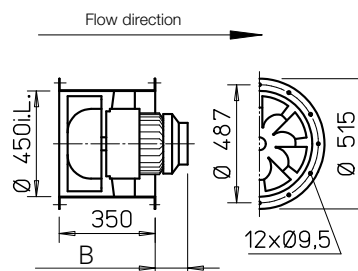


VAR 450



Also available in version:

Dimensions VAR 450



Dim. B see table
 Dim. in mm

■ **Casing**

Duct with double-sided flange DIN 24155 p. 3. Made of galvanized steel sheet, fixed guide wheel with inner hub for mounting the flange motor. Types with $n = 2800 \text{ min}^{-1}$ welded casing, hot-dip galvanized.

■ **Impeller**

Optimised for high pressure and volume performance. Special development with spatially curved blades made of hot-dip galvanized steel.

■ **Drive**

Directly through maintenance-free flange motor. Closed design type IP54. Aluminium or grey cast iron casing with cooling fins. Radio interference-free, sealed ball bearings. Tropicalised winding with moisture proof coating. With condensate drain holes upon request (except for explosion-proof types), and the installation method must be indicated when placing the order.

■ **Power control**

The voltage-controllable types are identified in the "Current consumption with control mode" column with a value which must be observed when determining the controller (see Speed controller column). The flow rates are shown in the performance diagram. 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. Explosion-proof types are not controllable.

■ **Electrical connection**

Standard terminal box (protection category IP55) on outside of duct.

■ **Installation**

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

■ **Motor protection**

All types (except for explosion-proof models) are equipped with thermal contacts or PTC thermistors. These should be wired with the motor protection circuit breaker (see type table) for effective motor protection. Motors without thermal contacts must be protected by means of on-site a motor protection circuit breaker.

■ **Noise levels**

See sound power information above performance diagram. The lower sound pressure value can be determined using the diagram on the "Technical information" page. See page 14 f for noise emissions and room acoustics.

Reference	Page
Techn. description	256
Selection table	257
Planning information	14 ff.

■ **Special design**

Different voltage, frequency, protection category, higher air flow temperature and acid protection upon request.

The technical information on p. 19 ff. must be observed.

Type	Ref. no.	Speed	Flow rate free-blow.	Power consump.*	Voltage	Current consumption*		Wiring diagram	Max. air flow temp.		Weight net	Dim. B Motor protrusion	Speed controller 5-step Pole chang. switch		Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers	
						at rated voltage	with control		at rated voltage	with control			Type	Ref. no.	Type	No.	Compr.	Tens.
		min ⁻¹	m ³ /h	kW	V	A	A	No.	+°C	+°C	ca. kg	mm					Type	Type
Single-phase alternating current 50 Hz, protection category IP54																		
VARW 450/4	06736	1330	7180	1.47	230	6.50	7.00	968	60	40	45.0	145	MWS 7.5 ¹⁾	01950	MW	01579	SDD 1	SDZ 1
Three-phase current, 50 Hz, protection category IP54																		
VARD 450/2	06698	2950	14210	8.03	400	13.8	—	776	60	—	95.0	252	FU-CS 18 ¹⁾	05469	MSA ³⁾	01289	SDD 2	SDZ 2
Two-speed, three-phase current, 50 Hz, γ/Δ connection, protection category IP54																		
VARD 450/4/4	06697	1100/1370	5930/7390	0.74/1.00	400 γ/Δ	1.2/2.3	2.3	520	60	40	45.0	145	RDS 4 ¹⁾	01316	M 4 ²⁾	01571	SDD 1	SDZ 1
Explosion-proof, II 2G Ex h IIB T3 Gb, Motor Ex e, three-phase current 400 Volt, 50 Hz, protection category IP55																		
VARD 450/6 Ex	06699	925	5020	0.25	400	0.80	—	470	40	—	48.0	97	not permitted	—	not permitted	—	SDD 1	SDZ 1
VARD 450/4 Ex	06700	1450	7640	1.00	400	2.25	—	470	40	—	51.0	173	not permitted	—	not permitted	—	SDD 1	SDZ 1
VARD 450/2 Ex ⁴⁾	06701	2935	15810	7.50	400	14.20	—	498	40	—	155.0	259	not permitted	—	not permitted	—	SDD 2	SDZ 2

* For Ex types: Motor ratings see information on page 20.

¹⁾ incl. motor protection circuit breaker.

²⁾ includes operating and speed switch.

³⁾ for PTC thermistor temperature sensor.

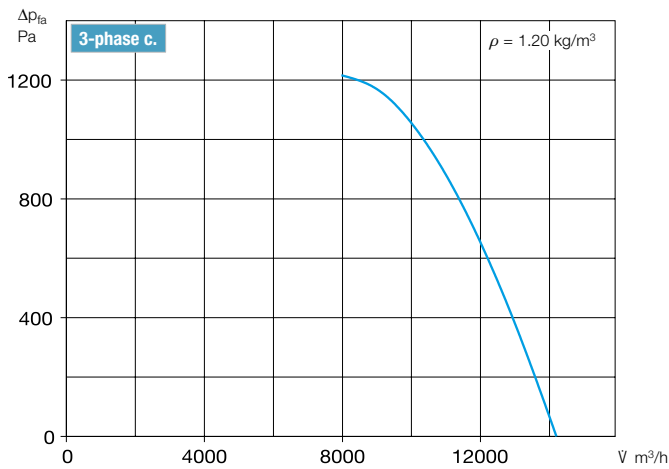
⁴⁾ A vibration monitoring system (on-site) must be provided according to DIN EN 14986.

