

**AVAILABLE IN
THE UK ONLY!**

For commercial buildings with internal toilets or toilets that have no opening windows it is recommended that continuous ventilation is provided. In addition to ensure that the continuous ventilation maintained even in the event of a fan failure that a standby fan takes over automatically.

The Helios Twin duct and roof fans have been specifically designed to meet the needs of this application. All units in the range have two direct drive centrifugal fans with an individual back draught shutter and separate electrical connections to the terminal box. Each centrifugal fan will achieve the specified unit performance when running, thus ensuring 100% standby. The casings of the duct fans TFD.. & TFDA.. are manufactured in galvanised steel with an easy access cover. For noise sensitive applications the

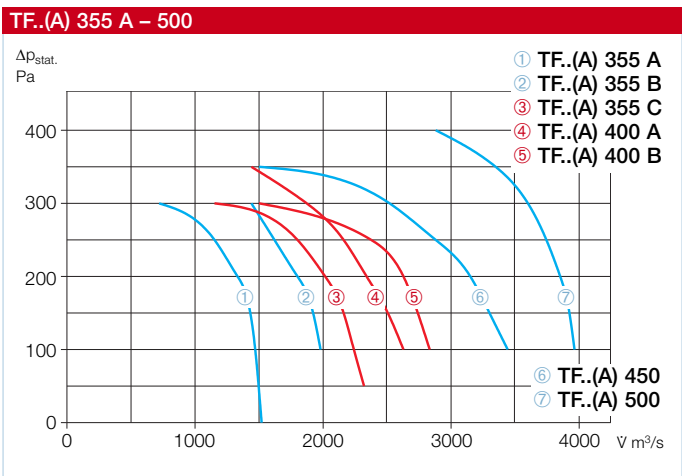
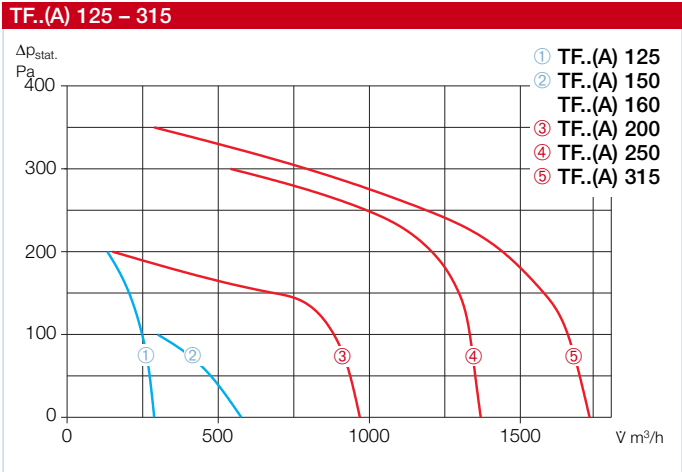
acoustically lined units TFDA.. provide the ideal solution. The casing of the roof fans TFR.. & TFRA.. are aluminium with a spigot or louvre outlet and an easy access cover. For noise sensitive applications the acoustically lined units TFRA.. provide the ideal solution. The automatic changeover panel ACSW 2 provides immediate switching from one fan to the other in the event of one fan failing. The panel also provides over current protection and duty share. Fan failure options are current monitoring or flow sensing.

Type	Air flow volume in m ³ /s against static pressure (ΔP_{static}) in Pa								
	0	50	100	150	200	250	300	350	400
TF.. 125	0.08	0.077	0.067	0.057	0.037				
TF.. 150/160	0.16	0.132	0.083						
TF.. 200	0.269	0.26	0.245	0.19	0.035				
TF.. 250	0.38	0.375	0.37	0.36	0.335	0.275	0.15		
TF.. 315	0.48	0.47	0.46	0.438	0.40	0.33	0.22	0.08	
TF.. 355 A	1)	0.419	0.41	0.395	0.37	0.32	0.20		
TF.. 355 B	1)	1)	0.55	0.534	0.50	0.45	0.40		
TF.. 355 C	1)	0.65	0.62	0.60	0.56	0.50	0.32		
TF.. 400 A	1)	1)	0.73	0.696	0.65	0.60	0.52	0.40	
TF.. 400 B	1)	1)	0.787	0.772	0.73	0.66	0.40		
TF.. 450	1)	1)	0.956	0.93	0.875	0.80	0.70	0.40	
TF.. 500	1)	1)	1.101	1.09	1.07	1.04	1.00	0.93	0.80

1) No free air figure available as fan needs a minimum resistance.



Twin duct fans and roof fans TFD & TFDA / TFR & TFRA



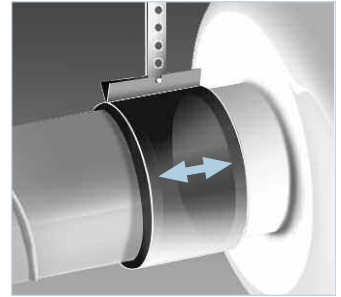
Model	Sound level on intake dB(A) 4 m	Roof mounted sound pressure level spectrum							
		63	125	250	500	1K	2K	4K	8K
TFR 125	40	41	49	53	54	56	48	46	38
TFR 150/160	37	40	45	46	53	53	45	42	32
TFR 200	44	46	52	50	55	61	55	52	43
TFR 250	52	48	56	57	64	67	67	65	54
TFR 315	53	48	56	59	64	70	67	64	57
TFR 355 A	61	31	56	68	74	77	75	70	61
TFR 355 B	62	38	56	69	75	78	76	71	62
TFR 355 C	65	41	59	72	78	81	79	74	65
TFR 400 A	59	35	53	66	72	75	73	68	59
TFR 400 B	60	36	54	67	73	76	74	69	60
TFR 450	66	42	60	73	79	82	80	75	66
TFR 500	67	43	61	74	80	83	81	76	77

Accessories

Pipe clamp connectors

- BM 125 Ref. No. 5076
- BM 150 Ref. No. 6164
- BM 160 Ref. No. 5077
- BM 200 Ref. No. 5078
- BM 250 Ref. No. 5079
- BM 315 Ref. No. 5080

A quick-fix method for connecting fans to ducting, reducing vibration transmission. When installing leave a small gap between fan spigot and ducting. Supplied in pairs.



Spigotted attenuators

- SRSD 125/600 Ref. No. 8906
- SRSD 150/600 Ref. No. 8910
- SRSD 160/600 Ref. No. 8914
- SRSD 200/600 Ref. No. 8918
- SRSD 250/600 Ref. No. 8922
- SRSD 315/600 Ref. No. 8926
- SRSD 355/600 Ref. No. 8928
- SRSD 400/600 Ref. No. 8930

Spigotted attenuator with 50 mm insulation. Fits nominal size ducting or to be fixed with pipe clamp connectors. Various sizes see page 319.



Automatic changeover panel

- ACSW 2 Ref. No. 7750
- For automatic change over of twin fans using current sensing or via a flow switch. Duty sharing (8 selections from 3 to 24 hours), manual selection, variable overloads, visual and audible alarm and alarm output for BMS.
- Protection IP 40
Current Max. 8 Amps
Dim. mm W 180 x H 120 x D 60



Electronic speed controller

- ESA...IND for surface mounting
- Voltage 220/240 V, 1 ph.
- Frequency 50/60 Hz
- Protection IP 65
- Wiring Diagram No. SS-710
- ESA 3 IND Ref. No. 7806
Current Max. 3 Amps
Dim. mm W 111 x H 99 x D 54
- ESA 6 IND Ref. No. 7807
Current Max. 6 Amps
Dim. mm W 145 x H 97 x D 64
- ESA 10 IND Ref. No. 7808
Current Max. 10 Amps
Dim. mm W 104 x H 146 x D 83



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Duct mounted fans TFD...

The duct mounted models TFD.. are designed for internal mounting in the building with easy access via the removable lid. The access can be either from above or below the unit, depending on the mounting arrangement. The acoustically lined units offer lower sound levels and case break-out levels, for noise sensitive areas.

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Roof mounted fans TFR...

The roof mounted models TFR.. offer a weather protected unit with outlet louvres and a rear mounted inlet spigot for circular ducting. The acoustically lined units offer lower sound levels and case break-out levels, for noise sensitive areas.

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To monitor and change over the fans the Helios automatic change over panels are available to match the fans. There is a choice of models including manual duty sharing with a variable change over time.

- High pressure capabilities.
- 100 % stand-by.
- Top or bottom access on duct mounted units.
- Duties up to 1.1 m³/s.
- Pressure up to 400 Pa.
- Matching range of ancillaries.
- Speed controllable with auto change over.
- Automatic change over via Helios panel (accessory).

*In-line duct fans TFD & TFDA
Robust corrosion resistant casing
in galvanised steel. Access panel
offers either top or bottom access
on duct mounted units.*



*Roof fans TFR & TFRA
Fully weatherproof units in robust,
corrosion resistant casings. Inlet
spigot in the rear or bottom inlet
(state when ordering).*

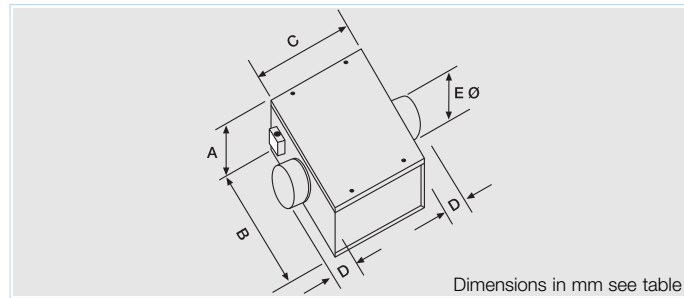
Where ventilation has to be maintained continuously, run and 100% stand-by fans are required. With two powerful centrifugal fans in a single casing the Helios units TFD

and TFR offer single inlet and outlet connections.

Both lines are speed controllable using the automatic change over panel ACSW 2

and industrial speed controller. Furthermore, factory fitted acoustic linings (TFDA and TFRA) are available as an option.

TFD(A)



Dimensions in mm						
Type	Nom. size	A	B	C	D	ø E
TFD(A)	125	238	575	400	55	125
TFD(A)	150/160	275	800	450	55	150/160
TFD(A)	200	360	800	550	55	200
TFD(A)	250/315	425	1000	650	55	250/315
TFD(A)	355/400 A	475	1050	650	55	355/400
TFD(A)	400 B/450	475	1150	650	55	400/450
TFD(A)	500	525	1250	700	55	500

Features

- Run and 100% stand-by.
- Robust corrosion resistant casing in galvanised steel.
- Access panel offers either top or bottom access on duct mounted units.
- Standard change over panels including duty sharing option.
- Simple wiring from a common terminal box and change over panel.
- Acoustically lined option for quiet operation and reduced breakout.
- Speed controllable using the Helios ACSW 2 change over panel and industrial speed controller.
- Suitable for vertical extract. This must be stated when ordering.
- Terminal box**
IP 55 terminal box fitted to casing providing connection to both fans.

Specification

- Fans**
All units are fitted with two independent forward curved centrifugal fans, powered by direct driven motors. Each fan has a non-return damper on its outlet, within a common plenum.
- Speed controls**
Stepless speed control 20% to 100% when using the Helios electronic controller.
- Change over panels**
Standard change over panels with manual and timed duty sharing and fan failure indicator light are suitable for use with electronic speed control. Options include automatic timed duty sharing, audible alarms and Building Management System (B.M.S.) interface.
- Noise levels**
Sound levels in dB(A). Spectrum and totals shown opposite.

In-line duct fans TFD & TFDA

- Casings**
Standard units of galvanised sheet steel with access panel and spigot connections. Fixing holes provided in the casing.
- Access**
Standard access is from above. The unit can easily be converted on site to bottom access.
- Acoustic lining**
Factory fitted acoustic lining is available as an option. Lining is fire retardant, class "O", 25 mm material.
- Spigots**
Twin fans are fitted with circular inlet and outlet spigots as standard. Other options are available on request.

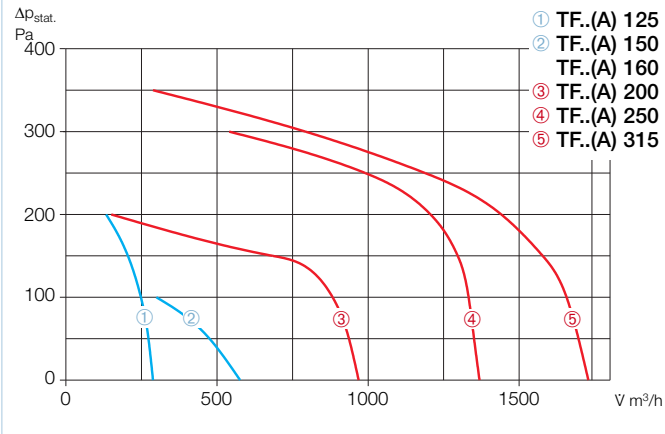
Information ducting system

All Helios components fit standard nominal duct diameters. The ducting used may be rigid or flexible and made from aluminium, galvanised steel or plastic.

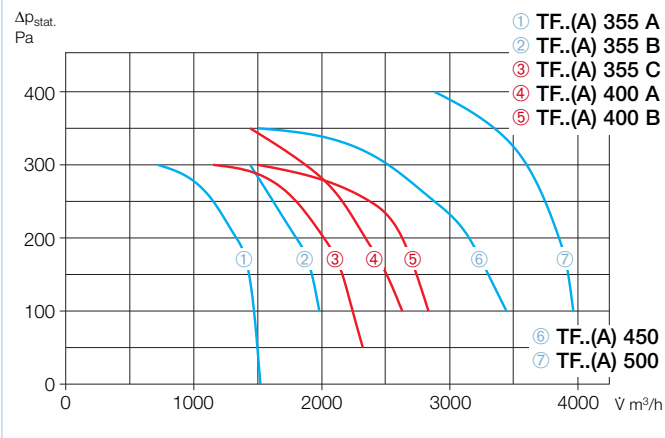
Type	Ref. No.	Type	Ref. No.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current		Max. air flow temp.	Nominal weight (net)	Auto change over panel with duty sharing		Electronic speed controller	
								F.L.C.	S.T.C.			Type	Ref. No.	Type	Ref. No.
				min ⁻¹	m ³ /h	kW	Volt	Amps.	Amps.	+°C	kg	Type	Ref. No.	Type	Ref. No.
In-line duct fans TFD & TFD(A)															
TFD 125	7690	TFD(A) 125	7712	2800	288	0.015	230	0.75	2.63	40	20	ACSW 2	7750	ESA 3 I	7806
TFD 150	7681	TFD(A) 150	7732	1400	576	0.022	230	0.64	2.24	40	20	ACSW 2	7750	ESA 3 I	7806
TFD 160	7691	TFD(A) 160	7713	1400	576	0.022	230	0.64	2.24	40	20	ACSW 2	7750	ESA 3 I	7806
TFD 200	7692	TFD(A) 200	7715	1400	936	0.073	230	1.82	6.37	40	22	ACSW 2	7750	ESA 3 I	7806
TFD 250	7694	TFD(A) 250	7716	1400	1368	0.150	230	1.50	5.25	40	40	ACSW 2	7750	ESA 3 I	7806
TFD 315	7696	TFD(A) 315	7718	1400	1728	0.150	230	2.00	7.00	40	46	ACSW 2	7750	ESA 3 I	7806
TFD 355 A	7697	TFD(A) 355 A	7719	1200	¹⁾	0.373	230	2.00	7.00	40	70	ACSW 2	7750	ESA 3 I	7806
TFD 355 B	7698	TFD(A) 355 B	7720	1300	¹⁾	0.373	230	2.85	9.98	40	70	ACSW 2	7750	ESA 3 I	7806
TFD 355 C	7699	TFD(A) 355 C	7721	1400	¹⁾	0.373	230	3.85	13.48	40	70	ACSW 2	7750	ESA 6 I	7807
TFD 400 A	7700	TFD(A) 400 A	7722	1310	¹⁾	0.550	230	3.00	10.50	40	72	ACSW 2	7750	ESA 3 I	7806
TFD 400 B	7701	TFD(A) 400 B	7723	1400	¹⁾	0.550	230	3.80	13.30	40	72	ACSW 2	7750	ESA 6 I	7807
TFD 450	7703	TFD(A) 450	7725	1400	¹⁾	0.550	230	4.90	17.15	40	78	ACSW 2	7750	ESA 6 I	7807
TFD 500	7709	TFD(A) 500	7731	1400	¹⁾	0.550	230	6.80	23.80	40	85	ACSW 2	7750	ESA 10 I	7808

¹⁾ No free air figure available as fan requires minimum resistance, see performance table.

TF..(A) 125 – 315



TF..(A) 355 A – 500



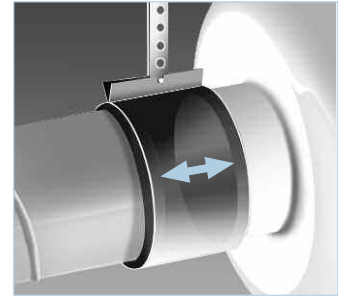
Model	Sound level on intake dB(A) 4 m	Inlet-induct sound power level spectrum							
		63	125	250	500	1K	2K	4K	8K
TFD 125	42	44	52	56	54	56	48	46	38
TFD 150/160	38	43	48	49	53	53	45	42	32
TFD 200	45	49	55	53	55	61	55	52	43
TFD 250	53	51	59	60	64	67	67	65	54
TFD 315	54	51	59	62	64	70	67	64	57
TFD 355 A	61	34	58	71	74	77	75	70	61
TFD 355 B	62	41	59	72	75	78	76	71	62
TFD 355 C	65	44	62	75	78	81	79	74	65
TFD 400 A	59	38	56	69	72	75	73	68	59
TFD 400 B	60	39	57	70	73	76	74	69	60
TFD 450	66	45	63	76	79	82	80	75	66
TFD 500	67	46	64	77	80	83	81	76	77
TFDA 125	36	44	52	53	44	39	36	33	25
TFDA 150/160	35	43	53	46	43	36	66	29	19
TFDA 200	38	49	55	50	45	43	43	39	30
TFDA 250	44	51	59	57	54	50	55	52	41
TFDA 315	44	51	59	59	54	53	55	51	44
TFDA 355 A	51	34	58	68	64	60	62	57	48
TFDA 355 B	52	41	59	69	65	61	63	58	49
TFDA 355 C	55	44	62	72	68	64	66	61	52
TFDA 400 A	49	38	56	66	62	58	60	55	46
TFDA 400 B	50	39	57	67	63	59	61	56	47
TFDA 450	56	45	63	73	69	65	67	62	53
TFDA 500	57	46	64	74	70	66	68	63	64

Accessories

Pipe clamp connectors

- BM 125 Ref. No. 5076
- BM 150 Ref. No. 6164
- BM 160 Ref. No. 5077
- BM 200 Ref. No. 5078
- BM 250 Ref. No. 5079
- BM 315 Ref. No. 5080

A quick-fix method for connecting fans to ducting, reducing vibration transmission. When installing leave a small gap between fan spigot and ducting. Supplied in pairs.



Spigotted attenuators

- SRSD 125/600 Ref. No. 8906
- SRSD 150/600 Ref. No. 8910
- SRSD 160/600 Ref. No. 8914
- SRSD 200/600 Ref. No. 8918
- SRSD 250/600 Ref. No. 8922
- SRSD 315/600 Ref. No. 8926
- SRSD 355/600 Ref. No. 8928
- SRSD 400/600 Ref. No. 8930

Spigotted attenuator with 50 mm insulation.

Fits nominal size ducting or to be fixed with pipe clamp connectors. Various sizes see page 319.



Automatic changeover panel

- ACSW 2 Ref. No. 7750

For automatic change over of twin fans using current sensing or via a flow switch. Duty sharing (8 selections from 3 to 24 hours), manual selection, variable overloads, visual and audible alarm and alarm output for BMS.

Protection IP 40
Current Max. 8 Amps
Dim. mm W 180 x H 120 x D 60



Electronic speed controller

- ESA.. IND for surface mounting

Voltage 220/240 V, 1 ph.
Frequency 50/60 Hz
Protection IP 65
Wiring Diagram No. SS-710

- ESA 3 IND Ref. No. 7806

Current Max. 3 Amps
Dim. mm W 111 x H 99 x D 54

- ESA 6 IND Ref. No. 7807

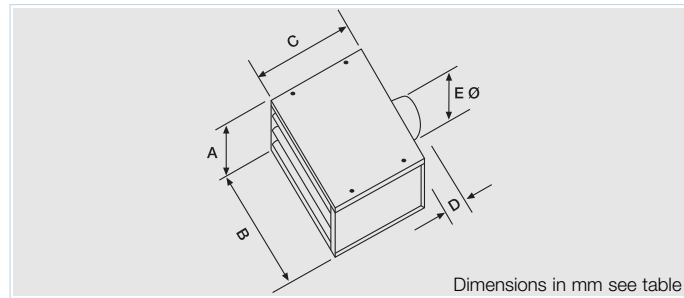
Current Max. 6 Amps
Dim. mm W 145 x H 97 x D 64

- ESA 10 IND Ref. No. 7808

Current Max. 10 Amps
Dim. mm W 104 x H 146 x D 83



TFR(A)



Dimensions in mm						
Type	Nom. size	A	B	C	D	ø E
TFR(A)	125-200	375	750	450	55	125/160/200
TFR(A)	250-315	425	950	550	55	250/315
TFR(A)	355 A/B/C	475	1050	600	55	355
TFR(A)	400 A-450	475	1050	600	55	400/450
TFR(A)	500	525	1200	850	55	500

■ Features

- Run and 100% stand-by.
- Robust corrosion resistant casing.
- Inlet spigot in the rear or bottom inlet (state when ordering) of the casing.
- Roof mounted units are fully weatherproof.
- Standard change over panels include duty sharing and over current setting.
- Simple wiring from a common terminal box and change over panel.
- Acoustically lined option for quiet operation and reduced breakout.
- Speed controllable using the Helios ACSW 2 change over panel and industrial speed controller.
- Terminal box**
IP 55 terminal box fitted internally on the fan plate providing connection to both fans.

