

SALDA

FANS

Issue 2016 ver. A

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ABOUT OUR COMPANY

Our approach to business is simple: it's all about being flexible, innovative and doing just a little bit more than our partners expect. With over 25 years in the ventilation market, we have managed to become one of the leading and rapidly growing European manufacturer.

Today SALDA is a privately owned company that has more than 350 employees and owns more than 40,000 square meters factory and office space. Our products are available in more than 30 countries, including all European countries, India, South Africa, the Middle East and South America.

Partners can choose from a comprehensive range of products that will fulfil all of their air-handling needs. Any solution, from a duct fan to

a high-tech modular 120,000 m³/h unit, will be manufactured in the shortest period possible and delivered to your construction site.

Our company constantly invests in manufacturing equipment: modern laser cutters, benders and other machinery enable to achieve high precision, speed and flexibility in the production of standard and non-standard products.

SALDA is entirely focused on air-handling business. Choose our products to experience our true professionalism and our passion for doing things better.



We are close to our clients



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● **Distributing countries**

KEY FOCUS: THE CLIENT

Our mission, and the essence of our existence, is to identify and realize our clients' future needs, even those that they themselves may not yet be aware of. It is essential that we offer to our clients the convenience. We always stay one step

ahead than our competitors by providing our clients with the highest-quality products, materials, and services for which we, as a manufacturer, are absolutely responsible.



INNOVATIONS



FLEXIBILITY



FAST DELIVERY



QUALITY

INNOVATIONS:

From the very beginning, our clients have received premium-class airhandling solutions. Today SALDA is a modern ventilation company, which 70% of administrative staff is engaged in R&D processes. All newly developed products

are tested in external laboratories. Every year our company introduces to the market new products; modern controllers, effective air handling units and reliable fans have become the hallmarks of our company.



FLEXIBILITY:

We listen to our clients' needs. Your desires, requirements and ideas are our focus. Customised solutions are available not only for individual modular unit projects, but also for our compact air handling unit range as well.

**FAST DELIVERY:**

Our company offers prompt deliveries. The 2-week manufacturing term is not a promise, it's a fact. Our company has developed production and management processes and implemented Lean manufacturing to become the fastest in the market.

**QUALITY:**

100% of our air handling units are tested. We work according to **ISO 9001:2008** quality management standards. All of our equipment passes 3 steps of quality control: (1) inspection of incoming components, (2) interim controls during the production process, and (3) final testing with semiautomatic diagnostic system and a visual inspection. SALDA is actively participat-

ing in the **EUROVENT** certification process. Our clients can be 100% sure that their projects will meet technical specifications due to VentMaster, our modular AHU selection program that has been tested and approved by **EUROVENT**, and the fact that the data of our compact AHUs are tested in external laboratories. Our products have **2-year warranty** from any defects.



FANS -

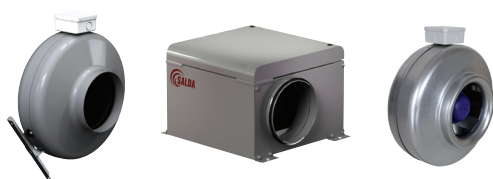
SHORT DESCRIPTION

SALDA offers a comprehensive range of fans. Our products have already been installed in various buildings from small apartments to large industrial plants. New highly efficient EC fans have been implemented in our new fan range. EC fans (with 0-10VDC control) can also

be connected directly to constant pressure sensors or on/off switches. The fan units exceed ErP requirements and guarantee high savings on your electricity bill. All the equipment has passed independent laboratory testing and has been certified by TUV.

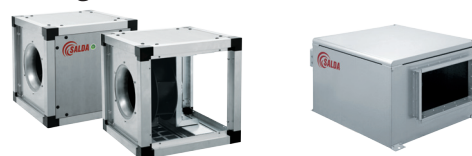
Circular duct fans up to 1640 m³/h (Page 16)

Circular ducts are dedicated to medium - and small-volume flows with high system resistance. The design is ideal for installation in a round tube system. AKU fans have insulated casings for installation in their operating premises.



Rectangular duct fans and square box fans up to 15900 m³/h (Page 44)

Rectangular duct fans are an ideal solution for installation in suspended ceilings. AKU EKO fans have insulated casing for installation in their operating premises. Square box KUB fans are highly insulated and are suitable for outdoor mounting.



Roof fans up to 14500 m³/h (Page 74)

Horizontal and vertical roof exhaust fans have been developed as effective air exhaust systems. The housing consists of two parts - a rain protection cover and a base frame. VSV and VSVI vertical exhaust fans are available with galvanized steel or aluminium housing options.



Kitchen fans up to 15100 m³/h (Page 102)

KF T120 EC, KF T120 and KUB T120 kitchen fans are designed for removal of greasy air at up to 120°C. The fans have insulated casings for low noise and thermal insulation. Easily removable grease collectors are integrated into each unit. The new KF T120 EC is equipped with a modern, highly efficient EC motor with extensive control possibilities.



Fan Heaters (Page 122)

Fan heaters are used for air heating in buildings. Each unit consists of an axial fan, a housing and a water heater.



PRODUCT RANGE

SALDA offers the wide range of products for ventilation. All these products, from various air distribution elements (grilles, valves) to complex high-tech air distribution modular units, are manufactured in our company and have been passed through severe quality control system. Full air distribution solutions for apartments, private houses, offices, public buildings, food production facilities, healthcare premises, large industrial plants and etc. are available at SALDA.

AIR HANDLING UNITS

SALDA produces all sorts of high efficient air handling units: from passive house ready residential to high volume modular unit. All products are tested in independent laboratory and meet the highest standards on the market. Select the most suitable compact AHU for your project with our web program at www.salda.it or modular AHU with 3D VentMaster V5.



Modular SmartAir units can be selected from widest range of components according individual project requirements. Model box SW 50+ is among the top ten certified boxes in EU!



Residential units Smarty are designed according to passive house requirements for highest energy savings, low noise, user-friendly handling and easy maintenance.



Compact air handling units are equipped with efficient rotor or counter-flow heat exchangers. High energy savings, user-friendly handling and easy maintenance are the key features of this range.

For more information on our AHU, contact your distributor for Catalogue or visit www.salda.it.

ACCESSORIES FOR VENTILATION SYSTEMS

Salda manufactures a full range of devices for air distribution. All products are produced with the highest precision and quality.

Duct products and fittings.

Bends, Caps, Outlets, Dampers and other products.



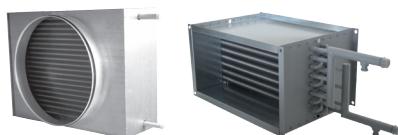
Electrical accessories.

Actuators, cooker hoods, sensors, controllers and other units.



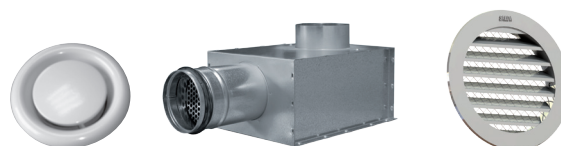
Heating and cooling coils.

Coils may be selected using our product selection program at www.salda.it



Supply, extract or transfer devices.

Exhaust or supply air valves, perforated ceiling diffusers, plenum boxes, grilles.



HEAT PUMPS

SALDA manufactures reliable heat pumps for heating and hot water production.

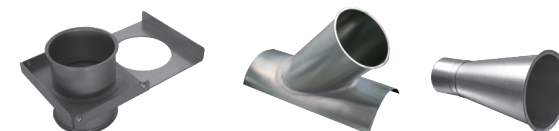
Main features:

- Heat source – ground or water.
- No additional electrical heater required.
- Heating capacity – from 5,5 to 70 kW.
- Coefficient of performance (COP) up to 4,5.
- Passive cooling heat exchanger as an option.
- Optional web browser-based control application.



DUST EXTRACTION PRODUCTS

SALDA offers customized solutions for dust extraction projects. We manufacture a comprehensive range of products: pipes, deflectors, dampers, bends and more at diameters of up to 1000 mm. Prompt delivery (manufacturing in 2 weeks) and high quality are some exceptional features of this product line.



"GREEN" FANS PROVIDE COST- SAVING AIR SUPPLY

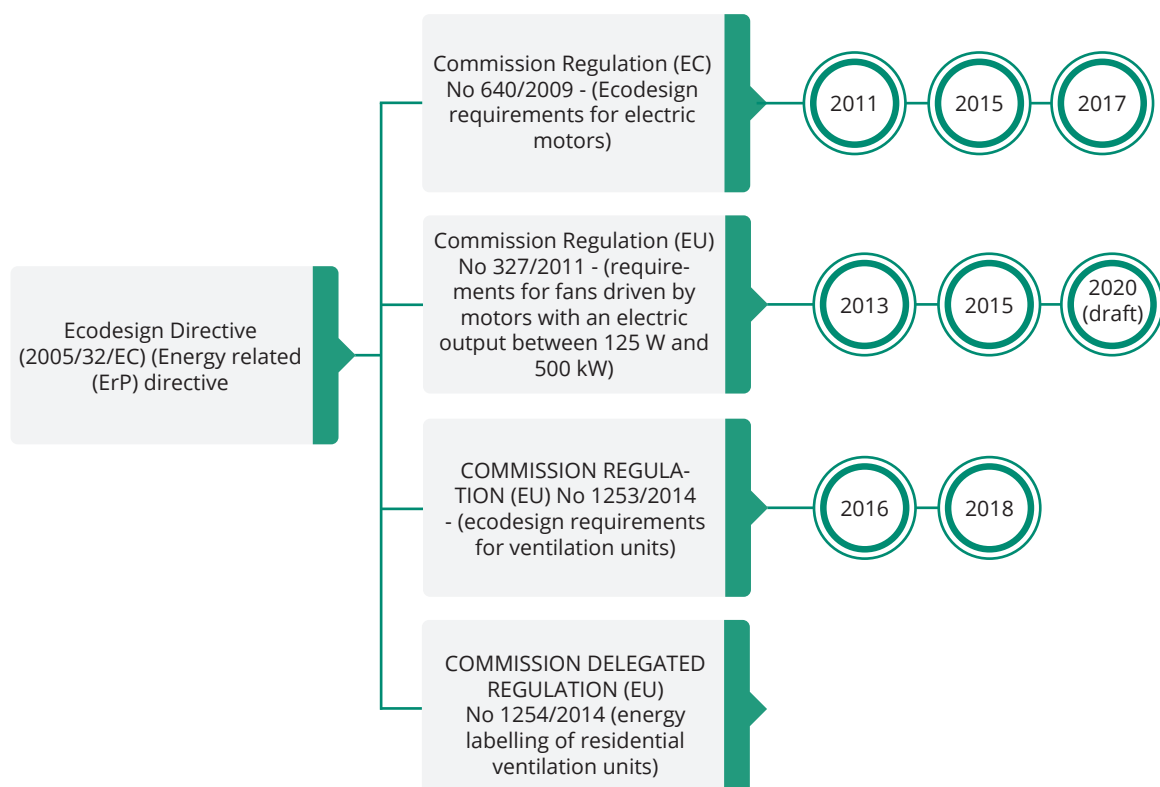
ErP directive guide ©

The European Union's goal is to reduce greenhouse gas emissions by 20% and overall energy consumption by 20% by 2020. The Ecodesign Directive (2009/125/EC) was issued to implement the EU's strategy. ErPs (Energy Related

Products) will be more efficient and clients will get reliable and unified product information as a result of the EU's regulations. The SALDA company fulfils these requirements by manufacturing highly efficient products for our partners.

ErP DIRECTIVE

Requirements for fans consist of regulations for electric motors and fan efficiency and ventilation unit requirements:



ELECTRIC MOTOR EFFICIENCY

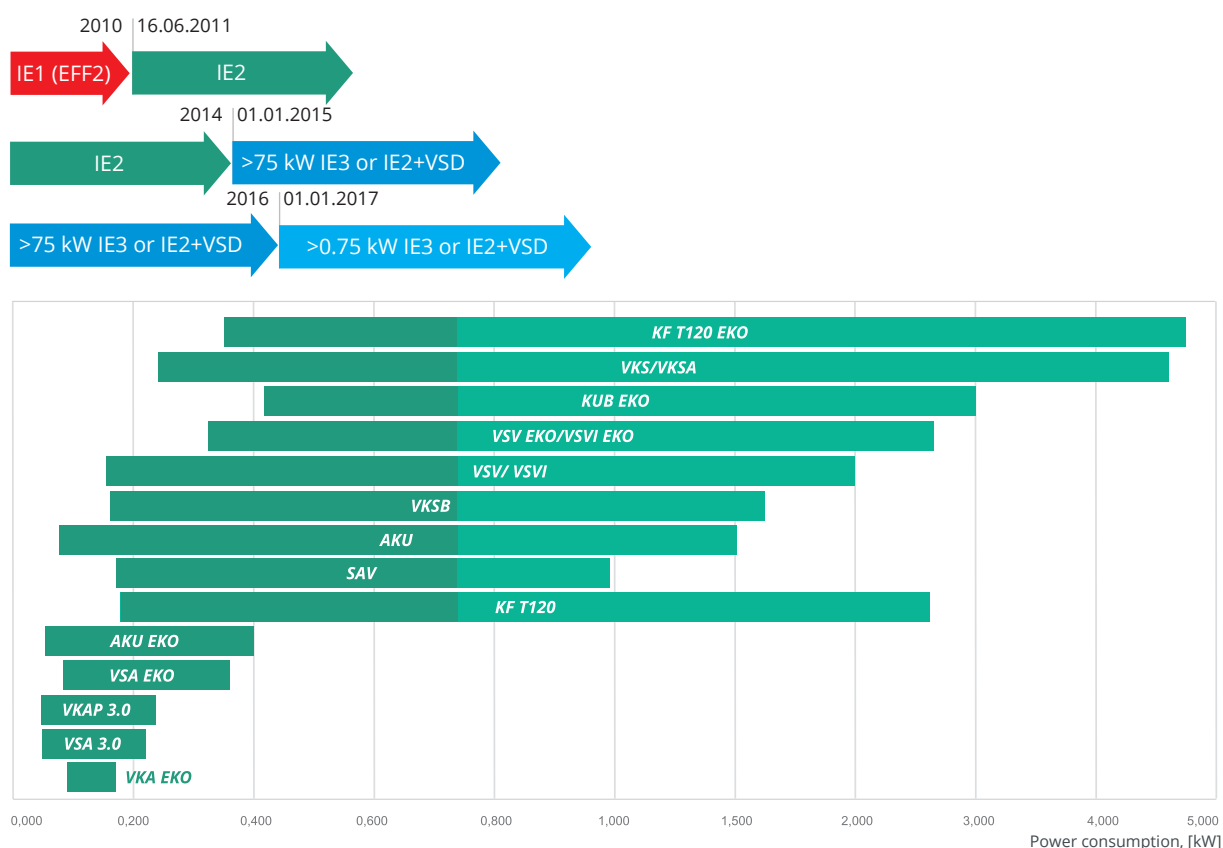
The Ecodesign requirements for all IEC electric motors are:

- › From 2015, motors with an output of 7.5 to 375 kW must be no less efficient than level IE3, or meet level IE2 requirements using a variable-speed drive (VSD).
- › From 2017, motors with an output of 0.75 to 375 kW must be no less efficient than level IE3, or meet level IE2 requirements using a VSD.

Requirements don't apply to the following motors:

- › Brake motors.
- › Motors designed to operate wholly immersed in liquids.
- › Motors completely integrated into a product (like gears, pumps, fans or compressors) in which the motor's performance cannot be tested independently.
- › Motors specifically designed to operate:
 - at altitudes exceeding 1,000 meters above sea level.
 - › Where ambient air temperatures exceed 40°C.
 - › With maximum operating temperatures above 400°C.
 - › Where ambient air temperatures are less than -15°C for any motor, or less than 0°C for a motor with air cooling.
 - › With where the water coolant's temperature at the inlet to a product is less than 5°C or exceeds 25°C.
 - › In potentially volatile atmospheres, as defined in Directive 94/9/EC.

Not all fans manufactured by SALDA are covered by the regulations.



Most SALDA fans have motors with a power consumption lower than 0.75 kW. Despite this, the company has been implementing EC IE4 motors in a wide range of its products: duct fans (AKU EKO, VKA EKO, KUB EKO), roof fans (VSV/VSVI EKO, VSA EKO), and kitchen fans (KF T120 EC). The overall electricity consumption of these fans provides high savings compared to IE2 motors. The motors are supplied by premium-class European manufacturers like EBM papst and Ziehl-Abegg. All the fans manufactured by the company comply with the Electric Motor regulations.

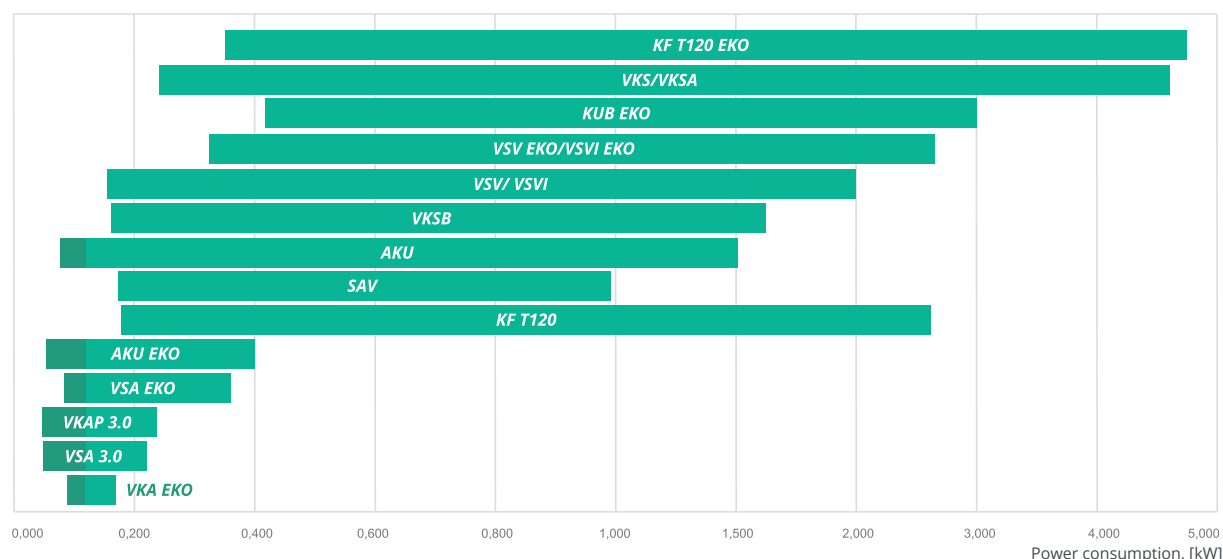
FAN EFFICIENCY

Commission Regulation (EU) No 327/2011 requires that, at their most efficient working point, fans must have an efficiency higher than the calculated minimum target efficiency.

Fan types	Measurement category	Efficiency category	Power range P in kW	Target energy efficiency	Efficiency grade (N)
Axial fan (SAV)	A,C	Static	$0,125 \leq P \leq 10$	$\eta_{\text{target}} = 2,74 \cdot \ln(P) - 6,33 + N$	40
Centrifugal backward curved fan with housing (includes most SALDA fans except SAV)	A,C	Static	$0,125 \leq P \leq 10$	$\eta_{\text{target}} = 4,56 \cdot \ln(P) - 10,5 + N$	61

There are two important exemptions to ErP compliance:

- › Motors with less than 125 watts of power.
- › Fans used to move air or gases at temperatures exceeding 100°C.



Some of SALDA'S fans (with motors smaller than 125W and kitchen fans) are not covered by the regulations. Nevertheless, the new range of kitchen fans, KF T120 EKO, exceeds the efficiency required by ErP 2015.

Fan efficiency is calculated using specific formulas:

1. In final assembly without variable speed drive;
2. In final assembly with variable speed drive;
3. Before final assembly.

Because SALDA fans are supplied with variable speed drives in their final assembly, the efficiency formula is as follows:

$$\eta_e = (P_{u(s)} / P_{ed}) \times C_c$$

where:

$P_{u(s)}$ is the fan's gas power when operating at its optimal energy efficiency point;

P_{ed} is the power measured at the mains input terminals supplied to the variable speed drive of the fan when the fan is operating at its optimal energy efficiency point;

C_c is a part-load compensation factor calculated as follows:

— for a motor with a variable speed drive and $P_{ed} \geq 5$ kW, then $C_c = 1,04$,

— for a motor with a variable speed drive and $P_{ed} < 5$ kW, then $C_c = -0,03 \ln(P_{ed}) + 1,088$.

For example:

KUB 80-500 EKO fan (see image) has a power consumption of 1.240 kW.

Target efficiency: $\eta_{\text{target}} = 4.56 \times \ln(P) - 10.5 + N = 51.5\%$; calculated overall efficiency $\eta_e = 57.6\%$

KUB 80-500 EKO complies with Ecodesign requirements.

VENTILATION UNIT REQUIREMENTS

Some of SALDA'S fans are covered by COMMISSION REGULATION (EU) No 1253/2014. Regulation fans with additional casing are recognised as ventilation units. Roof fans and most acoustically insulated duct fans are covered by this regulation.



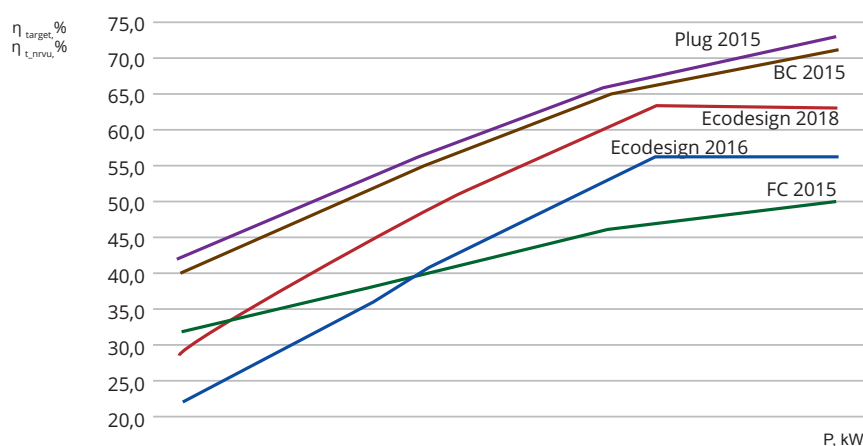
Ventilation units are classified as residential and nonresidential.

Residential	Residential or Nonresidential by supplier's decision	Nonresidential
0-250	250-1000	1000+

All SALDA fans have been classified as non-residential ducted ventilation units. The fans must comply with these minimal regulatory requirements:

Criteria	ErP 2016	ErP 2018
Multi-speed drive or variable speed drive	Required	Required
Fan efficiency min, % For unidirectional VU	$6,2\% * \ln(P) + 35,0\%$	$6,2\% * \ln(P) + 42,0\%$
Internal specific fan power max, W/(m³/s) For unidirectional ventilation units	250	230

This means that the requirements of ErP 2015 for fan efficiency are higher than ErP 2018 for ventilation units:



	0,125	0,25	0,5	1	2,5	5	10	20	30	50	75	100
FC 2015	32,0	33,9	35,8	37,7	40,2	42,1	44,0	45,9	47,0	48,4	49,5	50,3
BC 2015	41,0	44,2	47,3	50,5	54,7	57,8	61,0	64,2	66,0	68,3	70,2	71,5
Plug 2015	42,0	45,2	48,3	51,5	55,7	58,8	62,0	65,2	67,0	69,3	71,2	72,5
Ecodesign 2016	22,1	26,4	30,7	35,0	40,7	45,0	49,3	53,6	56,1	56,1	56,1	56,1
Ecodesign 2018	29,1	33,4	37,7	42,0	47,7	52,0	56,3	60,6	63,1	63,1	63,1	63,1

Manufacturers are obligated to provide additional technical information on each unit's technical parameters. This information allows performance comparisons for different ventilation units and helps consumers to base their purchasing decision on important parameters besides pricing, such as efficiency and sound level. SALDA has always provided reliable and tested data on fans in its technical manuals and catalogues and on its website. Beginning in 2016, ErP-related information will be presented as an annex in the technical manual and on the www.salda.it product page as a PDF document. Our clients can easily compare the efficiency of our ventilation products.

