

Description for all types

Casing
With motor mount made of galvanised steel sheet.

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

Angle of attack
The impeller blades can be adjusted for optimal operating point coverage (except for explosion-proof types and type HQW 710/6). The angle of attack is adjusted (according to the order) and fixed at the factory.

The motor is assigned using the maximum power according to the information in the table below. The specified angle of attack must not be exceeded.

Drive
Closed design type IP55 or IP54. Maintenance-free and radio interference-free. Tropicalised winding with moisture proof coating. Different for explosion-proof types.

Motor protection
All types (except for pole-changeable and explosion-proof types, see page 180) are equipped with thermal contacts or PTC thermistors and must be protected by means of the following

motor protection devices according to the footnotes the table:
¹⁾MW/MD, Ref. no. 01579/05849
²⁾MSA, Ref. no. 01289 (for PTC thermistor temperature sensor)
³⁾M 4, Ref. no. 01571
 All other types must be protected by means of on-site a motor protection circuit breaker.

Protection grille
Hot-dip galvanised or powder-coated for HQ as standard in accordance with DIN EN ISO 13857.

Electrical connection
Terminal box in protection category IP54 mounted on motor. Additionally on outside of duct for HRF types. Different for explosion-proof types.

Power control
Partly through voltage reduction, see "Transformer speed controller" column. Regulated performance performance curve upon request. Frequency inverter possible for all types (except for pole-changeable and explosion-proof types). 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.

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.

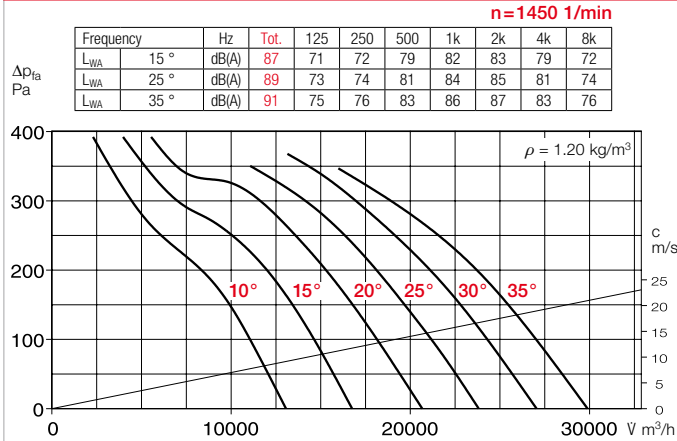
Dimensions
Pole-changeable and explosion-proof types may differ from the above information. Motor lengths may vary. Take note of dim. B protrusion.

Noise levels
The sound power values over the frequency and as total levels are indicated above the performance diagrams. Different for explosion-proof types.

