Horiz. outlet RD 450



Also available in version: Ex

Vert. outlet VD 450

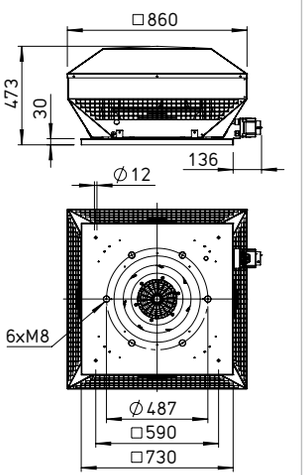


Also available in version: Ex

Vert. outlet VD 450 T120

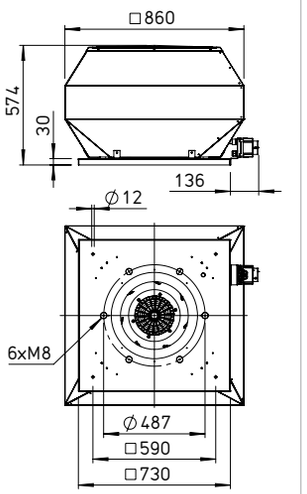


Dimensions RD 450



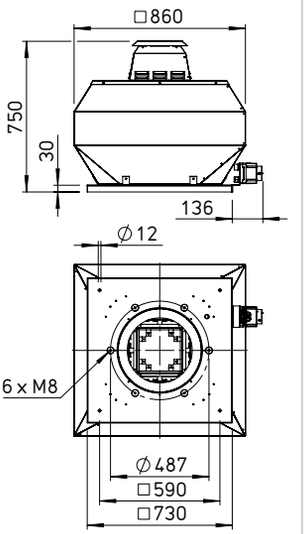
Dim. in mm

Dimensions VD 450



Dim. in mm

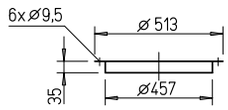
Dimensions VD 450 T120



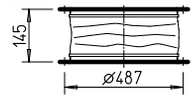
Dim. in mm

Dimensions Accessories for RD / VD 450*

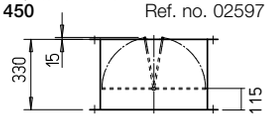
Counter flange
FR 450 Ref. no. 01207



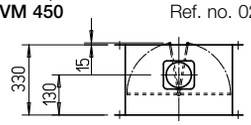
Flanged flexible connector*
STS 450 Ref. no. 01224
For explosion-proof fans
STS 450 Ex Ref. no. 02506



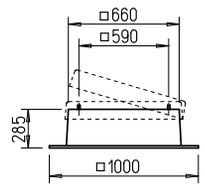
Shutter, automatic
RVS 450 Ref. no. 02597



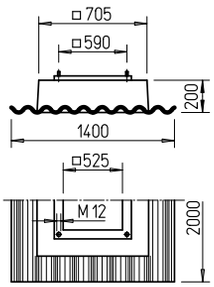
Shutter, motorised
RVM 450 Ref. no. 02581



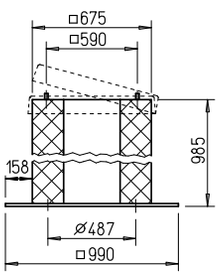
Flat roof base, hinged
FDS 450 Ref. no. 01381



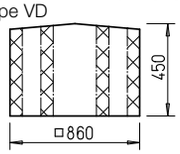
Corrugated roof base, profile 5
WDS 450 Ref. no. 01563



Base silencer, hinged
SSD 450 Ref. no. 05288



Hood silencer
HSDV 450 Ref. no. 07482
only for type VD



Dim. in mm

* Accessories VD T120 see installation accessories p. 561 f. Other accessories upon request.

Description RD

Horizontal outlet roof fan with efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

Description VD

Vertical outlet roof fan with efficiency-optimised aluminium casing and newly developed high-performance centrifugal impeller.

Description VD T120

Designed for the delivery of process air up to +120 °C.
Enclosed motor located outside of the air flow. Compliant with VDI 2052.

Description of all series

Casing
Casing made of sea water-resistant aluminium with integrated tamper protection. Motor support plate and base plate with inlet nozzle made of galvanised steel (explosion-proof version inlet nozzle made of aluminium). Base plate with threaded screws for attachment of inlet-side accessories (hole pattern according to DIN 24155).

Impeller
High-performance centrifugal impeller with backward curved blades made of plastic (T120 and explosion-proof version made of aluminium). Dynamically balanced according to DIN ISO 21940-11 – quality grade 6.3.

Drive
Speed-controllable external rotor motor in closed design (IP54) (explosion-proof version in IP44). Flange motor with self-ventilation (T120 version) in IP54. Ball bearing mounted with moisture protection. Maintenance-free.

Motor protection
Through built-in thermal contacts or built-in PTC thermistors, which must be connected to a motor protection circuit breaker. Assignment see type table.