SALDA FANS EXCEED ErP REQUIREMENTS

The company constantly invests in the development of highly efficient ventilation products. As a result, the company can offer a comprehensive range of fans that exceed ErP 2015 requirements for fans with motors that fully comply with requirements for 2017 as well.

Model	Type of fan	Ecodesign compliance requirement		
		Fans 2015	VU 2016	VU 2018
VKA EKO	Centrifugal backward-curved fan with housing	+	N/A	N/A
VKAP 3.0	Centrifugal backward-curved fan with housing	+/-*	N/A	N/A
AKU	Centrifugal backward or forward-curved fan with housing	_*	-	-
AKU EKO	Centrifugal backward-curved fan with housing	+	+	+
KF T120	Centrifugal forward-or backward-curved fan with housing	N/A	N/A	N/A
KF T120 EC	Centrifugal forward-or backward-curved fan with housing	N/A	N/A	N/A
KUB EKO	Centrifugal backward-curved fan with housing	+	+	+
VSV EKO/VSVI EKO	Centrifugal backward-curved fan with housing	+	+	+
VSA EKO	Centrifugal backward-curved fan with housing	+	+	+
VSA 3.0	Centrifugal backward-curved fan with housing	+/-*	+	-
SAV	Axial	+	N/A	N/A

* - fans with a motor power of less than 125W are not covered by ErP 2015 requirements.

N/A - not applicable.

Highly efficient SALDA fans provide lower lifetime costs for our partners. Our company is delighted to contribute to sustainable development and present high-quality products to the market.



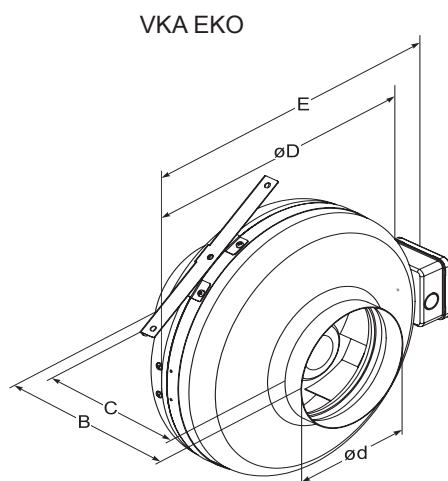
Features	› Diameter - 125 mm to 315 mm; › Airflow up to 1320 m³/h; › Easily mounted in any position; › Backward-curved impeller; › Fan speed 100% controllable via 0-10 V signal; › Energy efficient.
Power supply	230V/50Hz/1f.
Temperature range	From -25°C up to 45/60°C, depending on size.
Sizes	125, 160, 200, 250, 315.
Construction	› Casing: galvanized sheet steel, powder coating RAL 7035; › Fan: centrifugal impeller and external rotor motor; › Motor protection integrated into motor electronics; › Motor protection class: IP54; › Terminal box protection class: IP55.
Installation	Mounting with ducts: Spiro, flexible aluminium or plastic. Mounting bracket LAV is included. Device can only be used indoors. Not suitable for polluted air or volatile and explosive gases.
Speed control options	› 10 kΩ potentiometer; › External signal 0-10 VDC/PWM with user controller. › Can be connected directly to optional constant pressure sensors, CO2, RH or an on/off switch.

VKA 125 EKO

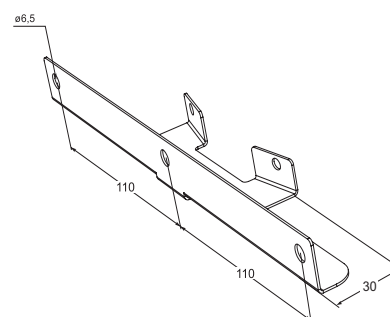
→	Fans with EC motors
→	Diameter size
→	Product name

Accessories

0-10V speed controller	Controller	Mounting clamp	Guard grille	Back draft shutter	Circular duct silencer
					
MTP010 p. 128	Stouch p. 130	AP p. 190	AGO p. 181	RSK p. 177	AKS SAKS p. 174



LAV



Type	Dimensions [mm]				
	B	C	øD	ød	E
VKA 125 EKO	207	175 ± 2	245	125	290
VKA 160 EKO	200	160 ± 2	245	160	290
VKA 200 EKO	240	190 ± 2	345	200	390
VKA 250 EKO	245	185 ± 2	345	250	390
VKA 315 EKO	250	180 ± 2	400	315	445

Type	Accessories							
	MTP010	Stouch	S-RCO2-F2 S-KCO2	S-RFF-U-D-F2 S-KFF-U	AP AGO	RSK AKS	FD FDI	EKA AVS AVA
VKA 125 EKO	+	+	+	+	125	125	125	125
VKA 160 EKO	+	+	+	+	160	160	160	160
VKA 200 EKO	+	+	+	+	200	200	200	200
VKA 250 EKO	+	+	+	+	250	250	250	250
VKA 315 EKO	+	+	+	+	315	315	315	315

CO2 sensor



Humidity sensor



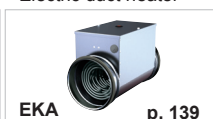
CO2 sensor



Filter cassette



Electric duct heater



Heating coil



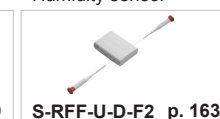
Duct water cooler

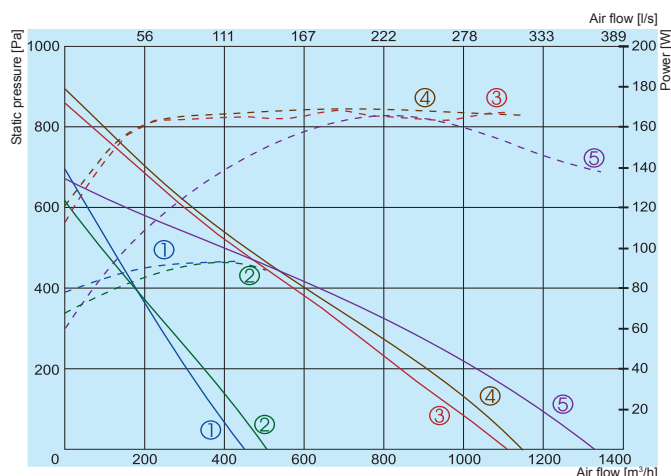


Filter cassette



Humidity sensor





- ① VKA 125 EKO
- ② VKA 160 EKO
- ③ VKA 200 EKO
- ④ VKA 250 EKO
- ⑤ VKA 315 EKO

— Performance
- - - Power consumption

		125 EKO	160 EKO	200 EKO	250 EKO	315 EKO
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	230/50	230/50
Power consumption	[kW]	0,085	0,083	0,170	0,170	0,166
Current	[A]	0,87	0,88	1,59	1,32	1,56
Speed	[min ⁻¹]	3200	3200	3210	3210	2550
Max. airflow	[m³/h]	440	500	1100	1150	1320
Min./Max. air temperature	[°C]	-25/60	-25/60	-25/45	-25/45	-25/60
Weight	[kg]	2,1	2,2	3,7	3,6	4,6
Wiring diagram		No. 1	No. 1	No. 1	No. 1	No. 1
Protection class:	motor	IP-54	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2015		+	+	+	+	+

125 EKO

In duct

Surrounding

Measured at 383 m³/h, 81 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
In duct	69	47	54	62	65	64	57
Surrounding	55	30	32	46	53	49	42

160 EKO

In duct

Surrounding

Measured at 445 m³/h, 82 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
In duct	72	49	65	67	68	62	59
Surrounding	59	32	48	52	56	49	38

200 EKO

In duct

Surrounding

Measured at 974 m³/h, 100 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
In duct	75	56	63	69	71	66	58
Surrounding	59	27	35	48	55	53	47

250 EKO

In duct

Surrounding

Measured at 1049 m³/h, 100 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
In duct	77	59	68	73	70	67	60
Surrounding	60	32	34	50	58	52	46

315 EKO

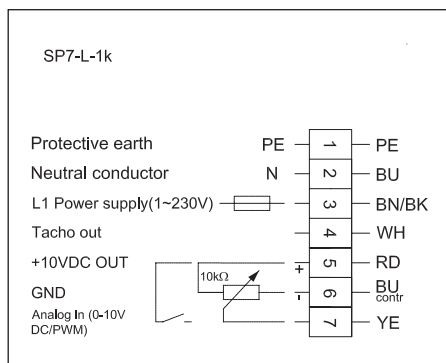
In duct

Surrounding

Measured at 1193 m³/h, 99 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
In duct	78	57	69	74	71	68	59
Surrounding	62	33	37	52	59	56	45

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.



Wiring diagram No. 1 (1~230V)

PE - green - yellow

BU - blue

BK - black

RD - red

YE - yellow

WH - white

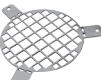
VKAP 3.0

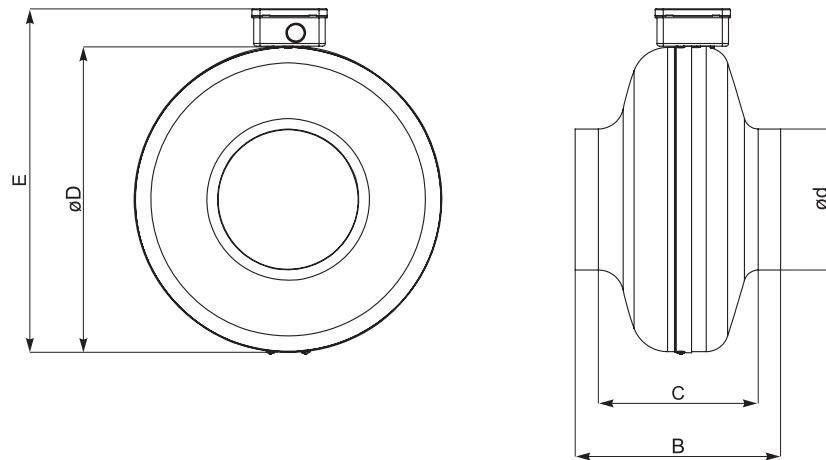


Features	› Diameter - 100 mm to 315 mm; › Airflow up to 1370 m³/h; › Easily mounted in any position; › Backward-curved impeller; › Low ambient temperatures; › Cost-effective.
Power supply	230V/50Hz/1f.
Temperature range	-40°C to 55°C.
Sizes	100, 125, 150, 160, 200, 250, 315.
Construction	› Casing: galvanized sheet steel; › Fan: centrifugal impeller and external rotor motor; › Motor protection with built-in thermal-contact; › Motor protection class: IP44; › Terminal box protection class: IP55.
Installation	› Mounting with ducts: Spiro, flexible aluminium or plastic. Mounting bracket LAV is included. › Device can only be used indoors. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› Electronic voltage controller (phase cut); › Voltage controlled speed controller.

VKAP	100	MD/LD	3.0	
				Product version
				Motor power level (M – higher power level, L – lower power level)
				Diameter
				Product name

Accessories

Single phase speed controller	Single phase speed controller	Mounting clamp	Guard grille	Back draft shutter	Circular duct silencer
					
TGRV p. 127	ETY p. 128	AP p. 190	AGO p. 181	RSK p. 177	AKS p. 174



Type	Dimensions [mm]				
	B	C	øD	ød	E
VKAP 100 MD/LD 3.0	189	152	244	100	287
VKAP 125 MD/LD 3.0	182	143	243	125	286
VKAP 150 LD 3.0	217 ± 2	166 ± 2	344	150	387
VKAP 160 MD 3.0	189	143	244	160	287
VKAP 160 LD 3.0	217	166	344	160	387
VKAP 200 MD 3.0	219	167	344	200	387
VKAP 200 LD 3.0	231	179	344	200	387
VKAP 250 MD 3.0	223	160	344	250	387
VKAP 250 LD 3.0	230	167	344	250	387
VKAP 315 MD 3.0	243	175	402	315	444
VKAP 315 LD 3.0	256	188	402	315	444

Type	Accessories										
	TGRV	ETY	AP	AGO	RSK	AKS	FD	FDI	EKA	AVS	AVA
VKAP 100 MD/LD 3.0	1,5	1,5	100	100	100	100	100	100	100	100	100
VKAP 125 MD/LD 3.0	1,5	1,5	125	125	125	125	125	125	125	125	125
VKAP 150 LD 3.0	1,5	1,5	150	150	150	150	-	-	-	-	-
VKAP 160 MD 3.0	1,5	1,5	160	160	160	160	160	160	160	160	160
VKAP 160 LD 3.0	1,5	1,5	160	160	160	160	160	160	160	160	160
VKAP 200 MD 3.0	1,5	1,5	200	200	200	200	200	200	200	200	200
VKAP 200 LD 3.0	1,5	1,5	200	200	200	200	200	200	200	200	200
VKAP 250 MD 3.0	1,5	1,5	250	250	250	250	250	250	250	250	250
VKAP 250 LD 3.0	1,5	1,5	250	250	250	250	250	250	250	250	250
VKAP 315 MD 3.0	1,5	1,5	315	315	315	315	315	315	315	315	315
VKAP 315 LD 3.0	1,5	1,5	315	315	315	315	315	315	315	315	315

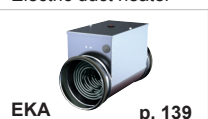
Filter cassette



Filter cassette



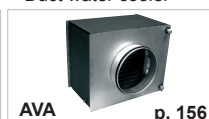
Electric duct heater



Heating coil

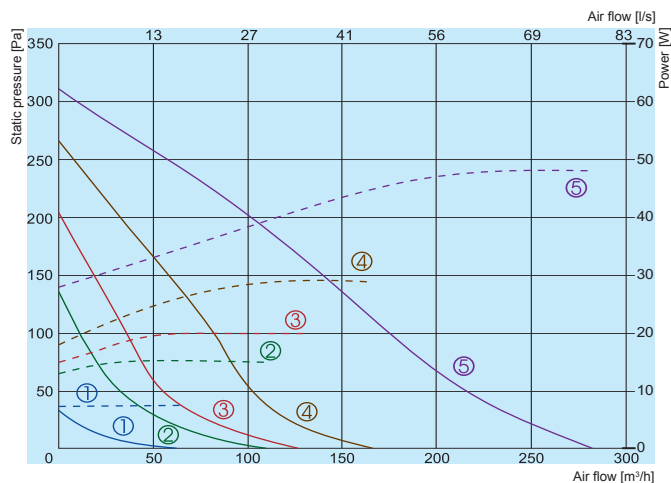


Duct water cooler



VKAP 3.0

VKAP 100 MD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

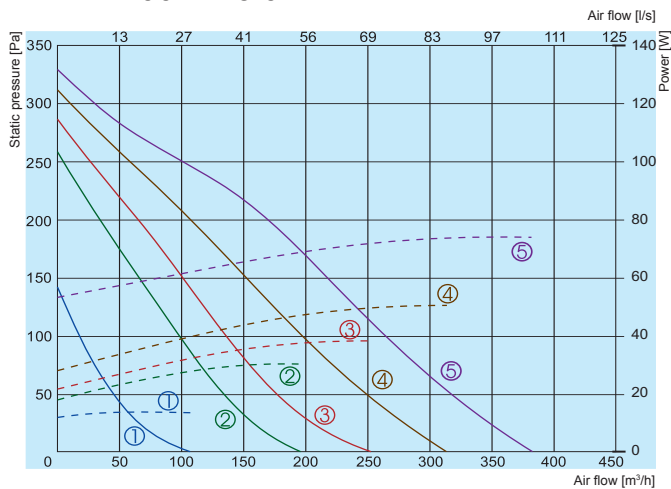
100 MD 3.0

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	61	45	57	52	56	51	31
Outlet	61	44	58	52	55	50	30
Surrounding	46	26	27	36	44	41	23

Measured at 200 m³/h, 62 Pa

VKAP 100 LD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

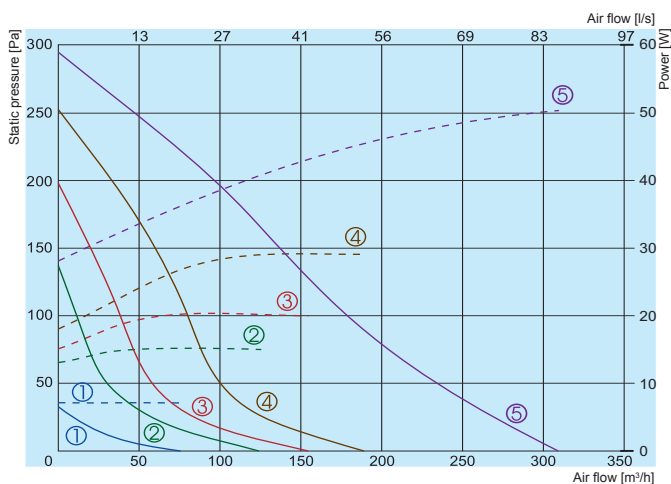
100 LD 3.0

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	70	53	58	60	66	65	47
Outlet	71	54	60	61	67	66	48
Surrounding	61	34	58	44	55	54	37

Measured at 257 m³/h, 104 Pa

VKAP 125 MD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

125 MD 3.0

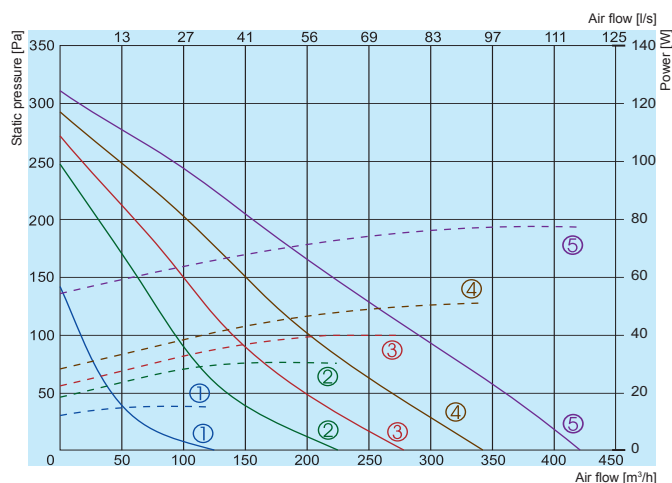
Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	59	43	52	53	54	51	33
Outlet	60	42	53	54	54	52	34
Surrounding	45	21	30	36	42	40	18

Measured at 191 m³/h, 83 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VKAP 125 LD 3.0



Performance
Power consumption

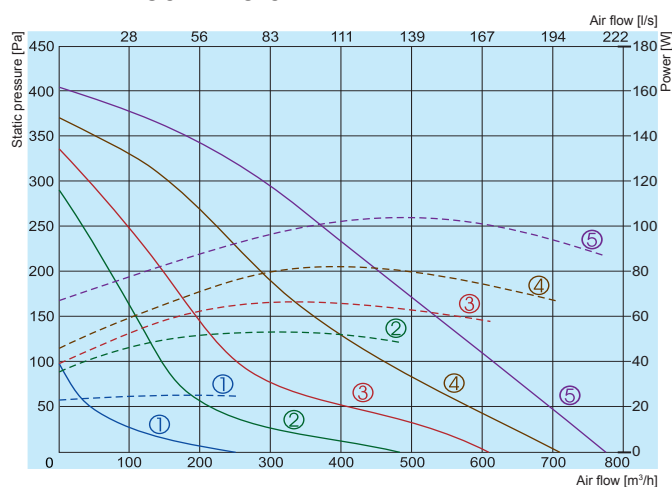
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

125 LD 3.0

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	50	54	63	65	64	56	47
Outlet	68	49	53	61	64	63	55	45
Surrounding	56	28	29	45	53	52	44	35

Measured at 280 m³/h, 104 Pa

VKAP 150 LD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

150 LD 3.0

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	51	66	67	71	62	61	53
Outlet	75	52	67	68	72	64	63	50
Surrounding	62	30	49	51	60	52	50	36

Measured at 595 m³/h, 112 Pa

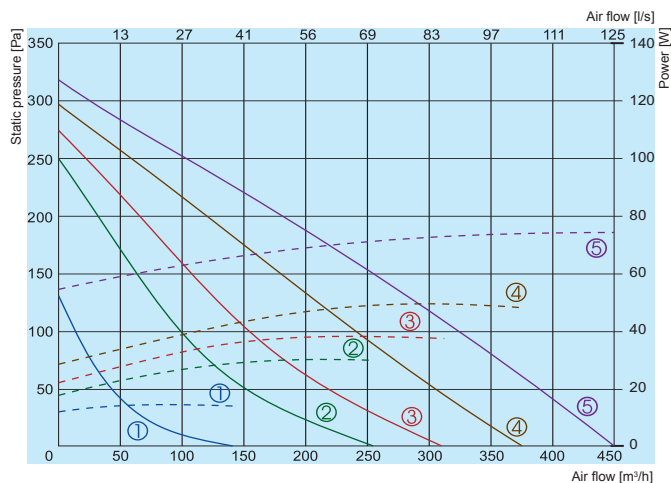
		100 MD 3.0	100 LD 3.0	125 MD 3.0	125 LD 3.0	150 LD 3.0
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	230/50	230/50
Power consumption	[kW]	0,048	0,074	0,05	0,077	0,105
Current	[A]	0,2	0,31	0,21	0,32	0,44
Speed	[min ⁻¹]	2750	2800	2750	2800	2800
Capacitor	[μF]	4,0	2,0	4,0	2,0	2,0
Max. airflow	[m³/h]	281	379	307	421	773
Max. air temperature	[°C]	-40/55	-40/55	-40/55	-40/55	-40/55
Weight	[kg]	3	3	3	3	3
Wiring diagram		No.2	No.1	No. 2	No.1	No.1
Protection class:						
	motor	IP-44	IP-44	IP-44	IP-44	IP-44
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2015		+	+	+	+	+

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKAP 3.0

VKAP 160 MD 3.0



Performance
Power consumption

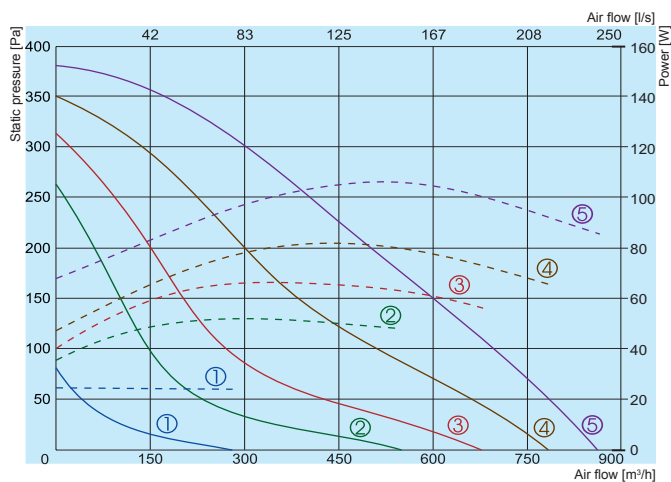
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

