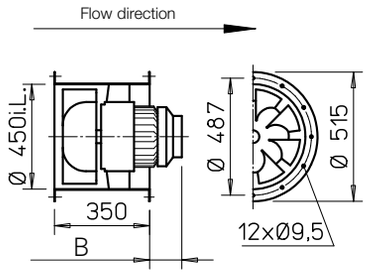
VAR 450



Also available in version: Ex

Dimensions VAR 450



Dim. B see table
Dim. in mm

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

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

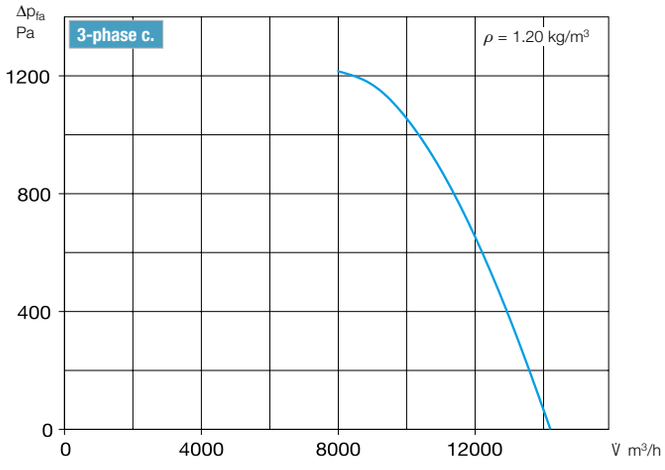
Type	Ref. no.	Speed	Flow rate free-blow.	Power consump.*	Voltage	Current consumption*		Wiring diagram	Max. air flow temp.		Weight net	Dim. B Motor protrusion	Speed controller 5-step Pole chang. switch		Motor protection circuit breaker for connecting built-in thermal contacts		Vibration dampers	
						at rated voltage	with control		at rated voltage	with control							Compr.	Tens.
		min^{-1}	V m^3/h	kW	V	A	A	No.	+°C	+°C	ca. kg	mm	Type	Ref. no.	Type	No.	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] [5]	05469	**MSA**[3]	01289	**SDD 2**	**SDZ 2**
Two-speed, three-phase current, 50 Hz, Y/Δ connection, protection category IP54																		
VARD 450/4/4	06697	1100/1370	5930/7390	0.74/1.00	400Y/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**
Ex **Explosion-proof, II 2G Ex h IIB T3 Gb, Motor Ex e, three-phase current 400 Volt, 50 Hz, protection category IP55**													Pole chang. switch					
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

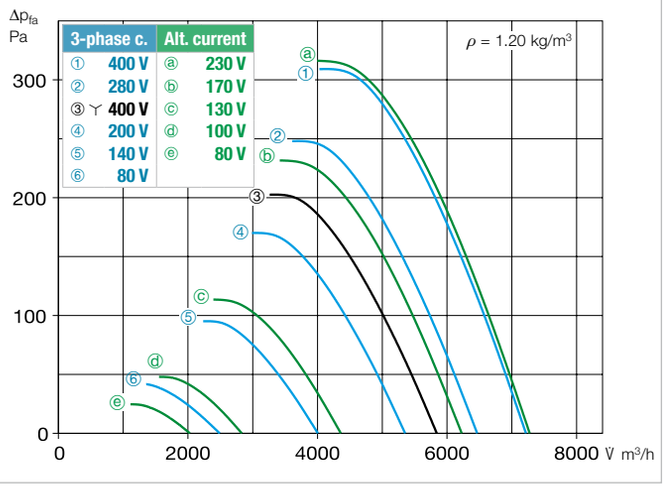
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	103	73	84	95	98	98	94	85
$L_{PA,\ 4m}$	Air noise	dB(A)	83	53	64	75	78	78	74	65



Performance curves VAR 450/4

n=1400 1/min

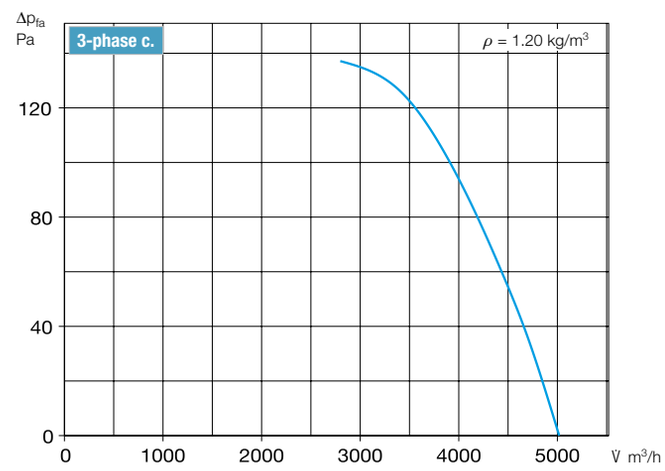
Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Air noise	dB(A)	87	62	76	81	83	80	74	64
$L_{PA,\ 4m}$	Air noise	dB(A)	67	42	56	61	63	60	54	44



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	51
$L_{PA,\ 4m}$	Air noise	dB(A)	56	40	45	51	52	47	39	31



Axial and VAR fans

Other accessories **Page**

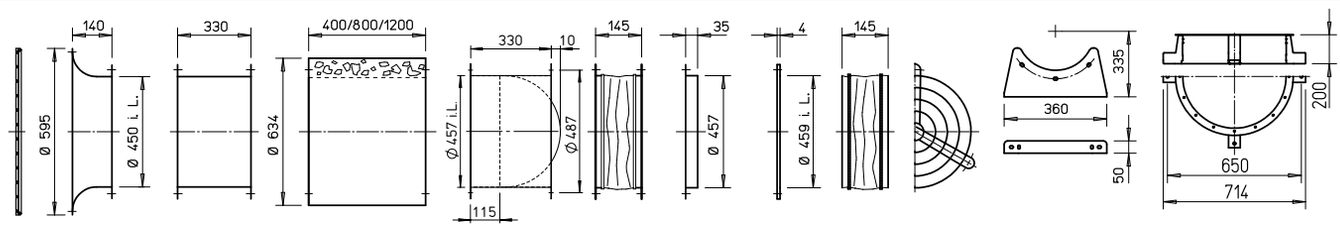
[b]Access. for expl.-proof fans

Flanged flexible connector STS 450 Ex Ref. no. 02506

Flexible connecting sleeve FM 450 Ex Ref. no. 01693

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.



Intake nozzle with prot. grille **ASD-SGD 450** No. 01419

Extension duct **VR 450** No. 01407

Duct silencer- **RSD 450/..**

Duct shutter, automatic **RVS 450** [a] No. 02597

Flanged flexible connector **STS 450** [b] No. 01224

Counter flange **FR 450** No. 01207

Flat flange **FF 450** No. 04946

Flexible connecting sleeve **FM 450** [b] No. 01677

Protection grille duct side **SG 450** No. 01240

Mounting brackets **MK 450** (1 Set = 2 pcs) No. 01449

Mounting ring for vertical attachment **MRV 450** No. 01761

[a] Shutter, motorised see Accessories product pages. [b] Types for explosion-proof fans see left page.