Electrical connection
No dismantling of casing, to external isolator switch (explosion-proof version to terminal box) in protection category IP65.

Protection grille
On the outlet side as standard according to DIN EN ISO 13857.

Power control
All 1~ types have continuously variable speed control in the range from 0 – 100 % through electronic speed controllers or five-step control units. All 3~ types have continuously variable speed control in the range 0 – 100 % with a frequency inverter with integrated, all-pole effective sine filter (except for explosion-proof version) or five-step control units. Assignment see type table.

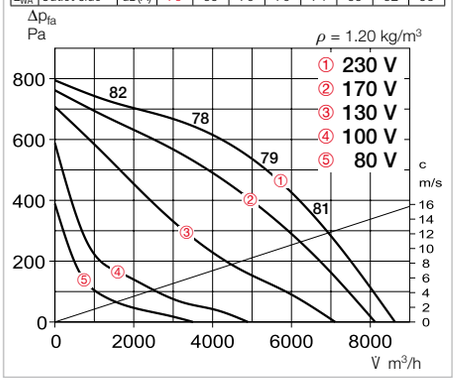
Delivery
Units are ready-for-connection, fully pre-assembled in the shipping box.
Easy positioning due to standard crane hook.

Noise
The total level and range are specified above the performance diagram for:
☐ Inlet side sound power
☐ Outlet side sound power.
The horizontally case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table. Hood silencer see Accessories.

References	Page
Planning information	14 ff.
Technical description	502 f.
Selection table	504 f.
Accessories, details	560 f.
Speed controllers, controllers and switches	601 ff.

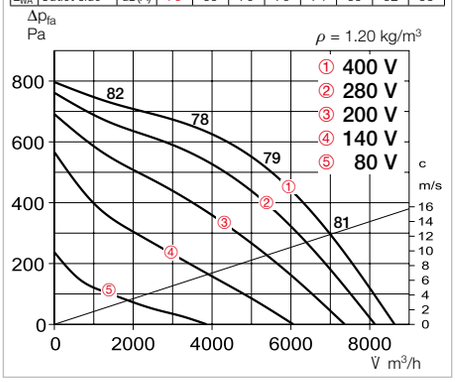
Performance curves RDW 450/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Inlet side	dB(A)	74	63	68	68	67	66	61	55
L_{WA}	Outlet side	dB(A)	79	69	70	70	74	69	62	55



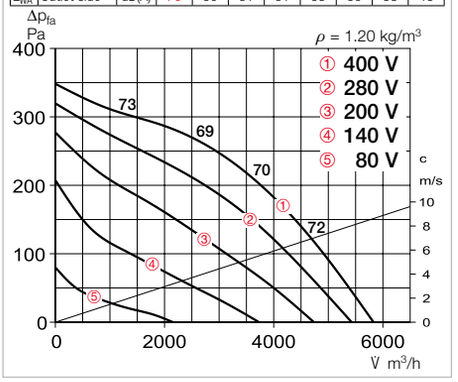
Performance curves RDD 450/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Inlet side	dB(A)	74	63	68	68	67	66	61	55
L_{WA}	Outlet side	dB(A)	79	69	70	70	74	69	62	55



Performance curves RDD 450/6

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Inlet side	dB(A)	65	54	59	59	58	57	52	46
L_{WA}	Outlet side	dB(A)	70	60	61	61	65	60	53	46

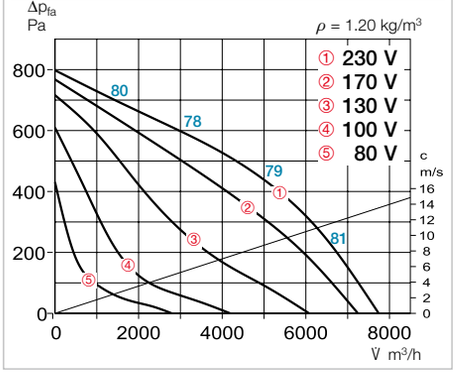


Type	Ref. no.	Speed	Flow rate Free blowing	Noise sound pressure	Power consump.	Current consump. at rated voltage	Current consump. with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Motor protection circuit breaker	Ref. no.	Speed controller 5-step	Ref. no.
		min⁻¹	m³/h	dB(A) in 4 m	W	A	A	No.	°C	°C	kg	**Type**		**Type**	
Single phase alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54															
RDW 450/4	07377	1385	8650	62	1470	6.6	8.7	1128	60	40	46.0	**MW**	01579	**MWS 10**[2]	01946
Three phase current, 3~, 400 V, 50 Hz, Squirrel-cage rotor, Protection category IP54															
RDD 450/6	07385	905	5850	53	425	1.1	1.1	1129	60	60	39.0	**MD**	05849	**RDS 2**[2]	01315
RDD 450/4	07384	1400	8650	62	1350	2.9	2.9	1129	60	60	45.0	**MD**	05849	**RDS 4**[2]	01316
Ex **Explosion-proof, II 2G Ex h IIB + H_2 T3 Gb, Motor Ex e, Three phase current, 3~, 400 V, 50 Hz, Protection category IP44**															
RDD 450/6 Ex[1]	07391	870	5630	54.5	470	1.13	1.13	1129	60	60	39.0	**MSA**	01289	**TSD 1.5**	01501
RDD 450/4 Ex[1]	07390	1405	8580	64.5	1620	3.3	3.66	1157	40	40	46.0	**MSA**	01289	**TSD 5.5**	01503