160 MD 3.0

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	68	47	50	56	64	63	61	49
Outlet	69	48	52	57	65	64	63	51
Surrounding	56	26	27	40	53	51	50	35

Measured at 318 m³/h, 103 Pa

VKAP 160 LD 3.0



Performance
Power consumption

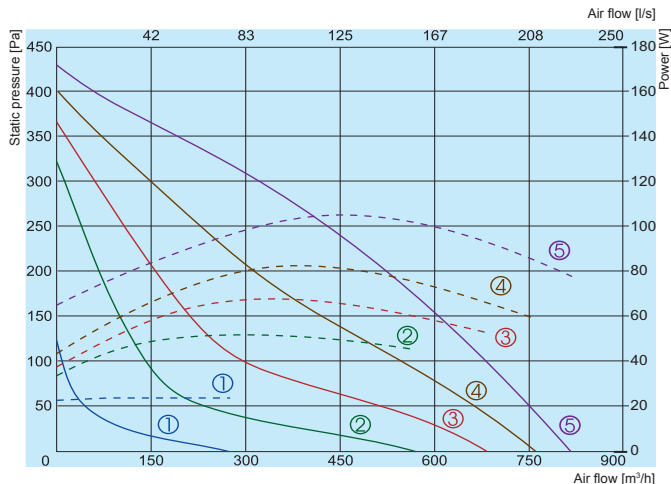
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

160 LD 3.0

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	52	67	68	71	62	62	52
Outlet	75	52	68	68	72	64	63	51
Surrounding	61	31	49	52	59	52	51	36

Measured at 685 m³/h, 104 Pa

VKAP 200 MD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

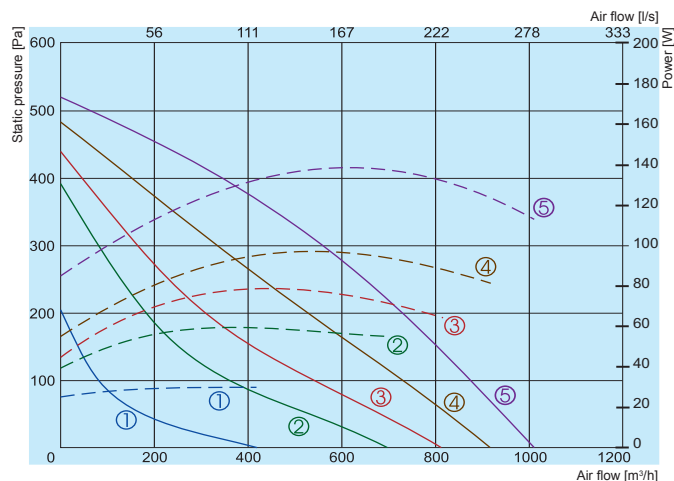
200 MD 3.0

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	70	46	53	62	66	63	64	54
Outlet	71	45	54	61	68	64	65	53
Surrounding	55	22	24	41	49	53	43	40

Measured at 653 m³/h, 125 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VKAP 200 LD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

200 LD 3.0

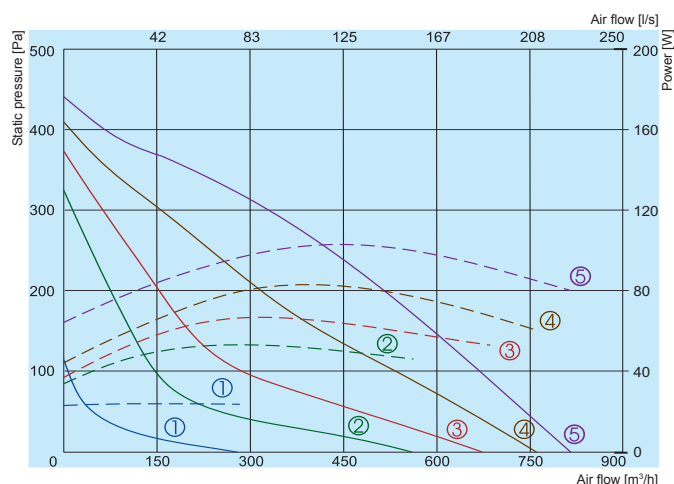
Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	53	60	66	69	66	63
Outlet	74	54	62	65	70	67	63
Surrounding	58	25	35	46	53	55	45

Measured at 846 m³/h, 123 Pa

		160 MD 3.0	160 LD 3.0	200 MD 3.0	200 LD 3.0
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	230/50
Power consumption	[kW]	0,075	0,106	0,107	0,135
Current	[A]	0,31	0,45	0,45	0,56
Speed	[min⁻¹]	2800	2800	2600	2660
Max. airflow	[m³/h]	451	866	816	1007
Capacitor	[µF]	2,0	2,0	2,0	4,0
Max. air temperature	[°C]	-40/55	-40/55	-40/55	-40/55
Weight	[kg]	3	4	4	4,7
Wiring diagram		No.1	No.1	No.1	No.1
Protection class:	motor	IP-44	IP-44	IP-44	IP-44
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2015		+	+	+	-

VKAP 250 MD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

250 MD 3.0

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	71	41	52	61	66	66	56
Outlet	72	43	53	60	68	67	57
Surrounding	52	24	30	38	48	47	40

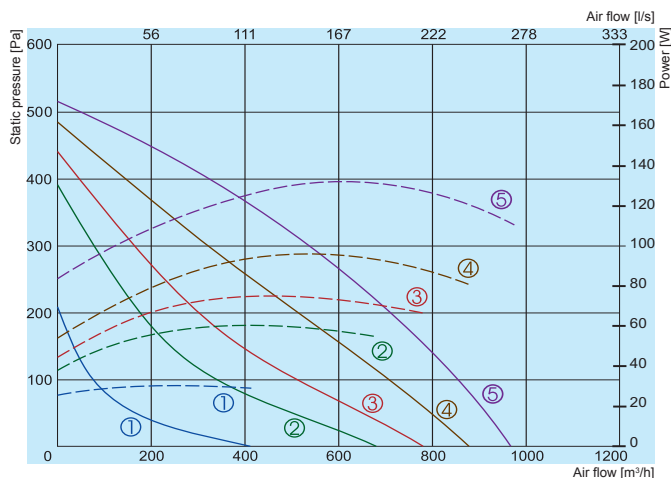
Measured at 634 m³/h, 125 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKAP 3.0

VKAP 250 LD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

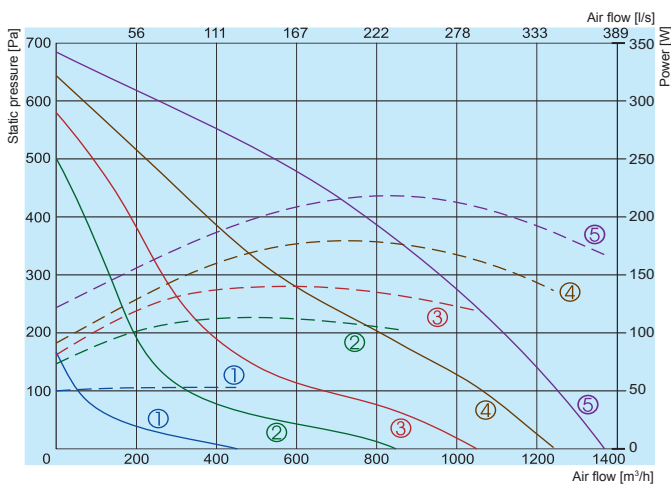
250 LD 3.0

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	54	62	67	69	67	65
Outlet	75	55	63	66	70	68	67
Surrounding	55	33	38	47	50	48	46

Measured at 810 m³/h, 123 Pa

VKAP 315 MD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

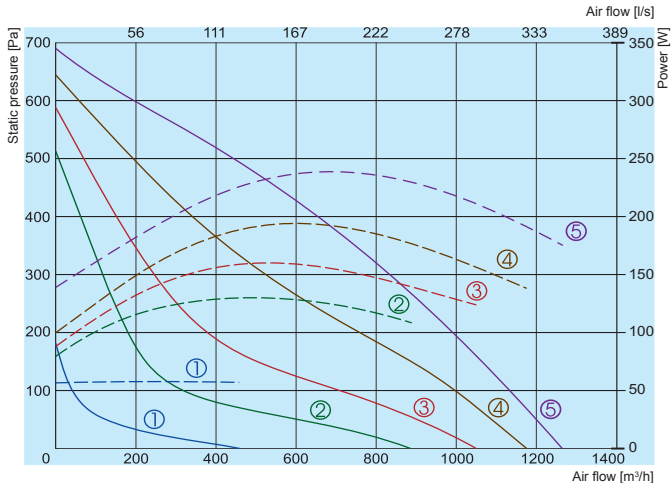
315 MD 3.0

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	78	52	63	71	75	68	63
Outlet	79	53	64	71	76	69	66
Surrounding	57	35	43	51	53	48	43

Measured at 1195 m³/h, 152 Pa

VKAP 315 LD 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

315 LD 3.0

Inlet
Outlet
Surrounding

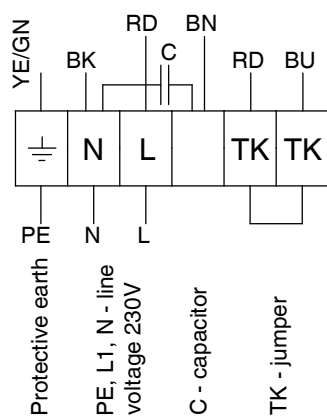
Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	50	59	67	68	66	64
Outlet	74	51	60	66	69	67	65
Surrounding	53	33	38	45	48	47	43

Measured at 1080 m³/h, 149 Pa

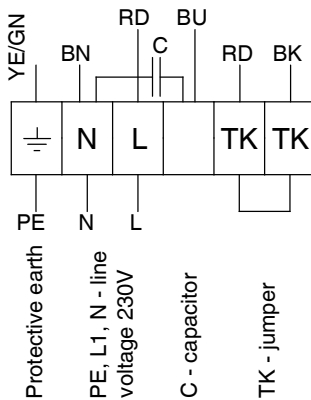
The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

		250 MD 3.0	250 LD 3.0	315 MD 3.0	315 LD 3.0
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	230/50
Power consumption	[kW]	0,106	0,132	0,22	0,238
Current	[A]	0,45	0,56	0,96	1,06
Speed	[min ⁻¹]	2600	2460	2567	2600
Capacitor	[μF]	2,0	4,0	5,0	5,0
Max. airflow	[m ³ /h]	817	967	1372	1263
Max. air temperature	[°C]	-40/55	-40/55	-40/55	-40/55
Weight	[kg]	4	4,7	5,6	6,0
Wiring diagram		No.1	No.1	No.1	No.1
Protection class:	motor	IP-44	IP-44	IP-44	IP-44
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2015		+	-	-	-

Wiring diagram No. 1



Wiring diagram No. 2



YE/GN - yellow/green

BK - black

RD - red

BN - brown

BU - blue



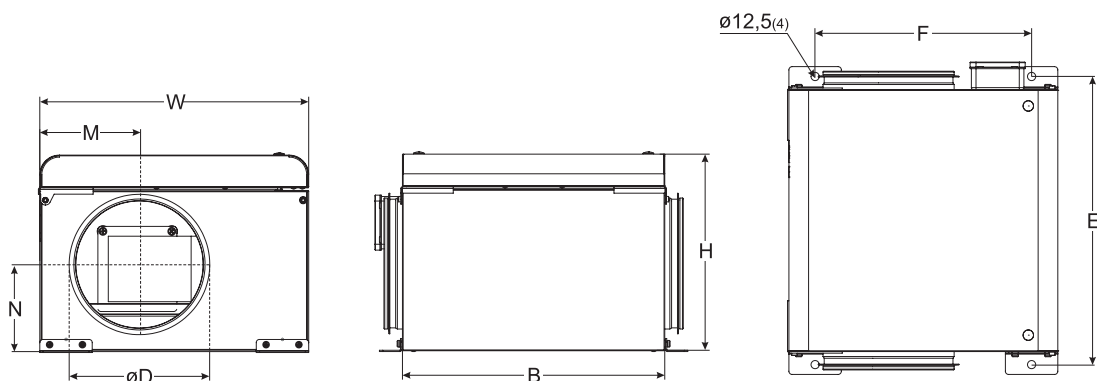
Features	› Diameter - 125 mm to 315 mm; › Airflow up to 1640 m³/h; › Easily mounted in any position; › Backward-curved impeller; › Fan speed 100% controllable via 0-10 V signal; › Energy efficient; › Acoustically insulated.
Power supply	230V/50Hz/1f.
Temperature range	From -25°C up to 55°C/60°C.
Sizes	125, 160, 200, 250, 315.
Construction	› Casing: galvanized sheet steel; › Acoustic and thermal wall insulation – 50mm; › Fan: centrifugal impeller and external rotor motor; › Motor protection integrated into motor electronics; › Motor protection class: IP44/ IP54 (AKU EKO 315 only); › Terminal box protection class: IP55.
Installation	› Mounting with ducts: Spiro, flexible aluminium or plastic. › Device can only be used indoors. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› 10 kΩ potentiometer; › External signal 0-10 VDC/PWM from user controller. › Can be connected directly to optional constant pressure sensors, CO₂, RH or an on/off switch.

AKU 125 EKO

	Fans with EC motors
	Diameter size
	Product name

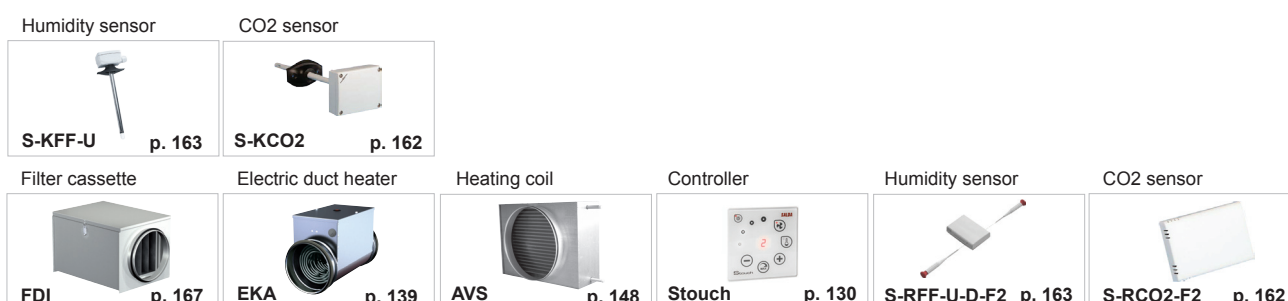
Accessories

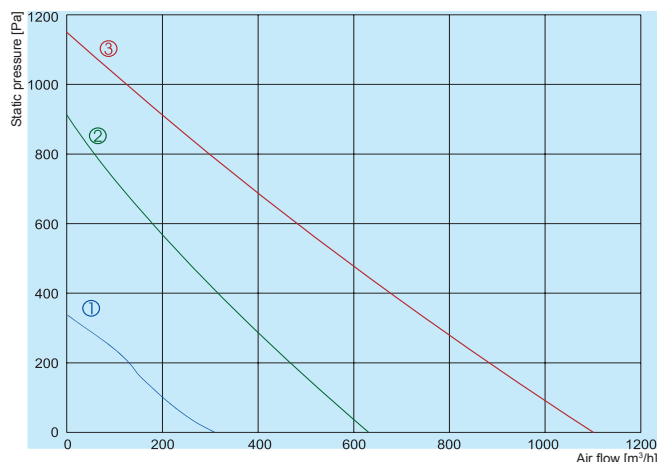
0-10V speed controller	Mounting clamp	Guard grille	Back draft shutter	Circular duct silencer	Filter cassette
MTP010 p. 128	AP p. 190	AGO p. 181	RSK p. 177	AKS p. 174	FD p. 169



Type	Dimensions [mm]							
	B	W	H	M	N	ϕD	E	F
AKU 125 EKO	400	410	325	205	165,5	125	440	330
AKU 160 EKO	550	485	340	149	193	160	590	405
AKU 200 EKO	600	545	425	170	259,5	200	640	465
AKU 250 EKO	600	545	425	194	234,5	250	640	465
AKU 315 EKO	437	595	475	297,5	238	315	477	515

Type	Accessories								
	MTP010	Stouch	AP AGO	RSK	AKS	FD FDI	EKA AVS	S-RCO2-F2 S-KCO2	S-RFF-U-D-F2 S-KFF-U
AKU 125 EKO	MTP010	+	125	125	125	125	125	+	+
AKU 160 EKO	MTP010	+	160	160	160	160	160	+	+
AKU 200 EKO	MTP010	+	200	200	200	200	200	+	+
AKU 250 EKO	MTP010	+	250	250	250	250	250	+	+
AKU 315 EKO	MTP010	+	315	315	315	315	315	+	+





① **AKU 125 EKO**
② **AKU 160 EKO**
③ **AKU 200 EKO**

		125 EKO	160 EKO	200 EKO
Voltage/Frequency	[V/Hz]	~1, 230	~1, 230	~1, 230
Power consumption	[kW]	0,053	0,114	0,195
Current	[A]	0,4	0,99	1,45
Speed	[min ⁻¹]	4480	3490	3380
Max. airflow	[m³/h]	308	630	1100
Min./Max. air temperature	[°C]	-20/50	-25/60	-25/45
Weight	[kg]	12,3	19,0	25,0
Wiring diagram		No. 1	No. 1	No. 3
Protection class:	motor	IP-44	IP-44	IP-44
	terminal box	IP-55	IP-55	IP-55
Impeller		backwards curved	backwards curved	backwards curved
Inlet		single	single	single
Comply with ERP 2018		+	+	+

125 EKO

	LWA total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	59	41	54	56	45	45	40	44
Outlet	65	43	58	62	57	57	52	49
Surrounding	47	28	43	44	36	34	31	29

Measured at 207 m³/h, 95 Pa

160 EKO

	LWA total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	65	49	63	60	49	51	48	46
Outlet	74	52	68	70	67	64	61	58
Surrounding	54	36	52	49	42	41	38	36

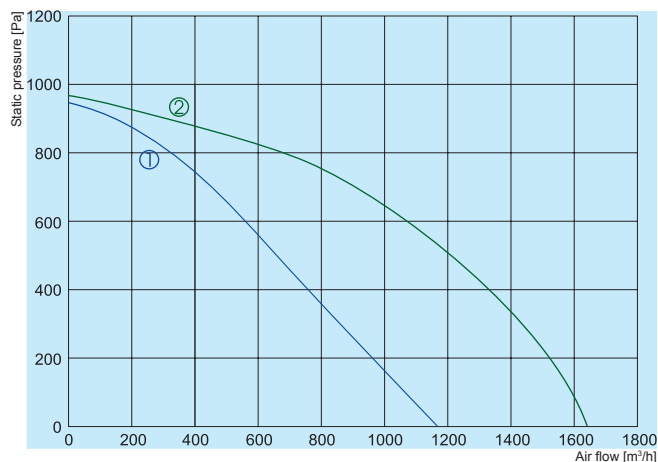
Measured at 413 m³/h, 211 Pa

200 EKO

	LWA total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	68	52	66	60	56	54	51	52
Outlet	80	56	74	76	74	69	64	63
Surrounding	58	39	56	52	49	45	41	42

Measured at 805 m³/h, 170 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.



① **AKU 250 EKO**
② **AKU 315 EKO**

		250 EKO	315 EKO
Voltage/Frequency	[V/Hz]	~1, 230	~1, 230
Power consumption	[kW]	0,213	0,400
Current	[A]	1,69	3,00
Speed	[min ⁻¹]	3220	3400
Max. airflow	[m³/h]	1167	1642
Min./Max. air temperature	[°C]	-20/60	-25/55
Weight	[kg]	25,0	31,0
Wiring diagram		No. 1	No. 2
Protection class:	motor	IP-44	IP-54
	terminal box	IP-55	IP-55
Impeller		backward curved	backward curved
Inlet		single	single
Comply with ERP 2018		+	+

250 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	57	70	64	66	59	53	52
Outlet	84	62	77	80	78	73	68	64
Surrounding	63	45	60	56	56	49	44	42

Measured at 1049 m³/h, 120 Pa

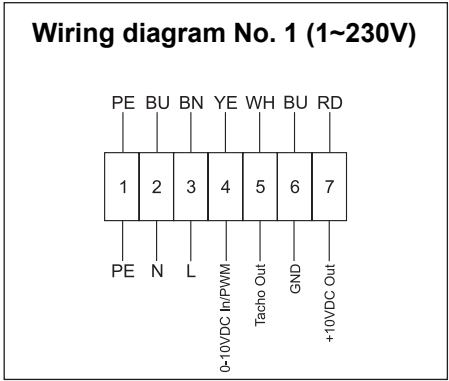
315 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	59	73	67	68	65	58	55
Outlet	87	64	75	84	81	76	72	67
Surrounding	65	47	61	60	58	54	48	45

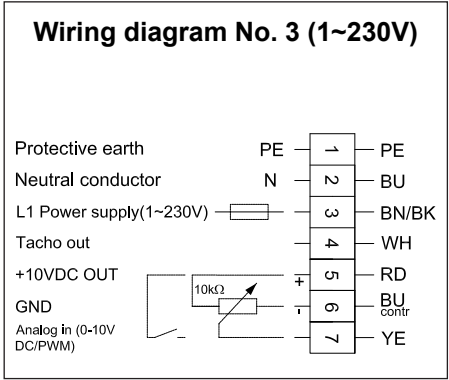
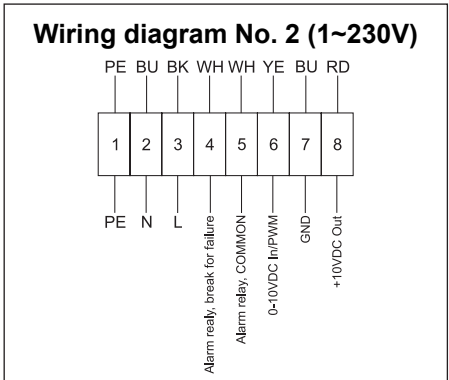
Measured at 1553 m³/h, 120 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice



PE - yellow-green
BU - blue
BN - brown
YE - yellow
WH - white
RD - red
BN/BK - brown/black



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



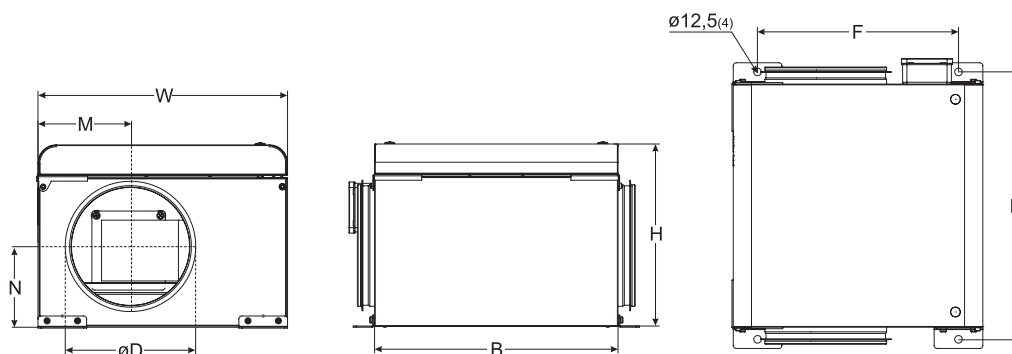
Features	› Diameter -125 mm to 400 mm; › Airflow up to 4390 m³/h; › Easily mounted in any position; › Backward or forward-curved impeller; › Cost-effective; › Acoustically insulated.
Power supply	230V/50Hz/1f.
Temperature range	From -25°C up to 40/65°C, depending on size.
Sizes	125, 160, 200, 250, 315, 400.
Construction	› Casing: galvanized sheet steel; › Acoustic and thermal wall insulation – 50mm; › Fan: centrifugal impeller and external rotor motor; › Motor protection with built-in thermal-contact (only for fans with TK terminals); › Motor protection class: IP44/ IP54; › Terminal box protection class: IP55.
Installation	› Mounting with ducts: Spiro, flexible aluminium or plastic. › Device can only be used indoors. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› Electronic voltage controller (phase cut); › Voltage controlled speed controller.

