HQ 500



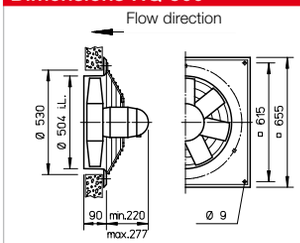
Also available in version:

HRF 500



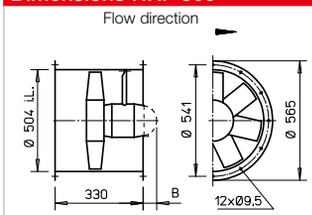
Also available in version:

Dimensions HQ 500



Dim. in mm

Dimensions HRF 500



Dim. B see table
Dim. in mm

Description for all types

Casing
Made of galvanised steel sheet, types HQ and HW have additional two layer lacquer coating in papyrus white. Explosion-proof types have no lacquer coating

Impeller
High performance characteristics with profiled blades made of plastic, dynamically balanced. Different for explosion-proof types.

Drive
Closed die-cast aluminium casing. Prot. cat. IP55. Ball bearing mounted. Maintenance-free and radio interference-free. Winding with moisture proof coating. See type table for max. air flow temperature. Different for explosion-proof types.

Motor protection
All types (except for explosion-proof, see page 190) are equipped with thermal contacts or PTC thermistor. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection.

Electrical connection
Standard terminal box (IP55) on back of motor. Additionally on outside of duct for HRF types. Different for explosion-proof types.

Protection grille
Made of powder-coated steel for HQ and HW (HQ Ex galvanised). In accordance with DIN EN ISO 13857.

Power control
The voltage-controllable types are identified in the “Current consumption max. with control” column with a value which must be observed when determining the controller (see speed controller column). Possible assignments of frequency inverters to fans are shown in the type table. 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. The flow rates are shown in the performance diagram.

Reverse operation
All types are reversible using a reverser switch. Performance reduction of approx. 1/3 in abnormal flow direction.

Installation
Installation possible in any position, but be aware of any condensate drain holes depending on usage.

Dimensions
Pole-changeable and explosion-proof types may differ from the above information.

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.
Different for expl.-proof types.

Reference	Page
Techn. description	190
Selection table	191
Planning information	14 ff.

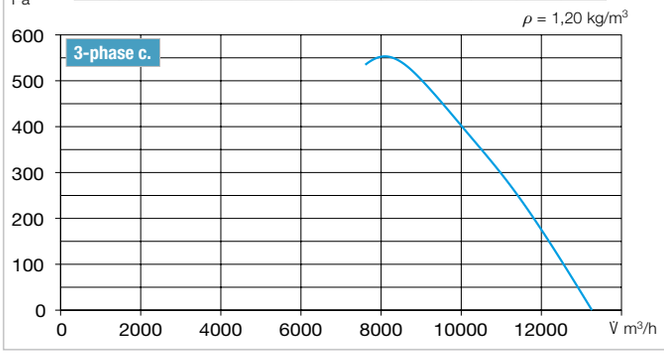
Special design
Different voltage, protection category, air flow direction, higher air flow temperature, acid protection and impeller made of cast aluminium upon request.

