/2470*	3.14/4.73*	—	520	40	—	30.0	—	—	—	—	HRFD 500/2/2	0485	
<b>2 speed motor, pole-switching, Dahlander windings, 400 Volt, 50 Hz, protection to IP 55</b>															
465/940	2680/5490	71/248	0.23/0.56	—	472	60	—	18.0	HQD 500/12/6	1140	—	—	—	—	
700/1385	3890/8260	137/688	0.52/1.48	—	472	40	—	22.0	HQD 500/8/4	1142	—	—	HRFD 500/8/4	0407	
<b>Explosion proof Ex e II, 3 ph., 400 Volt, 50 Hz, protection to IP 55, temp. class T1-T3</b>															
920	5610	250*	0.97*	—	470	40	—	18.0	HQD 500/6 Ex	1050	—	—	HRFD 500/6 Ex	0489	
1390	8560	750*	2.00*	—	470	40	—	18.0	HQD 500/4 Ex	1157	—	—	HRFD 500/4 Ex	0483	

\* Motor nominal values, Ex see info page 16.

<sup>1)</sup> Type HRFW: connect using wiring diagram no. SS-965.

<sup>2)</sup> Incl. full motor protection.

<sup>3)</sup> Incl. pole switch.

**500/2**

**500/4**

**500/6**

**500/8**

**Accessories for HRF** Description see page 230 on

<sup>a)</sup> For motorised shutters see accessory page

<sup>b)</sup> Models for ex-proof fans see below

Frequency inverter with integrated Sine filter		Transformer controller 5-speed Pole switch		Electronic controller, stepless flush/surf.		Full motor protection for connection of integrated thermal contacts		Reversing switch	
Model	Ref. no.	Model	Ref. no.	Model	Ref. no.	Model	Ref. no.	Model	Ref. no.
—	—	MWS 1,5 <sup>2)</sup>	1947	ESU 3/ESA 3	0237/0239	MW	1579	WS	1271
—	—	MWS 5 <sup>2)</sup>	1949	ESU 5/ESA 5	1296/1299	MW	1579	WS	1271
FU-BS 2,5 <sup>2)</sup>	5459	RDS 1 <sup>2)</sup>	1314	ESD 5 <sup>2)</sup>	0501	MD	5849	WS	1271
FU-BS 2,5 <sup>2)</sup>	5459	RDS 2 <sup>2)</sup>	1315	ESD 5 <sup>2)</sup>	0501	MD	5849	WS	1271
Speed switch									
FU-BS 2,5 <sup>2)</sup>	5459	DS 2 <sup>5)</sup>	1351	—	—	M 4 <sup>4)</sup> /MD	1571/5849	WS	1271
FU-BS 2,5 <sup>2)</sup>	5459	DS 2 <sup>5)</sup>	1351	ESD 5 <sup>2)</sup>	0501	M 4 <sup>4)</sup> /MD	1571/5849	WS	1271
FU-BS 5,0 <sup>2)</sup>	5460	RDS 7 <sup>2)</sup>	1578	ESD 11,5 <sup>2)</sup>	0502	M 4 <sup>4)</sup> /MD	1571/5849	WS	1271
Pole switch									
—	—	PDA 12 <sup>4)</sup>	5081	—	—	M 3 <sup>3)</sup>	1293	PWDA	1282
—	—	PDA 12 <sup>4)</sup>	5081	—	—	M 3 <sup>3)</sup>	1293	PWDA	1282
—	—	not permitted	—	not permitted	—	—	—	—	—
—	—	not permitted	—	not permitted	—	—	—	—	—

<sup>4)</sup> See switch product page for flush mounted version.

<sup>5)</sup> Speed switch.

**Other accessories Page**

<sup>b)</sup> Accessories for explosion proof fans	
Flanged flexible connector Type STS 500 Ex	Ref. no. 2507
Flexible sleeve Type FM 500 Ex	Ref. no. 1694
Extension tube for HS	
Type VH 500	Ref. no. 1348
Cylindrical duct, galvanised steel, length: 150 mm.	
Attenuators	421 on
Shutters and grilles	487 on
Speed controllers and switches	525 on