AKU 125 M

→	Motor power level (M - lowest/ D – medium/ S - largest)
→	Diameter
→	Product name

Accessories

Single phase speed controller	Single phase speed controller	Mounting clamp	Guard grille	Back draft shutter	Circular duct silencer
					
TGRV p. 127	ETY/MTY p. 128	AP p. 190	AGO p. 181	RSK p. 177	AKS p. 174



Type	Dimensions [mm]							
	B	W	H	M	N	øD	E	F
AKU 125 M/D	400	410	300	133	171,5	125	440	330
AKU 160 M/D	400	410	300	261,5	141	160	440	330
AKU 200 M	444	444	420	222	250	200	484	364
AKU 200 D	400	410	300	258	133	200	440	330
AKU 200 S	600	560	420	170	244,5	200	640	480
AKU 250 M	444	444	420	222	221,5	250	484	364
AKU 250 D	694	694	500	218	304	250	734	614
AKU 250 S	694	694	500	228	304	250	734	614
AKU 315 M	694	694	500	238	270	315	734	614
AKU 315 D	768	768	570	238	319,5	315	808	688
AKU 400 D	768	768	570	252	304,5	400	808	688
AKU 400 S	705	768	685	384	420	400	745	688

Type	Accessories										
	TGRV	ETY/MTY	S-RCO2-F2 S-KCO2	S-RFF-U-D-F2 S-KFF-U	AP AGO	RSK	AKS	FD FDI	EKA	AVS	AVA
AKU 125 M/D	1,5	1,5	+	+	125	125	125	125	125	125	125
AKU 160 M/D	1,5	1,5	+	+	160	160	160	160	160	160	160
AKU 200 M/D/S	1,5	1,5	+	+	200	200	200	200	200	200	200
AKU 250 M	2	1,5	+	+	250	250	250	250	250	250	250
AKU 250 D	4	4	+	+	250	250	250	250	250	250	250
AKU 250 S	2	1,5	+	+	250	250	250	250	250	250	250
AKU 315 M	7	-	+	+	315	315	315	315	315	315	315
AKU 315 D	11	-	+	+	315	315	315	315	315	315	315
AKU 400 D/S	11	-	+	+	400	400	400	400	400	400	400

CO2 sensor



S-RCO2-F2 p. 162

Humidity sensor



S-KFF-U p. 163

CO2 sensor



S-KCO2 p. 162

Filter cassette



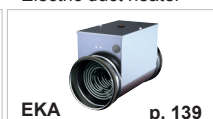
FD p. 169

Filter cassette



FDI p. 167

Electric duct heater



EKA p. 139

Heating coil



AVS p. 148

Duct water cooler



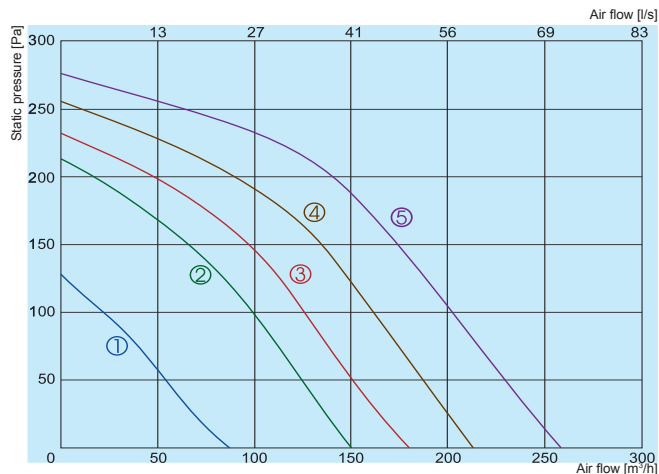
AVA p. 156

Humidity sensor



S-RFF-U-D-F2 p. 163

AKU 125 M



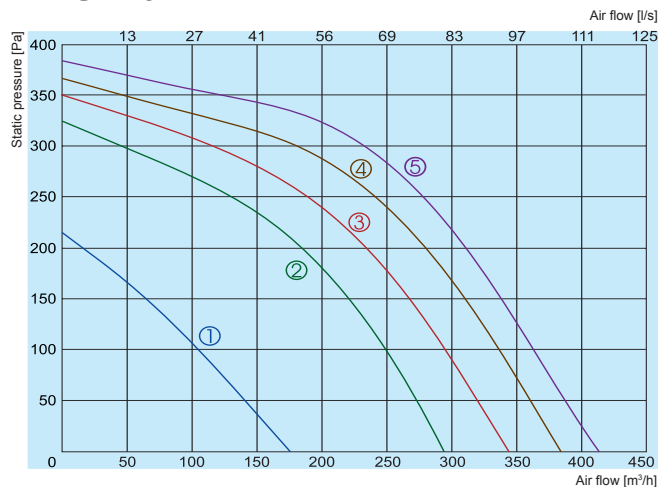
125 M

Inlet
Outlet
Surrounding

Measured at 181 m³/h, 132 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	55	48	43	48	50	43	37
Outlet	67	47	52	57	64	62	48
Surrounding	45	33	34	37	41	36	26

AKU 125 D



125 D

Inlet
Outlet
Surrounding

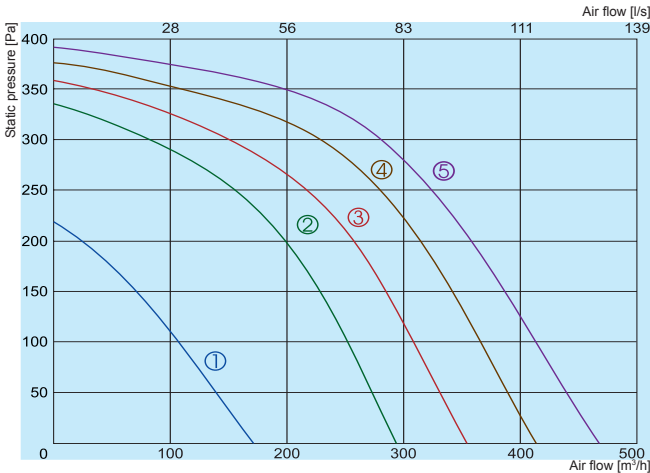
Measured at 288 m³/h, 231 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	61	56	50	55	52	51	47
Outlet	74	53	56	63	70	69	60
Surrounding	51	40	39	43	45	44	38

		AKU 125 M	AKU 125 D
Voltage/Frequency	[V/Hz]	~1, 230	~1, 230
Power consumption	[kW]	0,075	0,120
Current	[A]	0,33	0,53
Speed	[min ⁻¹]	2335	2480
Capacitor	[μF]	2	4
Max. airflow	[m³/h]	258	411
Min./Max. air temperature	[°C]	-20/70	-20/65
Weight	[kg]	11,9	13,5
Wiring diagram		No. 2	No. 1
Protection class:	motor	IP-44	IP-44
	terminal box	IP-55	IP-55
Impeller		forward curved	forward curved
Inlet		single	single
Comply with ERP 2018		-	-

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

AKU 160 M



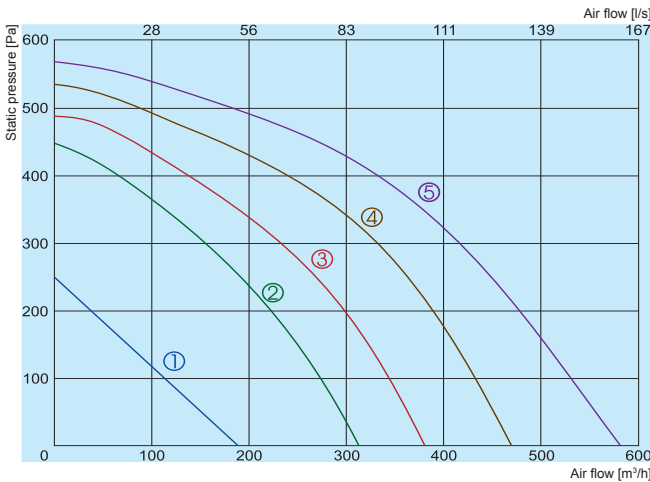
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

160 M

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	65	58	57	59	55	56	58	54
Outlet	76	55	62	66	72	71	67	64
Surrounding	54	42	46	47	48	47	46	43

Measured at 383 m³/h, 149 Pa

AKU 160 D



- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

160 D

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	67	59	56	61	58	58	59	55
Outlet	79	57	61	70	75	75	69	66
Surrounding	57	43	45	50	51	50	47	45

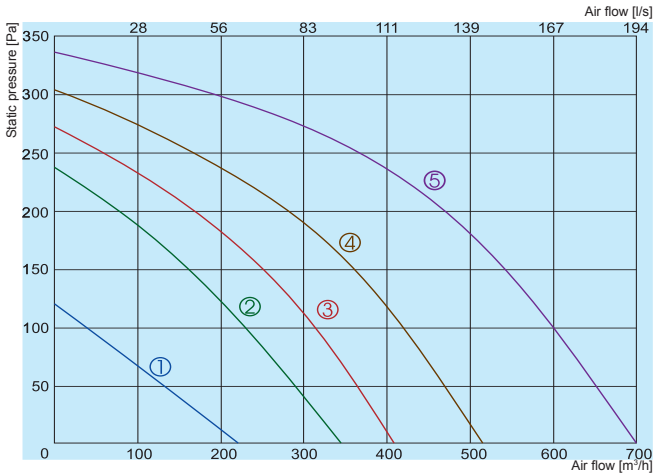
Measured at 492m³/h, 179 Pa

		AKU 160 M	AKU 160 D
Voltage/Frequency	[V/Hz]	~1, 230	~1, 230
Power consumption	[kW]	0,135	0,278
Current	[A]	0,59	1,20
Speed	[min ⁻¹]	2480	2647
Capacitor	[μF]	4	5
Max. airflow	[m³/h]	465	583
Min./Max. air temperature	[°C]	-20/65	-40/50
Weight	[kg]	13,6	14,0
Wiring diagram		No. 1	No. 1
Protection class:	motor	IP-44	IP-44
	terminal box	IP-55	IP-55
Impeller		forward curved	forward curved
Inlet		single	single
Comply with ERP 2018		-	-

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

AKU 200 M



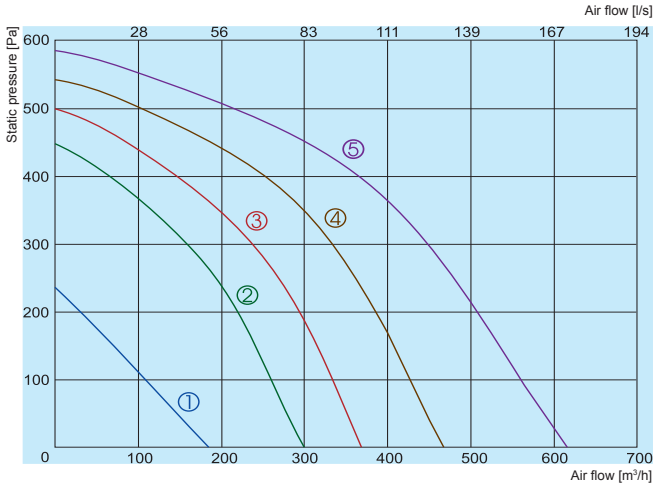
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

200 M

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	63	57	50	55	56	55	54	50
Outlet	73	56	58	62	69	68	66	61
Surrounding	52	42	40	43	47	45	43	40

Measured at 575m³/h, 122 Pa

AKU 200 D



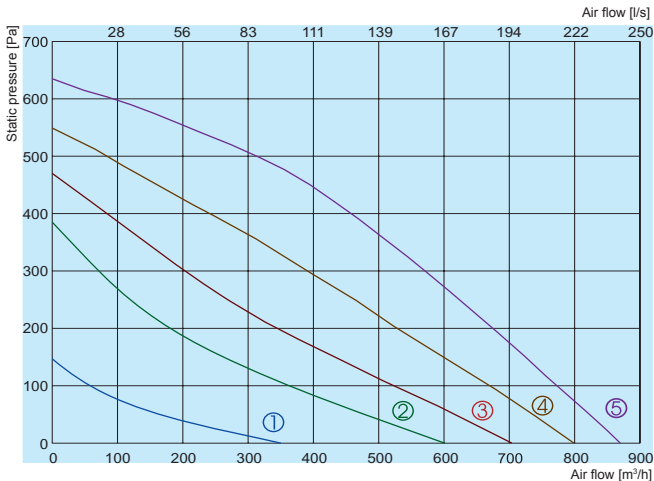
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

200 D

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	59	60	62	62	62	61	57
Outlet	78	55	63	69	74	72	70	66
Surrounding	56	41	47	49	51	49	48	45

Measured at 516 m³/h, 183 Pa

AKU 200 S



- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

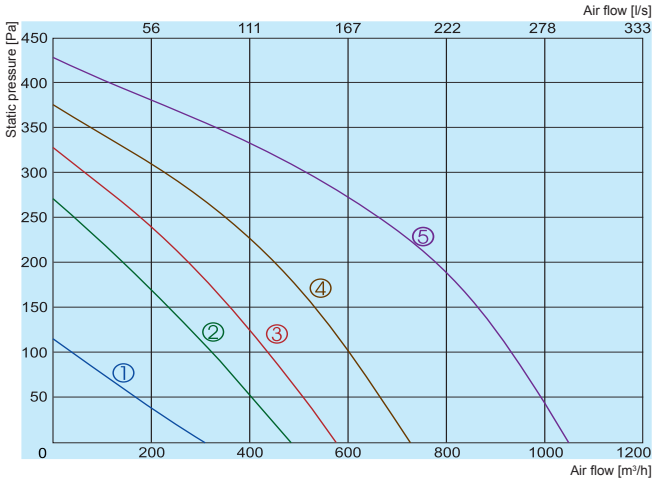
200 S

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	64	54	61	57	54	52	53	52
Outlet	80	56	66	77	74	72	67	63
Surrounding	57	41	50	53	49	46	44	43

Measured at 755 m³/h, 117 Pa

		AKU 200 M	AKU 200 D	AKU 200 S
Voltage/Frequency	[V/Hz]	~1, 230	~1, 230	~1, 230
Power consumption	[kW]	0,167	0,278	0,145
Current	[A]	0,72	1,20	0,64
Speed	[min ⁻¹]	1550	2647	2510
Capacitor	[μF]	4	5	4
Max. airflow	[m³/h]	697	611	870
Min./Max. air temperature	[°C]	-20/55	-20/65	-20/75
Weight	[kg]	17,3	13,7	26,0
Wiring diagram		No. 1	No. 1	No. 1
Protection class:	motor	IP-44	IP-44	IP-44
	terminal box	IP-55	IP-55	IP-55
Impeller		forward curved	forward curved	forward curved
Inlet		double	single	single
Comply with ERP 2018		-	-	-

AKU 250 M



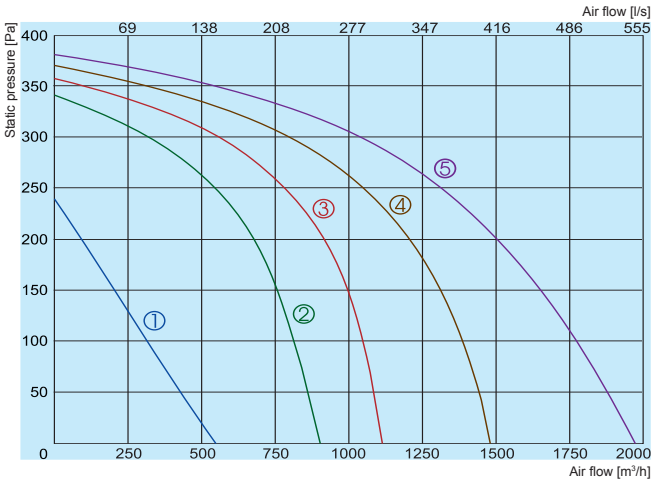
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

250 M

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	61	60	60	58	66	59	53
Outlet	82	59	64	70	72	80	70	65
Surrounding	59	45	48	49	49	56	48	43

Measured at 937 m³/h, 100 Pa

AKU 250 D



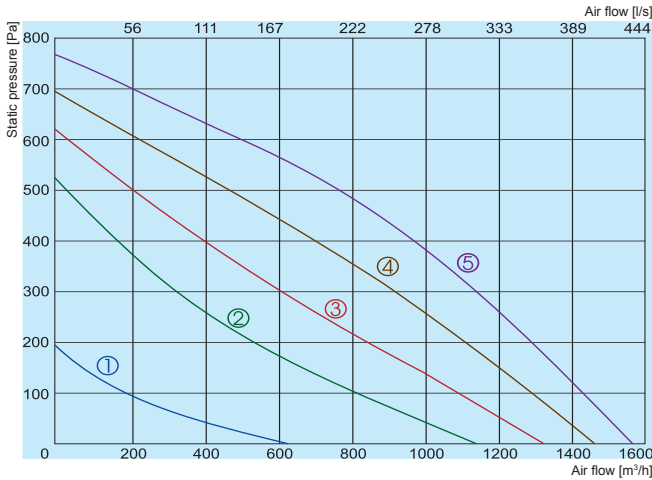
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

250 D

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	65	58	59	54	57	55	56	50
Outlet	79	59	65	73	75	71	71	63
Surrounding	57	45	49	50	51	47	48	42

Measured at 1380 m³/h, 241 Pa

AKU 250 S



- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

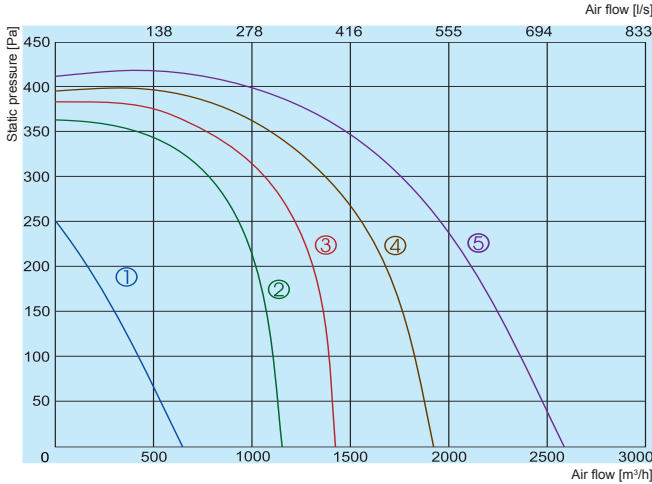
250 S

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	68	56	65	58	59	57	55
Outlet	81	67	73	77	75	72	64
Surrounding	59	47	55	52	51	48	44

Measured at 1349 m³/h, 161 Pa

AKU 315 M



- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

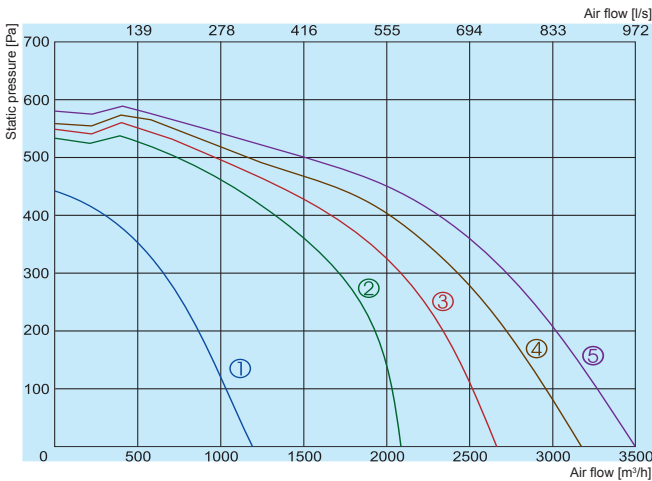
315 M

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	71	66	66	59	60	61	54
Outlet	82	65	71	78	77	73	65
Surrounding	60	51	55	53	53	50	44

Measured at 2304 m³/h, 130 Pa

AKU 315 D



- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

315 D

Inlet
Outlet
Surrounding

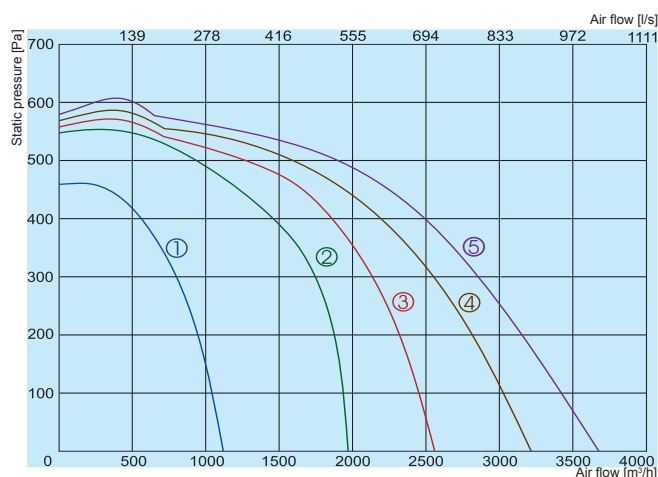
Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	65	67	61	65	64	58
Outlet	87	67	75	82	82	79	71
Surrounding	64	52	57	56	58	55	49

Measured at 3057 m³/h, 192 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

		AKU 250 M	AKU 250 D	AKU 250 S	AKU 315 M	AKU 315 D
Voltage/Frequency	[V/Hz]	~1, 230	~1, 230	~1, 230	~1, 230	~1, 230
Power consumption	[kW]	0,265	0,545	0,310	0,950	1,505
Current	[A]	1,15	2,56	1,35	4,79	6,61
Speed	[min ⁻¹]	2082	1190	2665	1210	1290
Capacitor	[μF]	5	10	10	16	35
Max. airflow	[m ³ /h]	1045	1976	1563	2596	3499
Min./Max. air temperature	[°C]	-20/40	-20/40	-20/60	-20/40	-20/40
Weight	[kg]	17,0	39,0	37,0	47,0	63,0
Wiring diagram		No. 2	No. 3	No. 2	No. 3	No. 3
Protection class:	motor	IP-44	IP-54	IP-44	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Impeller		forward curved	forward curved	backward curved	forward curved	forward curved
Inlet		double	single	single	single	single
Comply with ERP 2018		-	-	-	-	-

AKU 400 D



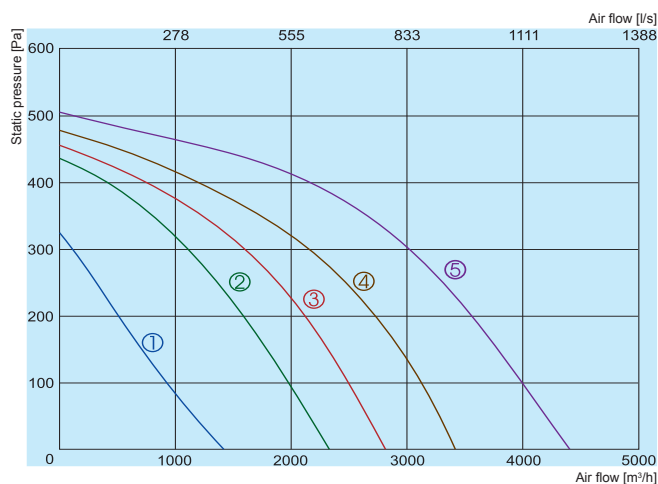
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

