

Description RD EC

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

Description VD EC

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

Common features RD EC and VD EC

Casing
 Made of sea water-resistant aluminium with integrated tamper protection. Motor support plate and base plate with inlet nozzle made of galvanised steel. 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. Dynamically balanced according to DIN ISO 21940-11 – quality grade 6.3.

Drive
 Energy-saving, speed-controllable EC external rotor motor with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

Motor protection
 Integrated electronic temperature monitoring system for EC motor and electronics.

Electrical connection
 ND 315 – 630 to external terminal box and isolator in protection category IP65.

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

Power control
 Continuously variable speed control via internal (delivery) or external potentiometer or continuously variable speed control with universal control system.

Delivery

Units are ready-for-connection, fully pre-assembled in the shipping box /wooden crate.

Noise

The total level and range are specified above the performance diagram for:

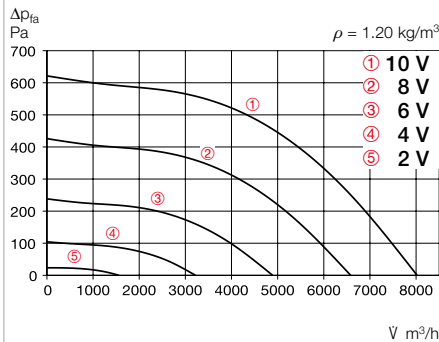
- Inlet side sound power
- Outlet side sound power.

The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table and the table below the performance curve.

References	Page
Planning information	14 ff.
Technical description	499 f.
Selection table	501 f.
Accessories, details	558 f.
Universal control systems, electronic controllers, speed potentiometer	613 ff.

Performance curves RDW EC 450

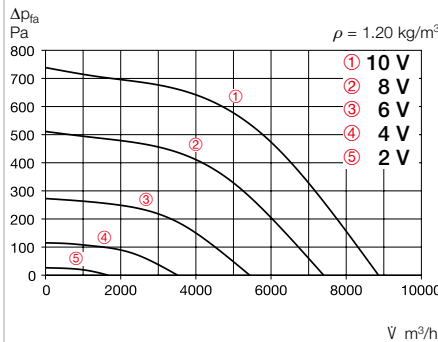
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Inlet side		dB(A)	72	61	66	66	65	64	59
L _{WA} Outlet side		dB(A)	77	67	68	68	72	67	60



Free blowing						
Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ³ /s
10	1300	8042	738	3.10	60	0.33
8	1074	6595	421	1.80	56	0.23
6	802	4891	191	0.91	50	0.14
4	535	3221	70	0.51	37	0.08

Performance curves RDD EC 450 A

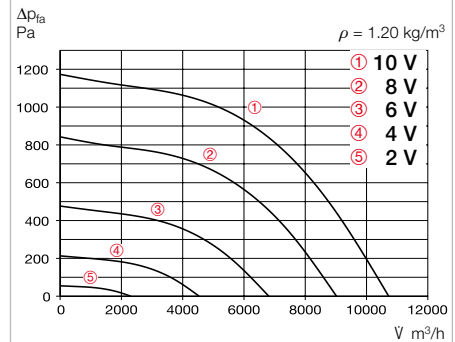
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Inlet side		dB(A)	75	64	69	69	68	67	62
L _{WA} Outlet side		dB(A)	80	70	71	71	75	70	63



Free blowing						
Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ³ /s
10	1430	8760	980	1.60	63	0.40
8	1190	7230	590	1.05	59	0.29
6	870	5360	265	0.50	52	0.18
4	550	3380	90	0.20	42	0.10

Performance curves RDD EC 450 B

Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Inlet side		dB(A)	81	70	75	75	74	73	68
L _{WA} Outlet side		dB(A)	86	76	77	77	81	76	69

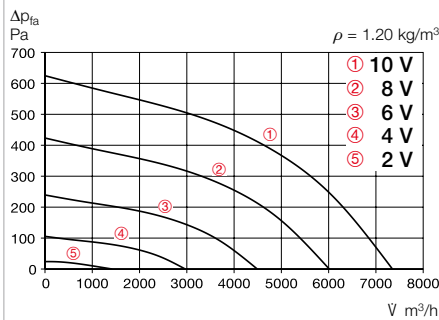


Free blowing						
Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ³ /s
10	1800	10760	2015	2.95	69	0.67
8	1490	8960	1180	1.80	65	0.48
6	1100	6430	525	0.92	58	0.29
4	700	4115	180	0.35	48	0.16