■ Specification

- Fans**
All units are fitted with two independent forward curved centrifugal fans, powered by direct driven motors. Each fan has a non-return damper on its outlet, within a common plenum.
- Speed controls**
Stepless speed control 20% to 100% when using the Helios electronic controller.
- Change over panels**
Standard change over panels with manual and timed duty sharing and fan failure indicator light are suitable for use with electronic speed control. Options include automatic timed duty sharing, audible alarms and Building Management System (B.M.S.) interface.
- Noise levels**
Sound levels in dB(A). Spectrum and totals shown opposite.

■ Roof fans TFR & TFRA

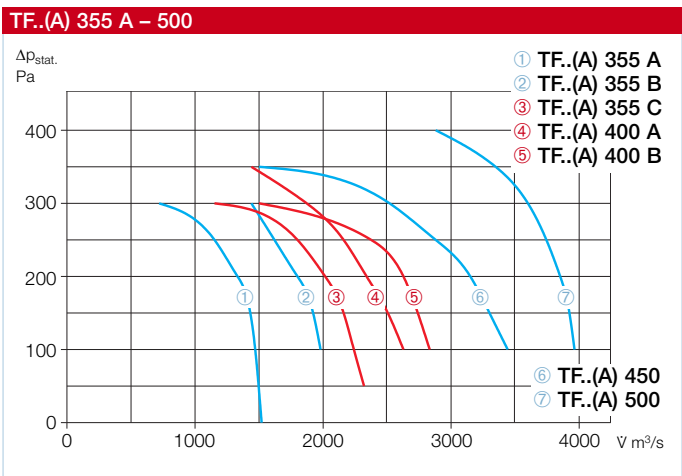
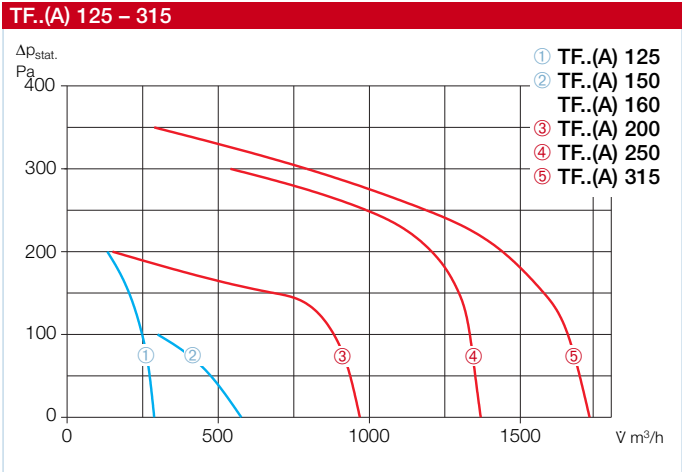
- Casings**
Standard units of sheet aluminium with top access panel, spigot inlet connection and louvred outlet.
- Access**
Standard access is from above.
- Acoustic lining**
Factory fitted acoustic lining is available as an option. Lining is fire retardent, class "O", 25 mm material.
- Spigots**
Twin roof fans are fitted with circular inlet on the rear of the casing and a louvred grille on the outlet. Alternative bottom inlet and other spigots are available on request.

■ Information ducting system

All Helios components fit standard nominal duct diameters. The ducting used may be rigid or flexible and made from aluminium, galvanised steel or plastic.

Type	Ref. No.	Type	Ref. No.	R.P.M.	Air flow volume (FID)	Motor power	Voltage	Current		Max. air flow temp.	Nominal weight (net)	Auto change over panel with duty sharing		Electronic speed controller	
								F.L.C.	S.T.C.			Type	Ref. No.	Type	Ref. No.
				min ⁻¹	m ³ /h	kW	Volt	Amps.	Amps.	+°C	kg	Type	Ref. No.	Type	Ref. No.
Roof fans TFR & TFR(A)															
TFR 125	7757	TFR(A) 125	7769	2800	288	0.015	230	0.75	2.63	40	21	ACSW 2	7750	ESA 3 I	7806
TFR 150	7733	TFR(A) 150	7805	1400	576	0.022	230	0.64	2.24	40	21	ACSW 2	7750	ESA 3 I	7806
TFR 160	7758	TFR(A) 160	7770	1400	576	0.022	230	0.64	2.24	40	21	ACSW 2	7750	ESA 3 I	7806
TFR 200	7759	TFR(A) 200	7771	1400	936	0.073	230	1.82	6.87	40	23	ACSW 2	7750	ESA 3 I	7806
TFR 250	7760	TFR(A) 250	7772	1400	1368	0.150	230	1.50	5.25	40	41	ACSW 2	7750	ESA 3 I	7806
TFR 315	7761	TFR(A) 315	7773	1400	1728	0.150	230	2.00	7.00	40	47	ACSW 2	7750	ESA 3 I	7806
TFR 355 A	7762	TFR(A) 355 A	7774	1200	¹⁾	0.373	230	2.00	7.00	40	71	ACSW 2	7750	ESA 3 I	7806
TFR 355 B	7763	TFR(A) 355 B	7775	1300	¹⁾	0.373	230	2.85	9.98	40	71	ACSW 2	7750	ESA 3 I	7806
TFR 355 C	7764	TFR(A) 355 C	7776	1400	¹⁾	0.373	230	3.85	13.48	40	71	ACSW 2	7750	ESA 6 I	7807
TFR 400 A	7765	TFR(A) 400 A	7777	1310	¹⁾	0.550	230	3.00	10.80	40	73	ACSW 2	7750	ESA 3 I	7806
TFR 400 B	7766	TFR(A) 400 B	7778	1400	¹⁾	0.550	230	3.80	13.80	40	73	ACSW 2	7750	ESA 6 I	7807
TFR 450	7767	TFR(A) 450	7779	1400	¹⁾	0.550	230	4.90	17.15	40	77	ACSW 2	7750	ESA 6 I	7807
TFR 500	7768	TFR(A) 500	7780	1400	¹⁾	0.550	230	6.80	23.80	40	86	ACSW 2	7750	ESA 10 I	7808

¹⁾ No free air figure available as fan requires minimum resistance, see performance table.

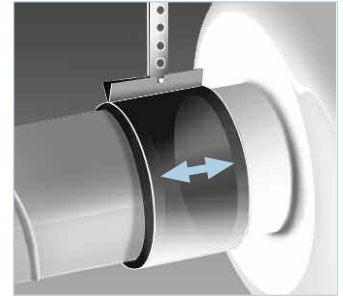


Accessories

Pipe clamp connectors

- BM 125** Ref. No. 5076
- BM 150** Ref. No. 6164
- BM 160** Ref. No. 5077
- BM 200** Ref. No. 5078
- BM 250** Ref. No. 5079
- BM 315** Ref. No. 5080

A quick-fix method for connecting fans to ducting, reducing vibration transmission. When installing leave a small gap between fan spigot and ducting. Supplied in pairs.



Spigotted attenuators

- SRSD 125/600** Ref. No. 8906
- SRSD 150/600** Ref. No. 8910
- SRSD 160/600** Ref. No. 8914
- SRSD 200/600** Ref. No. 8918
- SRSD 250/600** Ref. No. 8922
- SRSD 315/600** Ref. No. 8926
- SRSD 355/600** Ref. No. 8928
- SRSD 400/600** Ref. No. 8930

Spigotted attenuator with 50 mm insulation. Fits nominal size ducting or to be fixed with pipe clamp connectors. Various sizes see page 319.



Automatic changeover panel

- ACSW 2** Ref. No. 7750
- For automatic change over of twin fans using current sensing or via a flow switch. Duty sharing (8 selections from 3 to 24 hours), manual selection, variable overloads, visual and audible alarm and alarm output for BMS.
- Protection IP 40
Current Max. 8 Amps
Dim. mm W 180 x H 120 x D 60



Electronic speed controller

- ESA...IND for surface mounting**
- Voltage 220/240 V, 1 ph.
- Frequency 50/60 Hz
- Protection IP 65
- Wiring Diagram No. SS-710
- ESA 3 IND** Ref. No. 7806
Current Max. 3 Amps
Dim. mm W 111 x H 99 x D 54
- ESA 6 IND** Ref. No. 7807
Current Max. 6 Amps
Dim. mm W 145 x H 97 x D 64
- ESA 10 IND** Ref. No. 7808
Current Max. 10 Amps
Dim. mm W 104 x H 146 x D 83

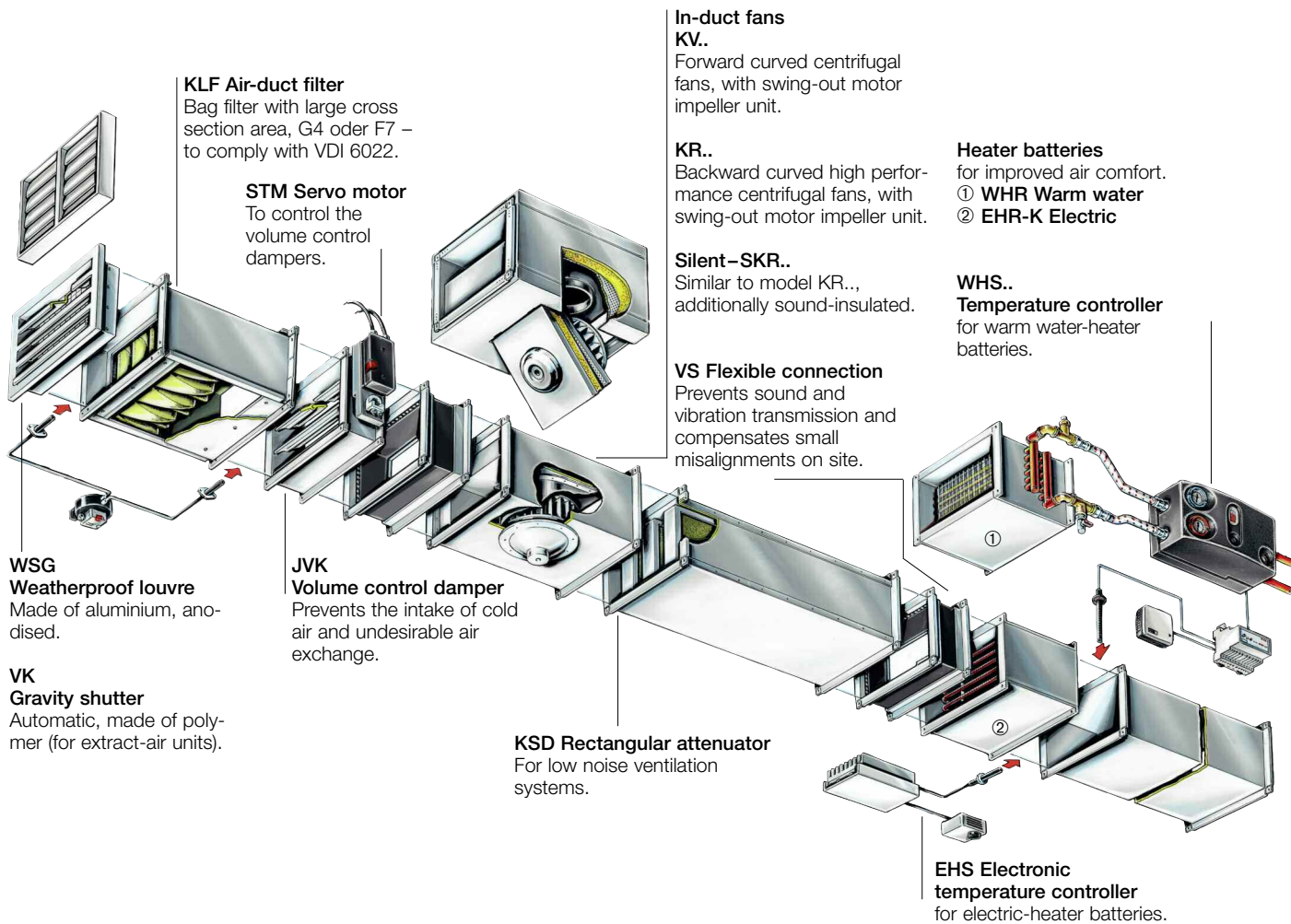


Model	Sound level on intake dB(A) 4 m	Roof mounted sound pressure level spectrum							
		63	125	250	500	1K	2K	4K	8K
TFR 125	40	41	49	53	54	56	48	46	38
TFR 150/160	37	40	45	46	53	53	45	42	32
TFR 200	44	46	52	50	55	61	55	52	43
TFR 250	52	48	56	57	64	67	67	65	54
TFR 315	53	48	56	59	64	70	67	64	57
TFR 355 A	61	31	56	68	74	77	75	70	61
TFR 355 B	62	38	56	69	75	78	76	71	62
TFR 355 C	65	41	59	72	78	81	79	74	65
TFR 400 A	59	35	53	66	72	75	73	68	59
TFR 400 B	60	36	54	67	73	76	74	69	60
TFR 450	66	42	60	73	79	82	80	75	66
TFR 500	67	43	61	74	80	83	81	76	77

Duct fans

Concrete Advantages:

- The components are available in every size and every performance level.
- All the components are compatible with each other and fit exactly together.
- Short installation time, simple design und rational procurement.



Perfectly convenient system solutions from the leading supplier.

Three models:

All with swing-out motor impeller unit.
Simplifies maintenance and cleaning.
Complies with the hygiene requirements of VDI 6022.

Model KV..
With forward curved centrifugal impeller.
 $\dot{V} = 1\ 000 - 8\ 000\ \text{m}^3/\text{h}$

Advanced models of market leading centrifugal impeller version with additional types. With the fold-out motor impeller unit for easy cleaning and maintenance.

Model KR..
With backward curved centrifugal impeller.
 $\dot{V} = 500 - 12\ 000\ \text{m}^3/\text{h}$

Expanded product range of the proven swing-out version. High performance centrifugal impellers with high efficiency. Uncritical in extraction of polluted air. For universal use in commercial and industrial applications.

Model SKR..
Sound insulated for noise-critical applications.
 $\dot{V} = 4\ 000 - 12\ 000\ \text{m}^3/\text{h}$

Silent rectangular fans for applications with specific noise level requirements. Extensive product range. Extremely low noise levels with 50 mm thick case insulation by rock wool. Abrasion resistant lining.



from page 274



from page 290



from page 296



This chart is designed for easy selection of rectangular fans. Shown are static pressure increase $\Delta p_{stat.}$, case break out and intake air sound levels as sound pressure levels at 4 m (free field conditions).

Type	Sound press. breakout	Sound press. intake	Air flow volumes \dot{V} in m^3/s against static pressure												
	L_{PA} dB(A)	L_{PA} dB(A)	$(\Delta p_{stat.})$ in Pa												
	in 4 m dist.	in 4 m dist.	0	50	100	150	200	250	300	350	400	500	600	700	800
Model KV.. – with forward curved impellers															
KVW 200/4/40/20	37	49	0.256	0.247	0.236	0.222	0.208	0.011							
KVW 225/4/50/25	43	54			0.436	0.411	0.383	0.347	0.281						
KVW 250/4/50/30	42	57				0.578	0.556	0.528	0.492	0.436	0.333				
KVW 250/6/50/30	36	46	0.489	0.447	0.4	0.328									
KVW 280/4/60/30	44	59			0.781	0.756	0.728	0.7	0.669	0.628	0.569				
KVW 280/6/60/30	37	49		0.603	0.567	0.519	0.439								
KVW 315/4/60/35	47	59							1.017	0.986	0.95	0.842	0.528		
KVW 315/6/60/35	43	51	0.969	0.922	0.872	0.817	0.75	0.65							
KVD 200/4/40/20	42	53	0.414	0.386	0.358	0.325	0.286	0.253							
KVD 225/4/50/25	43	52	0.533	0.506	0.475	0.442	0.406	0.358	0.289						
KVD 250/4/50/30	42	56				0.586	0.547	0.503	0.447	0.367					
KVD 280/4/60/30	45	60	1.092	1.05	1.006	0.964	0.919	0.875	0.831	0.783	0.728	0.556			
KVD 280/6/60/30	35	49				0.544	0.45								
KVD 315/4/60/35	48	61						1.222	1.175	1.128	1.075	0.953	0.75		
KVD 315/6/60/35	40	50	1.056	0.997	0.936	0.869	0.792	0.692	0.486						
KVD 355/4/70/40	54	67							1.55	1.511	1.472	1.378	1.261	1.089	
KVD 355/6/70/40	42	53			1.381	1.3	1.217	1.128	1.022	0.886					
KVD 355/8/70/40	35	47	1.331	1.225	1.111	0.978	0.792								
KVD 400/4/80/50	55	66													
KVD 400/6/80/50	45	60	2.117	2.033	1.95	1.864	1.775	1.683	1.581	1.469	1.333	0.406			
KVD 400/8/80/50	38	51			1.428	1.297	1.153	0.95							
KVD 450/6/100/50	50	60							2.269	2.181	2.083	1.842	1.45		
KVD 450/8/100/50	46	56			2.025	1.911	1.783	1.628	1.422	1.106					
KVD 225/4/50/25 Ex	43	53	0.533	0.5	0.469	0.433	0.397	0.356	0.292						
KVD 250/4/50/30 Ex	42	53			0.633	0.603	0.569	0.531	0.481	0.411	0.219				
KVD 280/4/60/30 Ex	47	58					0.936	0.894	0.847	0.792	0.728				
KVD 315/4/60/35 Ex	48	59								1.147	1.094	0.961	0.694		
KVD 355/6/70/40 Ex	48	55			1.289	1.219	1.144	1.058	0.956	0.797					
Model KR.. – with backward curved impellers															
KRW 180/2/30/15	37	51		0.15	0.133	0.117	0.1	0.078	0.058	0.031					
KRW 225/2/40/20	40	52	0.283	0.256	0.228	0.194	0.164	0.136	0.106	0.072	0.028				
KRW 250/2/40/20	43	55	0.411	0.381	0.35	0.319	0.292	0.264	0.233	0.203	0.169	0.106	0.025		
KRW 280/2/50/25	53	65	0.656	0.633	0.614										
KRW 315/2/50/25	43	54	0.475	0.45	0.425	0.397	0.369	0.339	0.306	0.275	0.247	0.186	0.108		
KRW 355/4/50/25	43	56	0.617	0.572	0.531	0.481	0.417	0.342	0.256	0.131					
KRW 355/4/60/35	44	59	0.831	0.789	0.75	0.706	0.653	0.578	0.489	0.403	0.286				
KRW 400/4/60/35	42	58	1.083	1.028	0.969	0.908	0.844	0.772	0.697	0.617	0.525	0.133			
KRW 450/4/70/40	43	55	1.472	1.4	1.328	1.253	1.169	1.078	0.975	0.869	0.764	0.511	0.05		
KRW 500/6/80/50	44	54	2.164	2.022	1.872	1.714	1.533	1.339	1.136	0.9	0.408				
KRW 560/6/100/50	46	56	3.006	2.856	2.703	2.539	2.358	2.147	1.911	1.667	1.408	0.733			
KRD 450/4/70/40	46	57	1.594	1.522	1.453	1.381	1.303	1.225	1.144	1.061	0.972	0.788	0.397		
KRD 500/4/80/50 A	48	59	2.15	2.072	1.992	1.911	1.828	1.742	1.644	1.542	1.425	1.133	0.644		
KRD 500/4/80/50 B	51	62	2.65	2.575	2.5	2.422	2.344	2.264	2.178	2.086	1.989	1.764	1.497	1.144	0.267
KRD 560/4/100/50	52	63	3.456	3.372	3.286	3.203	3.114	3.028	2.936	2.842	2.744	2.5	2.294	2.033	1.736
KRD 560/6/100/50	45	56	2.975	2.842	2.708	2.567	2.414	2.233	2.022	1.786	1.528	0.831			
Model SKR.. – with sound isolated casing															
SKRW 355/4/60/35	41	49	0.842	0.792	0.744	0.692	0.636	0.572	0.497	0.403	0.264				
SKRW 400/4/60/35	36	51	1.092	1.031	0.969	0.908	0.844	0.778	0.703	0.625	0.519	0.164			
SKRW 450/4/70/40	36	48	1.472	1.4	1.328	1.253	1.169	1.075	0.972	0.869	0.764	0.511	0.058		
SKRW 500/6/80/50	38	50	2.164	2.022	1.872	1.714	1.533	1.339	1.136	0.903	0.408				
SKRW 560/6/100/50	40	51	3.006	2.856	2.703	2.539	2.358	2.147	1.911	1.667	1.411	0.731			
SKRD 450/4/70/40	38	50	1.594	1.522	1.453	1.378	1.306	1.225	1.144	1.058	0.972	0.778	0.383		
SKRD 500/4/80/50 A	42	50	2.15	2.072	1.992	1.911	1.828	1.739	1.644	1.542	1.428	1.139	0.647		
SKRD 500/4/80/50 B	44	53	2.65	2.575	2.5	2.422	2.344	2.264	2.178	2.086	1.989	1.764	1.497	1.144	0.267
SKRD 560/4/100/50	45	55	3.481	3.389	3.3	3.211	3.119	3.028	2.933	2.839	2.742	2.539	2.317	2.058	1.736
SKRD 560/6/100/50	40	51	2.975	2.842	2.708	2.567	2.414	2.233	2.022	1.786	1.528	0.831			

■ Specifications

InlineVent® rectangular fans combine the advantages of axial fans such as the straight in-line air flow design, and provide a simple and cost effective installation with the high pressure characteristic of centrifugal fans. There are many advantages of this range:

- Very compact design.
 - Full speed controllability.
 - Quick installation.
 - Cost effective mounting.
 - Low noise level.
 - High pressure capacity.
- All the KV-, KR- and SKR-in-line fans are compatible with the components of "Helios Ventilation Construction Set".

For complete information see the "general technical information" and descriptions on the product pages.

□ Installation and drainage holes

All models can be installed in any position. The swing-out areas need to be cleared and accessed easily for service and maintenance. If condensation occurs (e.g. intermittent operation, high humidity or varying temperatures) the fan must be installed in a way that the condensation can drain off unhindered. Additional holes may have to be drilled into the casing at the appropriate positions. Alternatively, the duct system may have to be insulated to avoid condensation.

□ Noise/vibration transmission

To be prevented from ducting and building. Therefore, the fan should be secured with sound insulation and connected flexibly to the ducting. For this, see VS.. accessories.