400 D

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	69	69	64	69	69	67	63
Outlet	89	70	78	84	83	82	81	75
Surrounding	66	55	60	58	60	59	57	53

Measured at 3259 m³/h, 161 Pa

AKU 400 S



- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

400 S

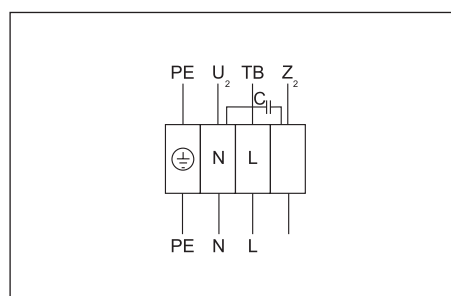
	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	80	71	74	69	71	74	73	66
Outlet	91	74	81	83	86	85	81	75
Surrounding	71	58	64	66	63	62	60	55

Measured at 3884 m³/h, 124 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

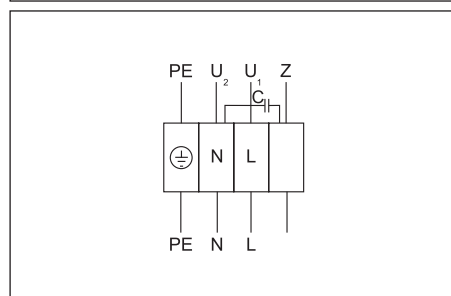
The company reserves the right to make changes of technical data without prior notice

		AKU 400 D	AKU 400 S
Voltage/Frequency	[V/Hz]	~1, 230	~1, 230
Power consumption	[kW]	1,720	1,40
Current	[A]	7,63	6,14
Speed	[min ⁻¹]	1290	1500
Capacitor	[μF]	4	5
Max. airflow	[m ³ /h]	3664	4391
Min./Max. air temperature	[°C]	-20/40	-20/40
Weight	[kg]	63,0	70,0
Wiring diagram		No. 3	No. 4
Protection class:	motor	IP-54	IP-54
	terminal box	IP-55	IP-55
Impeller		forward curved	backward curved
Inlet		single	double
Comply with ERP 2018		-	-



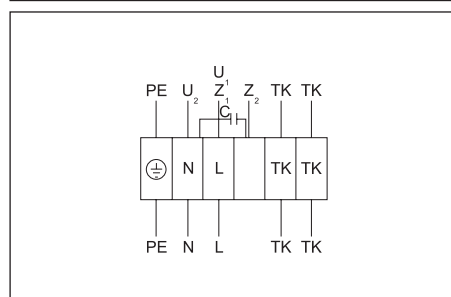
Wiring diagram No. 1 (1~230V)

PE - yellow-green
U₂ - blue
Z₂ - black
TB - brown



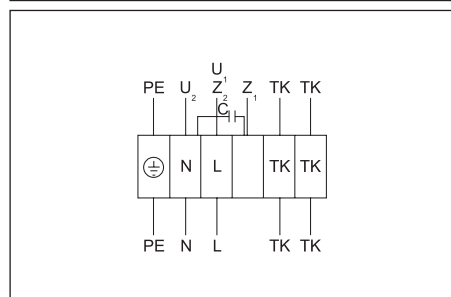
Wiring diagram No. 2 (1~230V)

PE - yellow-green
U₂ - black
U₁ - blue
Z - brown



Wiring diagram No. 3 (1~230V)

PE - yellow-green
U₁ - brown
U₂ - blue
Z₁ - black
Z₂ - orange
TK - white



Wiring diagram No. 4 (1~230V)

PE - yellow-green
U₁ - brown
U₂ - blue
Z₁ - black
Z₂ - orange
TK - white

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



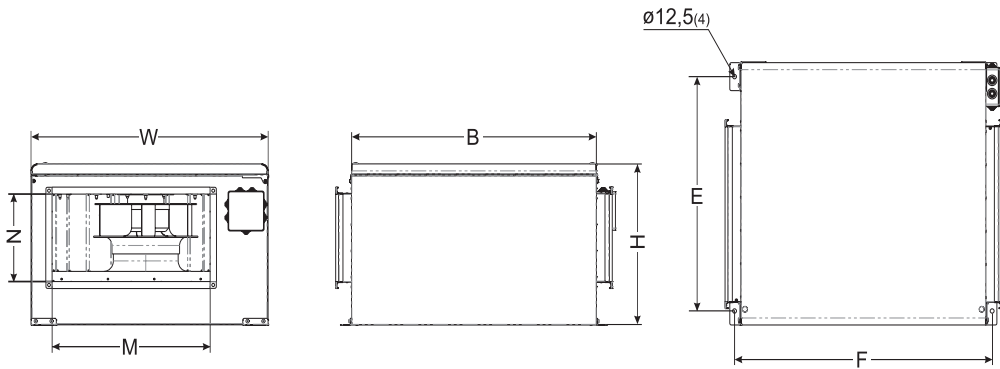
Features	› 500x250 mm to 700x400 mm flanges; › Airflow up to 5310 m³/h; › Can be mounted on floors, walls or ceilings; › Backward-curved impeller; › Fan speed 100% controllable by 0-10 V signal; › Energy efficient; › Acoustically insulated.
Power supply	230V/50Hz/1f.
Temperature range	From -25°C up to 40/60°C.
Sizes	500x250, 700x400 and 700x400 S.
Construction	› Casing: galvanized sheet steel; › Acoustic and thermal wall insulation – 50mm; › Fan: centrifugal impeller and external rotor motor; › Motor protection integrated into motor electronics; › Motor protection class: IP54; › Terminal box protection class: IP55.
Installation	› Device can only be used indoors. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› 10 kΩ potentiometer; › External signal 0-10 VDC/PWM from user controller. › Can be connected directly to optional constant pressure sensors, CO2, RH or an on/off switch.

AKU 700x400 S EKO

	Fans with EC motors
	Includes higher-powered motor
	Flange size
	Product name

Accessories

0-10V speed controller	Rectangular duct silencer	Filter cassette	Electrical duct heater	Water heater coil	Controller
MTP010 p. 128	SKS p. 173	FDS p. 166	EKS p. 142	SVS p. 153	Stouch p. 130



Type	Dimensions [mm]						
	B	W	H	M	N	E	F
AKU 500x250 EKO	775	750	460	500	250	670	815
AKU 700x400 EKO	650	950	570	700	400	870	690
AKU 700x400S EKO	650	950	570	700	400	870	690

Type	Accessories							
	MTP010	Stouch	S-RCO2-F2 S-KCO2	S-RFF-U-D-F2 S-KFF-U	SKS	FDS	EKS	SVS
AKU 500x250 EKO	MTP010	+	+	+	500x250	500x250	500x250	500x250
AKU 700x400 EKO	MTP010	+	+	+	700x400	700x400	700x400	700x400
AKU 700x250S EKO	MTP010	+	+	+	700x400	700x400	700x400	700x400

RECTANGULAR DUCT FANS

CO2 sensor



S-RCO2-F2 p. 162

Humidity sensor



S-KFF-U p. 163

CO2 sensor

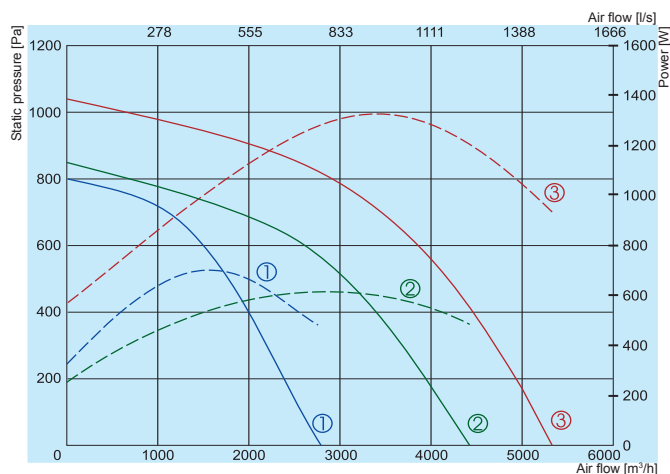


S-KCO2 p. 162

Humidity sensor



S-RFF-U-D-F2 p. 163



- ① **AKU 500x250 EKO**
- ② **AKU 700x400 EKO**
- ③ **AKU 700x400S EKO**

— Performance
- - - Power consumption

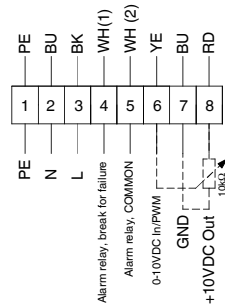
		500x250 EKO	700x400 EKO	700x400S EKO
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50
Power consumption	[kW]	0,540	0,95	1,330
Current	[A]	2,48	4,32	5,8
Speed	[min ⁻¹]	2600	2200	2390
Max. airflow	[m³/h]	2805	4436	5313
Min./Max. air temperature	[°C]	-25/40	-20/60	-20/40
Weight	[kg]	52,0	49,7	51,3
Wiring diagram		No.1	No.2	No.2
Protection class:	motor	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55
Impeller		backwards curved	backwards curved	backwards curved
Inlet		single	single	single
Comply with ERP 2018		+	+	+

500x250 EKO	Lwa total, dB(A)	Lwa, dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
	Inlet	79	62	75	73	73	67	63	58
	Outlet	90	66	81	87	83	81	77	70
Surrounding	69	49	64	64	62	57	53	48	
Measured at 2529 m³/h, 116 Pa									
700x400 EKO	Lwa total, dB(A)	Lwa, dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
	Inlet	79	59	68	68	75	69	67	63
	Outlet	85	62	72	72	78	78	75	66
Surrounding	66	66	46	56	61	57	54	49	
Measured at 4135 m³/h, 121 Pa									
700x400S EKO	Lwa total, dB(A)	Lwa, dB(A)							
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
	Inlet	83	56	73	78	76	75	73	69
	Outlet	89	59	77	81	85	82	80	73
Surrounding	71	48	62	64	66	63	61	55	
Measured at 5102 m³/h, 101 Pa									

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

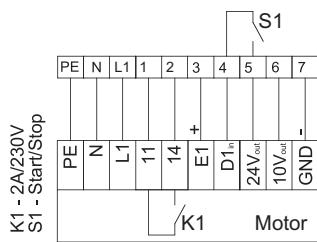
The company reserves the right to make changes of technical data without prior notice

Wiring diagram No. 1 (1~230V)



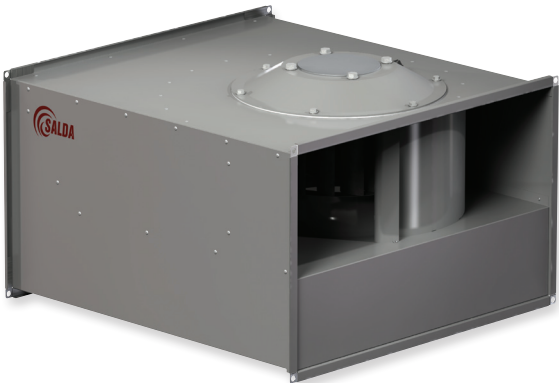
PE - yellow-green
BU - blue
BK - Black
YE - yellow
WH - white
RD - red

Wiring diagram No. 2 (1~230V)





VKS



VKSA



Features	› 400x200 mm to 1000x500 mm flanges;
	› Airflow up to 7200 m³/h;
	› Can be mounted on floors, walls or ceilings;
	› Forward-curved galvanized steel impeller;
	› Cost-effective;
	› Acoustically insulated (VKSA only).
Power supply	230V/50Hz/1f or 400V/50Hz/3f.
Temperature range	From -25°C up to 40/70°C, depending on unit size.
Sizes	400x200, 500x250, 500x300, 600x300, 600x350, 700x400, 800x500 and 1000x500.
Construction	› Casing: galvanized sheet steel;
	› Acoustic and thermal wall insulation – 50mm (VKSA only);
	› Fan: centrifugal impeller and external rotor motor;
	› Motor protection with built-in thermal-contact;
	› Motor protection class: IP54;
	› Terminal box protection class: IP55.
Installation	Device can only be used indoors. Not suitable for polluted air or volatile and explosive gases.
Speed control options	› Electronic voltage controller (phase cut).
	› Voltage controlled speed controller.

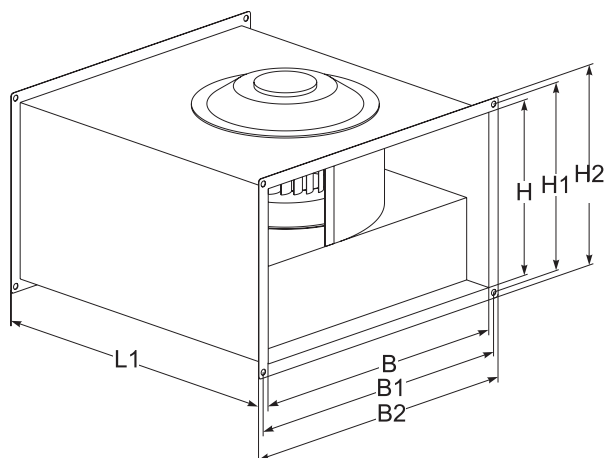
VKS A 700x400 4 L3

	Phases of the motor (L1 – 1f, L3 – 3f)
	Number of motor axes
	Flange size
	Acoustical
	Product name

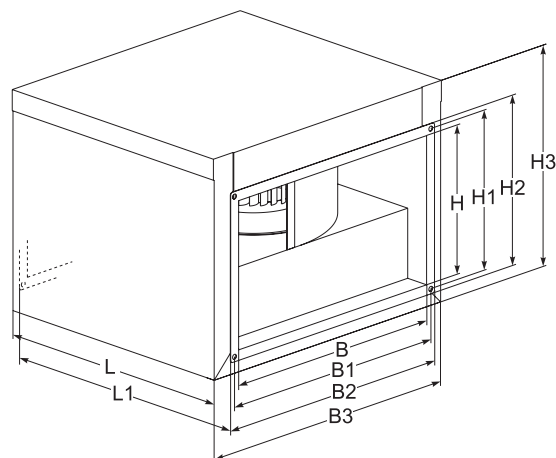
Accessories

Single phase speed controller	Three phase speed controller	Single phase speed controller	Filter cassette	Rectangular duct silencer	Electrical duct heater
TGRV p. 127	TGRT p. 127	ETY/MTY p. 128	FDS p. 166	SKS p. 173	EKS p. 142

VKS



VKSA



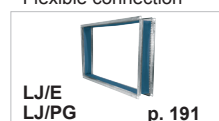
VKS

Type	Dimensions [mm]						
	B	B1	B2	H	H1	H2	L1
VKS 400x200	400	420	440	200	220	240	445
VKS 500x250	500	520	540	250	270	290	530
VKS 500x300	500	520	540	300	320	340	560
VKS 600x300	600	620	640	300	320	340	640
VKS 600x350	600	620	640	350	370	390	700
VKS 700x400	700	720	740	400	420	440	780
VKS 800x500	800	820	840	500	520	540	880
VKS 1000x500	1000	1020	1040	500	520	540	980

VKSA

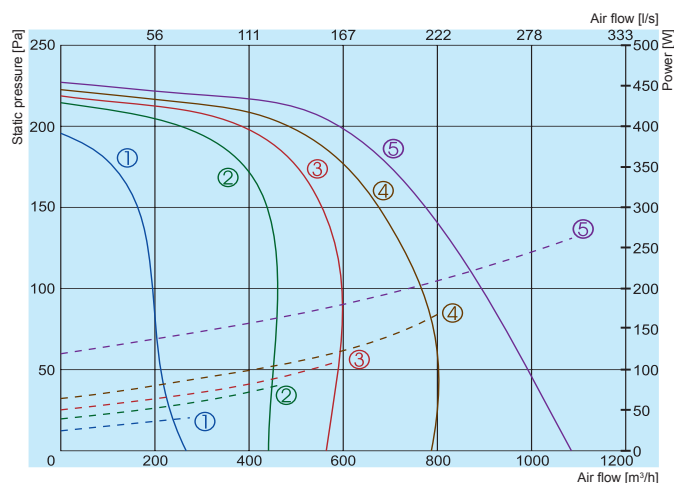
Type	Dimensions [mm]									
	B	B1	B2	B3	H	H1	H2	H3	L	L1
VKSA 400x200	400	420	440	507	200	220	240	338	417	445
VKSA 500x250	500	520	540	605	250	270	290	393	502	530
VKSA 500x300	500	520	540	605	300	320	340	443	532	560
VKSA 600x300	600	620	640	705	300	320	340	443	612	640
VKSA 600x350	600	620	640	705	350	370	390	493	672	700
VKSA 700x400	700	720	740	825	400	420	440	565	752	780
VKSA 800x500	800	820	840	905	500	520	540	665	852	880
VKSA 1000x500	1000	1020	1040	1105	500	520	540	665	952	980

Flexible connection



Type	Accessories							
	TGRV	TGRT	ETY/MTY	LJ/E	LJ/PG	SKS	FDS	EKS
VKS/VKSA 400x200-4 L1	2	-	2,5	40x20	40x20	40-20	40-20	400x200
VKS/VKSA 400x200-4 L3	-	1	-	40x20	40x20	40-20	40-20	400x200
VKS/VKSA 500x250-4 L1	3	-	4	50x25	50x25	50-25	50-25	500x250
VKS/VKSA 500x250-4 L3	-	1	-	50x25	50x25	50-25	50-25	500x250
VKS/VKSA 500x300-4 L1	4	-	4	50x30	50x30	50-30	50-30	500x300
VKS/VKSA 500x300-4 L3	-	3	-	50x30	50x30	50-30	50-30	500x300
VKS/VKSA 500x300-6 L1	3	-	2,5	50x30	50x30	50-30	50-30	500x300
VKS/VKSA 600x300-4 L1	11	-	-	60x30	60x30	60-30	60-30	600x300
VKS/VKSA 600x300-4 L3	-	4	-	60x30	60x30	60-30	60-30	600x300
VKS/VKSA 600x300-6 L1	3	-	2,5	60x30	60x30	60-30	60-30	600x300
VKS/VKSA 600x300-6 L3	-	2	-	60x30	60x30	60-30	60-30	600x300
VKS/VKSA 600x350-4 L1	14	-	-	60x35	60x35	60-35	60-35	600x350
VKS/VKSA 600x350-4 L3	-	7	-	60x35	60x35	60-35	60-35	600x350
VKS/VKSA 600x350-6 L3	-	3	-	60x35	60x35	60-35	60-35	600x350
VKS/VKSA 700x400-4 L3	-	11	-	70x40	70x40	70-40	70-40	700x400
VKS/VKSA 700x400-6 L3	-	3	-	70x40	70x40	70-40	70-40	700x400
VKS/VKSA 800x500-4S L3	-	14	-	80x50	80x50	80-50	80-50	800x500
VKS/VKSA 800x500-4 L3	-	14	-	80x50	80x50	80-50	80-50	800x500
VKS/VKSA 800x500-6 L3	-	7	-	80x50	80x50	80-50	80-50	800x500
VKS/VKSA 800x500-8 L3	-	4	-	80x50	80x50	80-50	80-50	800x500
VKS/VKSA 1000x500-4 L3	-	14	-	100x50	100x50	100-50	100-50	1000x500
VKS/VKSA 1000x500-6 L3	-	7	-	100x50	100x50	100-50	100-50	1000x500
VKS/VKSA 1000x500-8 L3	-	4	-	100x50	100x50	100-50	100-50	1000x500

VKS/VKSA 400x200-4 L1



Performance
Power consumption

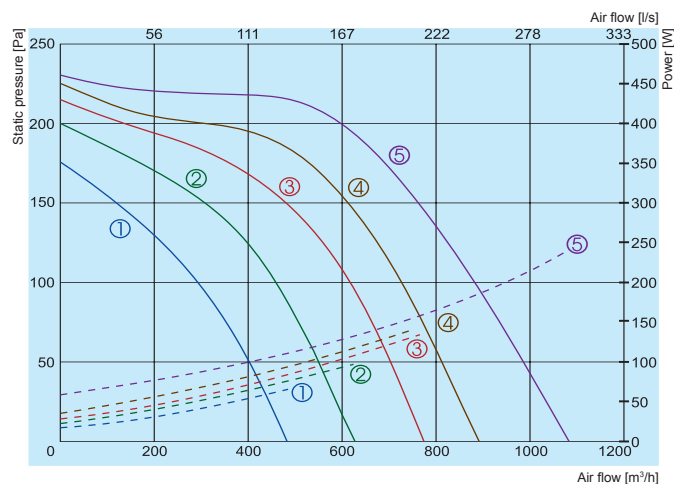
① 80V
② 120V
③ 140V
④ 170V
⑤ 230V

400x200-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	64	43	51	57	61	54	51	50
Outlet	68	44	53	58	65	59	57	56
VKS surrounding	54	29	38	47	51	47	43	41
VKSA surrounding	44	22	31	37	40	37	35	33

Measured at 452 m³/h, 217 Pa

VKS/VKSA 400x200-4 L3



Performance
Power consumption

① 130V
② 170V
③ 220V
④ 270V
⑤ 400V

400x200-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	62	37	49	55	59	53	49	47
Outlet	66	38	51	57	63	58	55	54
VKS surrounding	53	23	37	46	49	46	40	37
VKSA surrounding	42	17	30	35	38	37	32	28

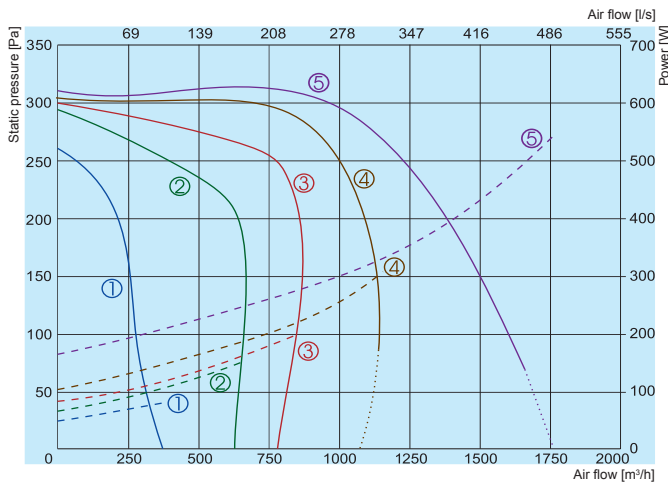
Measured at 524 m³/h, 214 Pa

		400x200-4 L1	400x200-4 L3
Voltage/Frequency	[V/Hz]	230/50	400/50
Power consumption	[kW]	0,264	0,241
Current	[A]	1,35	0,44
Speed	[min ⁻¹]	1180	1230
Capacitor	[µF]	5	-
Max. airflow	[m³/h]	1079	1078
Min./Max. air temperature	[°C]	-20 / 40	-20 / 70
Weight	[kg]	12 / 22	11 / 21
Wiring diagram		No. 1	No. 2
Protection class:	motor	IP-54	IP-44
	terminal box	IP-55	IP-55
Comply with ERP 2016		-	+