Type	Ref. no.	Speed	Flow rate Free blowing	Noise sound pressure	Power consumption	Current consump.		Wiring diagram	Max. air flow temp. at rated voltage	Wgt net	Speed potentiometer				
						at rated voltage	with control				Flush-mounted	Surf.-mounted			
		min ⁻¹	m ³ /h	dB(A) in 4 m	W	A	A	No.	°C	kg	Type	Ref. no.	Type	Ref. no.	
Single phase alternating current, 1~, 230 V, 50 Hz, EC motor, protection category IP54															
RDW EC 450	07397	1300	8050	59.5	110	4.9	4.9	1147	40	—	39	PU 24	01736	PA 24	01737
Three phase current, 3~, 400 V, 50 Hz, EC motor, protection category IP54															
RDD EC 450 A	07382	1425	8865	62.5	1400	2.2	2.4	1148	45	—	39	PU 24	01736	PA 24	01737
RDD EC 450 B	07395	1800	10736	68.5	2810	4.3	4.2	1148	60	—	45	PU 24	01736	PA 24	01737

Performance curves VDW EC 450

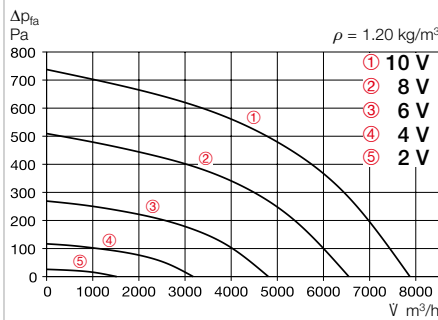
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Inlet side		dB(A)	70	59	64	64	63	62	57
L _{WA} Outlet side		dB(A)	76	67	68	68	72	67	60



Free blowing						
Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ³ /s
10	1300	7354	862	4.0	59	0.42
8	1068	6018	487	2.0	55	0.29
6	802	4493	217	1.0	49	0.17
4	533	2966	78	0.5	36	0.10

Performance curves VDD EC 450 A

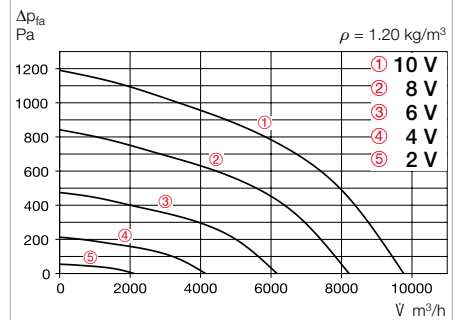
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Inlet side		dB(A)	73	62	67	67	66	65	60
L _{WA} Outlet side		dB(A)	79	70	71	71	75	70	63



Free blowing						
Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ³ /s
10	1430	7990	1130	1.80	62	0.51
8	1190	6690	670	1.15	58	0.36
6	870	4850	290	0.55	51	0.22
4	550	3090	95	0.20	42	0.11

Performance curves VDD EC 450 B

Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L _{WA} Inlet side		dB(A)	79	68	73	73	72	71	66
L _{WA} Outlet side		dB(A)	85	76	77	77	81	76	69



Free blowing						
Voltage V	n min ⁻¹	V m ³ /h	P W	I A	Lp dB(A)	SFP kW/m ³ /s
10	1800	9960	2250	3.3	68	0.81
8	1500	8110	1330	2.0	64	0.59
6	1090	5980	570	0.95	57	0.34
4	690	3780	190	0.38	47	0.18

Type	Ref. no.	Speed	Flow rate Free blowing	Noise sound pressure	Power consumption	Current consump.		Wiring diagram	Max. air flow temp. at rated voltage	Wgt net	Speed potentiometer				
						at rated voltage	with control				Flush-mounted	Surf.-mounted			
		min ⁻¹	m ³ /h	dB(A) in 4 m	W	A	A	No.	°C	kg	Type	Ref. no.	Type	Ref. no.	
Single phase alternating current, 1~, 230 V, 50 Hz, EC motor, protection category IP54															
VDW EC 450	07396	1300	7355	59	1120	4.7	4.7	1147	40	—	41	PU 24	01736	PA 24	01737
Three phase current, 3~, 400 V, 50 Hz, EC motor, protection category IP54															
VDD EC 450 A	07381	1410	7883	62	1450	2.2	2.3	1148	45	—	41	PU 24	01736	PA 24	01737
VDD EC 450 B	07392	1800	9771	68	2800	4.3	4.2	1148	60	—	47	PU 24	01736	PA 24	01737