□ Explosion proof models

With regards to operating conditions and norms please refer to chapter "Design of ventilation systems – explosion proof". The ex-protected types correspond to unit group II, category 2G for operation in zone 1 and 2. The motors of the KVD.. Ex range are equipped with positive temperature coefficient (PTC) thermistors (to monitor the temperature of windings) as standard. They are prewired to the terminal board and must be connected to the motor protection tripping unit MSA. This makes the KVD.. Ex fans suitable for speed control that can be carried out via TSD or TSSD transformer controllers. The minimum voltage should not drop below 100 V.

□ Motor - Impeller

All models incorporate a motor with external rotor motor protected to IP 44 within the air

flow. They conform to DIN EN 60034/VDE 0530 and DIN EN 60335-1/VDE 0700-1 with an insulation class F, plus moisture protection. They are maintenance free, radio suppressed, speed controllable and suitable for continuous operation.

The ball bearings are greased for life. The centrifugal impellers are pressed onto the rotating part of the motor body and dynamically balanced to DIN ISO 1940 T.1 – class 6.3 as one unit.

□ Speed control

All InlineVent® rectangular fans are speed controllable via voltage reduction of 0 – 100%. Thereby the operating level can be adapted to the required air flow volume. Our speed controllers are suitable to control various fans (one or more) up to their maximum nominal output. When selecting a controller not shown on the chart, allow for a 10% safety margin. It is possible to control 3 ph.-fans through frequency inverter by on-site installation of sinus filters between inverter and motor.

□ Air flow direction

The air flow direction of centrifugal fans is fixed and cannot be reversed; but it can be specified in all units through the installation method. The rotational direction and the direction of air flow are marked with arrows on the units and must be checked when installing.

□ Wrong direction of rotation

If the fan is operated in the wrong direction of rotation the motor will be overloaded and the thermal contacts will trip. Typical indication of this is a virtually low fan efficiency combined with high noise levels and vibration.

□ Air flow temperature

All models are applicable in the range of –40 °C up to at least +60 °C, Model KV.. Ex from –20 °C up to +40 °C. The upper temperature threshold value varies between the models and can be found at the related charts on the individual product page.

The unit ranges and their specifications

■ Model KV..

Centrifugal rectangular fans with forward curved impeller paddles and swing-out motor impeller unit. Low-noise centrifugal impellers in volute casing for high pressure levels.

23 types in 8 different sizes. $V = 1\,000 - 8\,000\text{ m}^3/\text{h}$. Compact and flat design for versatile usage in exhaust and fresh air systems in commercial and industrial applications.



■ Model KR..

Rectangular fans with backward curved impeller paddles. High performance centrifugal impellers with high efficiency. Swing-out motor impeller unit.

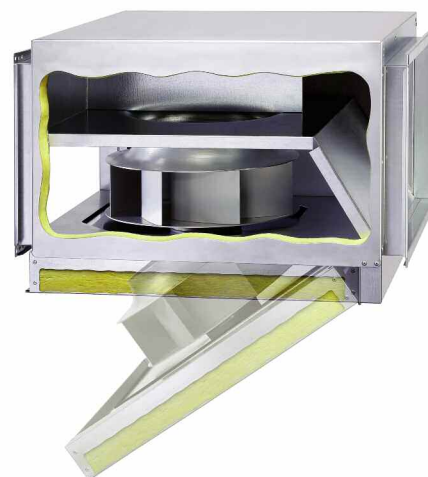
11 types in 7 different sizes. $V = 500 - 12\,000\text{ m}^3/\text{h}$. For conveying higher volume flow rates in extract and fresh air systems. Uncritical in extraction of polluted air.



■ Model SKR..

High performance centrifugal impellers (backward curved) in sound insulated casing with good damping characteristics for noise-critical applications. Performance figures similar to KR.. $V = 4\,000 - 12\,000\text{ m}^3/\text{h}$. For lower air volume flow rates, see Helios SilentBoxes®.

For further reduction of intake and exhaust air noise levels, rectangular attenuators (KSD, accessory) are recommended. Exhaust and fresh air fans for applications with specific noise level requirements.



Note	Page
Design of systems, acoustic, explosion protection	12 on
General technical information, speed control	17 on

Model KV..



Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in aerodynamic galvanised steel casing for high pressure levels.
- Compact and flat design for use in extract and fresh air systems in commercial and industrial applications.

■ Specification

□ Casing

Made of galvanised steel and flanged on both ends. Space saving, compact design.

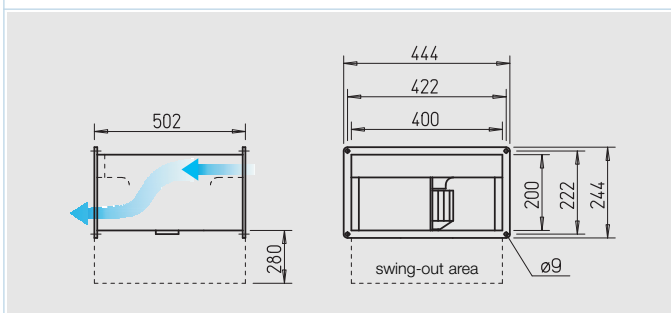
- Easy to clean and service thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galvanised steel, highly efficient with low noise levels. Aerodynamically optimised casing; intake air flow by means of an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Dynamically balanced with resilient motor mounting bracket for low vibration and low noise operation.



□ Electrical connection

Terminal box (IP 55 for 3 ph.- or IP 44 for 1 ph.-types) is mounted with a permanently attached cable.

□ Motor protection

Model KVV.. through thermal contacts which are connected in series with winding and automatically resets. Model KVD.. through built-in thermal contacts which must be connected to a motor full protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller (recommended) or an electronic controller (stepless). The performance figures at corresponding voltages are given in the performance curve.

□ Sound Levels

Above the performance curve, total values and spectrum are given for:

- Sound power case breakout
 - Sound power intake
 - Sound power exhaust
- The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:
- Case breakout sound level at 4 m (free field conditions).

□ Installation

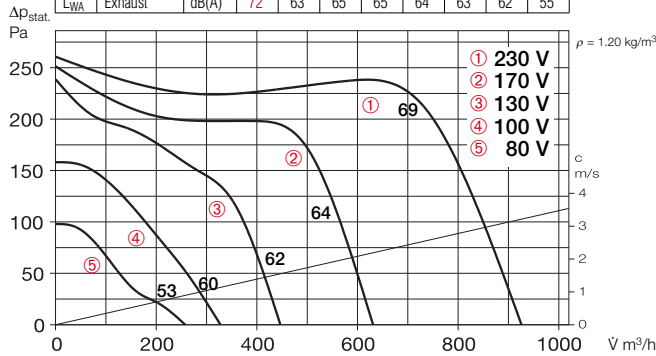
Possible in any position. Attention should be paid to accessibility of swing out motor/impeller assembly.

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Type	Ref. No.	Air flow volume V m³/h	Nominal R.P.M. min ⁻¹	Sound pressure case breakout dB(A) in 4 m	Power consumption		Connection by wiring diagram No.	Max. air flow temperature by Nom. vol. Control		Nominal weight (net) kg	Speed controller 5-step				Motor full protection device to connect built-in thermal contacts	
					kW	A		+°C	+°C		Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
1-phase motor, 230 V, 50 Hz, capacitor motor, protection to IP 44																
KVV 200/4/40/20	5675	925	810	37	0.21	0.95	508	60	50	11	TSW 1.5	1495	—	—	—	—
3-phase motor, 230/400 V, 50 Hz, protected to IP 44																
KVD 200/4/40/20	5676	1500	1180	42	0.37	1.1/0.65	860	65	60	13	TSD 0.8	1500	RDS 1	1314	MD	5849

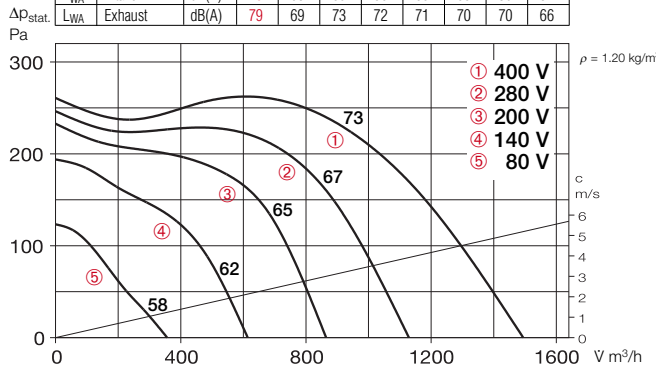
KVV 200/4/40/20

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k	
L _{WA} Case breakout		dB(A)	57	46	52	50	52	45	40	32
L _{WA} Intake		dB(A)	69	64	64	61	55	56	54	47
L _{WA} Exhaust		dB(A)	72	63	65	65	64	63	62	55



KVD 200/4/40/20

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k	
L _{WA} Case breakout		dB(A)	62	52	54	56	51	46	39	
L _{WA} Intake		dB(A)	73	68	69	66	60	60	59	54
L _{WA} Exhaust		dB(A)	79	69	73	72	71	70	70	66



Accessory details Page

Shutters, grilles and louvres	304, 361 on
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Temperature control systems for heaters	311, 316
Speed controllers and motor full protection devices	397 on

Accessories

Gravity shutter

VK 40/20 Ref. No. 0874
External airflow operated gravity shutter made of polymer, light grey.



External louvres

WSG 40/20 Ref. No. 0109
Robust construction made of aluminium extrusion profile, natural colour anodised.



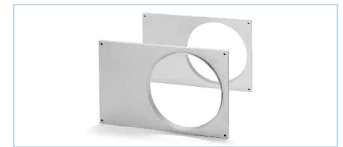
Volume control damper for ducting

JVK 40/20 Ref. No. 6910
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 40/20 Ref. No. 0832
For cost effective adaption of rectangular fans into circular ducting systems with ø 200 mm.



Flexible connectors

VS 40/20 Ref. No. 5694
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 40/20 Ref. No. 6919
Flange frames made of galvanised steel for connection to ducting.



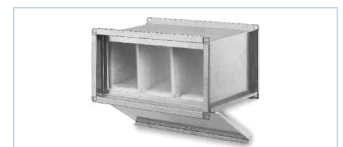
Rectangular attenuator

KSD 40/20 Ref. No. 8728
For in-duct installation on intake or exhaust side.



Air-duct filter

KLF 40/20 G4 Ref. No. 8720
KLF 40/20 F7 Ref. No. 8644
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Electric heater battery

EHR-K 6/40/20 Ref. No. 8702
EHR-K 15/40/20 Ref. No. 8703
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.



Temperature control system for electric heater battery

EHSD 16 Ref. No. 5003



Warm water heater battery

WHR 2/40/20 Ref. No. 8782
WHR 4/40/20 Ref. No. 8783
For in-duct installation.



Temperature control system for warm water heater battery

WHS 1100 Ref. No. 8815



Model KV..



Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in aerodynamic galvanised steel casing for high pressure levels.
- Compact and flat design for use in extract and fresh air systems in commercial and industrial applications.

■ Specification

□ Casing

Made of galvanised steel and flanged on both ends. Space saving, compact design.

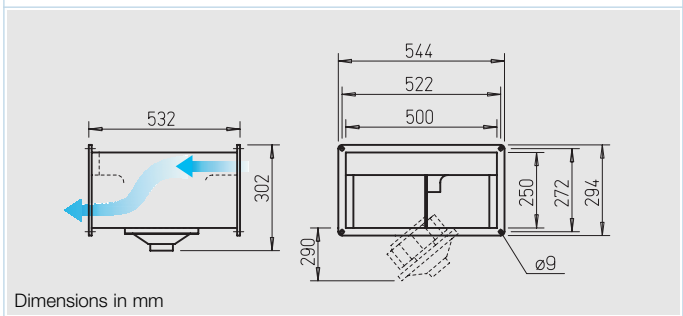
- Easy to clean and service thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galvanised steel, highly efficient with low noise levels. Aerodynamically optimised casing; intake air flow by means of an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Dynamically balanced with resilient motor mounting bracket for low vibration and low noise operation.



□ Electrical connection

Terminal box (IP 55 for 3 ph., IP 44 for 1 ph., IP 65 for explosionproof types) is mounted with permanently attached cable.

□ Motor protection

Through built-in thermal contacts which must be connected to a motor full protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller (recommended) or an electronic controller (stepless). The performance figures at corresponding voltages are given in the performance curve.

□ Sound levels

Above the performance curve, total values and spectrum are given for:

- Sound power case breakout
 - Sound power intake
 - Sound power exhaust
- The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:
- Case breakout sound level at 4 m (free field conditions).

□ Installation

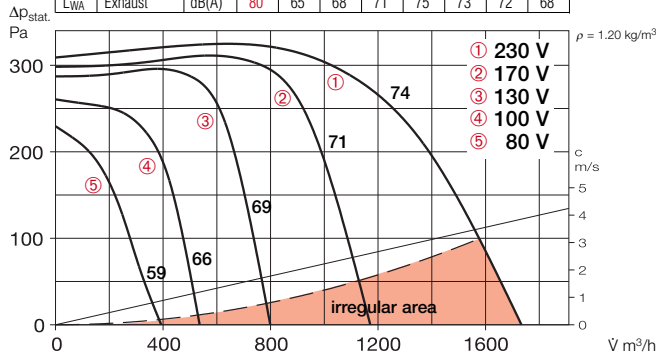
Possible in any position. Attention should be paid to accessibility of swingout motor/impeller assembly

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Type	Ref. No.	Air flow volume V m³/h	Nominal R.P.M. min⁻¹	Sound pressure case breakout dB(A) in 4 m	Power consumption		Connection by wiring diagram No.	Max. air flow temperature by Nom. vol. Control		Nominal weight (net) kg	Speed controller 5-step without motor full protection		Speed controller 5-step with motor full protection		Motor full protection device to connect built-in thermal contacts	
					kW	A		+°C	+°C		Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Alternating current, 230 V, 50 Hz, capacitor motor, protection to IP 44																
KVW 225/4/50/25	5677	1590	1110	43	0.52	2.4	536.1	70	70	17	TSW 3.0	1496	MWS 3.0	1948	MW	1579
3-phase motor, 230/400 V, 50 Hz, protected to IP 44																
KVD 225/4/50/25	5679	1950	1270	43	0.54	1.6/0.93	860	65	60	17	TSD 1.5	1501	RDS 2	1315	MD	5849
Explosionproof Ex e II, temperature class T1 – T3, 3-phase alternating current 400 V, 50 Hz, protection to IP 44																
KVD 225/4/50/25 Ex	6810	1900	1280	43	0.53	0.92	899	40	40	17	TSD 1.5	1501	—	—	MSA	1289

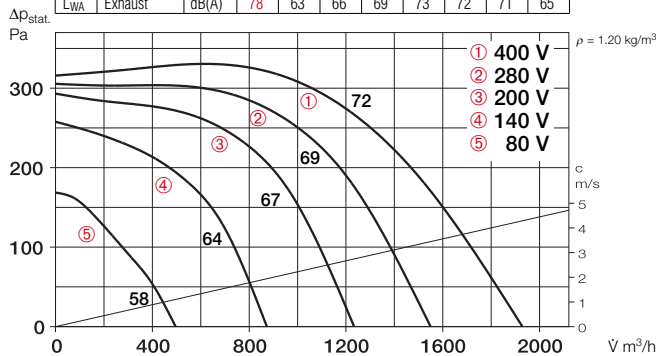
KVV 225/4/50/25

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 63	48	57	55	57	54	51	48
L _{WA} Intake		dB(A) 74	68	67	61	63	66	64	59
L _{WA} Exhaust		dB(A) 80	65	68	71	75	73	72	68



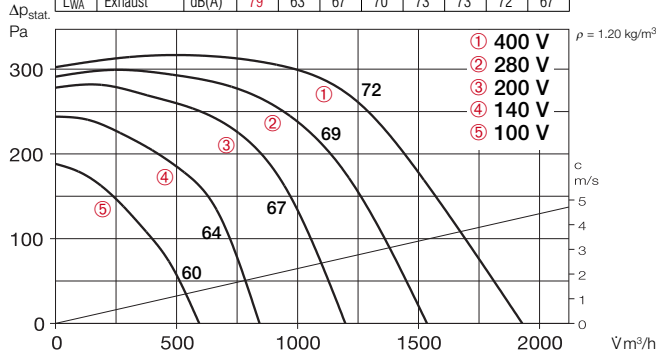
KVD 225/4/50/25

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 63	47	56	56	57	55	51	44
L _{WA} Intake		dB(A) 72	64	66	62	63	65	64	58
L _{WA} Exhaust		dB(A) 78	63	66	69	73	72	71	65



KVD 225/4/50/25 Ex

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 63	43	56	57	58	54	49	43
L _{WA} Intake		dB(A) 73	65	66	62	63	65	65	60
L _{WA} Exhaust		dB(A) 79	63	67	70	73	73	72	67



Accessory details Page

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Temperature control systems for heaters	311, 316
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Accessories

Gravity shutter

VK 50/25 Ref. No. 0875
External airflow operated gravity shutter made of polymer, light grey.

External louvres

WSG 50/25 Ref. No. 0110
Robust construction made of aluminium extrusion profile, natural colour anodised.

Vol. control damper for ducting

JVK 50/25 Ref. No. 6911
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot

FSK 50/25 Ref. No. 0833
For cost effective adaption of rectangular fans into circular ducting systems with ø 250 mm.

Flexible connectors

VS 50/25 Ref. No. 5695
Flexible in-duct connector with flanges on both sides.
- for Ex-proof fans

VS 50/25 Ex Ref. No. 0265

Mating flange

GF 50/25 Ref. No. 6920
Flange frames made of galvanised steel for connection to ducting.

Rectangular attenuator

KSD 50/25-30 Ref. No. 8729
For in-duct installation on intake or exhaust side.

Air-duct filter

KLF 50/25-30 G4 Ref. No. 8721
KLF 50/25-30 F7 Ref. No. 8645
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

Electric heater battery

EHR-K 8/50/25-30 Ref. No. 8704
EHR-K 24/50/25-30 Ref. No. 8705
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.

Temperature control system for electric heater battery

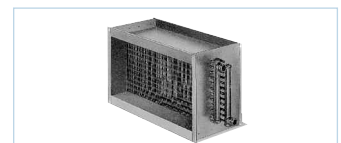
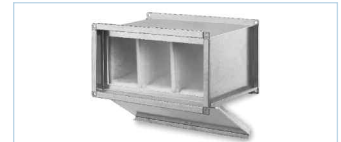
EHSD 16 Ref. No. 5003

Warm water heater battery

WHR 2/50/25-30 Ref. No. 8784
WHR 4/50/25-30 Ref. No. 8785
For in-duct installation.

Temperature control system for warm water heater battery

WHS 1100 Ref. No. 8815
WHS 2200 Ref. No. 8816



Model KV..



Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in aerodynamic galvanised steel casing for high pressure levels.
- Compact and flat design for use in extract and fresh air systems in commercial and industrial applications.

■ Specification

□ Casing

Made of galvanised steel and flanged on both ends. Space saving, compact design.

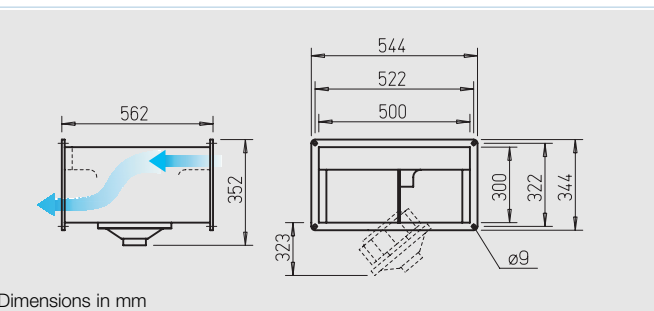
- Easy to clean and service thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galvanised steel, highly efficient with low noise levels. Aerodynamically optimised casing; intake air flow by means of an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44.



Windings with protection against moisture. Ball bearing mounted and radio suppressed. Dynamically balanced with resilient motor mounting bracket for low vibration and low noise operation.

□ Electrical connection

Terminal box (IP 55 for 3 ph., IP 44 for 1 ph., IP 65 for explosionproof types) is mounted with permanently attached cable.

□ Motor protection

Through built-in thermal contacts which must be connected to a motor full protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller (recommended) or an electronic controller (stepless). The performance figures at corresponding

voltages are given in the performance curve.

□ Sound Levels

Above the performance curve, total values and spectrum are given for:

- Sound power case breakout
 - Sound power intake
 - Sound power exhaust
- The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:
- Case breakout sound level at 4 m (free field conditions).