⁵⁾ with integrated sine filter, see product page FU.

Performance curve VAR 450/2

n=2800 1/min

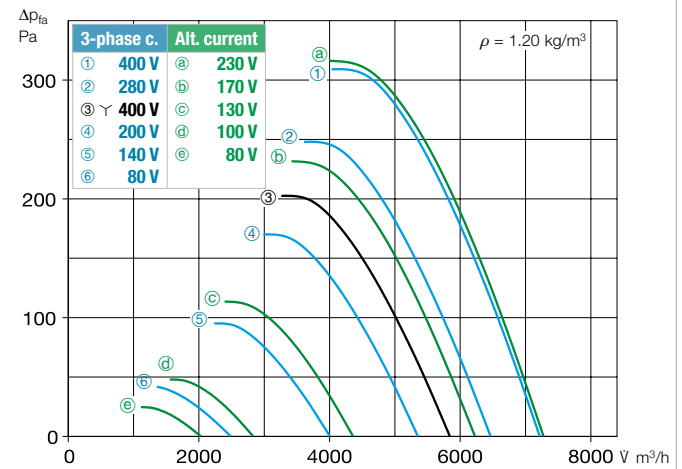
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA}	Air noise	dB(A)	103	73	84	95	98	94	85
L _{PA, 4m}	Air noise	dB(A)	83	53	64	75	78	74	65



Performance curves VAR 450/4

n=1400 1/min

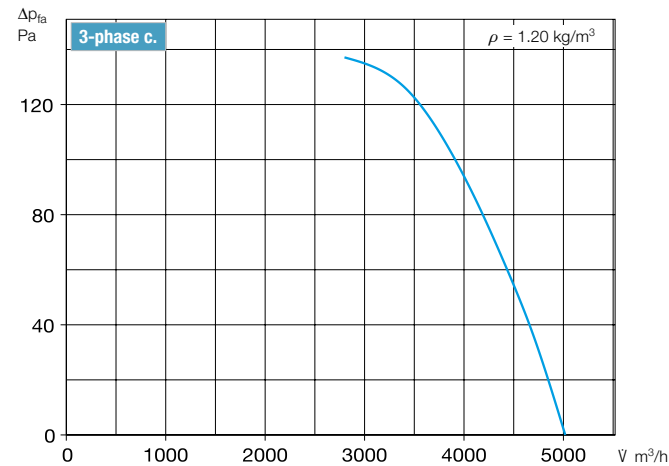
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA}	Air noise	dB(A)	87	62	76	81	83	80	74
L _{PA, 4m}	Air noise	dB(A)	67	42	56	61	63	60	54



Performance curve VAR 450/6

n=930 1/min

Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA}	Air noise	dB(A)	76	60	65	71	72	67	59
L _{PA, 4m}	Air noise	dB(A)	56	40	45	51	52	47	39



Other accessories Page

Access. for expl.-proof fans

Flanged flexible connector
STS 450 Ex Ref. no. 02506

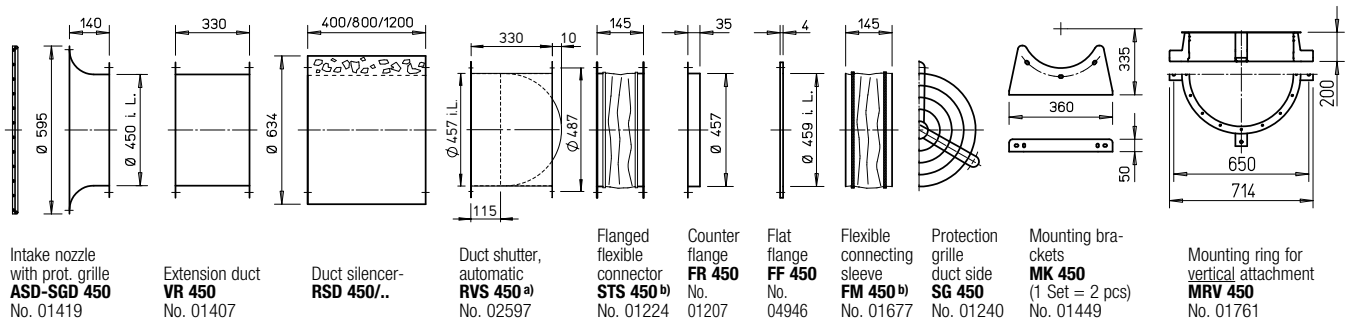
Flexible connecting sleeve
FM 450 Ex Ref. no. 01693

Filters and silencers 483 ff.

Shutters and ventilation grilles 563 ff.

Speed controllers, controllers and switches 601 ff.

Accessories VAR 450 Description see page 278 ff.



^{a)} Shutter, motorised see Accessories product pages. ^{b)} Types for explosion-proof fans see left page.