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKS/VKSA 500x250-4 L1



Performance
Power consumption
Not operating zone

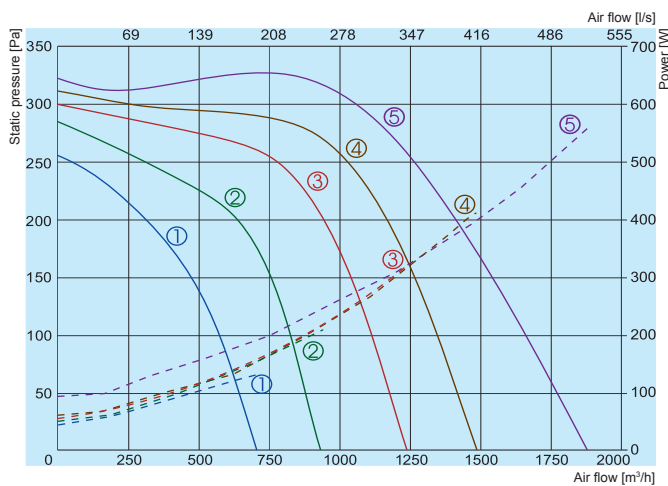
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

500x250-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	63	44	50	58	59	55	53	50
Outlet	70	45	51	63	67	61	60	56
VKS surrounding	57	32	40	53	51	44	49	45
VKSA surrounding	49	27	33	43	44	38	42	39

Measured at 882 m³/h, 311 Pa

VKS/VKSA 500x250-4 L3



Performance
Power consumption

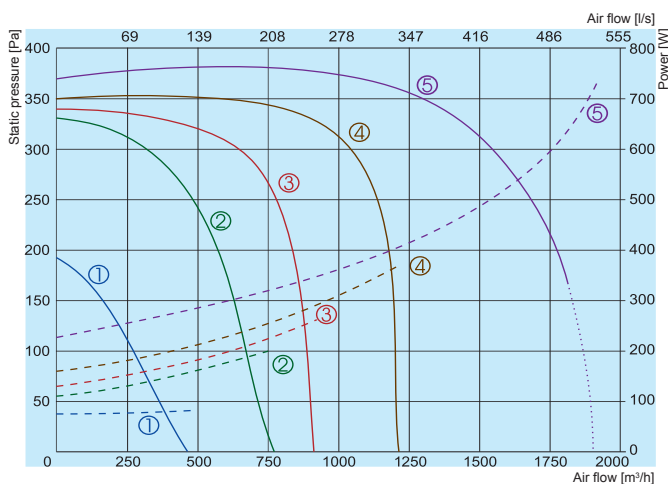
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

500x250-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	66	47	53	59	62	59	56	52
Outlet	73	48	54	64	70	65	63	61
VKS surrounding	58	35	43	52	55	48	46	44
VKSA surrounding	50	30	35	44	47	41	40	39

Measured at 1058 m³/h, 301 Pa

VKS/VKSA 500x300-4 L1



Performance
Power consumption
Not operating zone

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

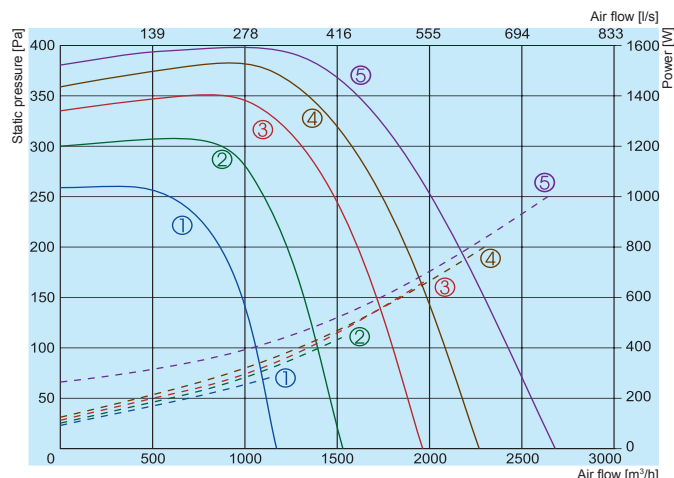
500x300-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	65	50	52	55	59	58	58	55
Outlet	71	51	55	62	67	63	64	60
VKS surrounding	57	37	50	50	54	47	46	42
VKSA surrounding	48	33	37	43	44	39	39	34

Measured at 1027 m³/h, 380 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VKS/VKSA 500x300-4 L3



Performance
Power consumption

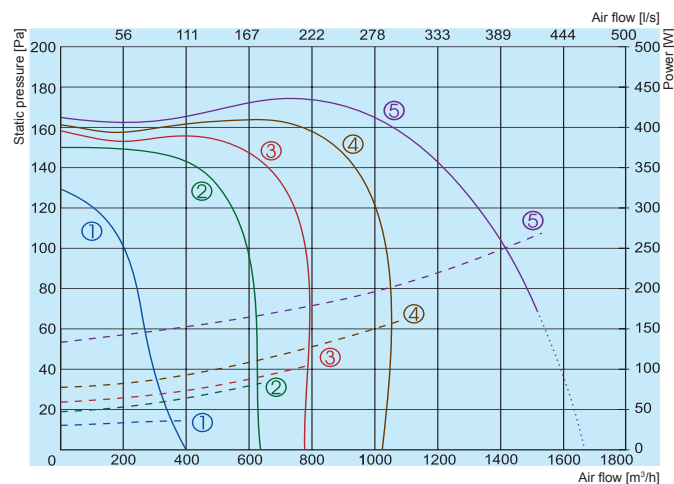
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

500x300-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	70	55	54	60	65	63	62	63
Outlet	75	54	57	65	71	67	67	65
VKS surrounding	59	38	50	50	55	51	49	47
VKSA surrounding	52	35	40	44	48	43	42	39

Measured at 1449 m³/h, 378 Pa

VKS/VKSA 500x300-6 L1



Performance
Power consumption
Not operating zone

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

500x300-6 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	72	61	55	62	67	66	63	59
Outlet	78	62	60	68	73	72	69	66
VKS surrounding	61	49	47	50	58	53	51	49
VKSA surrounding	55	41	41	45	52	47	44	42

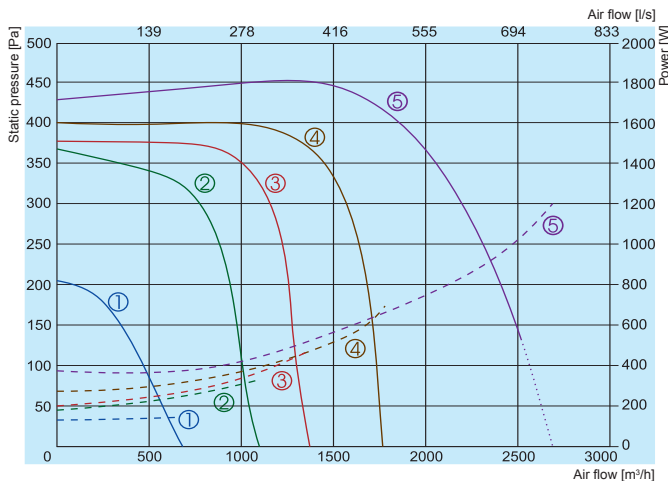
Measured at 1385 m³/h, 109 Pa

		500x250-4 L1	500x250-4 L3	500x300-4 L1	500x300-4 L3	500x300-6 L1
Voltage/Frequency	[V/Hz]	230/50	400/50	230/50	400/50	230/50
Power consumption	[kW]	0,50	0,56	0,63	1,007	0,267
Current	[A]	2,3	0,95	3,0	2,01	1,15
Speed	[min ⁻¹]	1250	1270	1190	1380	790
Capacitor	[μF]	8	-	10	-	8
Max. airflow	[m³/h]	1651	1875	1824	2672	1518
Min./Max. air temperature	[°C]	-20 / 40	-20 / 40	-20 / 40	-20 / 50	-20 / 50
Weight	[kg]	17 / 30	17 / 30	20 / 28	22 / 37	19 / 28
Wiring diagram		No. 1	No. 2	No. 1	No. 2	No. 1
Protection class:	motor	IP-54	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2016		+	+	+	+	-

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKS/VKSA 600x300-4 L1



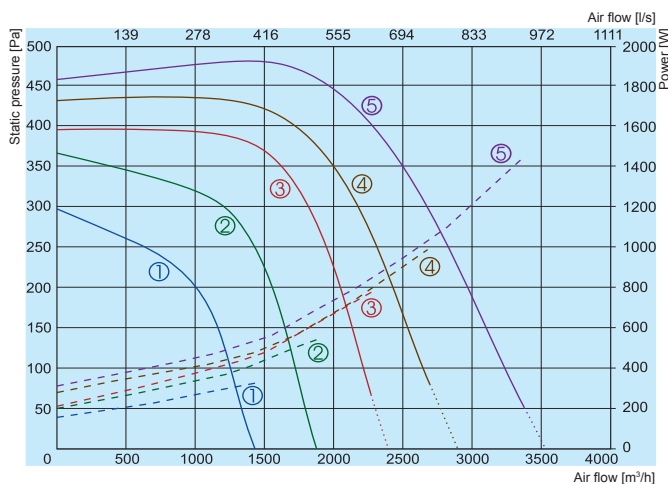
- Performance
Power consumption
Not operating zone
- ① 80V
 - ② 120V
 - ③ 140V
 - ④ 170V
 - ⑤ 230V

600x300-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	70	59	54	61	66	64	61	58
Outlet	74	59	57	65	70	67	66	64
VKS surrounding	60	44	49	52	57	50	47	44
VKSA surrounding	52	37	41	44	48	44	41	36

Measured at 1417 m³/h, 455 Pa

VKS/VKSA 600x300-4 L3



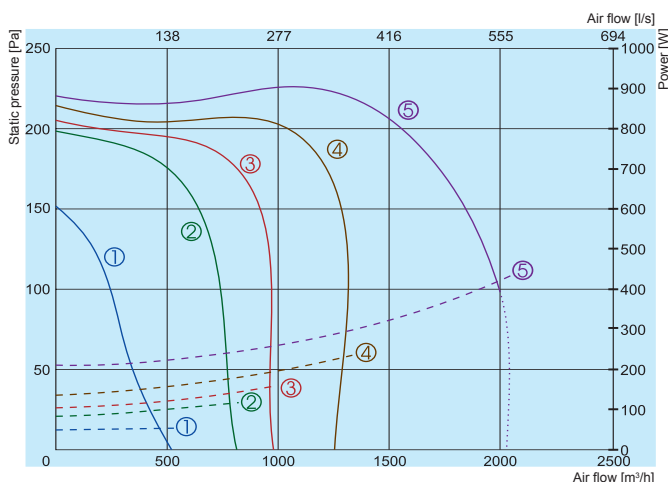
- Performance
Power consumption
Not operating zone
- ① 130V
 - ② 170V
 - ③ 220V
 - ④ 270V
 - ⑤ 400V

600x300-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	75	64	58	65	70	69	66	62
Outlet	79	64	61	69	74	72	71	68
VKS surrounding	63	49	49	52	61	55	52	50
VKSA surrounding	56	42	42	46	53	48	45	43

Measured at 1686 m³/h, 483 Pa

VKS/VKSA 600x300-6 L1



- Performance
Power consumption
Not operating zone
- ① 80V
 - ② 120V
 - ③ 140V
 - ④ 170V
 - ⑤ 230V

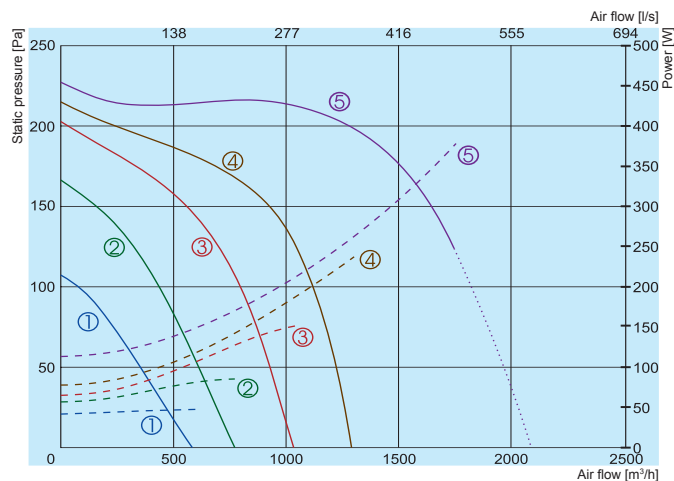
600x300-6 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	78	65	62	69	71	73	70	65
Outlet	82	66	62	74	78	73	75	70
VKS surrounding	67	51	50	57	65	56	56	52
VKSA surrounding	58	43	46	50	54	52	49	45

Measured at 1985 m³/h, 100 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VKS/VKSA 600x300-6 L3



Performance
Power consumption
Not operating zone

- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

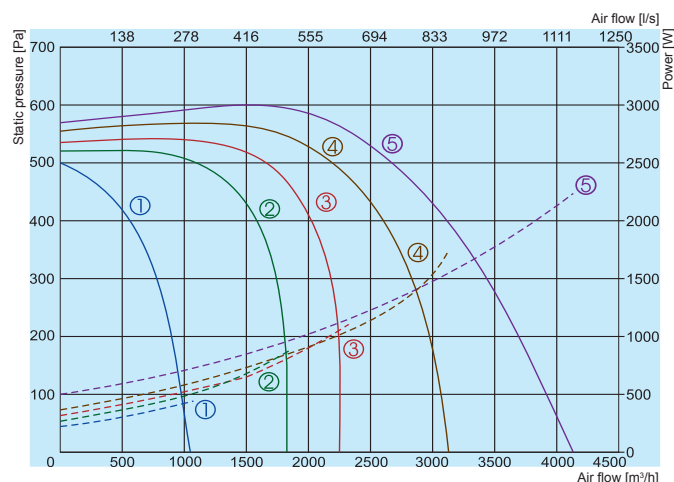
600x300-6 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	75	63	60	67	69	71	66	62
Outlet	80	64	60	72	76	71	73	68
VKS surrounding	64	53	50	55	62	54	52	53
VKSA surrounding	57	40	42	50	53	48	47	43

Measured at 1744 m³/h, 125 Pa

		600x300-4 L1	600x300-4 L3	600x300-6 L1	600x300-6 L3
Voltage/Frequency	[V/Hz]	230/50	400/50	230/50	400/50
Power consumption	[kW]	1,011	1,50	0,422	0,378
Current	[A]	5,10	2,60	1,8	0,75
Speed	[min⁻¹]	1210	1310	700	780
Capacitor	[μF]	16	-	12	-
Max. airflow	[m³/h]	2514	3356	1985	1744
Min./Max. air temperature	[°C]	-20 / 40	-20 / 40	-20 / 40	-20 / 40
Weight	[kg]	29 / 37	29 / 37	31 / 38	25 / 32
Wiring diagram		No. 1	No. 2	No. 1	No. 2
Protection class:	motor	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2016		+	+	-	+

VKS/VKSA 600x350-4 L1



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

600x350-4 L1

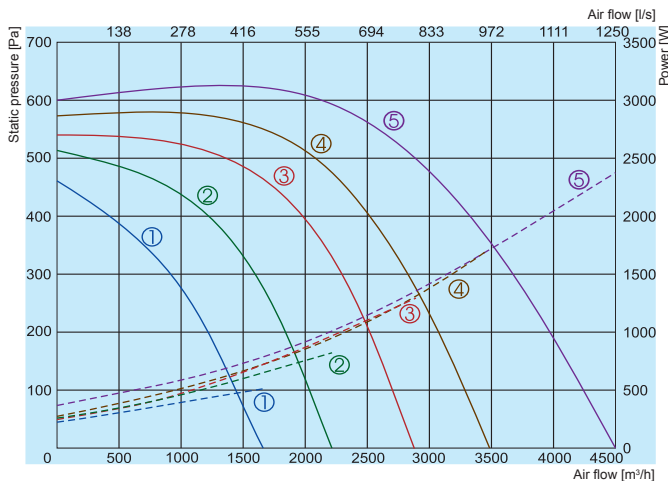
	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	77	63	59	64	73	71	69	66
Outlet	81	63	62	70	78	74	73	70
VKS surrounding	64	50	47	54	61	57	56	53
VKSA surrounding	57	44	40	48	54	50	49	45

Measured at 2157 m³/h, 580 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKS/VKSA 600x350-4 L3



Performance
Power consumption

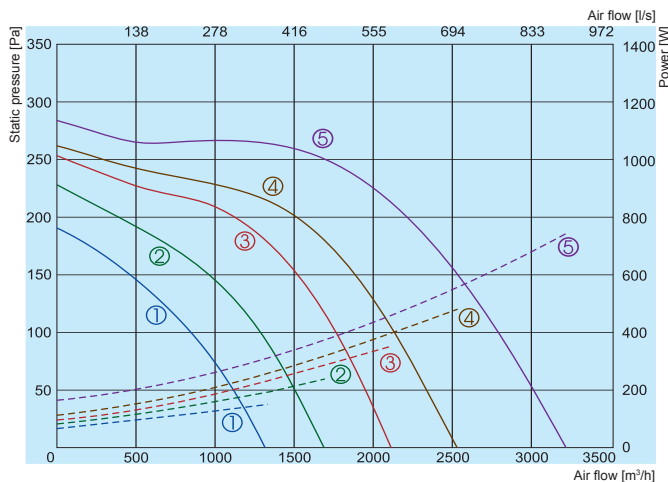
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

600x350-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	76	61	59	64	72	69	67	64
Outlet	80	62	62	70	77	72	72	69
VKS surrounding	63	49	47	54	60	55	55	53
VKSA surrounding	56	41	40	47	53	48	48	46

Measured at 2193 m³/h, 600 Pa

VKS/VKSA 600x350-6 L3



Performance
Power consumption

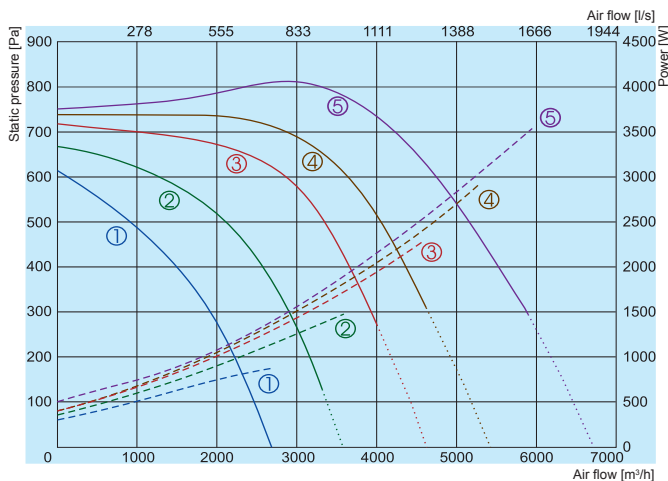
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

600x350-6 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	77	56	65	67	72	72	68	64
Outlet	82	60	64	74	77	76	74	71
VKS surrounding	68	43	57	64	63	60	59	54
VKSA surrounding	59	40	45	52	56	50	51	47

Measured at 2760 m³/h, 100 Pa

VKS/VKSA 700x400-4 L3



Performance
Power consumption
Not operating zone

- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

700x400-4 L3

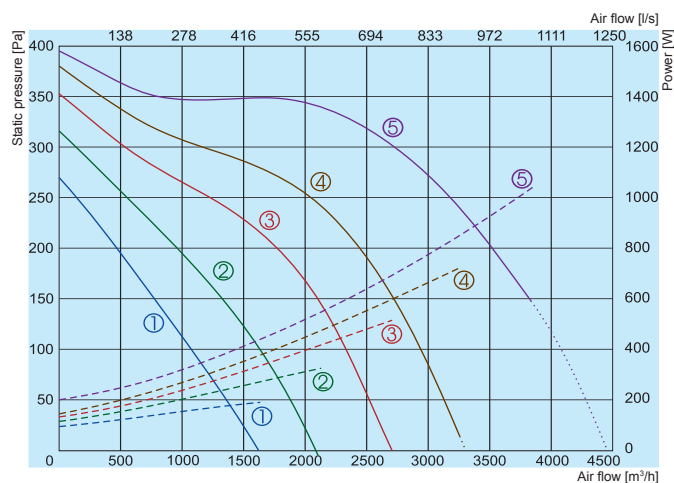
	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	79	60	66	68	76	73	69	67
Outlet	84	63	68	74	81	77	75	74
VKS surrounding	71	46	58	65	67	61	60	57
VKSA surrounding	62	41	49	55	58	54	52	50

Measured at 2845 m³/h, 824 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKS/VKSA 700x400-6 L3



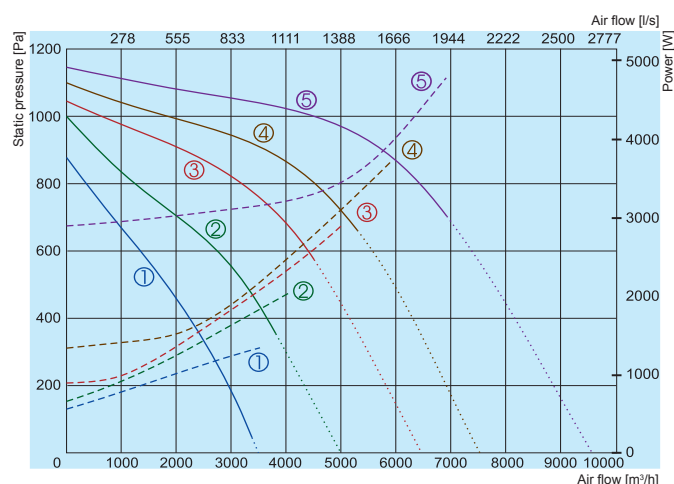
700x400-6 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	81	62	61	69	79	70	70	66
Outlet	85	64	68	77	81	78	76	71
VKS surrounding	72	53	55	63	70	64	60	56
VKSA surrounding	64	45	46	56	62	52	52	49

Measured at 3652 m³/h, 182 Pa

		600x350-4 L1	600x350-4 L3	600x350-6 L3	700x400-4 L3	700x400-6 L3
Voltage/Frequency	[V/Hz]	230/50	400/50	400/50	400/50	400/50
Power consumption	[kW]	2,249	2,353	0,739	3,49	1,043
Current	[A]	10,3	4,03	1,5	6,0	2,0
Speed	[min⁻¹]	1340	1300	750	1320	790
Capacitor	[μF]	35	-	-	-	-
Max. airflow	[m³/h]	4137	4535	3201	5901	3843
Min./Max. air temperature	[°C]	-20 / 40	-20 / 40	-20 / 40	-20 / 40	-20 / 40
Weight	[kg]	36 / 47	36 / 47	24/31	62 / 78	32 / 39
Wiring diagram		No. 1	No. 2	No. 2	No. 2	No. 2
Protection class:	motor	IP-54	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2016		-	+	-	+	+

VKS/VKSA 800x500-4 L3



800x500-4 L3

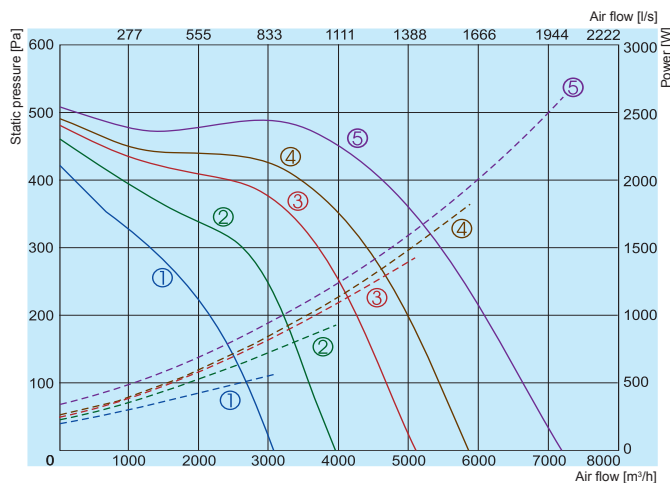
	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	82	65	64	69	80	74	71	69
Outlet	86	68	69	75	83	79	77	74
VKS surrounding	71	54	54	62	68	62	59	57
VKSA surrounding	65	48	50	56	63	56	53	52