□ Installation

Possible in any position. Attention should be paid to accessibility of swingout motor/impeller assembly

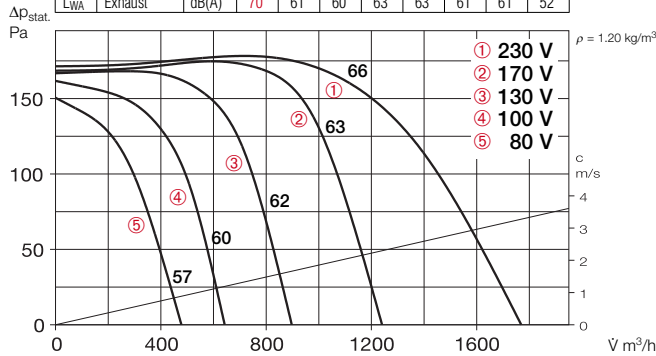
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Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step		Motor full protection device to connect			
					kW	A		Nom. vol.	Control		motor full protection	motor full protection	built-in thermal contacts	Ref. No.		
		V m ³ /h	min ⁻¹	dB(A) in 4 m			No.	+°C	+°C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Alternating current, 230 V, 50 Hz, capacitor motor, protection to IP 44																
KVW 250/6/50/30	5702	1800	760	36	0.32	1.5	536.1	70	70	19	TSW 3.0	1496	MWS 3.0	1948	MW	1579
KVW 250/4/50/30	5680	2100	1270	42	0.63	3.0	536.1	65	50	21	TSW 5.0	1497	MWS 5.0	1949	MW	1579
3-phase motor, 230/400 V, 50 Hz, protected to IP 44																
KVD 250/4/50/30	5682	2200	1260	42	0.72	2.5/1.5	860	60	60	21	TSD 1.5	1501	RDS 2	1315	MD	5849
Explosionproof Ex e II, temperature class T1 – T3, 3-phase alternating current 400 V, 50 Hz, protection to IP 44																
KVD 250/4/50/30 Ex	6811	2300	1240	42	0.74	1.5	899	40	40	21	TSD 1.5	1501	—	—	MSA	1289

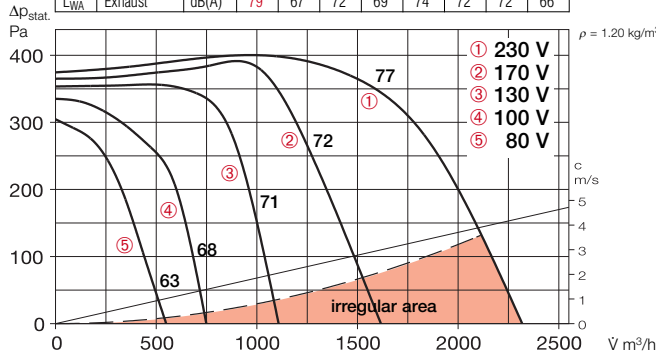
KVV 250/6/50/30

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 56	48	53	48	43	39	37	30
L _{WA} Intake		dB(A) 66	59	59	55	56	59	57	48
L _{WA} Exhaust		dB(A) 70	61	60	63	63	61	61	52



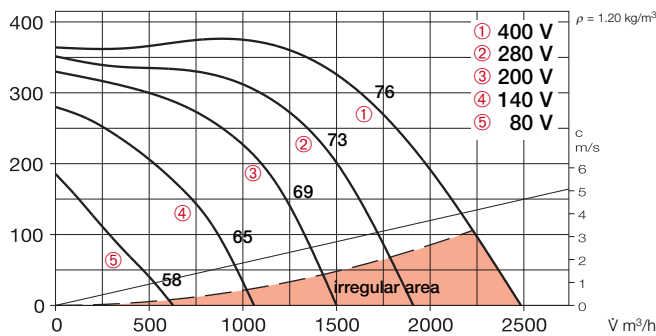
KVV 250/4/50/30

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 62	47	58	57	56	51	46	38
L _{WA} Intake		dB(A) 77	70	73	61	65	68	66	61
L _{WA} Exhaust		dB(A) 79	67	72	69	74	72	72	66



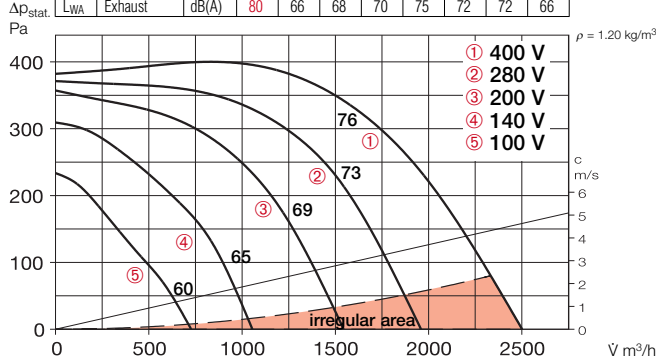
KVD 250/4/50/30

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 62	48	56	54	57	54	52	45
L _{WA} Intake		dB(A) 76	69	68	63	67	70	68	63
L _{WA} Exhaust		dB(A) 81	68	71	72	76	74	74	69



KVD 250/4/50/30 Ex

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 62	46	56	53	59	52	51	45
L _{WA} Intake		dB(A) 73	68	66	59	64	65	64	58
L _{WA} Exhaust		dB(A) 80	66	68	70	75	72	72	66



Accessories

Gravity shutter

VK 50/30 Ref. No. 0876
External airflow operated gravity shutter made of polymer, light grey.



External louvres

WSG 50/30 Ref. No. 0111
Robust construction made of aluminium extrusion profile, natural colour anodised.



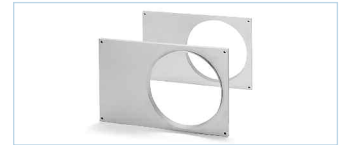
Vol. control damper for ducting

JVK 50/30 Ref. No. 6912
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



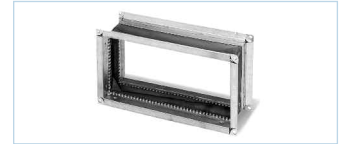
Circular spigot

FSK 50/30 Ref. No. 0837
For cost effective adaption of rectangular fans into circular ducting systems with ø 315 mm.



Flexible connectors

VS 50/30 Ref. No. 5696
Flexible in-duct connector with flanges on both sides.
- for ex-proof fans
VS 50/30 Ex Ref. No. 0266



Matching flange

GF 50/30 Ref. No. 6921
Flange frames made of galvanised steel for connection to ducting.



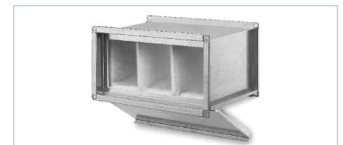
Rectangular attenuator

KSD 50/25-30 Ref. No. 8729
For in-duct installation on intake or exhaust side.



Air-duct filter

KLF 50/25-30 G4 Ref. No. 8721
KLF 50/25-30 F7 Ref. No. 8645
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Electric heater battery

EHR-K 8/50/25-30 Ref. No. 8704
EHR-K 24/50/25-30 Ref. No. 8705
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.



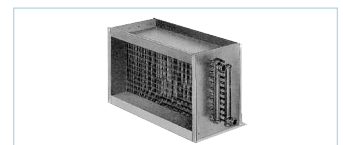
Temperature control system for electric heater battery

EHSD 16 Ref. No. 5003



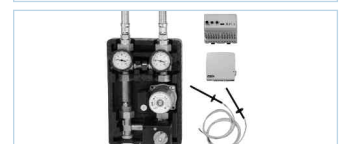
Warm water heater battery

WHR 2/50/25-30 Ref. No. 8784
WHR 4/50/25-30 Ref. No. 8785
For in-duct installation.



Temperature control system for warm water heater battery

WHS 1100 Ref. No. 8815
WHS 2200 Ref. No. 8816



Model KV..



Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in aerodynamic galvanised steel casing for high pressure levels.
- Compact and flat design for use in extract and fresh air systems in commercial and industrial applications.

■ Specification

□ Casing

Galvanised steel casing flanged on both ends. Space saving, compact design.

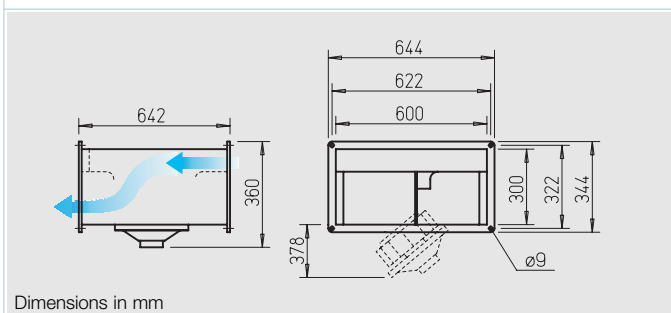
- Easy to clean and service thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galv. steel, highly efficient with low noise levels. Aerodynamically optimised casing; intake air flow by an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Dynamically balanced with resilient motor mounting bracket for low vibration, low noise operation.



□ Electrical connection

Terminal box (IP 55 for 3 ph., IP 44 for 1 ph., IP 65 for explosion-proof types) is mounted with permanently attached cable.

□ Motor protection

From built-in thermal contacts which must be connected to a full motor protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performance figures at corresponding voltages are given in the performance curve.

□ Sound Levels

Above the performance curve, total values and spectrum are given for:

- Sound power case breakout
 - Sound power intake
 - Sound power exhaust
- The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:
- Case breakout sound level at 4 m (free field conditions).

□ Installation

Possible in any position. Attention should be paid to accessibility of swing out motor/impeller assembly.

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□ Explosion-proof models

Thermal motor protection through built-in PTC (positive temperature coefficient) thermistors which must be connected to a tripping unit MSA. Using this motor protection enables the speed control where a minimum voltage of 100 V must be maintained.

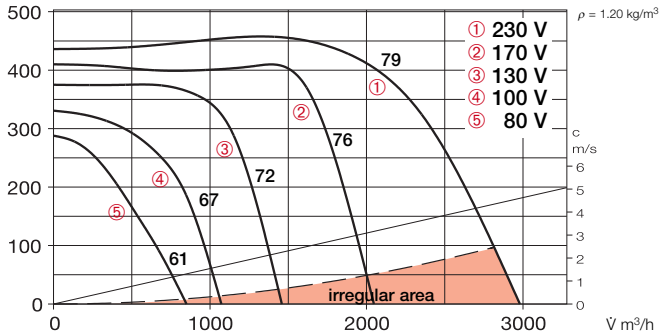
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Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step		Motor full protection device to connect			
					kW	A		Nom. vol.	Control		kg	Type	Ref. No.	Type	Ref. No.	Type
		V m ³ /h	min ⁻¹	dB(A) in 4 m			No.	+°C	+°C		Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
1-phase Motor, 230 V, 50 Hz, capacitor motor, protection to IP 44																
KVV 280/6/60/30 ¹⁾	5703	2300	750	37	0.53	2.4	536.1	60	50	30	TSW 3.0	1496	MWS 3.0	1948	MW	1579
KVV 280/4/60/30	5745	2800	1090	44	1.13	5.3	536.1	70	70	32	TSW 7.5	1596	MWS 7.5	1950	MW	1579
3-phase motor, 230/400 V, 50 Hz, protected to IP 44																
KVD 280/6/60/30	5683	2200	810	35	0.43	1.4/0.78	860	60	55	30	TSD 1.5	1501	RDS 1	1314	MD	5849
KVD 280/4/60/30	5684	3950	1300	45	1.67	5.4/3.1	860	65	60	32	TSD 5.5	1503	RDS 7	1578	MD	5849
Explosionproof Ex e II, temperature class T1 – T3, 3-phase alternating current 230/400 V, 50 Hz, protection to IP 44																
KVD 280/4/60/30 Ex	6812	3450	1340	47	1.45	5.0/2.9	899	40	40	34	TSD 5.5	1503	—	—	MSA	1289

¹⁾In this model deviant performance curve; available on request.

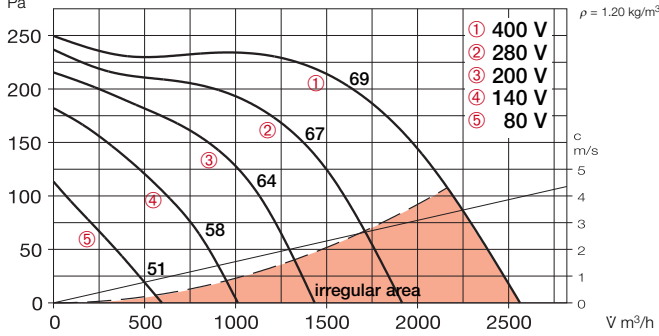
KVV 280/4/60/30

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 64	55	57	56	59	55	54	49
L _{WA} Intake		dB(A) 79	70	71	65	72	72	70	65
L _{WA} Exhaust		dB(A) 82	69	72	73	76	75	75	69



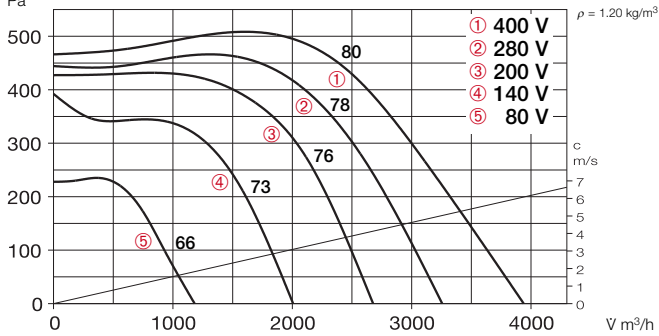
KVD 280/6/60/30

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 55	46	49	51	48	44	41	37
L _{WA} Intake		dB(A) 69	58	63	58	61	60	60	52
L _{WA} Exhaust		dB(A) 72	59	62	66	65	65	65	57



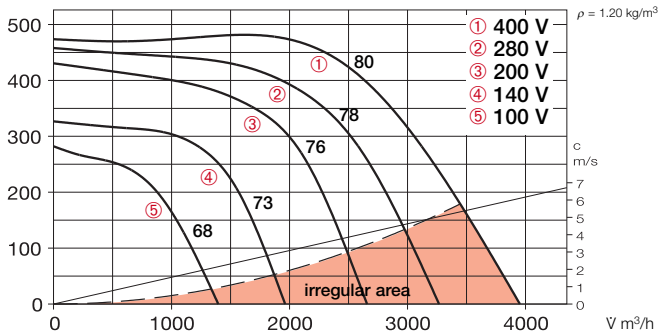
KVD 280/4/60/30

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 65	56	58	57	60	57	55	50
L _{WA} Intake		dB(A) 80	70	72	67	73	74	72	67
L _{WA} Exhaust		dB(A) 85	69	73	75	79	78	78	73



KVD 280/4/60/30 Ex

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 67	54	59	58	63	60	57	52
L _{WA} Intake		dB(A) 78	71	70	65	72	70	69	64
L _{WA} Exhaust		dB(A) 86	70	75	75	80	80	79	74



Accessories

Gravity shutter

VK 60/30 Ref. No. 0877
External airflow operated gravity shutter made of polymer, light grey.



External louvres

WSG 60/30 Ref. No. 0112
Robust construction made of aluminium extrusion profile, natural colour anodised.



Vol. control damper for ducting

JVK 60/30 Ref. No. 6913
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 60/30 Ref. No. 0834
For cost effective adaption of rectangular fans into circular ducting systems with ø 315 mm.



Flexible connectors

VS 60/30 Ref. No. 5697
Flexible in-duct connector with flanges on both sides.
- for Ex-proof fans
VS 60/30 Ex Ref. No. 0267



Matching flange

GF 60/30 Ref. No. 6922
Flange frames made of galvanised steel for connection to ducting.



Rectangular attenuator

KSD 60/30-35 Ref. No. 8730
For in-duct installation on intake or exhaust side.



Air-duct filter

KLF 60/30-35 G4 Ref. No. 8722
KLF 60/30-35 F7 Ref. No. 8646
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Electric heater battery

EHR-K 15/60/30-35 Ref. No. 8706
EHR-K 30/60/30-35 Ref. No. 8707
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.



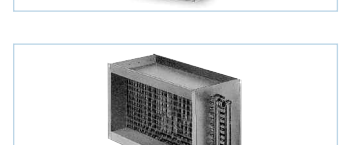
Temperature control system for electric heater battery

EHSD 16 Ref. No. 5003



Warm water heater battery

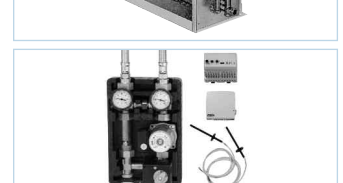
WHR 2/60/30-35 Ref. No. 8786
WHR 4/60/30-35 Ref. No. 8787
For in-duct installation.



Temperature control system for warm water heater battery

WHS 2200¹⁾ Ref. No. 8816

¹⁾ In model WHR 4/60/30-35 the heat output is reduced to 2200 l/h.



Model KV..



Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in aerodynamic galvanised steel casing for high pressure levels.
- Compact and flat design for use in extract and fresh air systems in commercial and industrial applications.

■ Specification

□ Casing

Made of galvanised steel and flanged on both ends. Space saving, compact design.

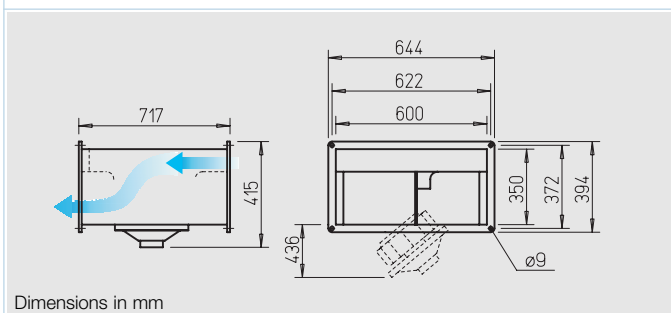
- Easy to clean and service thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galvanised steel, highly efficient with low noise levels. Aerodynamically optimised casing; intake air flow by means of an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Dynamically balanced with resilient motor mounting bracket for low vibration and low noise operation.



□ Electrical connection

Terminal box (IP 55 for 3 ph., IP 44 for 1 ph., IP 65 for explosion-proof types) is mounted with a permanently attached cable.

□ Motor protection

From built-in thermal contacts which must be connected to a motor full protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performance figures at corresponding voltages are given in the performance curve.

□ Sound Levels

Above the performance curve, total values and spectrum are given for:

- Sound power case breakout
 - Sound power intake
 - Sound power exhaust
- The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:
- Case breakout sound level at 4 m (free field conditions).

□ Installation

Possible in any position. Attention should be paid to accessibility of swingout motor/impeller assembly.

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□ Explosion-proof models

Thermal motor protection through built-in PTC (positive temperature coefficient) thermistors which must be connected to a tripping unit MSA. Using this motor protection enables the speed control where a minimum voltage of 100 V must be maintained.

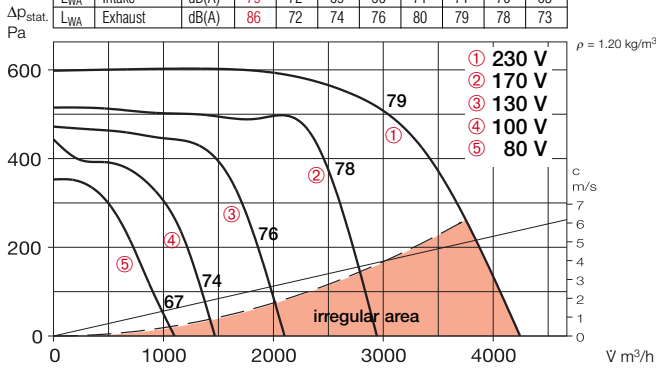
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Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step		Motor full protection device to connect			
					kW	A		Nom. vol.	Control		kg	Type	Ref. No.	Type	Ref. No.	Type
		V m ³ /h	min ⁻¹	dB(A) in 4 m			No.	+°C	+°C		Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
1-phase Motor, 230 V, 50 Hz, capacitor motor, protection to IP 44																
KVV 315/6/60/35 ¹⁾	5704	3550	770	43	0.89	4.1	536.1	70	70	38	TSW 5.0	1497	MWS 5	1949	MW	1579
KVV 315/4/60/35	5705	3750	1240	47	1.8	8.5	536.1	70	50	42	—	—	MWS 10	1946	—	—
3-phase motor, 230/400 V, 50 Hz, protection to IP 44																
KVD 315/6/60/35	5685	3850	840	40	0.97	3.6/2.1	860	65	60	38	TSD 3.0	1502	RDS 4	1316	MD	5849
KVD 315/4/60/35	5686	4500	1350	48	2.06	6.8/3.9	860	60	55	42	TSD 5.5	1503	RDS 7	1578	MD	5849
Explosionproof Ex e II, temperature class T1 – T3, 3-phase alternating current 230/400 V, 50 Hz, protection to IP 44																
KVD 315/4/60/35 Ex	6813	4200	1370	48	2.0	6.9/4.0	899	40	40	42	TSD 5.5	1503	—	—	MSA	1289

¹⁾In this model deviant performance curve; available on request.

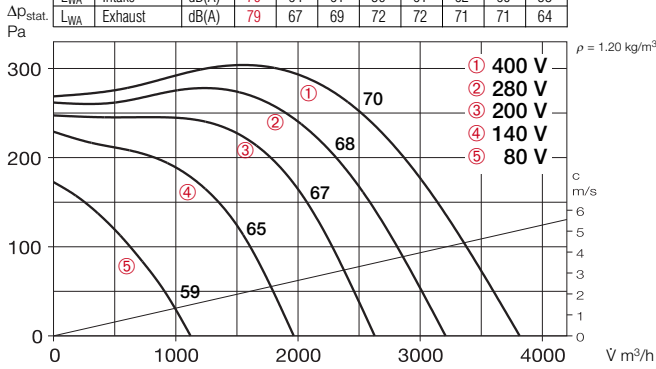
KVV 315/4/60/35

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 67	57	62	57	62	57	56	51
L _{WA} Intake		dB(A) 79	72	69	66	71	71	70	65
L _{WA} Exhaust		dB(A) 86	72	74	76	80	79	78	73



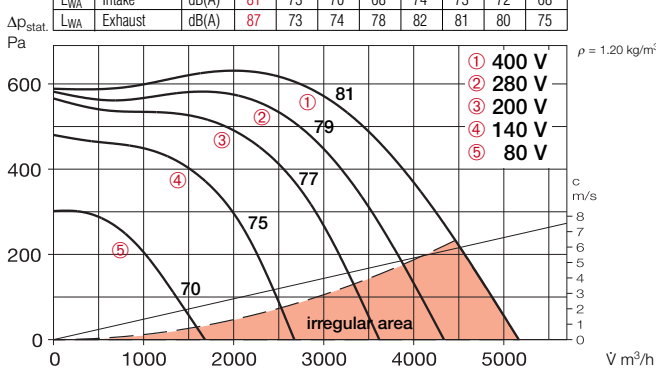
KVD 315/6/60/35

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 60	47	53	55	54	51	48	42
L _{WA} Intake		dB(A) 70	64	61	59	61	62	60	53
L _{WA} Exhaust		dB(A) 79	67	69	72	72	71	71	64



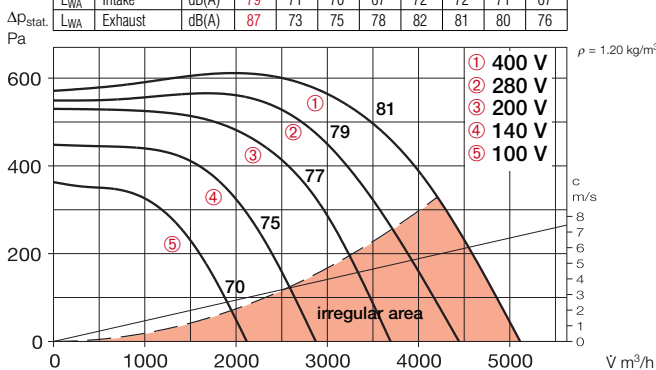
KVD 315/4/60/35

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 68	55	60	60	63	62	58	54
L _{WA} Intake		dB(A) 81	73	70	68	74	73	72	68
L _{WA} Exhaust		dB(A) 87	73	74	78	82	81	80	75



KVD 315/4/60/35 Ex

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 68	56	60	58	64	61	60	56
L _{WA} Intake		dB(A) 79	71	70	67	72	72	71	67
L _{WA} Exhaust		dB(A) 87	73	75	78	82	81	80	76



Accessories

Gravity shutter

VK 60/35 Ref. No. 0878
External airflow operated gravity shutter made of polymer, light grey.