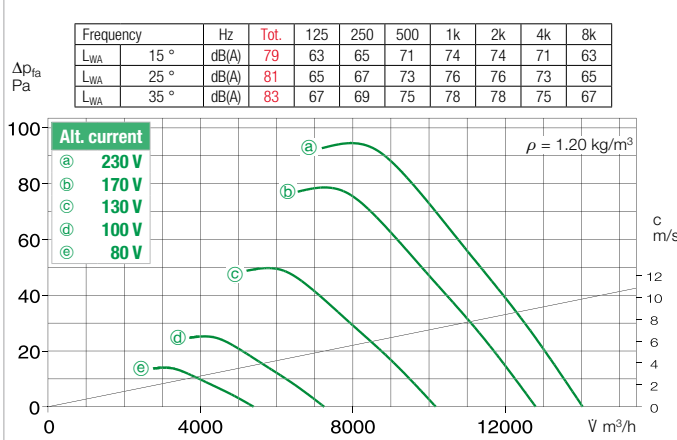
Speed min ⁻¹	Flow rate free blowing V m ³ /h	Rated motor power (output)* kW	Voltage V	Current consump. Rat. volt./ (control)* A	Max. position ° deg.	Wiring diag- ram No.	Max. air flow temp. + °C	Wgt net aprx. kg	Design type				Transformer speed controller 5-step, pole changing switch		
									HQ incl. protection grille	Ref. no.	HRFD	Ref. no.	Dim. B Motor protr. in mm	Type	Ref. no.
Single-phase alternating current, 230 Volt, 50 Hz, Capacitor motor, protection category IP55															
910	14200	0.60	230	2.6	25	965	40	35.0	HQW 710/6 ¹⁾	05047	—	—	—	MWS 5 ⁴⁾	01949
Three-phase current, 400 Volt, 50 Hz, Squirrel-cage rotor, protection category IP54															
690	13330	0.29	400	0.9	20	469	40	42.0	HQD 710/8 ¹⁾	05599	HRFD 710/8 ¹⁾	06930	—	RDS 2 ⁴⁾	01315
940	15560/19170	1.1*	230/400	5.1*	35	776	40	45.0	HQD 710/6 ¹⁾	05603	HRFD 710/6 ¹⁾	06934	10	TSB 7	01504
1445	26420	3.00*	400/690	6.2*	30	776	40	63.0	HQD 710/4 ²⁾	05606	HRFD 710/4 ²⁾	06937	35	TSB 11	01513
Two-speed, three-phase current, 400 V, 50 Hz, protection category IP55															
730/890	13550/16090	0.4/0.75*	400/400	1.1/2.3*	25	520	40	40.0	HQD 710/6/6 ³⁾	05602	HRFD 710/6/6 ³⁾	06933	5	RDS 4 ⁴⁾	01316
1120/1360	16140/19670	0.95/1.55*	400/400	2.4/4.2*	20	520	40	45.0	HQD 710/4/4 ³⁾	05604	HRFD 710/4/4 ³⁾	06935	—	RDS 7 ⁴⁾	01578
1030/1340	19370/23280	1.5/2.2*	400/400	3.0/5.2*	26	520	40	60.0	HQD 710/4/4 ³⁾	05605	HRFD 710/4/4 ³⁾⁶⁾	06936	35	RDS 7 ⁴⁾	01578
Pole-changeable, 2 speeds, three-phase current, Dahlander winding, 400 Volt, 50 Hz, protection category IP54															
685/1430	10810/22090	0.5/2.0*	400/400	2.0/4.7	23	471	40	67.0	HQD 710/8/4/..	05611	HRFD 710/8/4/..	06942	20	PDA 12 ⁵⁾	05081
720/1440	14155/26200	0.9/3.6*	400/400	2.9/8.3	30	471	40	93.0	HQD 710/8/4/..	05612	—	—	—	PDA 12 ⁵⁾	05081
Explosion-proof, II 2G Ex h IIB + H₂ T3 Gb, Motor Ex e, three-phase current 400 Volt, 50 Hz, protection category IP55															
695	13270	0.55*	400	2.2*	35	470	40	55.0	HQD 710/8 Ex	05618	HRFD 710/8 Ex	06948	—	not permitted	
945	13480	0.55*	400	1.6*	25	470	40	54.0	HQD 710/6 Ex	05620	HRFD 710/6 Ex	06949	—	not permitted	
960	16770	0.95*	400	2.7*	35	470	40	62.0	HQD 710/6 Ex	05621	HRFD 710/6 Ex	06950	—	not permitted	
1435	20540	2.20*	400	4.9*	25	470	40	67.0	HQD 710/4 Ex	05623	—	—	—	not permitted	
1455	26160	4.00*	400/690	8.3*	35	498	40	87.0	HQD 710/4 Ex	05624	—	—	—	not permitted	

* Motor ratings, Ex see information p. 20. ¹⁾ up to ³⁾ Motor protection devices, see description "Motor protection". ⁴⁾ Incl. motor protection circuit breaker. ⁵⁾ Flush-m. version see Switch product page.
⁶⁾ 1.2/2.2 kW.