Measured at 4129 m³/h, 660 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

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VKS/VKSA 800x500-6 L3



Performance
Power consumption

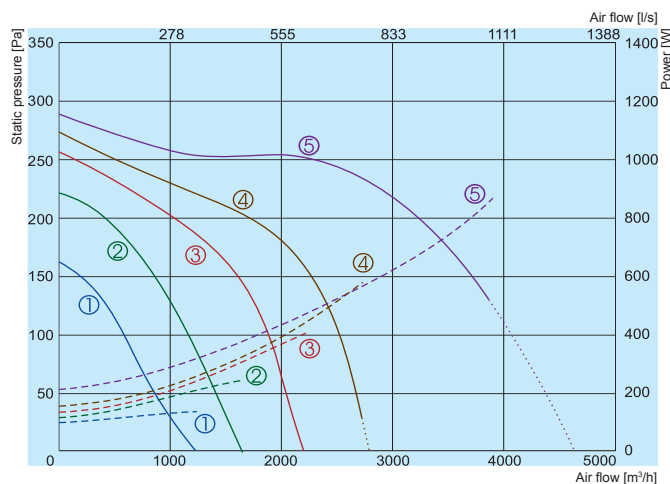
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

800x500-6 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	89	75	69	76	87	79	74	78
Outlet	92	77	75	83	89	83	82	82
VKS surrounding	76	58	61	69	72	69	66	62
VKSA surrounding	72	53	54	64	70	60	60	57

Measured at 6622 m³/h, 100 Pa

VKS/VKSA 800x500-8 L3



Performance
Power consumption
Not operating zone

- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

800x500-8 L3

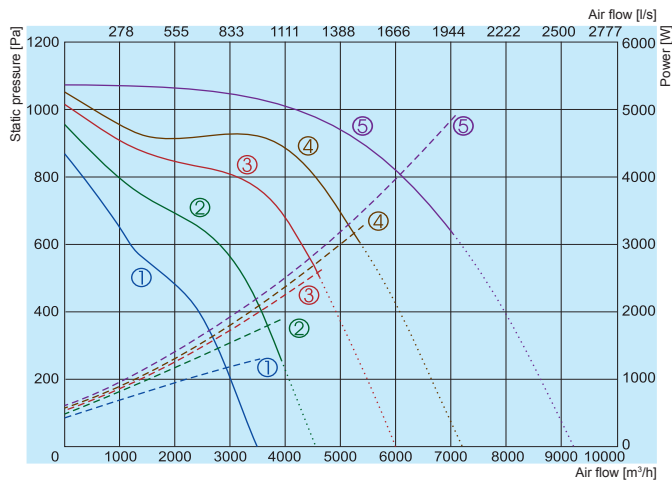
	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	81	64	63	67	79	73	72	68
Outlet	85	67	68	74	81	80	78	72
VKS surrounding	70	52	53	63	66	62	60	56
VKSA surrounding	64	47	49	54	61	57	54	50

Measured at 3893 m³/h, 130 Pa

		800x500-4 L3	800x500-6 L3	800x500-8 L3
Voltage/Frequency	[V/Hz]	400/50	400/50	400/50
Power consumption	[kW]	4,745	2,6	0,865
Current	[A]	8,10	5,01	1,65
Speed	[min⁻¹]	1330	830	580
Max. airflow	[m³/h]	4403	7184	3893
Max. air temperature	[°C]	-20 / 40	-20 / 50	-20 / 30
Weight	[kg]	85 / 99	52 / 59	63 / 70
Wiring diagram		No. 2	No. 2	No. 2
Protection class:	motor	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55
Comply with ERP 2016		-	+	+

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VKS/VKSA 1000x500-4 L3



Performance
Power consumption
Not operating zone

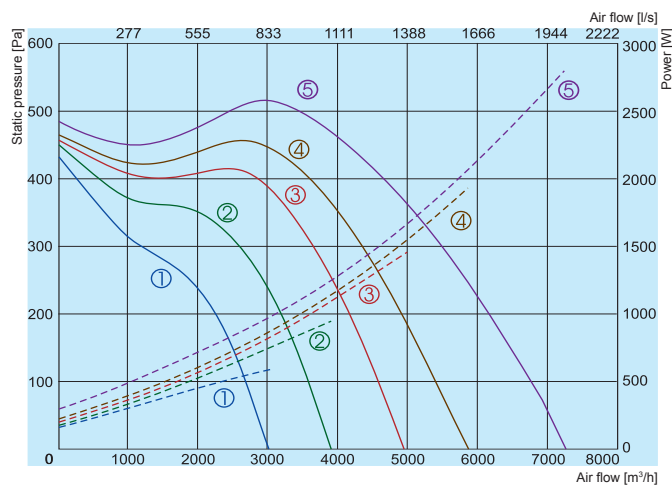
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

1000x500-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	79	64	64	68	76	73	69	67
Outlet	86	67	69	77	83	79	76	72
VKS surrounding	72	55	55	65	69	62	59	57
VKSA surrounding	66	49	51	59	63	56	53	50

Measured at 6131 m³/h, 801 Pa

VKS/VKSA 1000x500-6 L3



Performance
Power consumption

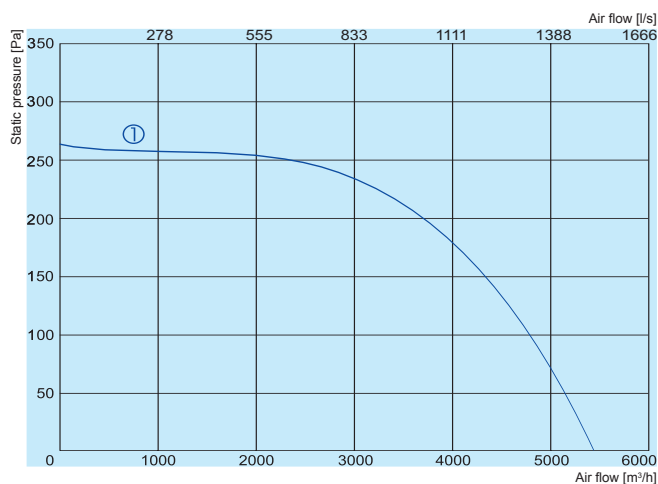
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

1000x500-6 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	88	76	68	77	86	80	75	74
Outlet	92	80	75	85	89	84	81	81
VKS surrounding	76	57	62	70	70	70	67	61
VKSA surrounding	71	51	55	65	68	61	61	56

Measured at 6775 m³/h, 101 Pa

VKS/VKSA 1000x500-8 L3



- ① 400V

1000x500-8 L3

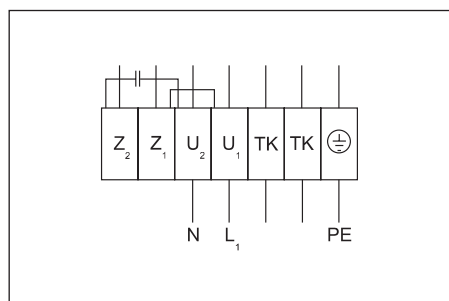
	Lwa total, dB(A)	Lwa, dB(A)						
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Inlet	83	66	65	70	81	75	72	70
Outlet	87	69	70	76	84	80	78	75
VKS surrounding	71	55	54	63	69	62	60	56
VKSA surrounding	66	49	51	56	64	57	53	50

Measured at 4380 m³/h, 130 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

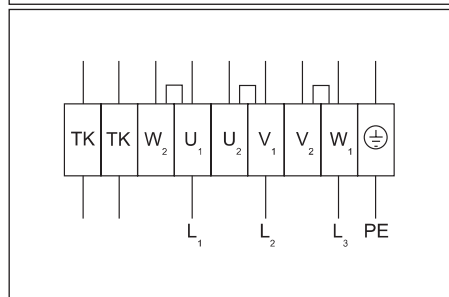
The company reserves the right to make changes of technical data without prior notice

		1000x500-4 L3	1000x500-6 L3	1000x500-8 L3
Voltage/Frequency	[V/Hz]	400/50	400/50	400/50
Power consumption	[kW]	4,806	2,787	1,14
Current	[A]	8,10	5,2	2,40
Speed	[min ⁻¹]	1330	830	580
Max. airflow	[m ³ /h]	7030	7265	5380
Max. air temperature	[°C]	-20 / 40	-20 / 50	-20 / 40
Weight	[kg]	88 / 111	53 / 60	64 / 71
Wiring diagram		No. 2	No. 2	No. 2
Protection class:	motor	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55
Comply with ERP 2016		+	+	-



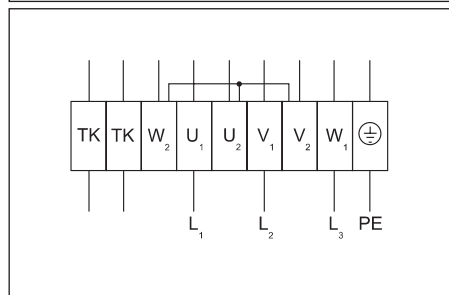
Wiring diagram No. 1 (1~230V)

U₁ - brown
 U₂ - blue
 Z₁ - black
 Z₂ - orange
 TK - white
 PE - green-yellow



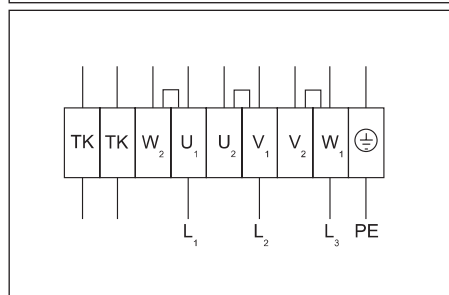
Wiring diagram No. 2 (Y - 3~400V)

U₁ - brown
 U₂ - red
 V₁ - blue
 V₂ - grey
 W₁ - black
 W₂ - orange
 TK - white
 PE - green-yellow



Wiring diagram No. 2 (Δ - 3~230V)

U₁ - brown
 U₂ - red
 V₁ - blue
 V₂ - grey
 W₁ - black
 W₂ - orange
 TK - white
 PE - green-yellow



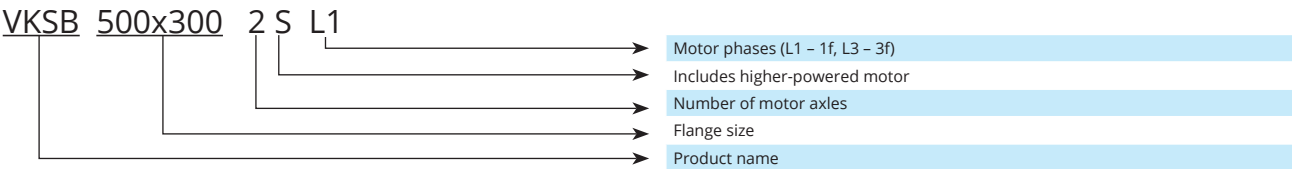
Wiring diagram No. 3 (Δ - 3~400V)

U₁ - brown
 U₂ - red
 V₁ - blue
 V₂ - grey
 W₁ - black
 W₂ - orange
 TK - white
 PE - green-yellow

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

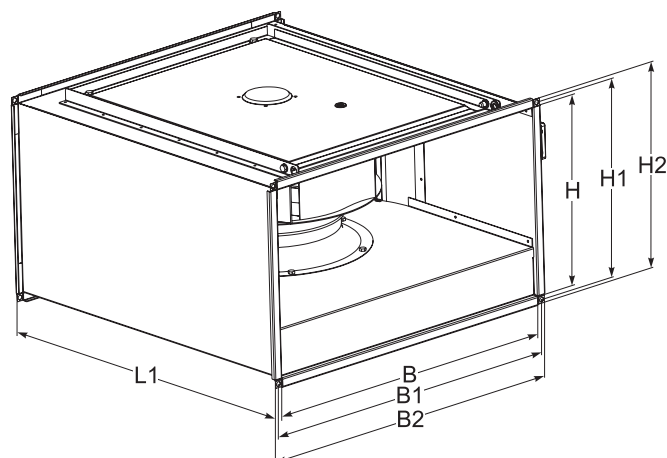


Features	› 300x150 mm to 1000x500 mm flanges; › Airflow up to 9490 m³/h; › Can be mounted on floors, walls or ceilings; › Backward-curved impeller from plastic or galvanized steel; › Cost-effective.
Power supply	230V/50Hz/1f or 400V/50Hz/3f.
Temperature range	From -25/-30°C up to 40/70°C, depending on unit size.
Sizes	300x150, 400x200, 500x250, 500x300, 600x300, 600x350, 700x400, 800x500 and 1000x500.
Construction	› Casing: galvanized sheet steel; › Fan: centrifugal impeller and external rotor motor; › Motor protection with built-in thermal-contact; › Motor protection class: IP44/IP54 depending on the unit; › Terminal box protection class: IP55.
Installation	› Device can only be used indoors. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› Electronic voltage controller (phase cut). › Voltage controlled speed controller.



Accessories

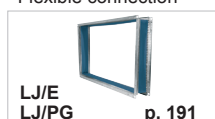
Single phase speed controller	Three phase speed controller	Single phase speed controller	Rectangular duct silencer	Filter cassette	Electrical duct heater
TGRV p. 127	TGRT p. 127	ETY/MTY p. 128	SKS p. 173	FDS p. 166	EKS p. 142



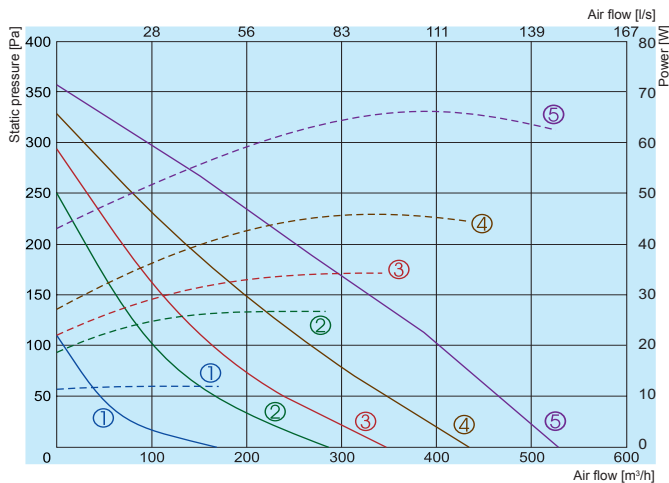
Type	Dimensions [mm]						
	B	B1	B2	H	H1	H2	L1
VKSB 300x150	300	320	340	150	170	190	400
VKSB 500x300	500	520	540	300	320	340	560
VKSB 600x300	600	620	640	300	320	340	640
VKSB 600x350	600	620	640	350	370	390	700
VKSB 700x400	700	720	740	400	420	440	780
VKSB 800x500	800	820	840	500	520	540	880
VKSB 1000x500	1000	1020	1040	500	520	540	980

Type	Accessories							
	TGRV	TGRT	ETY/MTY	LJ/E	LJ/PG	SKS	FDS	EKS
VKSB 300x150-2 L1	1,5	-	1,5	30x15	30x15	30-15	30-15	300x150
VKSB 500x300-2 L1	1,5	-	1,5	50x30	50x30	50-30	50-30	500x300
VKSB 500x300-2S L1	3	-	2,5	50x30	50x30	50-30	50-30	500x300
VKSB 500x300-4 L3	-	1	-	50x30	50x30	50-30	50-30	500x300
VKSB 600x300-4 L1	2	-	2,5	60x30	60x30	60-30	60-30	600x300
VKSB 600x300-4 L3	-	1	-	60x30	60x30	60-30	60-30	600x300
VKSB 600x350-4 L1	3	-	2,5	60x35	60x35	60-35	60-35	600x350
VKSB 600x350-4 L3	-	1	-	60x35	60x35	60-35	60-35	600x350
VKSB 700x400-4-L1	5	-	4	70x40	70x40	70-40	70-40	700x400
VKSB 700x400-4-L3	-	2	-	70x40	70x40	70-40	70-40	700x400
VKSB 800x500-4 L1	5	-	4	80x50	80x50	80-50	80-50	800x500
VKSB 800x500-4 L3	-	4	-	80x50	80x50	80-50	80-50	800x500
VKSB 1000x500-4 L3	-	5	-	100x50	100x50	100-50	100-50	1000x500

Flexible connection



VKSB 300x150-2 L1



Performance
Power consumption

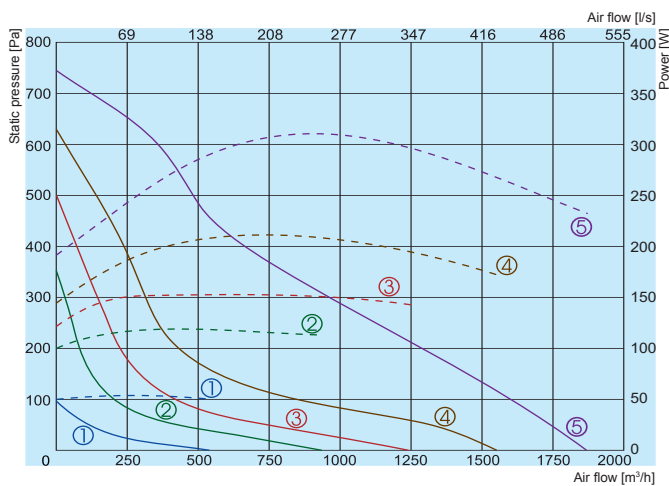
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

300x150-2 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	70	41	52	68	62	60	60	52
Outlet	73	38	55	68	65	66	66	55
Surrounding	57	25	41	54	50	50	48	41

Measured at 328 m³/h, 152 Pa

VKSB 500x300-2 L1



Performance
Power consumption

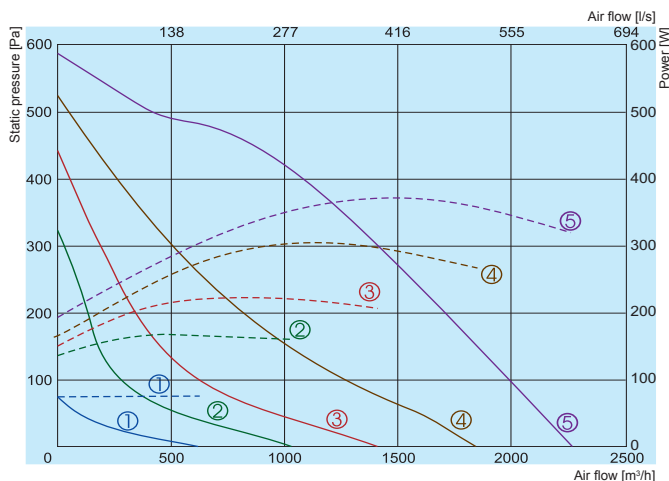
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

500x300-2 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	61	56	69	66	67	65	60
Outlet	79	61	63	74	72	75	70	65
Surrounding	60	47	43	57	53	51	47	41

Measured at 889 m³/h, 300 Pa

VKSB 500x300-2S L1



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

500x300-2S L1

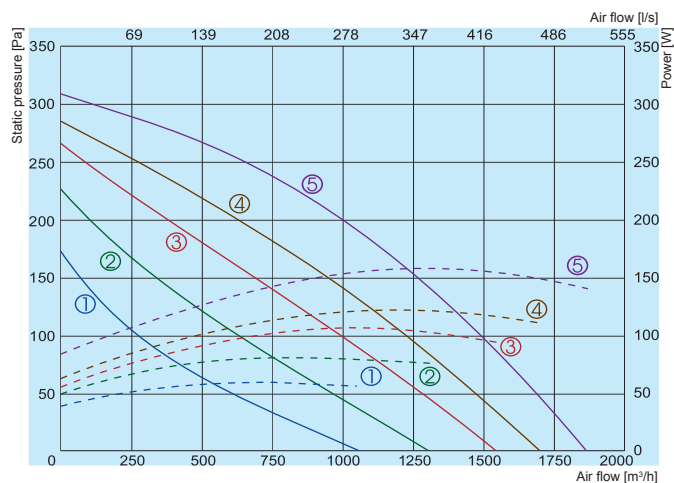
	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	61	56	69	66	67	65	59
Outlet	80	61	63	74	72	75	70	67
Surrounding	60	47	43	57	53	51	47	40

Measured at 1009 m³/h, 413 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

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VKSB 500x300-4 L3



Performance
Power consumption

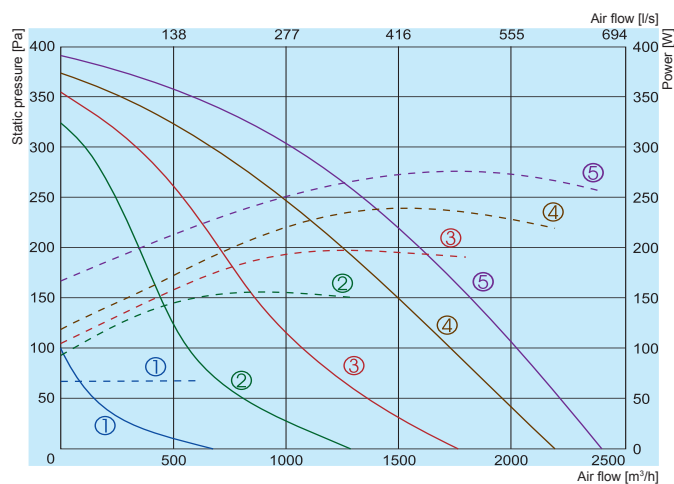
- ① 130V
② 170V
③ 220V
④ 270V
⑤ 400V

500x300-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	62	65	70	69	70	66	60
Outlet	80	65	68	72	75	73	70	69
Surrounding	63	49	51	55	59	55	52	50

Measured at 1476 m³/h, 104 Pa

VKSB 600x300-4 L1



Performance
Power consumption

- ① 80V
② 120V
③ 140V
④ 170V
⑤ 230V

600x300-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	78	64	72	69	70	72	70	65
Outlet	81	67	74	73	75	74	72	68
Surrounding	63	46	52	59	58	56	51	48

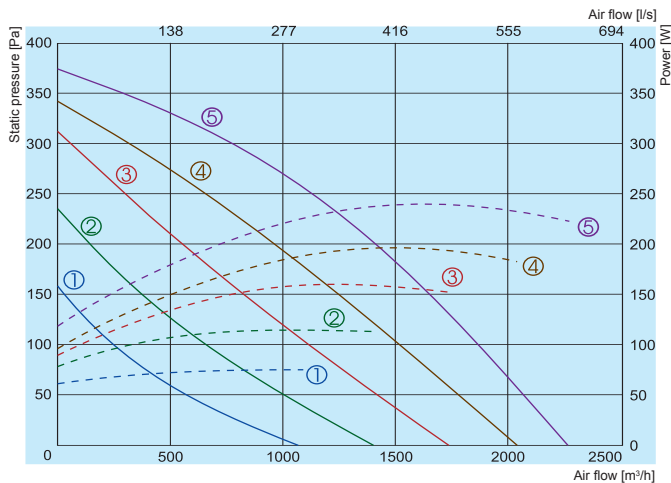
Measured at 2013 m³/h, 100 Pa

		300x150-2 L1	500x300-2 L1	500x300-2S L1	500x300-4 L3	600x300-4 L1
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	400/50	230/50
Power consumption	[kW]	0,067	0,313	0,388	0,16	0,28
Current	[A]	0,29	1,36	1,74	0,37	1,34
Speed	[min ⁻¹]	2467	2225	2750	1370	1390
Capacitor	[μF]	2	8	10	-	6
Max. airflow	[m³/h]	527	1872	2264	1864	2390
Min./Max. air temperature	[°C]	-30/50	-30/40	-25/60	-20/50	-20/65
Weight	[kg]	7,0	17,0	17,0	18,0	19,0
Wiring diagram		No. 4	No. 4	No. 1	No. 3	No. 2
Protection class:	motor	IP-44	IP-44	IP-44	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2015		+	-	-	-	-