External louvres

WSG 60/35 Ref. No. 0113
Robust construction made of aluminium extrusion profile, natural colour anodised.



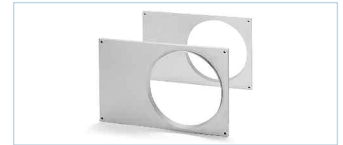
Vol. control damper for ducting

JVK 60/35 Ref. No. 6914
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 60/35 Ref. No. 0835
For cost effective adaption of rectangular fans into circular ducting systems with ø 355 mm.



Flexible connectors

VS 60/35 Ref. No. 5698
Flexible in-duct connector with flanges on both sides.



- for Ex-proof fans

VS 60/35 Ex Ref. No. 0268



Matching flange

GF 60/35 Ref. No. 6923
Flange frames made of galvanised steel for connection to ducting.



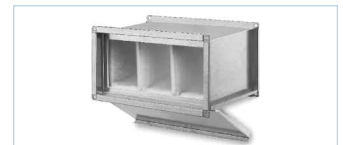
Rectangular attenuator

KSD 60/30-35 Ref. No. 8730
For in-duct installation on intake or exhaust side.



Air-duct filter

KLF 60/30-35 G4 Ref. No. 8722
KLF 60/30-35 F7 Ref. No. 8646
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Electric heater battery

EHR-K 15/60/30-35 Ref. No. 8706
EHR-K 30/60/30-35 Ref. No. 8707
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.



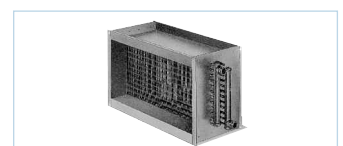
Temperature control system for electric heater battery

EHSD 16 Ref. No. 5003



Warm water heater battery

WHR 2/60/30-35 Ref. No. 8786
WHR 4/60/30-35 Ref. No. 8787
For in-duct installation.



Temperature control system for warm water heater battery

WHS 2200¹⁾ Ref. No. 8816

¹⁾ In model WHR 4/60/30-35 the heat output is reduced to 2200 l/h.



Model KV..



Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in aerodynamic galvanised steel casing for high pressure levels.
- Compact and flat design for use in extract and fresh air systems in commercial and industrial applications.

■ Specification

□ Casing

Galvanised steel flanged on both ends. Space saving, compact design.

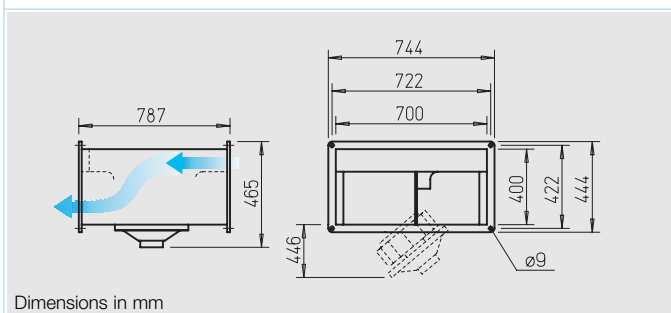
- Easy to clean and service thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galvanised steel, highly efficient with low noise levels. Aerodynamically optimised casing; intake air flow by means of an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed.



Dynamically balanced with resilient motor mounting bracket for low vibration and low noise operation.

□ Electrical connection

Terminal box (IP 55 for 3 ph. or IP 65 for explosionproof types) is mounted with a permanently attached cable.

□ Motor protection

Through built-in thermal contacts which must be connected to a motor full protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performance figures at corresponding voltages are given in the performance curve.

□ Sound Levels

Above the performance curve, total values and spectrum are given for:

- Sound power case breakout
 - Sound power intake
 - Sound power exhaust
- The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:
- Case breakout sound level at 4 m (free field conditions).

□ Installation

Possible in any position. Attention should be paid to accessibility of swingout motor/impeller assembly.

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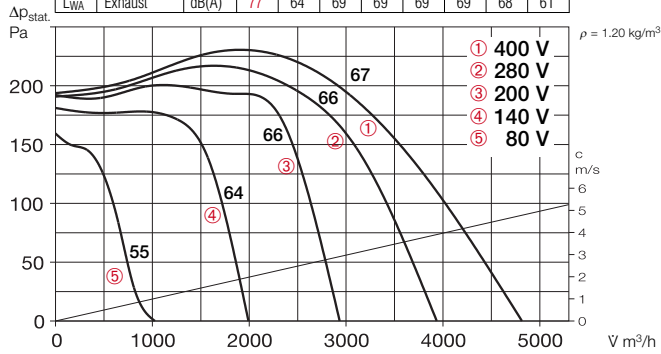
□ Explosion-proof models

Thermal motor protection through built-in PTC (positive temperature coefficient) thermistors which must be connected to a tripping unit MSA. Using this motor protection enables the speed control where a minimum voltage of 100 V must be maintained.

Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step		Motor full protection device to connect			
					kW	A		Nom. vol.	Control		kg	Type	Ref. No.	Type	Ref. No.	Type
3-phase motor, 230/400 V, 50 Hz, protection to IP 44																
KVD 355/8/70/40	5687	4850	680	35	1.02	3.9/2.3	860	70	70	47	TSD 5.5	1503	RDS 4	1316	MD	5849
KVD 355/6/70/40	5688	5000	830	42	1.53	5.5/3.2	860	60	60	54	TSD 5.5	1503	RDS 4	1316	MD	5849
KVD 355/4/70/40	5689	5800	1400	54	3.48	10.4/6.0	860	70	50	60	TSD 11	1513	RDS 11	1332	MD	5849
Explosionproof Ex e II, temperature class T1 – T3, 3-phase alternating current 230/400 V, 50 Hz, protection to IP 44																
KVD 355/6/70/40 Ex	6814	4800	800	48	1.40	4.2/2.4	899	40	40	49	TSD 3.0	1502	—	—	MSA	1289

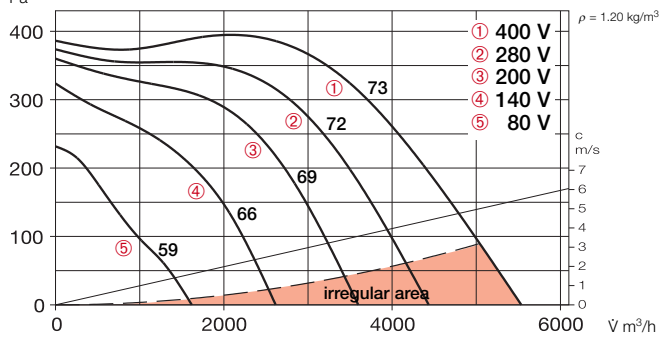
KVD 355/8/70/40

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 55	46	50	50	48	45	40	32
L _{WA} Intake		dB(A) 67	58	59	57	62	60	57	48
L _{WA} Exhaust		dB(A) 77	64	69	69	69	69	68	61



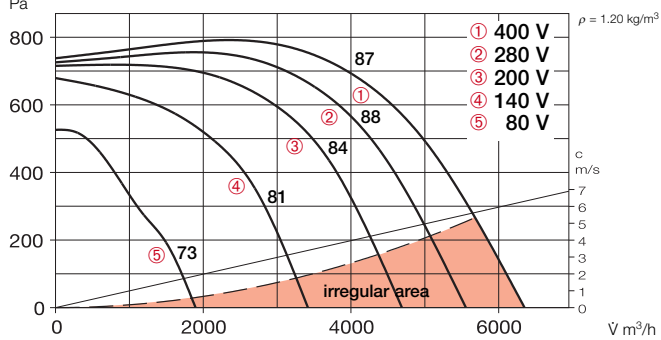
KVD 355/6/70/40

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 62	52	52	55	56	53	51	46
L _{WA} Intake		dB(A) 73	65	64	61	67	65	64	58
L _{WA} Exhaust		dB(A) 81	69	72	73	74	74	73	67



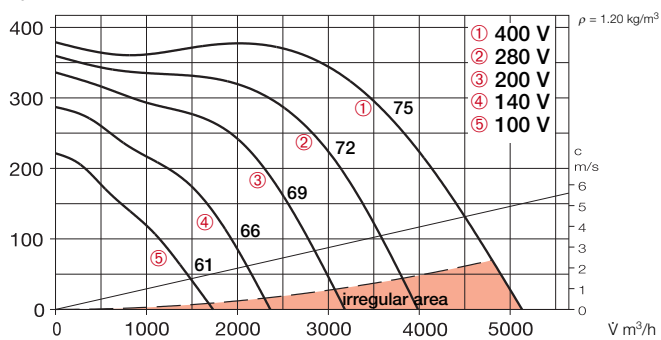
KVD 355/4/70/40

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 74	63	66	67	68	67	65	59
L _{WA} Intake		dB(A) 87	76	76	72	83	81	79	75
L _{WA} Exhaust		dB(A) 90	76	79	78	84	84	83	78



KVD 355/6/70/40 Ex

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k
L _{WA} Case breakout		dB(A) 68	51	56	57	62	64	61	52
L _{WA} Intake		dB(A) 75	65	65	63	68	68	66	60
L _{WA} Exhaust		dB(A) 79	66	69	70	73	72	72	65



Accessories

Gravity shutter

VK 70/40 Ref. No. 0879
Excess pressure dampers, automatic, made of polymer, light grey.

External louvres

WSG 70/40 Ref. No. 0114
Robust construction made of aluminium extrusion profile, natural colour anodised.

Vol. control damper for ducting

JVK 70/40 Ref. No. 6915
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot

FSK 70/40 Ref. No. 0840
For cost effective adaption of rectangular fans into circular ducting systems with ø 400 mm.

Flexible connectors

VS 70/40 Ref. No. 5699
Flexible in-duct connector with flanges on both sides.
- for Ex-proof fans
VS 70/40 Ex Ref. No. 0269

Matching flange

GF 70/40 Ref. No. 6924
Flange frames made of galvanised steel for connection to ducting.

Rectangular attenuator

KSD 70/40 Ref. No. 8731
For in-duct installation on intake or exhaust side.

Air-duct filter

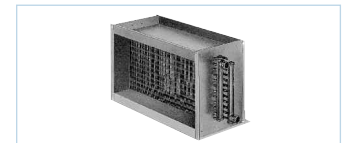
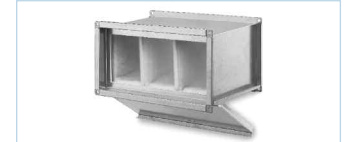
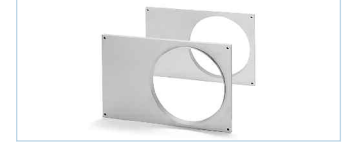
KLF 70/40 G4 Ref. No. 8723
KLF 70/40 F7 Ref. No. 8647
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

Warm water heater battery

WHR 2/70/40 Ref. No. 8788
WHR 4/70/40 Ref. No. 8789
For in-duct installation.

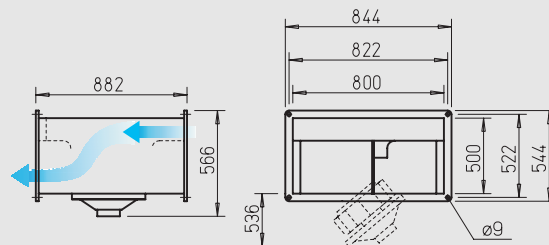
Temperature control system for warm water heater battery

WHS 2200¹⁾ Ref. No. 8816
¹⁾ In model WHR 4/70/40 the heat output is reduced to 2200 l/h.



Accessory details	Page
Shutters, grilles and louvres	304, 361 on
Filters, heaters and attenuators	305 on
Temperature control systems for heaters	311, 316
Speed controllers and motor full protection devices	397 on

Model KV..



Dimensions in mm

Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in optimised volute casing for high pressure levels.
- Compact and flat design for versatile usage in extract and fresh air systems in commercial and industrial applications.

■ Specification

□ Casing

Made of galvanised steel and flanged on both ends. Space saving, compact design.

- Particular ease of service (cleaning) thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galvanised steel, highly efficient with low noise levels. Aerodynamically optimised volute casing; intake air flow by means of an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44.

Windings with protection against moisture. Ball bearing mounted and radio suppressed. Dynamically balanced with resilient motor mounting bracket for low vibration and low noise operation.

□ Electrical connection

Terminal box (IP 55) is mounted with a permanently attached cable.

□ Motor protection

Through built-in thermal contacts which must be connected to a motor full protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performance figures at corresponding voltages are given in the performance curve.

□ Sound Levels

Above the performance curve, total values and spectrum are given for:

- Sound power case breakout
- Sound power intake
- Sound power exhaust

The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:

- Case breakout sound level at 4 m (free field conditions).

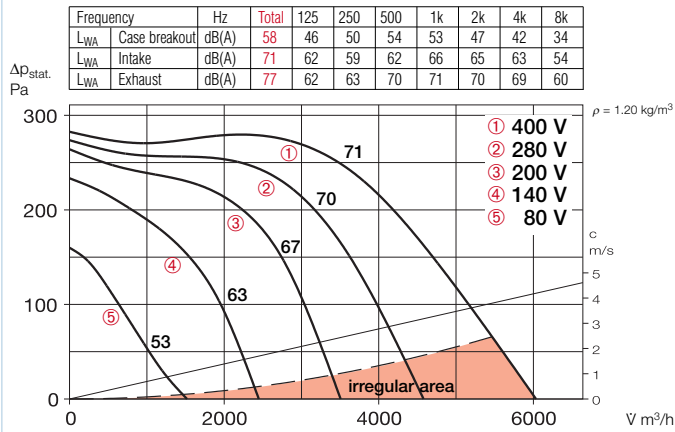
□ Installation

Possible in any position. Attention should be paid to accessibility/swing-out.

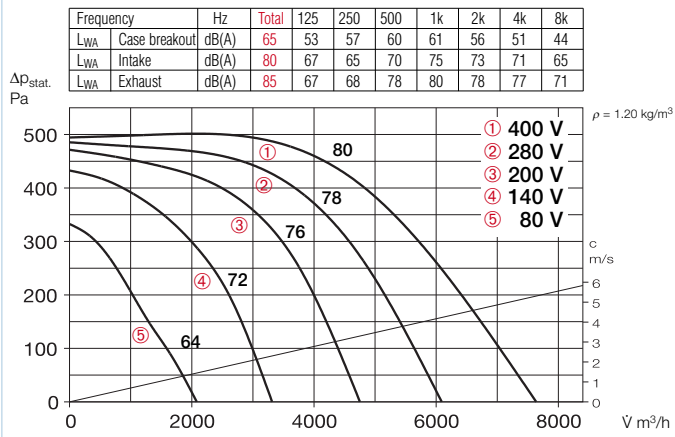
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Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step				Motor full protection device to connect	
					kW	A		Nom. vol.	Control		motor full protection	motor full protection	Type	Ref. No.	Type	Ref. No.
		\dot{V} m ³ /h	min ⁻¹	dB(A) in 4 m			No.	+°C	+°C	kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
3-phase motor, 230/400 V, 50 Hz, protection to IP 44																
KVD 400/8/80/50	5690	5400	640	38	1.29	5.1/2.9	860	70	70	70	TSD 5.5	1503	RDS 4	1316	MD	5849
KVD 400/6/80/50	5691	7600	860	45	2.81	9.1/5.3	860	70	50	78	TSD 7.0	1504	RDS 7	1578	MD	5849
KVD 400/4/80/50	5708	6200	1380	55	5.63	17.0/9.8	860	60	50	81	TSD 11	1513	RDS 11	1332	MD	5849

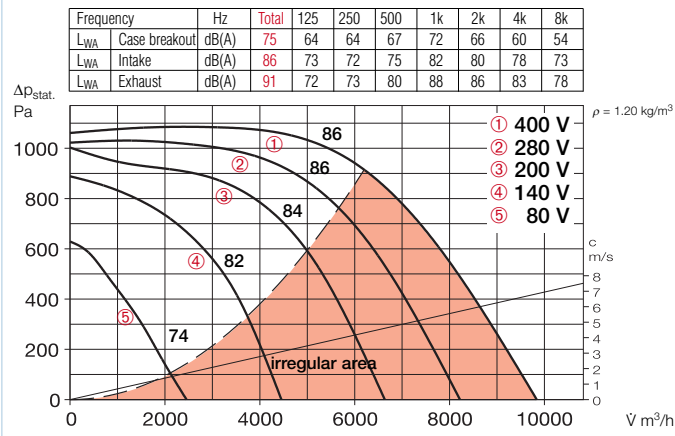
KVD 400/8/80/50



KVD 400/6/80/50



KVD 400/4/80/50



Accessories

Gravity shutter

VK 80/50 Ref. No. 0880
External airflow operated gravity shutter made of polymer, light grey.



External louvres

WSG 80/50 Ref. No. 0115
Robust construction made of aluminium extrusion profile, natural colour anodised.



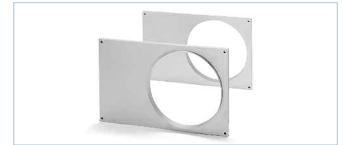
Vol. control damper for ducting

JVK 80/50 Ref. No. 6916
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 80/50 Ref. No. 0842
For cost effective adaption of rectangular fans into circular ducting systems with ø 500 mm.



Flexible connectors

VS 80/50 Ref. No. 5700
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 80/50 Ref. No. 6925
Flange frames made of galvanised steel for connection to ducting.



Rectangular attenuator

KSD 80/50 Ref. No. 8732
For in-duct installation on intake or exhaust side.



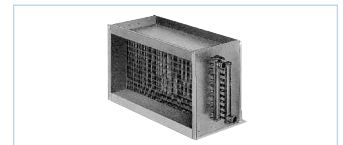
Air-duct filter

KLF 80/50 G4 Ref. No. 8670
KLF 80/50 F7 Ref. No. 8654
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Warm water heater battery

WHR 2/80/50 Ref. No. 8795
WHR 4/80/50 Ref. No. 8796
For in-duct installation.



Accessory details Page

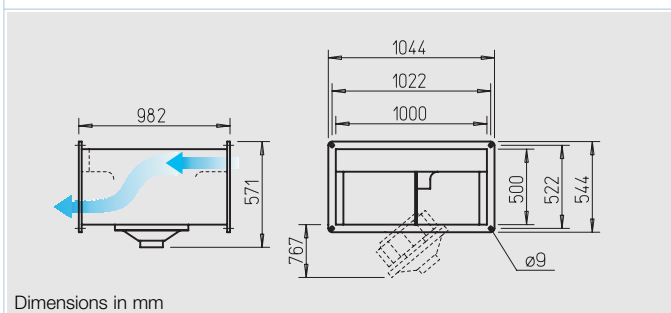
Shutters, grilles and louvres	304, 361 on
Filters, heaters and attenuators	305 on
Speed controllers and motor full protection devices	397 on

Model KV..



Rectangular centrifugal fan with forward curved impeller blades and swing-out motor impeller unit.

- Low-noise centrifugal impellers in aerodynamic galvanised steel casing for high pressure levels.
- Compact and flat design for use in extract and fresh air systems in commercial and industrial applications.



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■ Specification

□ Casing

Galvanised steel and flanged on both ends. Space saving, compact design.

- Easy to clean and service thanks to the swing-out motor impeller unit.

□ Impeller

Forward curved centrifugal impeller made of galvanised steel, highly efficient with low noise levels. Aerodynamically optimised casing; intake air flow by means of an inlet nozzle.

□ Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Dynamically balanced with resilient motor mounting bracket for low vibration and low noise operation.

□ Electrical connection

Terminal box (IP 55) is mounted with a permanently attached cable.

□ Motor protection

Through built-in thermal contacts which must be connected to a motor full protection device.

□ Speed control

By voltage reduction using a 5 speed transformer controller (recommended) or an electronic controller (stepless). The performance figures at corresponding voltages are given in the performance curve.

□ Sound Levels

Above the performance curve, total values and spectrum are given for:

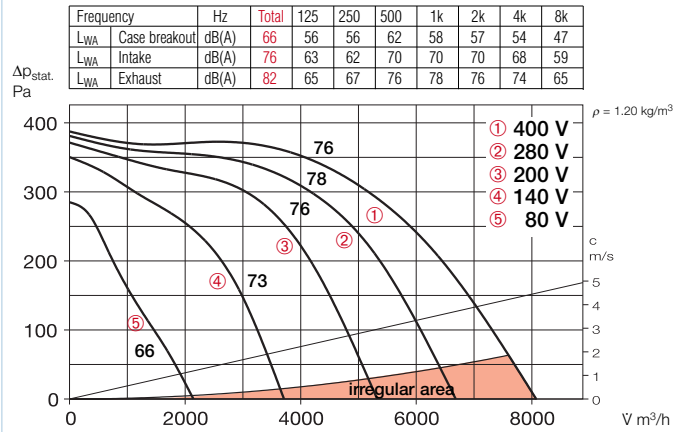
- Sound power case breakout
 - Sound power intake
 - Sound power exhaust
- The sound power level (on intake) is additionally shown within the performance curve for corresponding control voltages. In the table below you can also find:
- Case breakout sound level at 4 m (free field conditions).