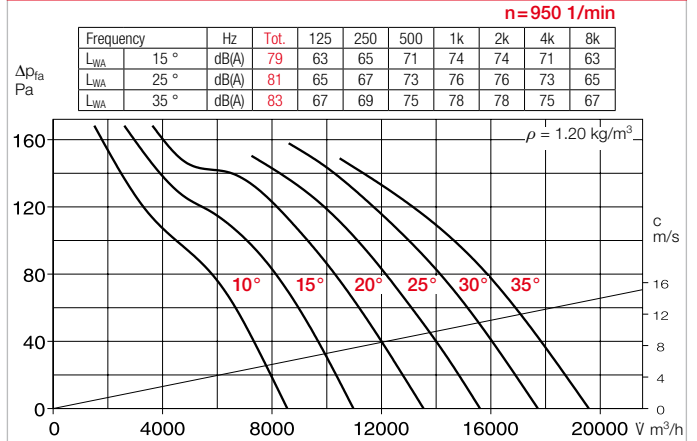
Performance curves 710/4



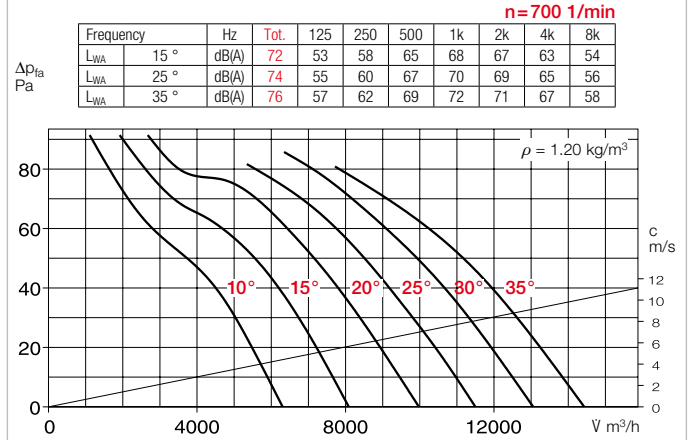
Performance curves 710/6 – Alternating current



Performance curves 710/6 – Three-phase current



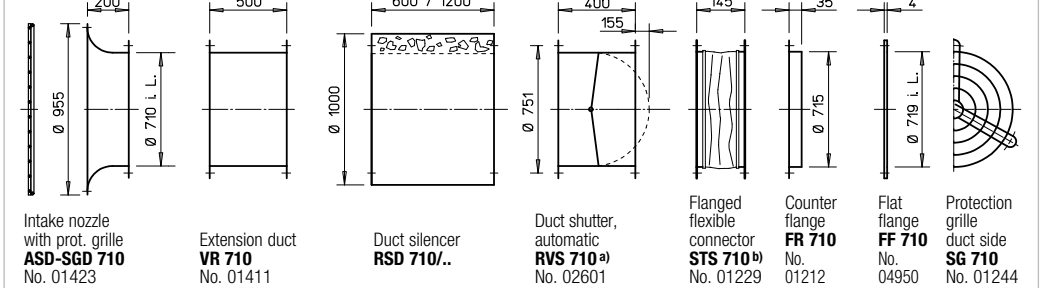
Performance curves 710/8



Axial and VAR fans

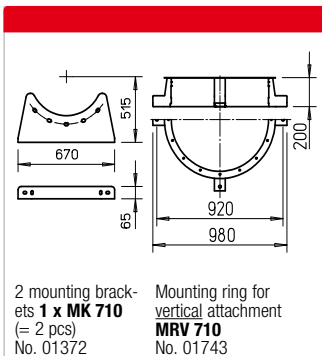
Accessories for HRF 710 Description see page 270 ff.

Elec. speed controller, continuously variable Frequency inverter with sine filter		Vibration damper Nominal size	
Type	Ref. no.	Type	Ref. no.
—	—	..1/..1	01452/01454
EDS 5 ⁴⁾	00501	..1/..1	01452/01454
FU-BS 8.0 ⁴⁾	05461	..1/..1	01452/01454
FU-BS 8.0 ⁴⁾	05461	..2/..2	01453/01455
EDS 5 ⁴⁾	00501	..1/..1	01452/01454
EDS 5 ⁴⁾	00501	..1/..1	01452/01454
EDS 11.5 ⁴⁾	00502	..2/..2	01453/01455
—	—	..2/..2	01453/01455
—	—	..2/..2	01453/01455
not permitted	..1/..2	01452/01455	
not permitted	..1/..2	01452/01455	
not permitted	..1/..2	01452/01455	
not permitted	..2/..2	01453/01455	
not permitted	..2/..2	01453/01455	



^{a)} Shutter, motorised see Accessories product pages.

^{b)} See below for types for explosion-proof fans.



Reference	Page
Techn. description	180
Selection table	181
Planning information	14 ff.

Special design

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

Other accessories	Page
^{b)} Access. for expl.-proof fans	
Flanged flexible connector STS 710 Ex	Ref. no. 02510
Silencers	494 ff.
Shutters and ventilation grilles	561 ff.
Speed controllers, controllers and switches	599 ff.