Speed	Flow rate free-blowing	Power consump.	Current consump.		Wiring diagram	Max. air flow temp.		Weight net aprx.	Design type				
			at rated voltage	max. with control		at rated voltage	with control		HQ incl. protection grille	Ref. no.	HRF	Ref. no.	Dim. B Motor protrusion in mm
min^{-1}	V̇ m³/h	W	A	A	No.	+ °C	+ °C	kg					
Single-phase alternating current.230 Volt, 50 Hz, Capacitor motor, protection category IP55													
935	5500	233	1.05	1.25	475[1)]	60	40	19.0	**HQW 500/6**	01112	**HRFW 500/6[1)]**	00210	—
1375	8320	1100*	5.90*	4.94	475[1)]	40	40	25.0	**HQW 500/4**	01113	**HRFW 500/4[1)]**	00211	60
Three-phase current, 400 Volt, 50 Hz, Squirrel-cage rotor, protection category IP55													
920	5480	218	0.48	0.55	469	60	40	19.0	**HQD 500/6**	01126	**HRFD 500/6**	00232	—
1345	8200	620	1.22	1.32	469	40	40	19.5	**HQD 500/4**	01127	**HRFD 500/4**	00233	—
2940	13280	3000*	5.71*	—	776	60	—	27.0	—		**HRFD 500/2**	00485	170
Two-speed, three-phase current, 400 V, 50 Hz, Y/Δ connection, protection category IP55													
1030/1350	6720/8150	416/617	0.76/1.19	—	520	60	—	24.0	—		**HRFD 500/4/4**	01470	120
Pole-changeable, 2 speeds, three-phase current, Dahlander winding, 400 Volt, 50 Hz, protection category IP55													
700/1385	3890/8280	137/688	0.52/1.48	—	472	40	—	22.0	**HQD 500/8/4**	01142	**HRFD 500/8/4**	00407	—
Ex Explosion-proof, II 2G Ex h IIB + H_2 T3 Gb, Motor Ex e, three-phase current 400 Volt, 50 Hz, protection category IP55													
925	5610	250*	0.80*	—	470	40	—	18.0	**HQD 500/6 Ex**	01050	**HRFD 500/6 Ex**	00489	10
1430	8330	550*	1.75*	—	470	40	—	18.0	**HQD 500/4 Ex**	01157	**HRFD 500/4 Ex**	00483	45

* Motor ratings, Ex see information on page 20. [1)] Type HRFW: Connection according to wiring diagram no. 965. [2)] Incl. motor protection circuit breaker. [3)] Incl. speed pole changing switch.

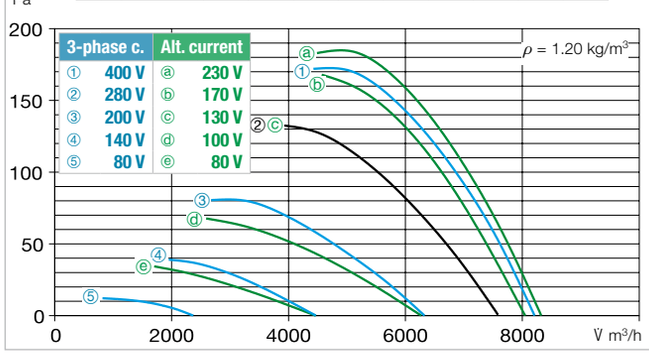
Performance curves 500/2

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	101	75	92	94	99	93	90	82
$L_{PA,4m}$	Air noise	dB(A)	81	55	72	74	79	73	70	62



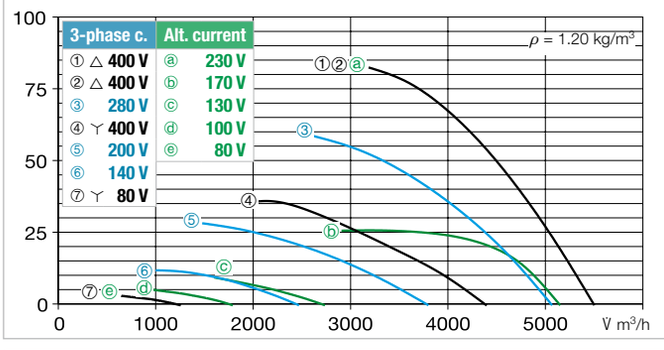
Performance curves 500/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	81	56	74	75	75	74	69	63
$L_{PA,4m}$	Air noise	dB(A)	61	36	54	55	55	54	49	43



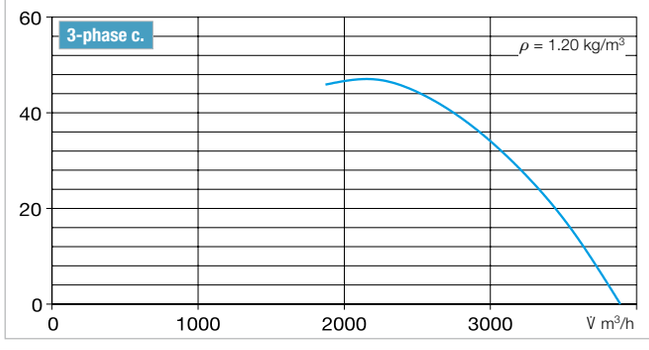
Performance curves 500/6

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	71	55	62	65	65	64	59	51
$L_{PA,4m}$	Air noise	dB(A)	51	35	42	45	45	44	39	31

