

HQ 450



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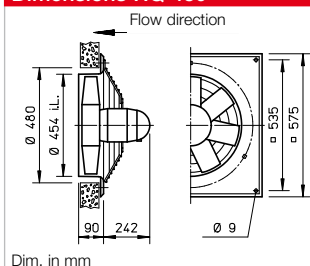
HRF 450



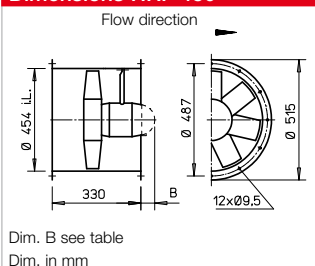
Also available in version:



Dimensions HQ 450



Dimensions HRF 450



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. 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

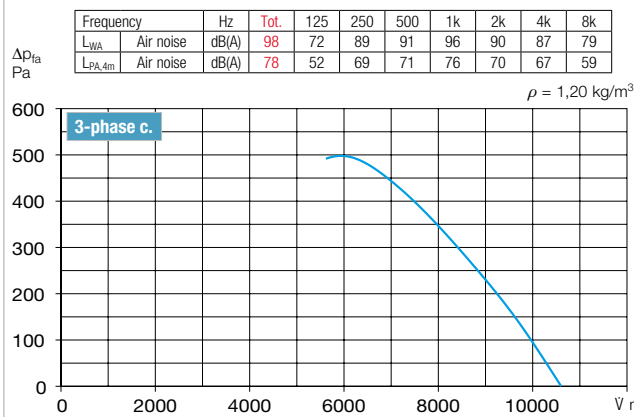
See performance diagram. The sound power and sound pressure at 4 m distance under free field conditions are specified for the average operating point on the inlet/outlet side. See page 14 f for noise emissions and room acoustics. Different for explosion-proof types.

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	∇ m³/h	W	A	A	No.	+ °C	+ °C	kg						
Single-phase alternating current.230 Volt, 50 Hz, Capacitor motor, protection category IP55														
915	3890	136	0.63	0.63	475 ¹⁾	60	40	19.0	HQW 450/6	00991	HRFW 450/6 ¹⁾	00208	—	
1410	5930	550	3.20	—	1638	60	—	14.0	HQW 450/4	00992	HRFW 450/4	00209	40	
Three-phase current, 400 Volt, 50 Hz, Squirrel-cage rotor, protection category IP55														
960	3920	137	0.38	0.42	469	60	40	18.0	HQD 450/6	00993	HRFD 450/6	00230	—	
1390	5810	384	0.81	0.92	469	50	40	17.0	HQD 450/4	00994	HRFD 450/4	00231	—	
2910	10600	2200*	7.56*	—	776	60	—	32.0	—	—	HRFD 450/2	00484	100	
Pole-changeable, 2 speeds, three-phase current, Dahlander winding, 400 Volt, 50 Hz, protection category IP55														
705/1410	2860/5810	91/404	0.36/0.92	—	472	50	—	20.0	HQD 450/8/4	00996	HRFD 450/8/4	00403	—	
 	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	4090	250*	0.80*	—	470	40	—	15.5	HQD 450/6 Ex	01473	—	—	—	
1420	6240	370*	1.15*	—	470	40	—	15.5	HQD 450/4 Ex	01154	HRFD 450/4 Ex	00481	—	

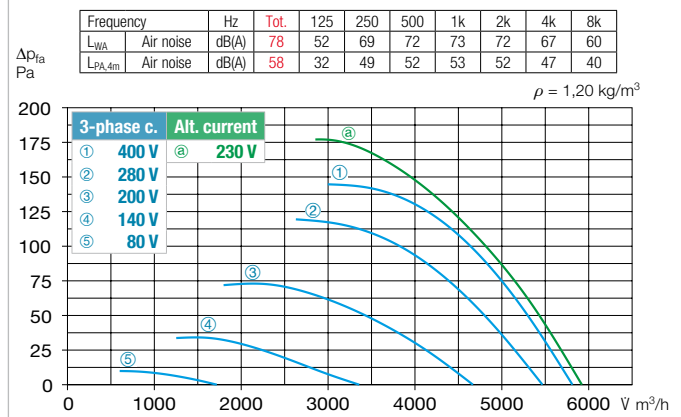
* Motor ratings, Ex see information on page 20.

¹⁾ Type HRFW: Connection according to wiring diagram no. 965. ²⁾ Incl. motor protection circuit breaker. ³⁾ Flush-m. version see Switch product page.

