

HQ



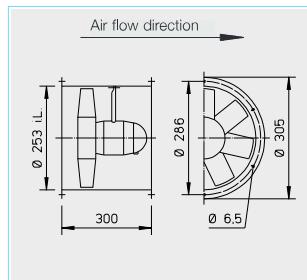
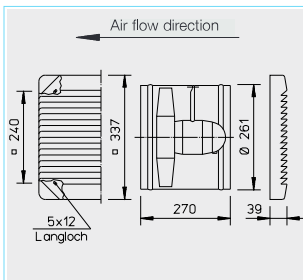
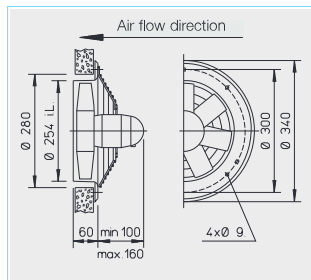
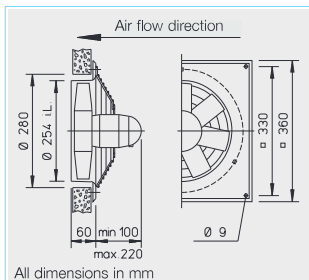
HW



HS



HRF



■ 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 or IP 54. Ball bearing mounted. Maintenance-free and interference-free. Humidity protection of windings. For maximum air flow temperature see table below. Deviation for ex-models.

□ Motor protection

All models (3~ explosion proof excluded) have thermal contacts as standard which must be connected to a motor protection unit (see below). The models H..W 250/6, H..W 250/4 and all 1 ph. ex-proof fans have automatic resetting thermal contacts wired in series with the motor windings.

□ Electrical connection

Terminal box (IP 54/55) 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.

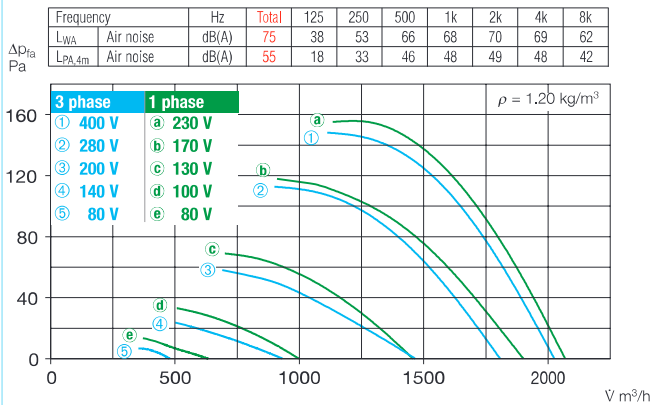
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R.P.M.	Air flow volume (FID)	Motor power	Current* max. standard supply	Wiring diagram	max. air flow temp. standard supply	speed controlled	Weight net	Model							
								HQ incl. guard	Ref. no.	HW incl. guard	Ref. no.	HS incl. guard	Ref. no.	HRF	Ref. no.
min ⁻¹	V m ³ /h	W	A	A	No.	+°C	+°C	kg							
1 Phase motor, 230 Volt / 50 Hz, capacitor motor, protection to IP 54/IP 55															
930	660	35	0.20	0.22	317	60	40	6.5	HQW 250/6	1102	—	—	HSW 250/6	0139	—
1300	930	36	0.15	0.15	439 ²⁾	60	40	7.5	HQW 250/4 ¹⁾	1103	HWW 250/4 ¹⁾	1001	HSW 250/4 ¹⁾	0140	HRFW 250/4 ¹⁾²⁾ 0200
2710	2070	187	0.81	0.9	317 ³⁾	60	40	6.5	HQW 250/2	1104	HWW 250/2	1002	HSW 250/2	0141	HRFW 250/2 ³⁾ 0201
3 Phase motor, 400 Volt / 50 Hz, squirrel cage motor protection to IP 55															
980	700	61	0.27	0.33	469	60	40	6.5	HQD 250/6	1114	—	—	—	—	—
1390	950	55	0.15	0.15	469	60	40	6.5	HQD 250/4 ¹⁾	1115	HWD 250/4 ¹⁾	1016	HSD 250/4 ¹⁾	0155	HRFD 250/4 ¹⁾ 0220
2550	2000	169	0.31	0.33	469	60	40	6.5	HQD 250/2	1116	HWD 250/2	1017	—	—	HRFD 250/2 0221
2 speed motor, pole-switching, Dahlander windings, 400 Volt, 50 Hz, protection to IP 55															
1430/2770	1030/2110	58/212	0.16/0.43	—	472	60	—	8.5	HQD 250/4/2	1128	—	—	—	—	HRFD 250/4/2 0390
Explosion proof Ex d II B, 1 ph., 230 Volt, 50 Hz, protection to IP 55, temp. class T1-T3															
1400	1030	60*	0.70*	—	757	40	—	12	HQW 250/4 Ex	0438	—	—	—	—	HRFW 250/4 Ex 0437
2690	1950	180*	1.23*	—	757	40	—	13	HQW 250/2 Ex	1094	—	—	—	—	HRFW 250/2 Ex 1095
Explosion proof Ex e II, 3 ph., 400 Volt, 50 Hz, protection to IP 55, temp. class T1-T3															
1350	1070	120*	0.37*	—	470	40	—	12	HQD 250/4 Ex	1144	—	—	—	—	HRFD 250/4 Ex 0470
2800	2070	250*	0.75*	—	470	40	—	11	HQD 250/2 Ex	1145	—	—	—	—	HRFD 250/2 Ex 0471