□ Installation

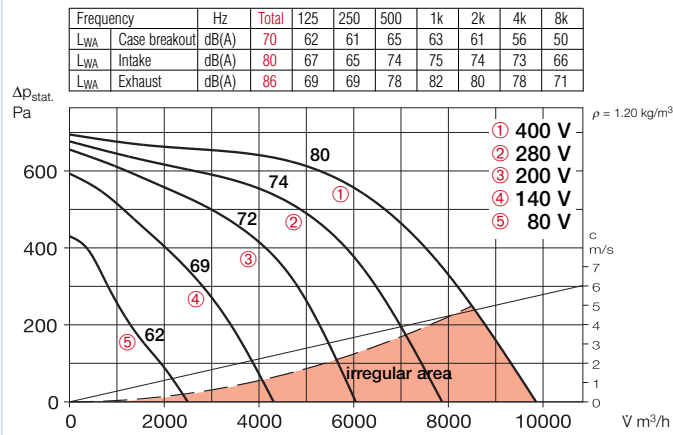
Possible in any position. Attention should be paid to accessibility of swingout motor/impeller assembly.

Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step				Motor full protection device to connect		
					kW	A		Nom. vol.	Control		kg	Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
		V m³/h	min⁻¹	dB(A) in 4 m			No.	+°C	+°C								
3-phase motor, 230/400 V, 50 Hz, protection to IP 44																	
KVD 450/8/100/50	5692	7600	690	46	2.26	8.6/5.0	860	60	50	90	TSD 7.0	1504	RDS 7	1578	MD	5849	
KVD 450/6/100/50	5693	8500	870	50	3.65	11.6/6.7	860	70	50	90	TSD 11	1513	RDS 11	1332	MD	5849	

KVD 450/8/100/50



KVD 450/6/100/50



Accessories

Gravity shutter

VK 100/50 Ref. No. 0881
External airflow operated gravity shutter made of polymer, light grey.



External louvres

WSG 100/50 Ref. No. 0116
Robust construction made of aluminium extrusion profile, natural colour anodised.



Vol. control damper for ducting

JVK 100/50 Ref. No. 6917
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 100/50 Ref. No. 0843
For cost effective adaption of rectangular fans into circular ducting systems with ø 500 mm.



Flexible connectors

VS 100/50 Ref. No. 5701
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 100/50 Ref. No. 6926
Flange frames made of galvanised steel for connection to ducting.



Rectangular attenuator

KSD 100/50 Ref. No. 8733
For in-duct installation on intake or exhaust side.



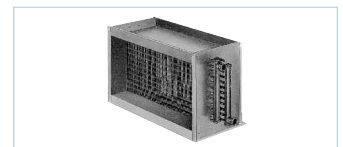
Air-duct filter

KLF 100/50 G4 Ref. No. 8671
KLF 100/50 F7 Ref. No. 8655
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Warm water heater battery

WHR 2/100/50 Ref. No. 8797
WHR 4/100/50 Ref. No. 8798
For in-duct installation.



Accessory details Page

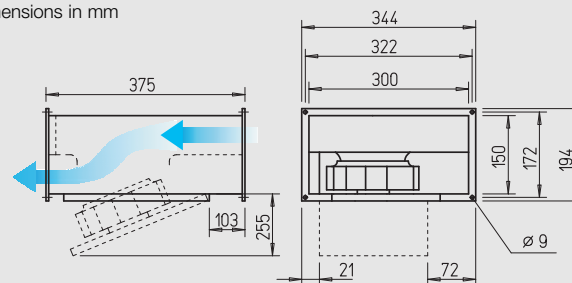
Shutters, grilles and louvres	304, 361 on
Filters, heaters and attenuators	305 on
Speed controllers and motor full protection devices	397 on

Model KR..

Suitable for polluted air.



Dimensions in mm



Rectangular centrifugal fan with backward curved impeller and swing-out motor impeller unit.

- High performance with high efficiency impellers.
- Use in extract and fresh air systems for conveying higher air flow volume.
- Suitable for extraction of polluted air.

Special features

- High pressure and high volume specific centrifugal fan with high efficiency.
- Particular easy to service (cleaning) thanks to the swing-out motor impeller unit.
- For cleaning, easy access and therefore suitable for extraction of polluted air.
- Compact design, less space requirement and straight through-flow.

Specification

- **Casing**
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.
- **Impeller**
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.
- **Motor**
Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44 for protection against moisture. Ball bearing mounted and radio suppressed. Motor and impeller are dynamically balanced.

□ **Motor protection**

By built-in thermal contacts which are connected in series with winding, automatic reset.

□ **Speed control**

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performances at corresponding voltages are given in the performance curve.

□ **Electrical connection**

Terminal box (IP 44) fitted to flying lead.

□ **Installation**

Installation in any position. Allowance must be made for the Motor swing out access.

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□ **Sound level**

Above the performance curve, the total value and spectrum are given for:

- Sound level case breakout
- Sound level intake
- Sound level exhaust

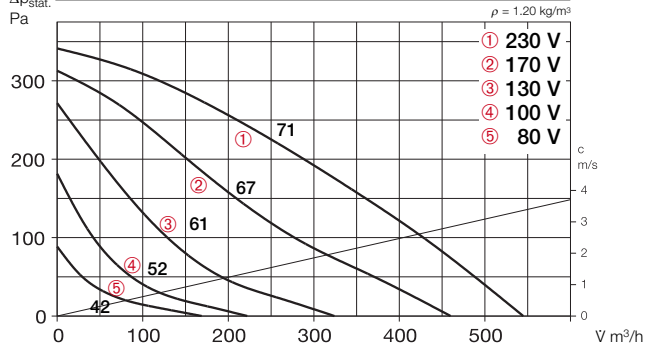
The sound level (on intake) is additionally shown within the performance curve for corresponding control voltages. On the chart below you can also find:

- Case breakout sound level at 4 m (free-field conditions).

Type	Ref. No.	Air flow volume V m ³ /h	Nominal R.P.M. min ⁻¹	Sound pressure case breakout dB(A) in 4 m	Power consumption		Connection by wiring diagram No.	Max. air flow temperature by Nom. vol. Control		Nominal weight (net) kg	Suitable speed controller						
					kW	A		+°C	+°C		Transformer 5-step		surface-m., electronic		flush-m., electronic		
Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44												Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
KRW 180/2/30/15	8885	540	2460	37	0.08	0.35	508	70	70	5.5	TSW 1.5	1495	ESA 1	0238	ESU 1	0236	

KRW 180/2/30/15

Frequency	Hz	Total	125	250	500	1k	2k	4k	8k	
L _{WA} Case breakout		dB(A)	57	36	52	56	47	44	38	34
L _{WA} Intake		dB(A)	71	56	65	69	59	55	50	45
L _{WA} Exhaust		dB(A)	72	55	65	68	66	61	56	47



■ Accessory details Page

Shutters, grilles and louvres	304, 361 on
Filters, heaters and attenuators	305 on
Speed controllers and motor full protection devices	397 on

■ Accessories

Gravity shutter

VK 30/15 Ref. No. 0735
Air stream operated louvres, light grey polymer.



External louvre

WSG 30/15 Ref. No. 0108
Heavy duty construction made from profile anodised aluminium extrusion.



Vol. control damper for ducting

JVK 30/15 Ref. No. 6927
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 30/15 Ref. No. 0831
For cost effective adaption of rectangular fans into circular ducting systems with ø 160 mm.



Flexible connectors

VS 30/15 Ref. No. 6928
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 30/15 Ref. No. 6918
Flange frames made of galvanised steel for connection to ducting.

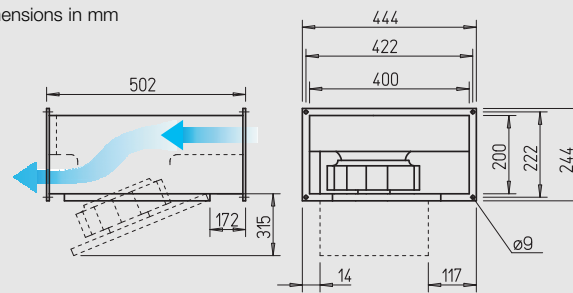


Model KR..

Suitable for polluted air.



Dimensions in mm



Rectangular centrifugal fan with backward curved impeller and swing-out motor impeller unit.

- High performance with high efficiency impellers.
- Use in extract and fresh air systems for conveying higher air flow volume.
- Suitable for extraction of polluted air.

Special features

- High pressure and high volume specific centrifugal fan with high efficiency.
- Particular easy to service (cleaning) thanks to the swing-out motor impeller unit.
- For cleaning, easy access and therefore suitable for extraction of polluted air.
- Compact design, less space requirement and straight through-flow.

Specification

- **Casing**
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.
- **Impeller**
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.
- **Motor**
Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings for protection against moisture. Ball bearing mounted and radio suppressed. Motor and impeller are dynamically balanced.

□ **Motor protection**

By built-in thermal contacts which are connected in series with winding, with automatic reset.

□ **Speed control**

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performances at corresponding voltages are given in the performance curve.

□ **Electrical connection**

Terminal box (IP 44 fitted to flying lead).

□ **Installation**

Installation in any position. The accessibility/swing-out need to be taken into account.

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□ **Sound level**

Above the performance curve, the total value and spectrum are given for:

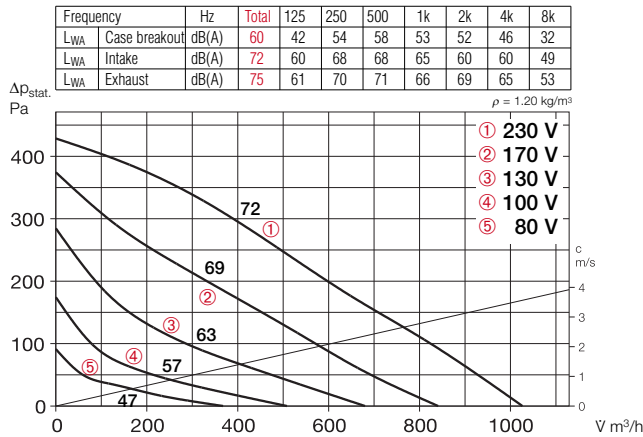
- Sound level case breakout
- Sound level intake
- Sound level exhaust

The sound level (on intake) is additionally shown within the performance curve for corresponding control voltages. On the chart below you can also find:

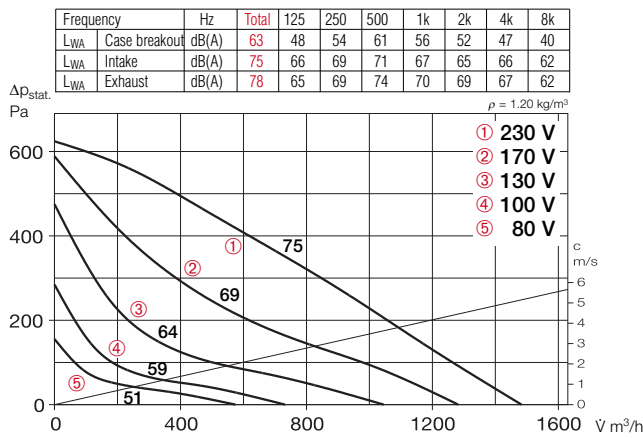
- Case breakout sound level at 4 m (free-field conditions).

Type	Ref. No.	Air flow volume V m³/h	Nominal R.P.M. min⁻¹	Sound pressure case breakout dB(A) in 4 m	Power consumption		Connection by wiring diagram No.	Max. air flow temperature by Nom. vol. Control		Nominal weight (net) kg	Suitable speed controller						
					kW	A		+°C	+°C		Transformer 5-step		surface-m., electronic		flush-m., electronic		
Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44												Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
KRW 225/2/40/20	8886	1020	2530	40	0.10	0.46	508	70	70	9	TSW 1.5	1495	ESA 1	0238	ESU 1	0236	
KRW 250/2/40/20	8887	1480	2400	43	0.20	0.91	508	60	60	11	TSW 1.5	1495	ESA 3	0239	ESU 3	0237	

KRW 225/2/40/20



KRW 250/2/40/20



Accessory details	Page
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Temperature control systems for heaters	311, 316
Speed controllers and motor full protection devices	397 on

Accessories

Gravity shutter

VK 40/20 Ref. No. 0874
Air stream operated louvres, light grey polymer.



External louver

WSG 40/20 Ref. No. 0109
Heavy duty construction made from profile anodised aluminium.



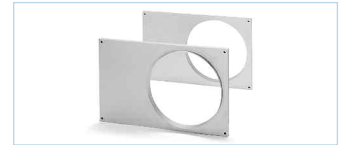
Vol. control damper for ducting

JVK 40/20 Ref. No. 6910
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 40/20 Ref. No. 0832
For cost effective adaption of rectangular fans into circular ducting systems with ø 200 mm.



Flexible connectors

VS 40/20 Ref. No. 5694
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 40/20 Ref. No. 6919
Flange frames made of galvanised steel for connection to ducting.



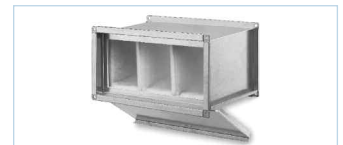
Rectangular attenuator

KSD 40/20 Ref. No. 8728
For in-duct installation on intake or exhaust side.



Air-duct filter

KLF 40/20 G4 Ref. No. 8720
KLF 40/20 F7 Ref. No. 8644
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Electric heater battery

EHR-K 6/40/20 Ref. No. 8702
EHR-K 15/40/20 Ref. No. 8703
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.



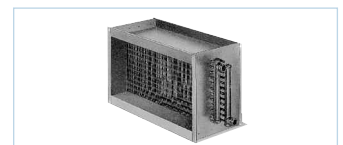
Temperature control system for electric heater battery

EHSD 16 Ref. No. 5003



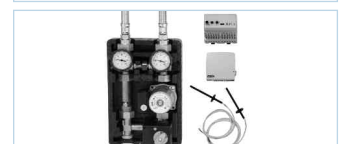
LPHW heater battery

WHR 2/40/20 Ref. No. 8782
WHR 4/40/20 Ref. No. 8783
For in-duct installation.



Temperature control system for LPHW heater battery

WHS 1100 Ref. No. 8815



Model KR..

Suitable for polluted air.

NEW!

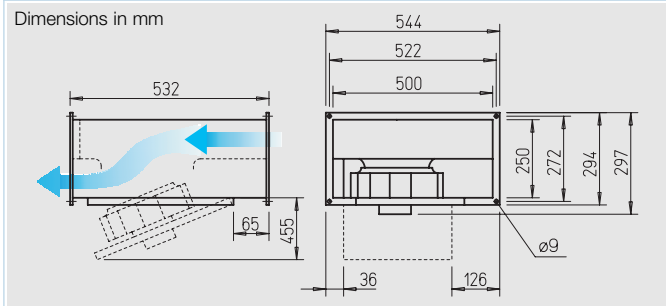


Rectangular centrifugal fan with backward curved impeller and swing-out motor impeller unit.

- High performance with high efficiency impellers.
- Use in extract and fresh air systems for conveying higher air flow volume.
- Suitable for extraction of polluted air.

Special features

- High pressure and high volume specific centrifugal fan with high efficiency.
- Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- For cleaning, easy access and therefore suitable for extraction of polluted air.
- Compact design, less space requirement and straight through-flow.



Specification

- **Casing**
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.
- **Impeller**
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of inlet nozzle.
- **Motor**
Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings for protection against moisture. Ball bearing mounted and radio suppressed. Motor and impeller are dynamically balanced.

□ **Motor protection**

By built-in thermal contacts which are connected in series with winding, automatic reset.

□ **Speed control**

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performances at corresponding voltages are given in the performance curve.

□ **Electrical connection**

Terminal box (IP 44) fitted to flying lead

□ **Installation**

Installation in any position. The accessibility/swing-out need to be taken into account.

Note **Page**

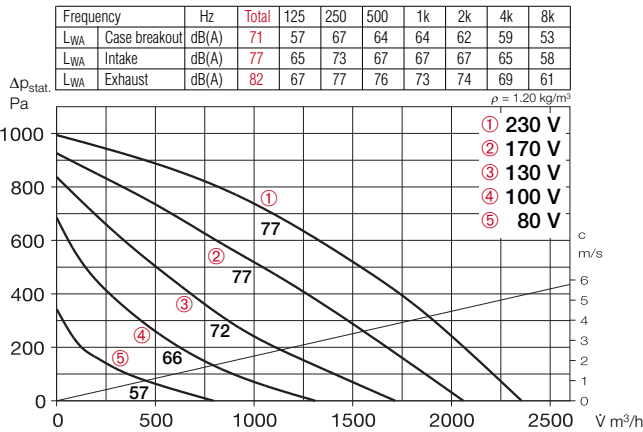
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□ **Sound level**

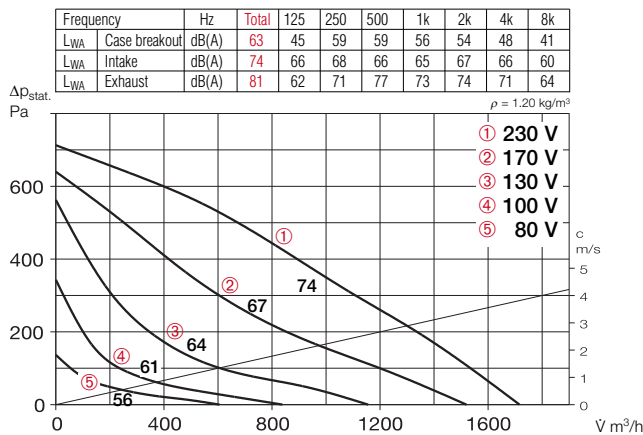
Above the performance curve, the total value and spectrum are given for:
 - Sound level case breakout
 - Sound level intake
 - Sound level exhaust
 The sound level (on intake) is additionally shown within the performance curve for corresponding control voltages. On the chart below you can also find:
 - Case breakout sound level at 4 m (free-field conditions).

Type	Ref. No.	Air flow volume V m³/h	Nominal R.P.M. min⁻¹	Sound pressure case breakout dB(A) in 4 m	Power consumption		Connection by wiring diagram No.	Max. air flow temperature by Nom. vol. Control		Nominal weight (net) kg	Suitable speed controller						
					kW	A		+°C	+°C		Transformer 5-step		surface-m., electronic		flush-m., electronic		
												Type	Ref. No.	Type	Ref. No.	Type	Ref. No.
Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44																	
KRW 280/2/50/25	8658	2400	2570	53	0.68	3.00	508	70	60	21	TSW 5.0	1497	ESA 5	1299	ESU 5	1296	
KRW 315/2/50/25	8677	1720	2450	43	0.27	1.20	508	70	60	15	TSW 1.5	1495	ESA 3	0239	ESU 3	0237	
KRW 355/4/50/25	8697	2250	1330	43	0.25	1.10	508	60	50	17	TSW 1.5	1495	ESA 3	0239	ESU 3	0237	

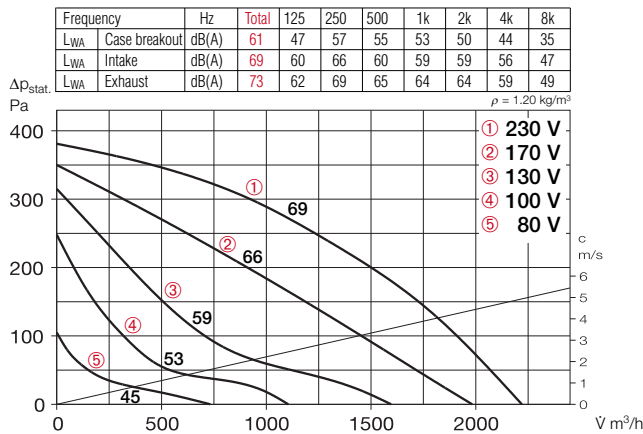
KRW 280/2/50/25



KRW 315/2/50/25



KRW 355/4/50/25



Accessory details Page

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Accessories

Gravity shutter

VK 50/25 Ref. No. 0875
Air stream operated louvres, light grey polymer.

External louvre

WSG 50/25 Ref. No. 0110
Heavy duty construction made from profile anodised aluminium.

Vol. control damper for ducting

JVK 50/25 Ref. No. 6911
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.

Circular spigot

FSK 50/25 Ref. No. 0833
For cost effective adaption of rectangular fans into circular ducting systems with ø 250 mm.

Flexible connectors

VS 50/25 Ref. No. 5695
Flexible in-duct connector with flanges on both sides.

Matching flange

GF 50/25 Ref. No. 6920
Flange frames made of galvanised steel for connection to ducting.

Rectangular attenuator

KSD 50/25-30 Ref. No. 8729
For in-duct installation on intake or exhaust side.

Air-duct filter

KLF 50/25-30 G4 Ref. No. 8721
KLF 50/25-30 F7 Ref. No. 8645
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.

Electric heater battery

EHR-K 8/50/25-30 Ref. No. 8704
EHR-K 24/50/25-30 Ref. No. 8705
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.

Temperature control system for electric heater battery

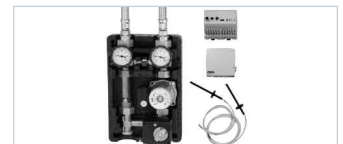
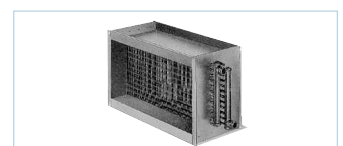
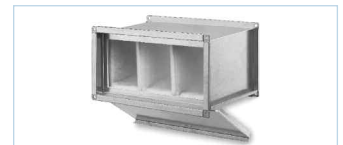
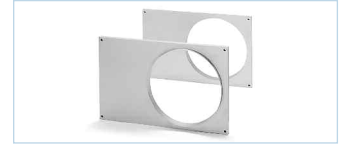
EHSD 16 Ref. No. 5003

LPHW heater battery

WHR 2/50/25-30 Ref. No. 8784
WHR 4/50/25-30 Ref. No. 8785
For in-duct installation.