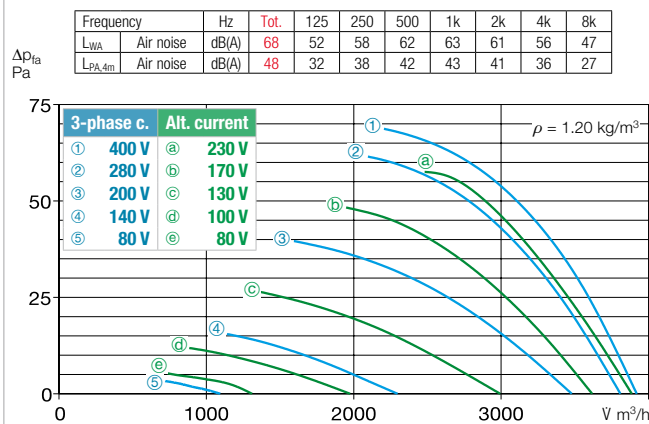
Performance curves 450/2



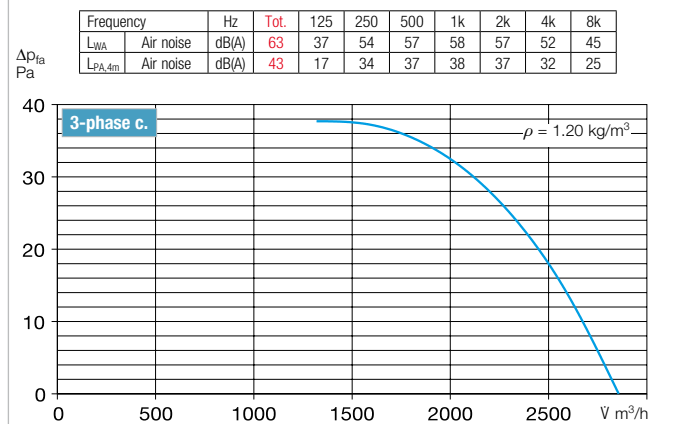
Performance curves 450/4



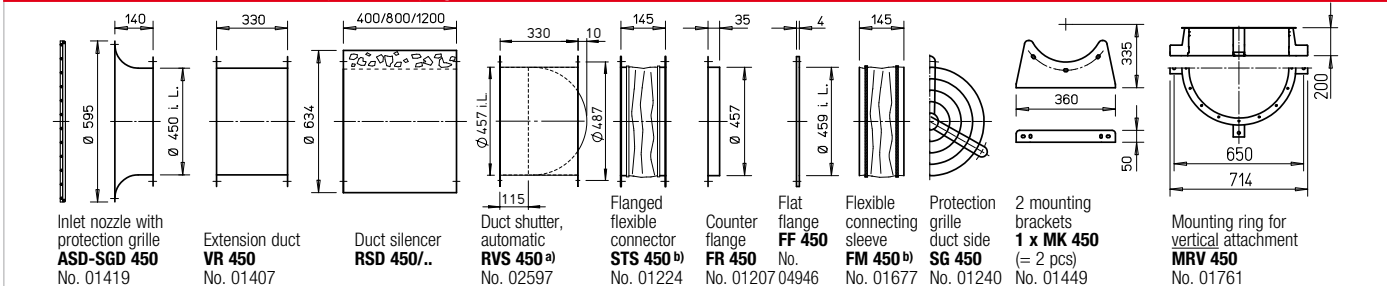
Performance curves 450/6



Performance curves 450/8



Accessories for HRF 450 Description see page 278 ff.



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 for connecting built-in thermal contacts		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
—	—	—	—	—	—	MW	01579	WS	01271
FU-BS 2.5 ²⁾	05459	RDS 1 ²⁾	01314	—	—	MD	05849	WS	01271
FU-BS 2.5 ²⁾	05459	RDS 2 ²⁾	01315	EDS 5 ²⁾	00501	MD	05849	WS	01271
FU-BS 8 ²⁾	05461	—	—	—	—	MD	05849	WS	01271
—	—	Pole changing switch		—	—	M 3 ⁴⁾	01293	PWDA	01282
—	—	PDA 12 ³⁾	05081	—	—	—	—	—	—
—	—	not permitted	not permitted	not permitted	not permitted	—	—	—	—
—	—	not permitted	not permitted	not permitted	not permitted	—	—	—	—

⁴⁾ Incl. speed pole changing switch.

⁵⁾ Speed changeover switch.

Other accessories Page

b) Access. for expl.-proof fans	
Flanged flexible connector STS 450 Ex	Ref. no. 02506
Flexible connecting sleeve FM 450 Ex	Ref. no. 01693
Filter and silencers	483 ff.
Shutters and ventilation grilles	563 ff.
Speed controllers, controllers and switches	601 ff.