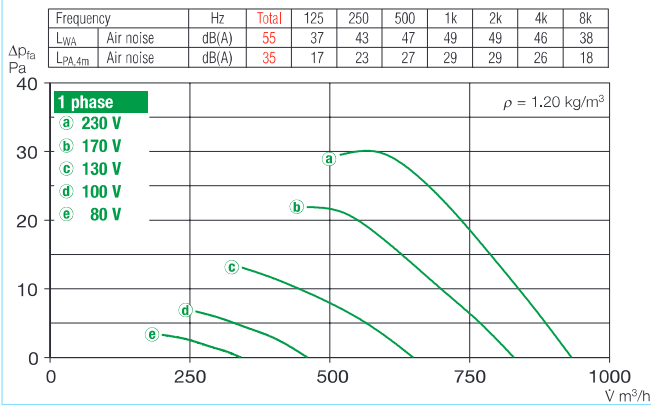
* Motor nominal values, Ex see info page 16.

¹⁾ Special design not possible. ²⁾ Type HRFW: connect using wiring diagram no. SS-962. ³⁾ Type HRFW./2: connect using wiring diagram no. SS-963.

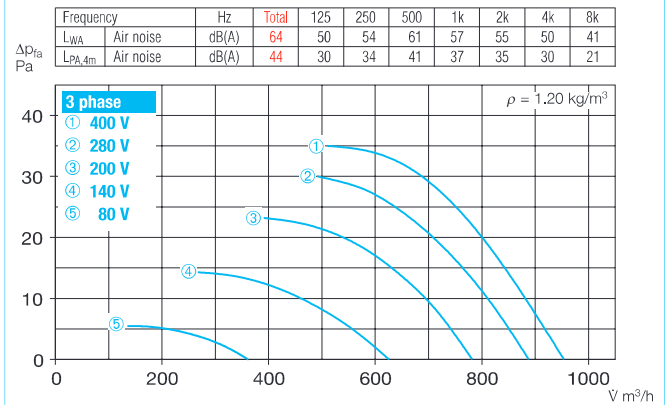
250/2



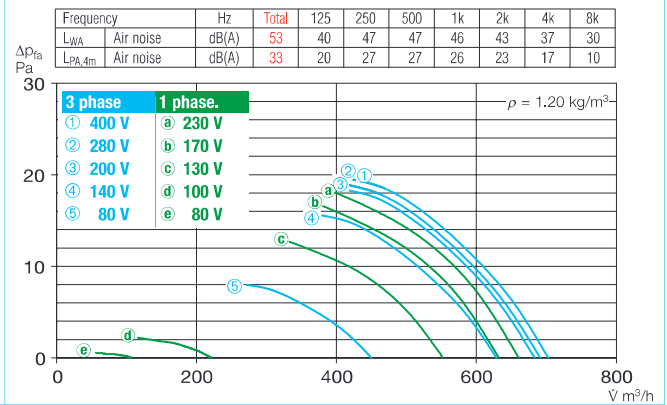
250/4 Single phase



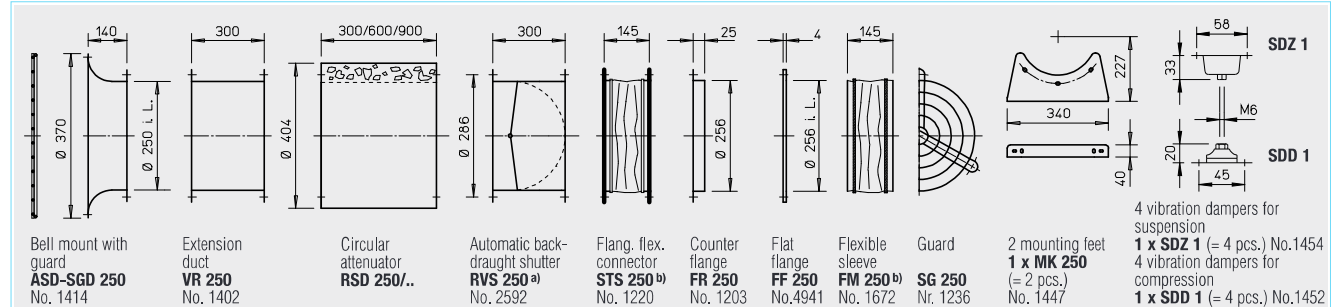
250/4 Three phase



250/6



Accessories for HRF Description see page 230 on



^{a)} For motorised shutters see accessory page

^{b)} 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 inte- grated thermal contacts		Reversing switch	
Model	Ref. no.	Model	Ref. no.	Model	Ref. no.	Model	Ref. no.	Model	Ref. no.
—	—	TSW 0,3	3608	ESU 1/ESA 1	0236/0238	—	—	WS	1271
—	—	TSW 0,3	3608	ESU 1/ESA 1	0236/0238	—	—	DSEL 2	1306
—	—	MWS 1,5	1947	ESU 3/ESA 3	0237/0239	MW	1579	WS	1271