1) Performance diagram at www.HeliosSelect.de. 2) Includes motor protection circuit breaker.

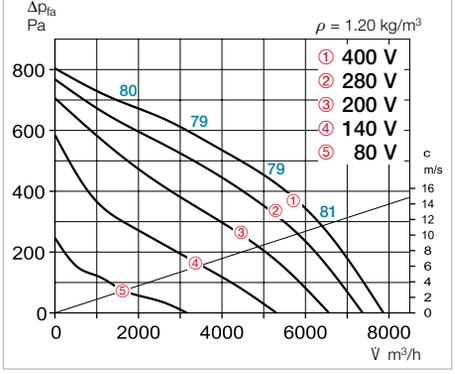
Performance curves VDW 450/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Inlet side	dB(A)	73	62	67	67	66	65	60	54
L_{WA}	Outlet side	dB(A)	79	69	70	70	74	69	62	55



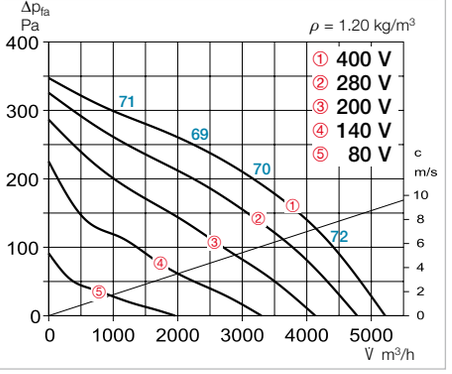
Performance curves VDD 450/4

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Inlet side	dB(A)	73	62	67	67	66	65	60	54
L_{WA}	Outlet side	dB(A)	79	70	71	71	75	70	63	56



Performance curves VDD 450/6

Frequency		Hz	Tot.	125	250	500	1k	2k	4k	8k
L_{WA}	Inlet side	dB(A)	64	53	58	58	57	56	51	45
L_{WA}	Outlet side	dB(A)	70	60	61	61	65	60	53	46



Type	Ref. no.	Speed	Flow rate Free blowing	Noise sound pressure	Power consump.	Current consump. at rated voltage	Current consump. with control	Wiring diagram	Max. air flow temp. at rated voltage	Max. air flow temp. with control	Weight net	Motor protection circuit breaker	Ref. no.	Speed controller 5-step	Ref. no.
		min⁻¹	m³/h	dB(A) in 4 m	W	A	A	No.	°C	°C	kg	**Type**		**Type**	
Single phase alternating current, 1~, 230 V, 50 Hz, Capacitor motor, protection category IP54															
VDW 450/4	07372	1385	7750	62	1470	6.6	8.7	1128	60	40	47.0	**MW**	01579	**MWS 10**[2]	01946
Three phase current, 3~, 400 V, 50 Hz, Squirrel-cage rotor, Protection category IP54															
VDD 450/6	07380	905	5200	53	425	1.06	1.06	1129	60	60	40.0	**MD**	05849	**RDS 2**[2]	01315
VDD 450/4	07379	1400	7900	62	1350	2.9	2.9	1129	60	60	47.0	**MD**	05849	**RDS 4**[2]	01316
Ex **Explosion-proof, II 2G Ex h IIB + H_2 T3 Gb, Motor Ex e, Three phase current, 3~, 400 V, 50 Hz, Protection category IP44**															
VDD 450/6 Ex[1]	07387	875	5170	54	460	1.1	1.1	1157	40	40	40.0	**MSA**	01289	**TSD 1.5**	01501
VDD 450/4 Ex[1]	07386	1405	7930	65	1570	3.3	3.66	1157	40	40	47.0	**MSA**	01289	**TSD 5.5**	01503
T120 **Three phase current, 3~, 400 V, 50 Hz, Squirrel-cage rotor, Protection category IP54**															
VDD 450/6 T120[1]	07399	940	6515	62	660	2.05	2.05	1264	90	—	54.0	**MD**	05849	**RDS 4**[2]	01316
VDD 450/4 T120[1]	07398	1355	9792	69	1830	3.8	3.8	1264	80	—	60.0	**MD**	05849	**RDS 7**[2]	01578

1) Performance diagram at www.HeliosSelect.de. 2) Includes motor protection circuit breaker.