Temperature control system for LPHW heater battery

WHS 1100 Ref. No. 8815
WHS 2200 Ref. No. 8816

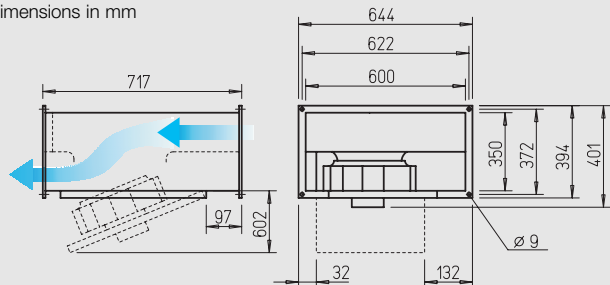


Model KR..

Suitable for polluted air.



Dimensions in mm

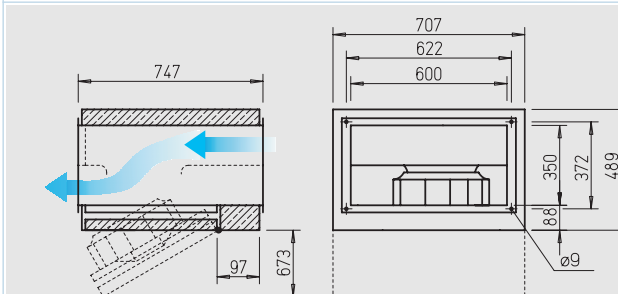


Sound insulated model SKR..



Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements for low noise levels.



Features of model KR.. and model SKR..

- High pressure and high volume with high efficiency centrifugal fan.
- Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- For cleaning, easy access and therefore suitable for extraction of polluted air.
- Straight through-flow.
- Compact design, convenient installation.

Special features of model SKR..

- Lowest sound levels for intake and case breakout at higher power density.

Specification

- Casing KR..**
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.
- Casing SKR..**
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

Common features of model KR.. and model SKR..

- Impeller**
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Motor and impeller are dynamically balanced.

Motor protection

By built-in thermal contacts through tripping unit (accessory).

Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performances at corresponding voltages are given in the performance curve.

Electrical connection

Terminal box (IP 44) fitted to flying lead.

Installation

Installation in any position. The accessibility/swing-out need to be taken into account.

Sound level

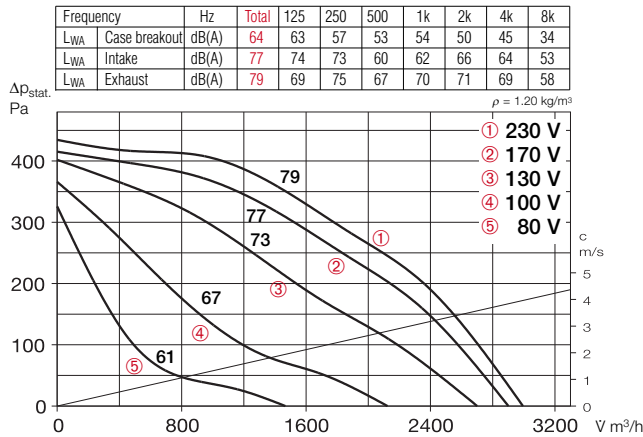
Above the performance curve, the total value and spectrum are given for:

- Sound level case breakout
 - Sound level intake
 - Sound level exhaust
- The sound level (on intake) is additionally shown within the performance curve for corresponding control voltages. On the chart below you can also find:
- Case breakout sound level at 4 m (free-field conditions).

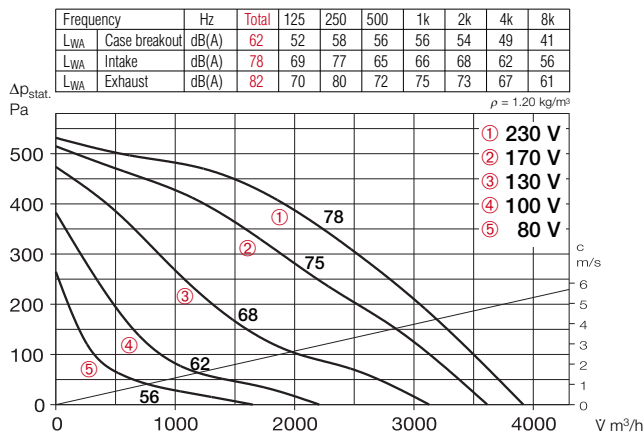
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Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step with motor full protection		Motor full protection device to connect built-in thermal contacts	
					kW	A		Nom. vol.	+°C		Type	Ref. No.	Type	Ref. No.
Single phase - alternating current, 230 V, 50 Hz, capacitor motor, thermal contacts, protection to IP 44														
KRW 355/4/60/35	8692	3000	1400	44	0.41	2.1	536.1	60	50	30	MWS 3	1948	MW	1579
KRW 400/4/60/35	8693	3950	1370	42	0.51	2.5	536.1	60	50	31	MWS 5	1949	MW	1579
Sound insulated model SKR.. - Single phase - alternating current, 230 V, 50 Hz, capacitor motor, protection to IP 44														
SKRW 355/4/60/35	8681	3000	1400	38	0.41	2.1	536.1	60	50	51	MWS 3	1948	MW	1579
SKRW 400/4/60/35	8686	3950	1370	36	0.51	2.5	536.1	60	50	56	MWS 5	1949	MW	1579

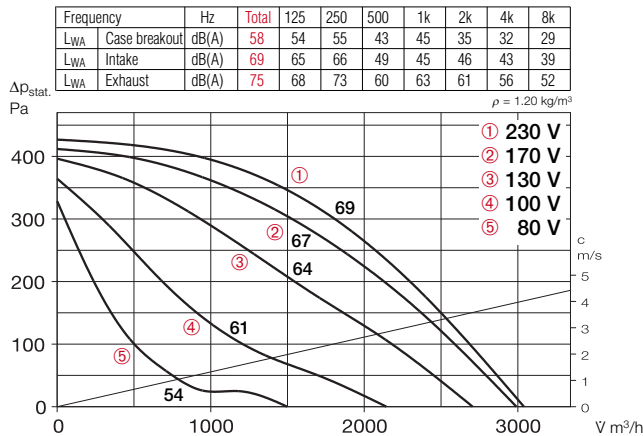
KRW 355/4/60/35



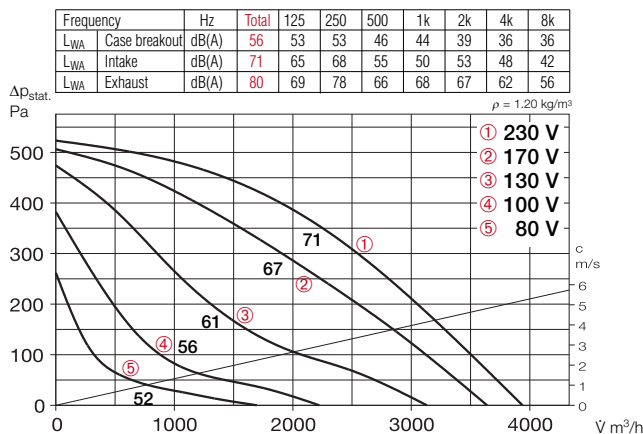
KRW 400/4/60/35



Sound insulated model SKRW 355/4/60/35



Sound insulated model SKRW 400/4/60/35



Accessories

Gravity shutter

VK 60/35 Ref. No. 0878
Air stream operated louvres, light grey polymer.



External louver

WSG 60/35 Ref. No. 0113
Heavy duty construction made from anodised aluminium profile section.



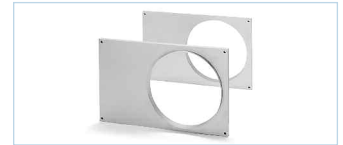
Vol. control damper for ducting

JVK 60/35 Ref. No. 6914
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 60/35 Ref. No. 0835
For cost effective adaption of rectangular fans into circular ducting systems with ø 355 mm.



Flexible connectors

VS 60/35 Ref. No. 5698
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 60/35 Ref. No. 6923
Flange frames made of galvanised steel for connection to ducting.



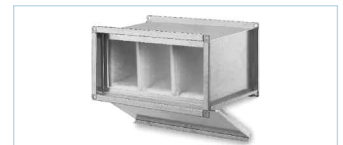
Rectangular attenuator

KSD 60/30-35 Ref. No. 8730
For in-duct installation on intake or exhaust side.



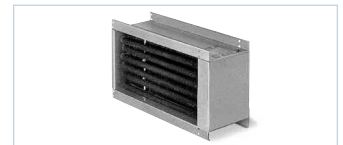
Air-duct filter

KLF 60/30-35 G4 Ref. No. 8722
KLF 60/30-35 F7 Ref. No. 8646
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



Electric heater battery

EHR-K 15/60/30-35 Ref. No. 8706
EHR-K 30/60/30-35 Ref. No. 8707
Heating elements enclosed in a galvanised steel casing with connecting flanges on both sides.



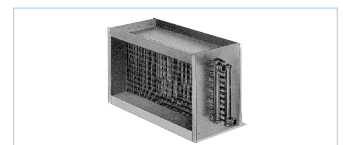
Temperature control system for electric heater battery

EHS 16 Ref. No. 5003



LPHW heater battery

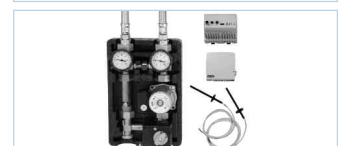
WHR 2/60/30-35 Ref. No. 8786
WHR 4/60/30-35 Ref. No. 8787
For in-duct installation.



Temperature control system for LPHW heater battery

WHS 2200¹⁾ Ref. No. 8816

¹⁾ In model WHR 4/60/30-35 the heat output is reduced to 2200 l/h.

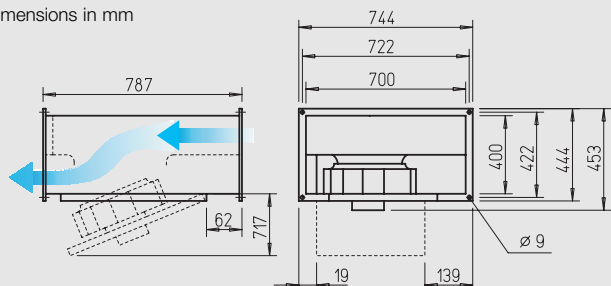


Model KR..

Suitable for polluted air.



Dimensions in mm

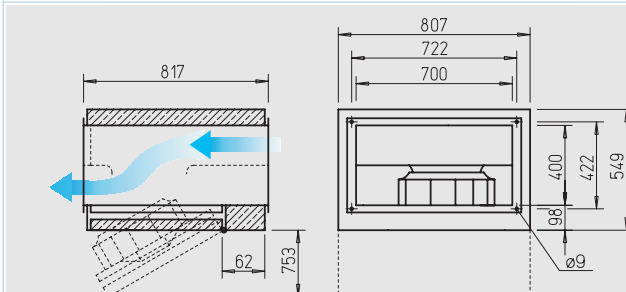


Sound insulated model SKR..



Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements for low noise levels.



Features of model KR.. and model SKR..

- High pressure and high volume with high efficiency centrifugal fan.
- Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- For cleaning, easy access and therefore suitable for extraction of polluted air.
- Straight through-flow.
- Compact design, convenient installation.

Special features of model SKR..

- Lowest sound levels for intake and case breakout at higher power density.

Specification

Case KR..
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

Case SKR..
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

Common features of model KR.. and model SKR..

Impeller
Centrifugal, backward curved impeller made from polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Motor and impeller are dynamically balanced.

Motor protection

By built-in thermal contacts through tripping unit (accessory).

Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performances at corresponding voltages are given in the performance curve.

Electrical connection

Terminal box (IP 55 in 3 ph.- or IP 44 in 1 ph.-types) fitted to flying lead.

Installation

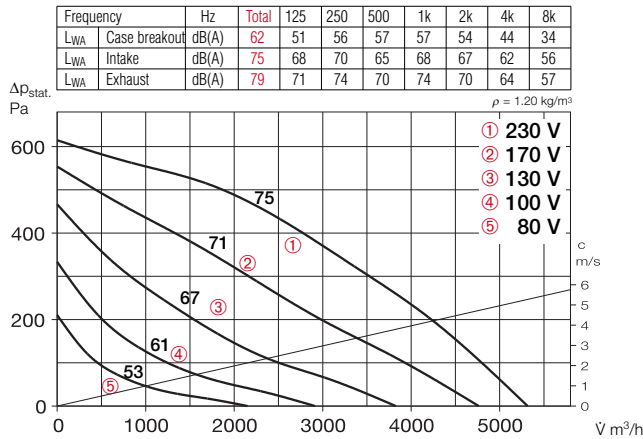
Installation in any position. The accessibility/swing-out need to be taken into account.

Sound level

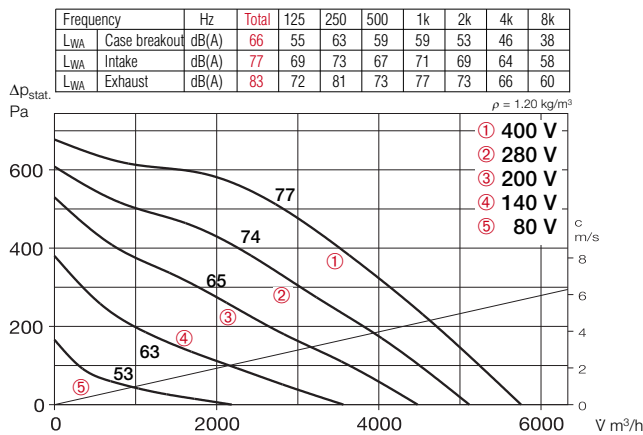
Above the performance curve, the total value and spectrum are given for:
 - Sound level case breakout
 - Sound level intake
 - Sound level exhaust
 The sound level (on intake) is additionally shown within the performance curve for corresponding control voltages. On the chart below you can also find:
 - Case breakout sound level at 4 m (free-field conditions).

Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step with motor full protection		Motor full protection device to connect built-in thermal contacts	
		V m ³ /h	min ⁻¹	dB(A) in 4 m	kW	A		+°C	+°C		kg	Type	Ref. No.	Type
Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44														
KRW 450/4/70/40	8641	5350	1250	42	0.73	3.3	536.1	65	65	39	MWS 5	1949	MW	1579
3-phase alternating current motor, 230/400 V, 50 Hz, thermal contacts, protection to IP 44														
KRD 450/4/70/40	8694	5750	1360	46	0.78	2.7/1.6	499	70	70	39	RDS 2	1315	MD	5849
Sound insulated model SKR.. - Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44														
SKRW 450/4/70/40	8640	5350	1250	36	0.73	3.3	536.1	65	65	63	MWS 5	1949	MW	1579
Sound insulated model SKR.. - 3-phase alternating current motor, 230/400 V, 50 Hz, thermal contacts, protection to IP 44														
SKRD 450/4/70/40	8687	5750	1350	38	0.78	2.7/1.6	499	70	70	63	RDS 2	1315	MD	5849

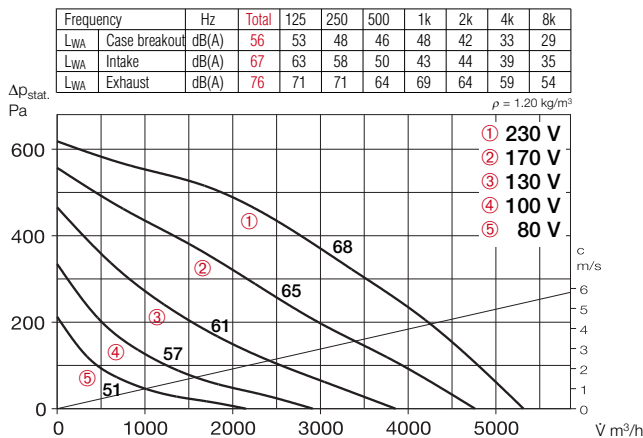
KRW 450/4/70/40



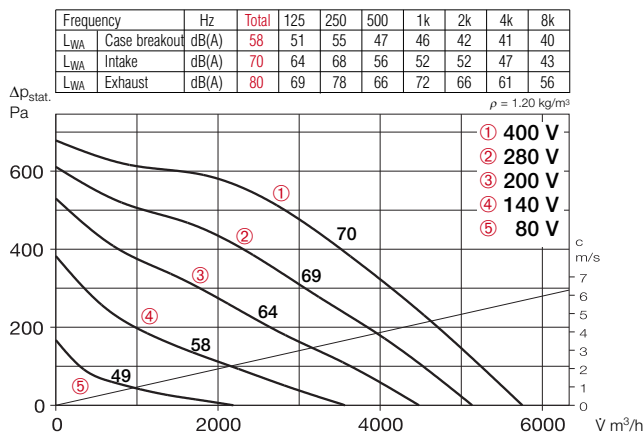
KRD 450/4/70/40



Sound insulated model SKRW 450/4/70/40



Sound insulated model SKRD 450/4/70/40



Accessories

Gravity shutter

VK 70/40 Ref. No. 0879
Air stream operated louvres, light grey polymer.



External louver

WSG 70/40 Ref. No. 0114
Heavy duty construction made from anodised aluminium profile section.



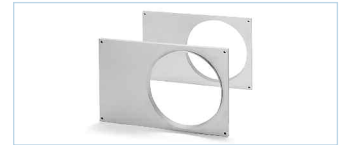
Vol. control damper for ducting

JVK 70/40 Ref. No. 6915
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 70/40 Ref. No. 0840
For cost effective adaption of rectangular fans into circular ducting systems with ø 400 mm.



Flexible connectors

VS 70/40 Ref. No. 5699
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 70/40 Ref. No. 6924
Flange frames made of galvanised steel for connection to ducting.



Rectangular attenuator

KSD 70/40 Ref. No. 8731
For in-duct installation on intake or exhaust side.



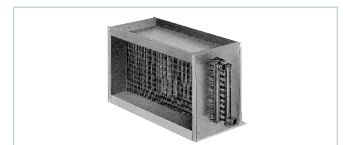
Air-duct filter

KLF 70/40 G4 Ref. No. 8723
KLF 70/40 F7 Ref. No. 8647
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



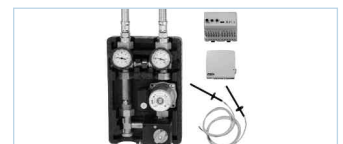
LPHW heater battery

WHR 2/70/40 Ref. No. 8788
WHR 4/70/40 Ref. No. 8789
For in-duct installation.



Temperature control system for LPHW heater battery

WHS 2200¹⁾ Ref. No. 8816
¹⁾ In model WHR 4/70/40 the heat output is reduced to 2200 l/h.



Accessory details Page

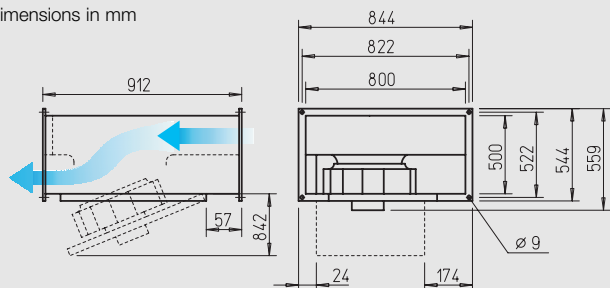
Shutters, grilles and louvres	304, 361 on
Filters, heaters and attenuators	305 on
Temperature control systems for heaters	311, 316
Speed controllers and motor full protection devices	397 on

Model KR..

Suitable for polluted air.



Dimensions in mm

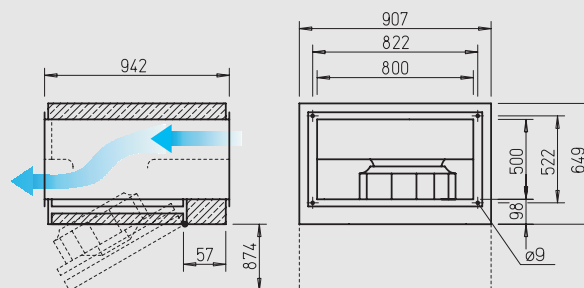


Sound insulated model SKR..



Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements for low noise levels.



■ **Features of model KR.. and model SKR..**

- High pressure and high volume with high efficiency centrifugal fan.
- Particularly easy to service (cleaning) thanks to the swing-out motor impeller unit.
- For cleaning, easy access and therefore suitable for extraction of polluted air.
- Straight through-flow.
- Compact design, convenient installation.

■ **Special features of model SKR..**

- Lowest sound levels for intake and case breakout at higher power density.

■ **Specification**

Casing KR..
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

Casing SKR..
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

Common features of model KR.. and model SKR..

Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Motor and impeller are dynamically balanced.

Motor protection

By built-in thermal contacts through tripping unit (accessory).

Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performances at corresponding voltages are given in the performance curve.

Electrical connection

Terminal box (IP 55 in 3 ph.- or IP 44 in 1 ph.-types) is mounted with the attached cable.

Installation

Installation in any position. The accessibility/swing-out need to be taken into account.

Sound level

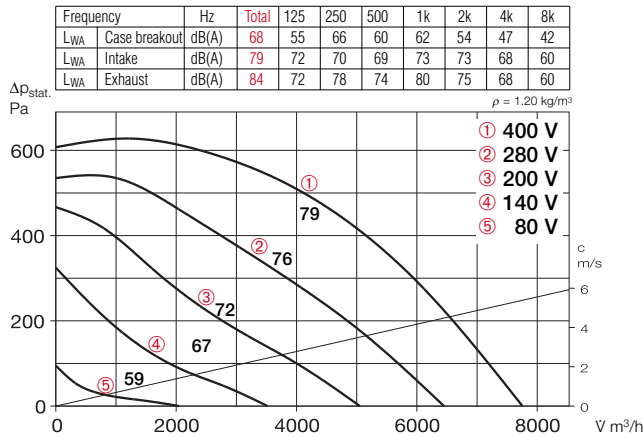
Above the performance curve, the total value and spectrum are given for:

- Sound level case breakout
 - Sound level intake
 - Sound level exhaust
- The sound level (on intake) is additionally shown within the performance curve for corresponding control voltages. On the chart below you can also find:
- Case breakout sound level at 4 m (free-field conditions).