FU-BS 2,5 ⁴⁾	5459	RDS 1 ⁴⁾	1314	—	—	MD	5849	WS	1271
FU-BS 2,5 ⁴⁾	5459	RDS 1 ⁴⁾	1314	—	—	MD	5849	WS	1271
FU-BS 2,5 ⁴⁾	5459	RDS 1 ⁴⁾	1314	—	—	MD	5849	WS	1271
		Pole switch							
—	—	PDA 12 ⁶⁾	5081	—	—	M 3 ⁵⁾	1293	PWDA	1282
—	—	not permitted		not permitted		—	—	—	—
—	—	not permitted		not permitted		—	—	—	—
—	—	not permitted		not permitted		—	—	—	—
—	—	not permitted		not permitted		—	—	—	—

⁴⁾ Incl. full motor protection.

⁵⁾ Incl. pole switch.

⁶⁾ See switch product page for flush mounted version

Other accessories Page

Accessories for explosion proof fans

Flanged flexible connector

Type STS 250 Ex Ref. no. 2501

Flexible sleeve

Type FM 250 Ex Ref. no. 1688

Extension tube for HS

Type VH 250 Ref. no. 1343

Cylindrical duct, galvanised steel, length: 150 mm.

Attenuators 421 on

Shutters and grilles 487 on

Speed controllers and switches 525 on