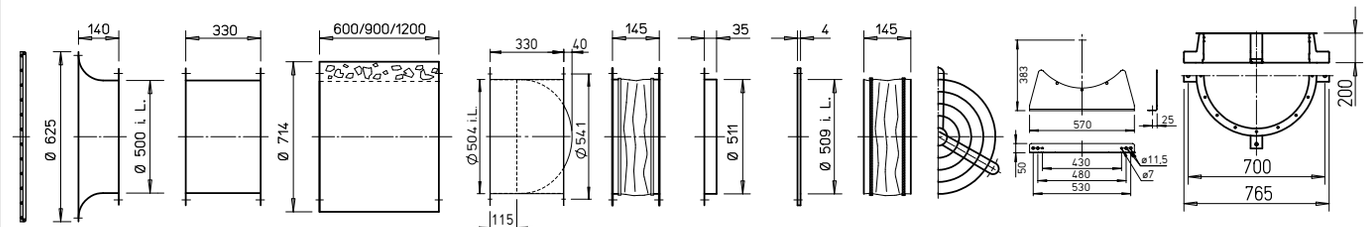


Performance curve 500/8

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	66	41	59	60	60	59	54	48
$L_{PA,4m}$	Air noise	dB(A)	46	21	39	40	40	39	34	28



Accessories for HRF 500 Description see page 278 ff.



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

Extension duct **VR 500** No. 01408

Duct silencer **RSD 500/..**

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

Flanged flexible connector **STS 500** [b] No. 01225

Counter flange **FR 500** No. 01208

Flat flange **FF 500** No. 04947

Flexible connecting sleeve **FM 500** [b] No. 01678

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

2 mounting brackets **1 x MK 500** (= 2 pcs) No. 00674

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

[a] Shutter, motorised see Accessories product pages.

[b] See below for types for explosion-proof fans.

Frequency inverter with integrated sine filter		Transformer speed controller 5-step, pole changing switch		Electronic speed controller, continuously variable flush-m./surface-m.		Motor protection circuit breaker		Reverser switch	
Type	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.	**Type**	Ref. no.
—		**MWS 1.5** [2]	01947	**ESU 3 / ESA 3**	00237/00239	**MW**	01579	**WS**	01271
—		**MWS 5** [2]	01949	—		**MW**	01579	**WS**	01271
FU-BS 2.5 [2]	05459	**RDS 1** [2]	01314	**ESD 5** [2]	00501	**MD**	05849	**WS**	01271
FU-BS 2.5 [2]	05459	**RDS 2** [2]	01315	**ESD 5** [2]	00501	**MD**	05849	**WS**	01271
FU-BS 8 [2]	05461	—		—		**MSA**	01289	**WS**	01271
		Speed changeover switch							
FU-BS 2.5 [2]	05459	**DS 2** [5]	01351	**ESD 5** [2]	00501	**M 4** [4] / **MD**	01571/05849	**WS**	01271
		Pole changing switch							
—		**PDA 12** [4]	05081	—		**M 3** [3]	01293	**PWDA**	01282
—		not permitted		not permitted		—		—	
—		not permitted		not permitted		—		—	

[4] Flush-m. version see Switch product page. [5] Speed changeover switch.

Other accessories **Page**

[b] **Access. for expl.-proof fans**

Flanged flexible connector
STS 500 Ex Ref. no. 02507

Flexible connecting sleeve
FM 500 Ex Ref. no. 01694

Extension sleeve for HS
VH 500 Ref. no. 01348
Cylindrical pipe section, galvanised steel, 15 cm long.

Filter and silencers 483 ff.
Shutters and ventilation grilles 563 ff.
Speed controllers, controllers and switches 601 ff.