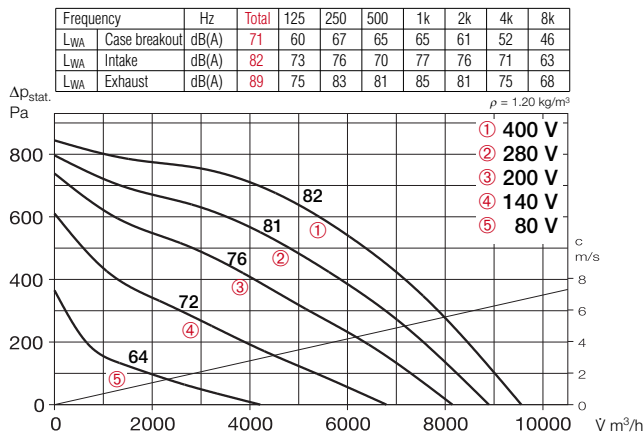
Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step with motor full protection		Motor full protection device to connect built-in thermal contacts		
		V m³/h	min⁻¹	dB(A) in 4 m	kW	A		°C	°C		Type	Ref. No.	Type	Ref. No.	
Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44															
KRW 500/6/80/50 ¹⁾	8678	7800	870	44	0.86	4.4	536.1	60	60	64	MWS 7.5	1950	—	—	
3-phase alternating current motor, 230/400 V, 50 Hz, thermal contacts, protection to IP 44															
KRD 500/4/80/50 A	8643	7850	1310	48	1.19	3.6/2.1	499	70	70	61	RDS 4	1316	MD	5849	
KRD 500/4/80/50 B	8695	9600	1400	51	1.71	6.4/3.7	499	70	70	58	RDS 7	1578	MD	5849	
Sound insulated model SKR.. - Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44															
SKRW 500/6/80/50 ¹⁾	8682	7800	870	38	0.86	4.4	536.1	60	60	87	MWS 7.5	1950	—	—	
Sound insulated model SKR.. - 3-phase alternating current motor, 230/400 V, 50 Hz, thermal contacts, protection to IP 44															
SKRD 500/4/80/50 A	8642	7850	1310	42	1.19	3.6/2.1	499	70	70	84	RDS 4	1316	MD	5849	
SKRD 500/4/80/50 B	8688	9600	1400	44	1.71	6.4/3.7	499	70	70	87	RDS 7	1578	MD	5849	

¹⁾In this model deviant performance curve; available on request.

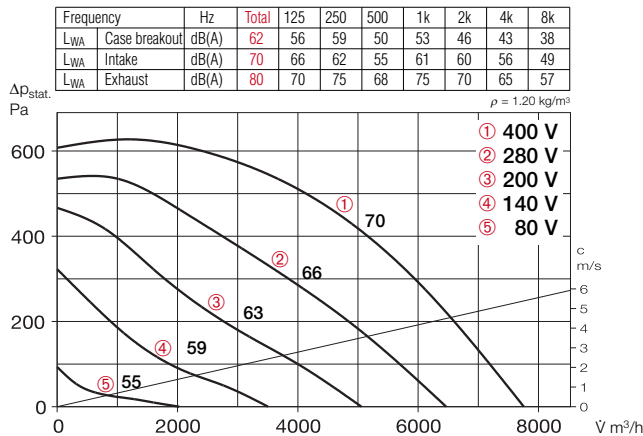
KRD 500/4/80/50 A



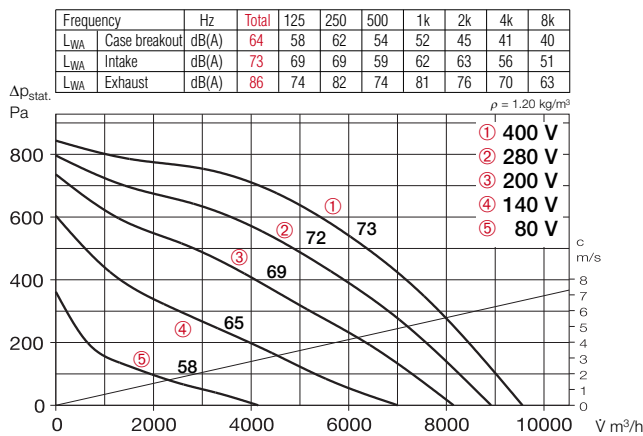
KRD 500/4/80/50 B



Sound insulated model SKRD 500/4/80/50 A



Sound insulated model SKRD 500/4/80/50 B



Accessories

Gravity shutter

VK 80/50 Ref. No. 0880
Air stream operated louvres, light grey polymer



External louvre

WSG 80/50 Ref. No. 0115
Heavy duty construction made from anodised aluminium profile section.



Vol. control damper for ducting

JVK 80/50 Ref. No. 6916
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



Circular spigot

FSK 80/50 Ref. No. 0842
For cost effective adaption of rectangular fans into circular ducting systems with ø 500 mm.



Flexible connectors

VS 80/50 Ref. No. 5700
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 80/50 Ref. No. 6925
Flange frames made of galvanised steel for connection to ducting.



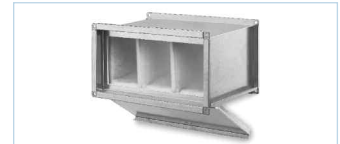
Rectangular attenuator

KSD 80/50 Ref. No. 8732
For in-duct installation on intake or exhaust side.



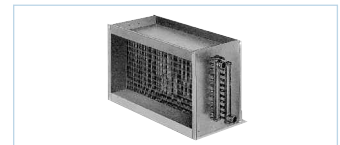
Air-duct filter

KLF 80/50 G4 Ref. No. 8670
KLF 80/50 F7 Ref. No. 8654
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



LPHW heater battery

WHR 2/80/50 Ref. No. 8795
WHR 4/80/50 Ref. No. 8796
For in-duct installation.



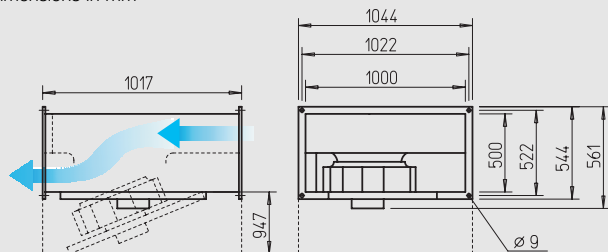
Accessory details	Page
Shutters, grilles and louvres	304, 361 on
Filters, heaters and attenuators	305 on
Speed controllers and motor full protection devices	397 on

Model KR..

Suitable for polluted air.



Dimensions in mm

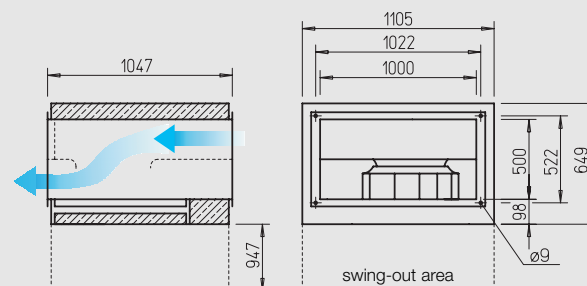


Sound insulated model SKR..



Lowest sound levels for intake and case breakout at higher power density.

Use in extract and fresh air systems with specific requirements at the noise level.



Features of model KR.. and model SKR..

- High pressure and high volume with high efficiency centrifugal fan.
- Particular ease of service (cleaning) thanks to the swing-out motor impeller unit.
- For cleaning, easy access and therefore suitable for extraction of polluted air.
- Straight through-flow.
- Compact design, convenient installation.

Special features of model SKR..

- Lowest sound levels for intake and case breakout at higher power density.

Specification

Casing KR..
Made of galvanised steel. Flanged (20 mm) on both ends for in-duct installation.

Casing SKR..
As above, but with additional sound insulation with 50 mm thick mineral fibre board, inside lined with a sound deadening perforated plate.

Common features of model KR.. and model SKR..

Impeller
Centrifugal, backward curved impeller made of polymer and galvanised steel. Aerodynamically optimised, intake air flow by means of an inlet nozzle.

Motor

Totally enclosed, maintenance-free external rotor motor with directly fitted impeller, protected to IP 44. Windings with protection against moisture. Ball bearing mounted and radio suppressed. Motor and impeller are dynamically balanced.

Motor protection

By built-in thermal contacts through tripping unit (accessory).

Speed control

By voltage reduction using a 5 speed transformer controller or an electronic controller (stepless). The performances at corresponding voltages are given in the performance curve.

Electrical connection

Terminal box (IP 55 in 3 ph.- or IP 44 in 1 ph.-types) fitted to flying lead.

Installation

Installation in any position. The accessibility/swing-out need to be taken into account.

Sound level

Above the performance curve, the total value and spectrum are given for:

- Sound level case breakout
- Sound level intake
- Sound level exhaust

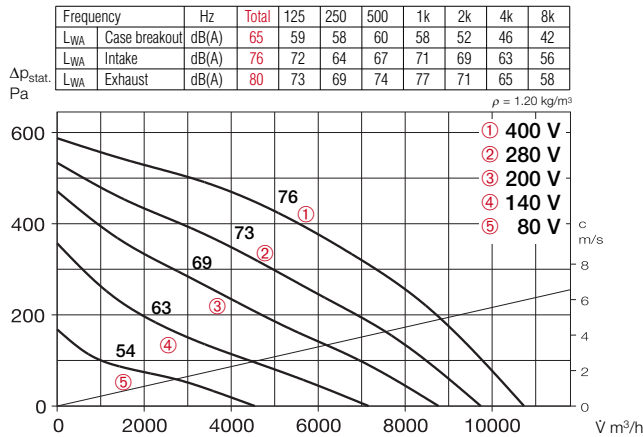
The sound level (on intake) is additionally shown within the performance curve for corresponding control voltages. On the chart below you can also find:

- Case breakout sound level at 4 m (free-field conditions).

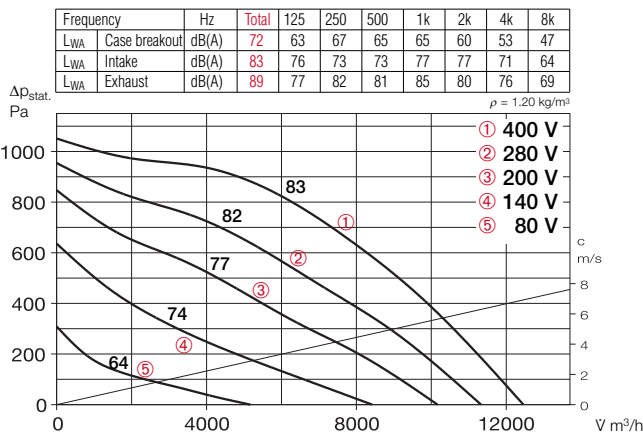
Type	Ref. No.	Air flow volume	Nominal R.P.M.	Sound pressure case breakout	Power consumption		Connection by wiring diagram	Max. air flow temperature by		Nominal weight (net)	Speed controller 5-step with motor full protection		Motor full protection device to connect built-in thermal contacts	
					kW	A		Norm. vol.	Control		Type	Ref. No.	Type	Ref. No.
		V m³/h	min⁻¹	dB(A) in 4 m			No.	+°C	+°C	kg				
Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44														
KRW 560/6/100/50 ¹⁾	8679	10 850	870	46	1.31	6.4	536.1	65	60	88	MWS 7.5	1950	—	—
3-phase alternating current motor, 230/400 V, 50 Hz, thermal contacts, protection to IP 44														
KRD 560/6/100/50	8672	10 800	890	45	1.28	6.0/3.4	499	60	60	88	RDS 7	1578	MD	5849
KRD 560/4/100/50	8696	12 500	1340	52	2.54	8.7/5.0	499	70	70	80	RDS 7	1578	MD	5849
Sound insulated model SKR.. - Single phase - alternating current, capacitor motor, 230 V, 50 Hz, protection to IP 44														
SKRW 560/6/100/50 ¹⁾	8683	10 850	870	40	1.31	6.4	536.1	65	60	132	MWS 7.5	1950	—	—
Sound insulated motor SKR.. - 3-phase alternating current motor, 230/400 V, 50 Hz, thermal contacts, protection to IP 44														
SKRD 560/6/100/50	8680	10 800	890	40	1.28	6.0/3.4	499	60	60	132	RDS 7	1578	MD	5849
SKRD 560/4/100/50	8689	12 500	1340	45	2.54	8.7/5.0	499	70	70	124	RDS 7	1578	MD	5849

¹⁾In this model deviant performance curve; available on request.

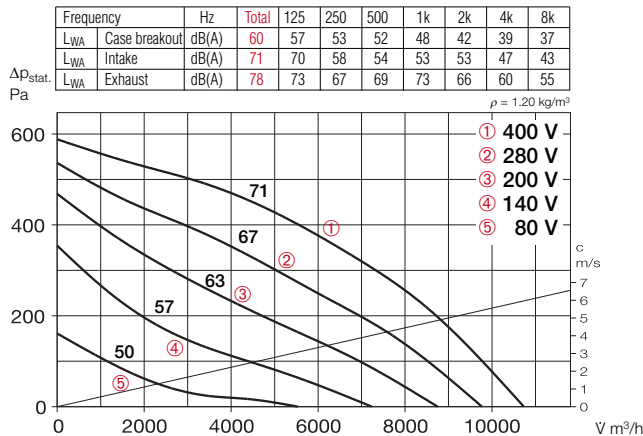
KRD 560/6/100/50



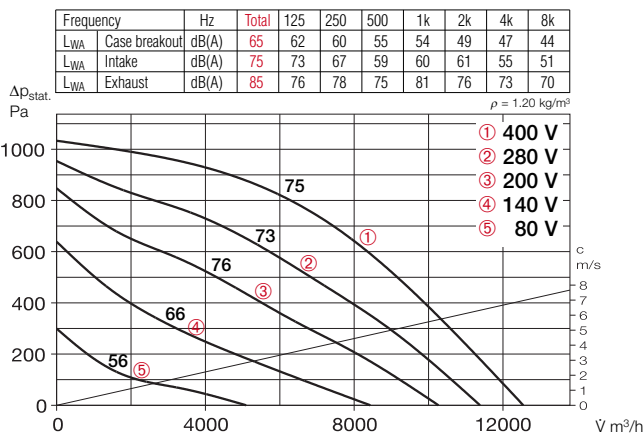
KRD 560/4/100/50



Sound insulated model SKRD 560/6/100/50



Sound insulated model SKRD 560/4/100/50



Accessories

Gravity shutter

VK 100/50 Ref. No. 0881
Air stream operated louvres, light grey polymer.



External louver

WSG 100/50 Ref. No. 0116
Heavy duty construction made from anodised aluminium profile section.



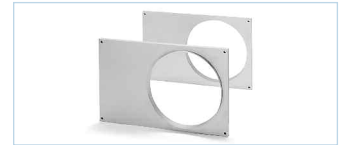
Vol. control damper for ducting

JVK 100/50 Ref. No. 6917
Casing made of galvanised steel with flanges on both sides. The control mechanism is outside the airstream. For electrical drive, see STM, accessory.



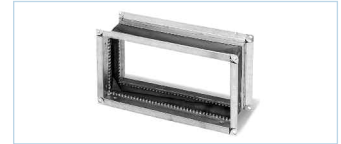
Circular spigot

FSK 100/50 Ref. No. 0843
For cost effective adaption of rectangular fans into circular ducting systems with ø 500 mm.



Flexible connectors

VS 100/50 Ref. No. 5701
Flexible in-duct connector with flanges on both sides.



Matching flange

GF 100/50 Ref. No. 6926
Flange frames made of galvanised steel for connection to ducting.



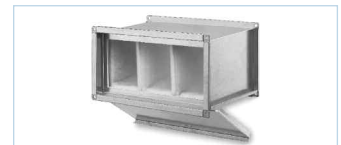
Rectangular attenuator

KSD 100/50 Ref. No. 8733
For in-duct installation on intake or exhaust side.



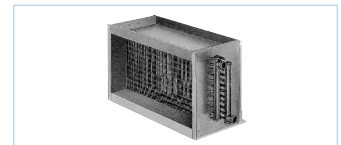
Air-duct filter

KLF 100/50 G4 Ref. No. 8671
KLF 100/50 F7 Ref. No. 8655
Bag filter with a large cross section area. Galvanised steel casing with flanges on both sides.



LPHW heater battery

WHR 2/100/50 Ref. No. 8797
WHR 4/100/50 Ref. No. 8798
For in-duct installation.



Accessory details	Page
Shutters, grilles and louvres	304, 361 on
Filters, heaters and attenuators	305 on
Speed controllers and motor full protection devices	397 on

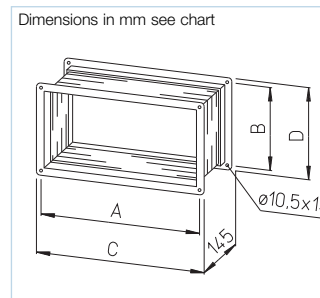
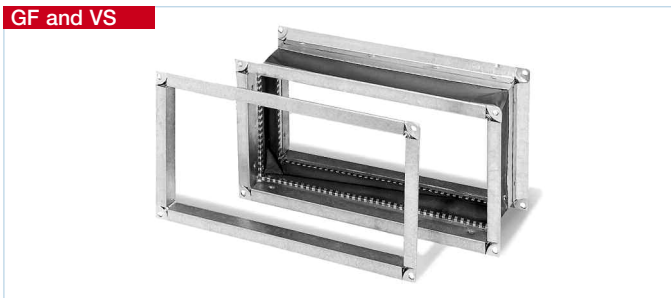
Matching flange GF

Designed for connecting rectangular fans and accessories to ducting where the flange frames are made of galvanised steel.

Connectors VS

Flexible ducting connector with flange frames on both ends, made of galvanised steel, with sealing lip all around; leak proof to VDI 3803, temperature resistance from -10 °C to +80 °C. The elastic sleeve at the middle section is made of plastic fibre bonded material. Designed to fit into rectangular fans. In order to prevent the vibration transmission and compensate small misalignments on site, the flexible connectors are fitted between ducting and fan on intake and exhaust side. For explosion proof rectangular fans use VS.. Ex (explosion-proof) models.

GF and VS

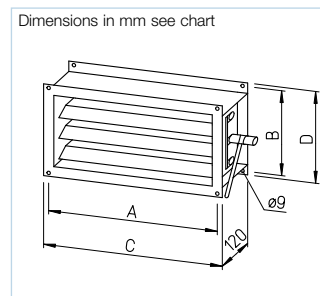


Matching flange GF		Connectors VS		Connector for explosionproof fans		Fits fan nominal size	Dimensions in mm				Nominal weight in kg	
Type	Ref. No.	Type	Ref. No.	Type	Ref. No.		A	B	C	D	GF..	VS..
GF 30/15	6918	VS 30/15	6928	—	—	300 x 150	320	170	340	190	0.7	1.8
GF 40/20	6919	VS 40/20	5694	—	—	400 x 200	420	220	440	240	0.8	2.3
GF 50/25	6920	VS 50/25	5695	VS 50/25 Ex	0265	500 x 250	520	270	540	290	0.9	2.8
GF 50/30	6921	VS 50/30	5696	VS 50/30 Ex	0266	500 x 300	520	320	540	340	1.0	2.9
GF 60/30	6922	VS 60/30	5697	VS 60/30 Ex	0267	600 x 300	620	320	640	340	1.1	3.2
GF 60/35	6923	VS 60/35	5698	VS 60/35 Ex	0268	600 x 350	620	370	640	390	1.1	3.4
GF 70/40	6924	VS 70/40	5699	VS 70/40 Ex	0269	700 x 400	720	420	740	440	1.2	3.7
GF 80/50	6925	VS 80/50	5700	—	—	800 x 500	820	520	840	540	1.5	4.5
GF 100/50	6926	VS 100/50	5701	—	—	1000 x 500	1020	520	1040	540	1.7	5.0

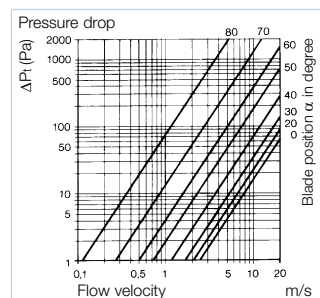
Volume control damper JVK

Flanged casing on both sides, made of galvanised steel, designed to fit into rectangular fans. The blades are hollow and their shafts run embedded in polymer guides. The external control lever adjusts all blades equally. The control mechanism is also outside the airstream and secured against operational interruptions therefore unaffected by airborne contamination. The blades create an additional pressure drop (shown in the diagram alongside) which must be considered when designing.

JVK



Type	Ref. No.	Fits fan nominal size	Impeller \varnothing mm	Dimensions in mm				Nominal weight in kg
				A	B	C	D	
JVK 30/15	6927	300 x 150	180	320	170	340	190	3.5
JVK 40/20	6910	400 x 200	200-250	420	220	440	240	4.0
JVK 50/25	6911	500 x 250	315	520	270	540	290	5.0
JVK 50/30	6912	500 x 300	250	520	320	540	340	6.0
JVK 60/30	6913	600 x 300	285	620	320	640	340	7.0
JVK 60/35	6914	600 x 350	315-400	620	370	640	390	7.2
JVK 70/40	6915	700 x 400	355-450	720	420	740	440	9.0
JVK 80/50	6916	800 x 500	400-500	820	520	840	540	11.7
JVK 100/50	6917	1000 x 500	450-560	1020	520	1040	540	13.5



Accessory – servo motor

STM 10 Ref. No. 8698
Electric drive for opening and closing of volume control dampers JVK. Installation in any position by using fixing clamp (for \varnothing 8–16 or \varnothing 8–12 mm) and fixing with the attached anti-rotation locking bracket. Adjustment of shutter position by using the gear unlock button. Output signal available to indicate “open” or “close”. Visible indication of shutter position (0–90°).

STM



Technical information STM 10

Supply voltage 230 V, 50/60 Hz
Torque 10 Nm
Rotation angle 0 to 90°
Switched output AC 3 0.5 A
Running time (open/close) 100 s
Left/right motor rotation available
Ambient temp. -20 to +50 °C
Protection IP 54
Insulation class II
Dimension mm W 76x H 140x D 58
Weight appr. 0.7 kg
Wiring diagram-No. SS-705

Other accessories for rectangular fans Page

Shutters, grilles and louvres	361 on
Filters, heaters and attenuators	305 on
Speed controllers and motor full protection devices	397 on