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKSB 600x300-4 L3



Performance
Power consumption

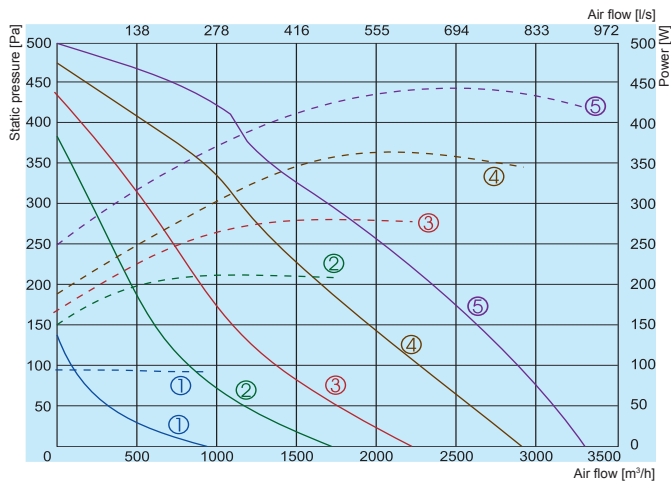
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

600x300-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	77	62	70	68	69	71	70	64
Outlet	80	68	72	73	73	74	68	67
Surrounding	62	43	48	59	57	52	50	45

Measured at 1865 m³/h, 101 Pa

VKSB 600x350-4 L1



Performance
Power consumption

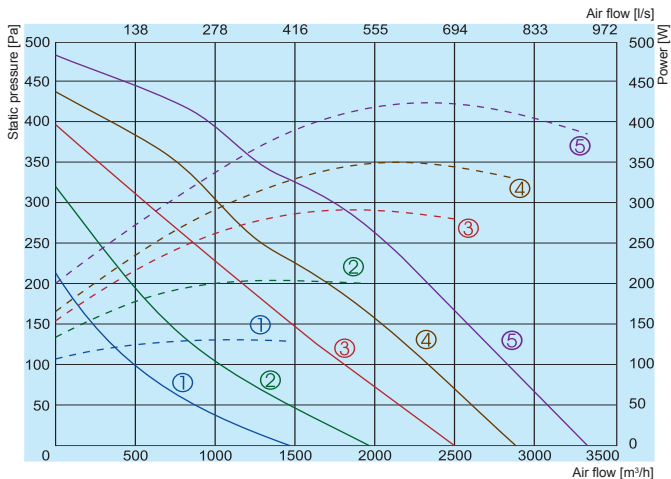
- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

600x350-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	77	57	64	68	73	72	68	65
Outlet	82	61	64	74	78	75	73	70
Surrounding	65	46	52	57	61	59	56	53

Measured at 2748 m³/h, 124 Pa

VKSB 600x350-4 L3



Performance
Power consumption

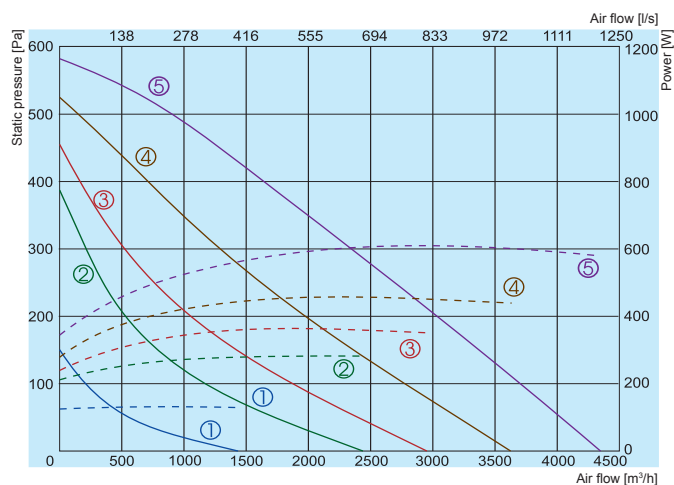
- ① 130V
- ② 170V
- ③ 220V
- ④ 270V
- ⑤ 400V

600x350-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	77	57	64	68	73	72	68	65
Outlet	82	61	64	74	78	75	73	70
Surrounding	65	46	52	57	61	59	56	53

Measured at 2747 m³/h, 118 Pa

VKSB 700x400-4 L1



Performance
Power consumption

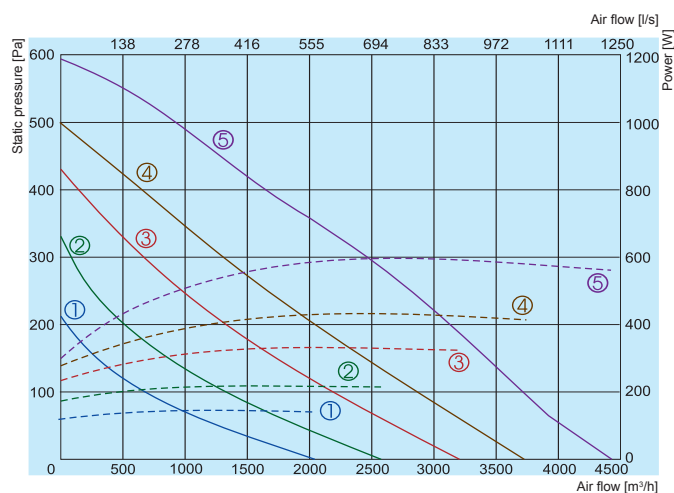
- ① 80V
② 120V
③ 140V
④ 170V
⑤ 230V

700x400-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	60	59	70	79	74	70	62
Outlet	84	61	68	74	80	77	76	69
Surrounding	68	48	52	58	66	61	58	52

Measured at 3550 m³/h, 119 Pa

VKSB 700x400-4 L3



Performance
Power consumption

- ① 130V
② 170V
③ 220V
④ 270V
⑤ 400V

700x400-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	80	58	60	71	77	75	71	61
Outlet	84	60	66	76	78	78	77	68
Surrounding	69	52	51	59	67	60	55	54

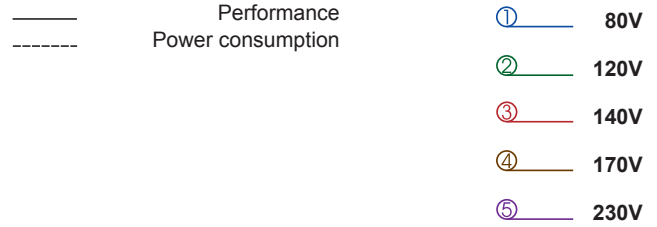
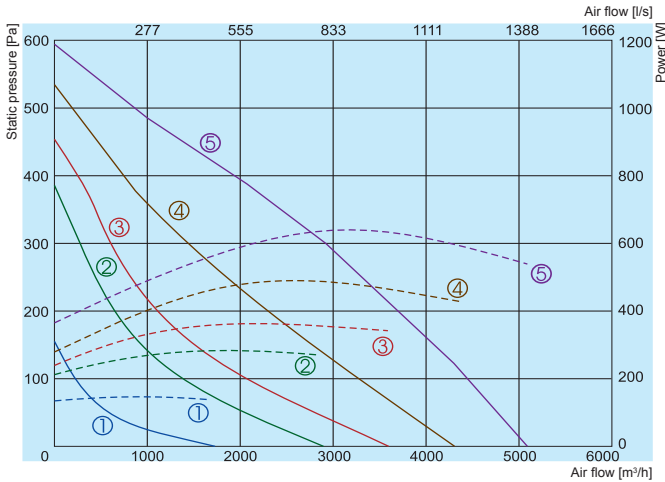
Measured at 3608 m³/h, 114 Pa

		600x300-4 L3	600x350-4 L1	600x350-4 L3	700x400-4 L1	700x400-4 L3
Voltage/Frequency	[V/Hz]	400/50	230/50	400/50	230/50	400/50
Power consumption	[kW]	0,24	0,45	0,43	0,62	0,60
Current	[A]	0,47	2,14	0,83	2,85	1,28
Speed	[min ⁻¹]	1340	1280	1320	1240	1250
Capacitor	[μF]	-	10	-	12	-
Max. airflow	[m³/h]	2262	3296	3315	4371	4426
Min./Max. air temperature	[°C]	-20/60	-20/60	-20/55	-20/60	-20/40
Weight	[kg]	21,0	24,0	27,0	48,0	64,0
Wiring diagram		No. 3	No. 2	No. 3	No. 2	No. 3
Protection class:	motor	IP-54	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2015		-	-	-	-	-

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VKSB 800x500-4 L1

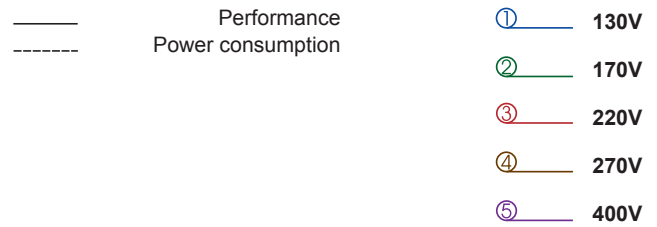
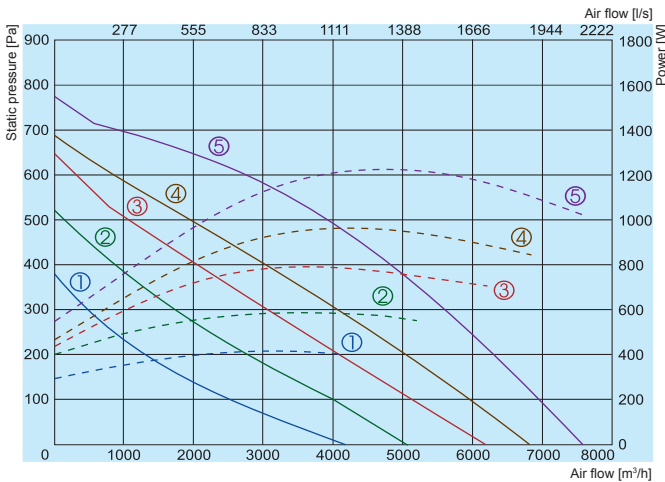


800x500-4 L1

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	63	65	70	78	75	72	68
Outlet	86	67	67	77	84	77	78	73
Surrounding	68	51	52	56	65	60	57	55

Measured at 4204 m³/h, 134 Pa

VKSB 800x500-4 L3

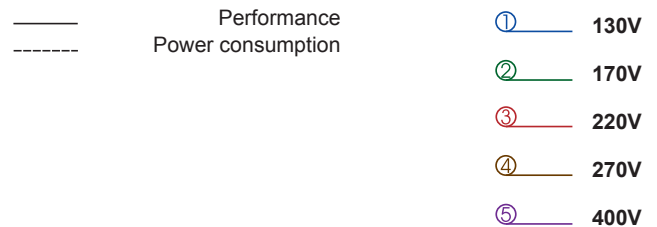
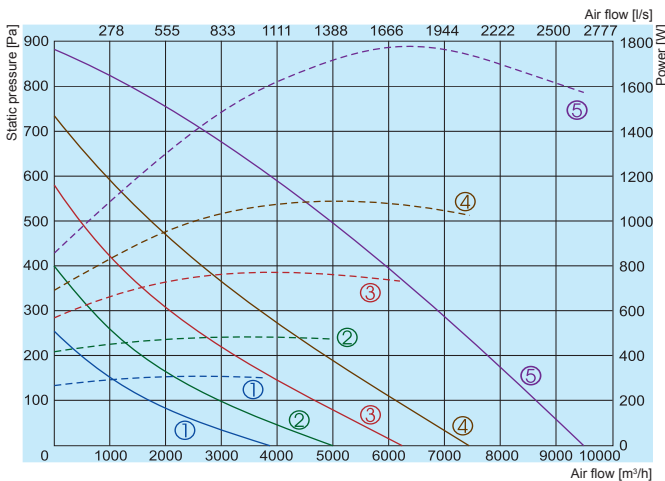


800x500-4 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	88	79	68	78	86	78	74	75
Outlet	92	78	77	86	87	85	82	80
Surrounding	74	64	59	66	70	65	61	61

Measured at 7027 m³/h, 100 Pa

VKSB 1000x500-4 L3



1000x500-4 L3

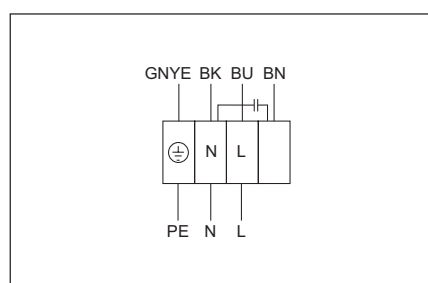
	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	93	86	72	84	90	80	77	75
Outlet	96	80	82	91	89	90	87	83
Surrounding	78	68	63	72	74	68	65	63

Measured at 8622 m³/h, 102 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

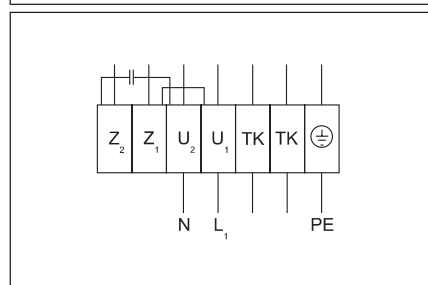
The company reserves the right to make changes of technical data without prior notice

		800x500-4 L1	800x500-4 L3	1000x500-4 L3
Voltage/Frequency	[V/Hz]	230/50	400/50	400/50
Power consumption	[kW]	0,66	1,2	1,79
Current	[A]	3,0	2,31	3,43
Speed	[min ⁻¹]	1240	1330	1180
Capacitor	[μF]	12	-	-
Max. airflow	[m ³ /h]	5084	7643	9494
Max. air temperature	[°C]	-20/60	-20/55	-20/40
Weight	[kg]	56,0	69,0	89,0
Wiring diagram		No. 2	No. 3	No. 3
Protection class:	motor	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55
Comply with ERP 2015		-	-	-



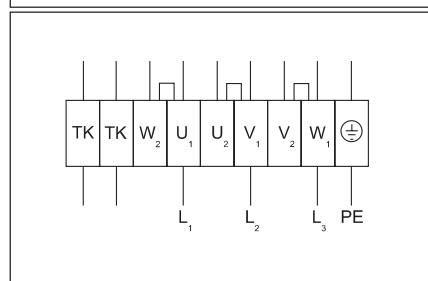
Wiring diagram No. 1 (1~230V)

GNYE - green-yellow
 BK - black
 BU - blue
 BN - brown



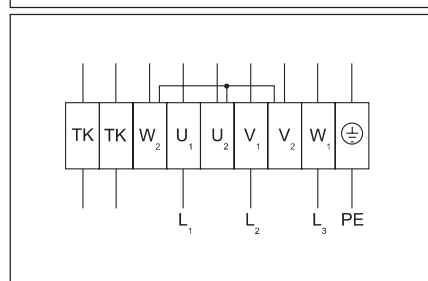
Wiring diagram No. 2 (1~230V)

U₁ - brown
 U₂ - blue
 Z₁ - black
 Z₂ - orange
 TK - white
 PE - green-yellow



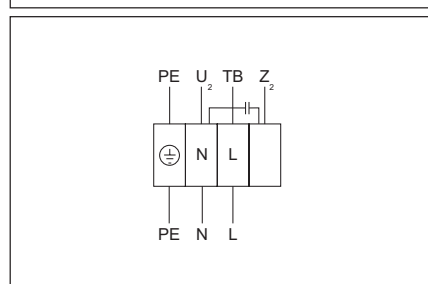
Wiring diagram No. 3 (Δ - 3~230V)

U₁ - brown
 U₂ - red
 V₁ - blue
 V₂ - grey
 W₁ - black
 W₂ - orange
 TK - white
 PE - green-yellow



Wiring diagram No. 3 (Y - 3~400V)

U₁ - brown
 U₂ - red
 V₁ - blue
 V₂ - grey
 W₁ - black
 W₂ - orange
 TK - white
 PE - green-yellow



Wiring diagram No. 4 (1~230V)

U₂ - blue or grey
 Z₂ - black
 TB - brown
 PE - green-yellow

KUB EKO



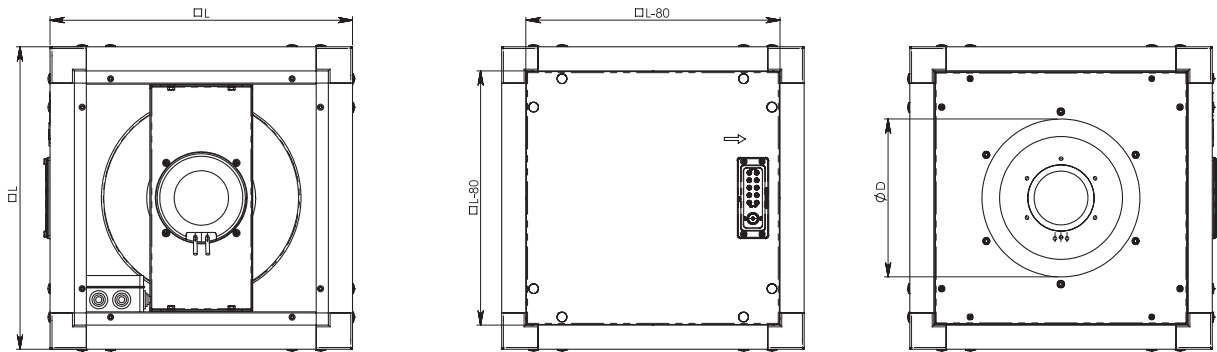
Features	› 500 mm to 1000 mm edge length; › Airflow up to 15900 m³/h; › Can be mounted on floors, walls or ceilings; › Backward-curved impeller; › Fan speed 100% controllable by 0-10 V signal; › Energy efficient; › Acoustically insulated.
Power supply	230V/50Hz/1f or 400V/50Hz/3f (67-500 and up).
Temperature range	From -20°C up to 60°C.
Sizes	50-355, 67-400, 67-500, 80-500, 80-560, 80-630, 100-630.
Construction	› Casing: aluminium frame and galvanized steel walls; › Acoustic and thermal wall insulation – 20mm; › Fan: centrifugal impeller and external rotor motor; › Motor protection integrated into motor electronics; › Motor protection class: IP54; › Terminal box protection class: IP55.
Installation	› Device can only be used indoors. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› 10 kΩ potentiometer; › External signal 0-10 VDC/PWM from user controller. › Can be connected directly to optional constant pressure sensors, CO2, RH or an on/off switch.

KUB 50 355 EKO

→	Fans with EC motors
→	Nominal impeller diameter
→	Edge length
→	Product name

Accessories

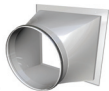
0-10V speed controller	Flexible connection	Damper for rectangular ducts	Outdoor grilles	Rectangular duct silencer	Main switch
MTP010 p. 128	LJ/PG p. 191	SSK p. 180	LGd p. 183	SKS p. 173	Main switch p. 164

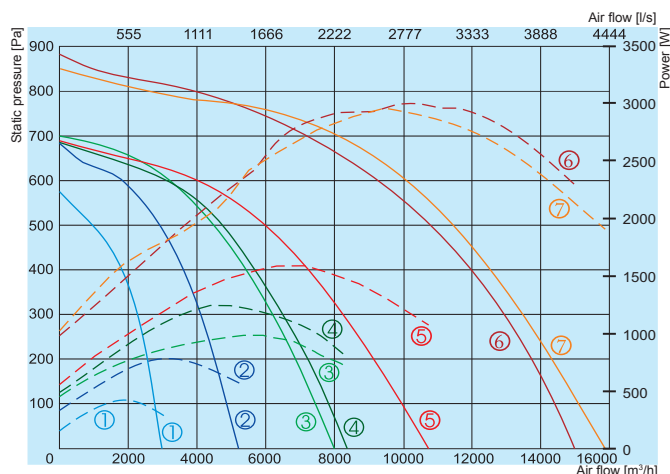


Type	Dimensions [mm]	
	øD	L
KUB 50-355 EKO	261	500
KUB 67-400 EKO	325	670
KUB 67-500 EKO	412	670
KUB 80-500 EKO	410	800
KUB 80-560 EKO	461	800
KUB 80-630 EKO	512	800
KUB 100-630 EKO	510	1000

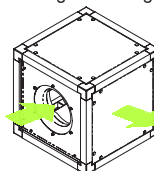
Type	Accessories								
	MTP 010	Stouch	S-RCO2-F2 S-KCO2	S-RFF-U- D-F2 S-KFF-U	LJ/PG SSK	LGd	SKS	Main switch	PR
KUB 50-355 EKO	+	+	+	+	420x420	380x380	460x460	BWS316 Y TPN	420x420-355
KUB 67-400 EKO	+	+	+	+	590x590	550x550	630x630	BWS316 Y TPN	590x590-400
KUB 67-500 EKO	+	+	+	+	590x590	550x550	630x630	BWS316 Y TPN	590x590-450
KUB 80-500 EKO	+	+	+	+	720x720	680x680	760x760	BWS316 Y TPN	590x590-500
KUB 80-560 EKO	+	+	+	+	720x720	680x680	760x760	BWS316 Y TPN	695x695-560
KUB 80-630 EKO	+	+	+	+	720x720	680x680	760x760	BWS316 Y TPN	695x695-630
KUB 100-630 EKO	+	+	+	+	920x920	880x880	960x960	BWS316 Y TPN	920x920-710

SQUARE BOX FANS

Flange-adapter	Controller	CO2 sensor	Humidity sensor	CO2 sensor	Humidity sensor
					
PR p. 192	Stouch p. 130	S-RCO2-F2 p. 162	S-KFF-U p. 163	S-KCO2 p. 162	S-RFF-U-D-F2 p. 163



Centrifugal discharge



- ① KUB 50-355 EKO
- ② KUB 67-400 EKO
- ③ KUB 67-500 EKO
- ④ KUB 80-500 EKO
- ⑤ KUB 80-560 EKO
- ⑥ KUB 80-630 EKO
- ⑦ KUB 100-630 EKO

— Performance
- - - Power consumption

		50-355	67-400	67-500	80-500	80-560	80-630	100-630
Voltage/Frequency	[V/Hz]	230/50	230/50	400/50	400/50	400/50	400/50	400/50
Power consumption	[kW]	0,415	0,790	1,275	1,240	1,590	3,000	2,935
Current	[A]	1,95	3,55	2,04	1,96	2,49	4,55	4,51
Speed	[min ⁻¹]	2010	1700	1400	1400	1230	1230	1230
Max. airflow	[m³/h]	3000	5220	8070	8370	10740	15000	15900
Min/Max ambient air temperature	[°C]	-20/60	-20/60	-20/60	-20/60	-20/40	-20/60	-20/60
Weight	[kg]	28	50	51	75	87	73	116
Wiring diagram		No.1	No.2	No.2	No.2	No.2	No.2	No.2
Protection class:								
	motor	IP-54	IP-54	IP-54	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		+	+	+	+	+	+	+

80-560	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	80	68	72	73	73	72	69	67
Outlet	82	67	73	77	75	74	70	67
Surrounding	68	56	62	62	60	59	56	54
Measured at 8566 m³/h, 151 Pa								
80-630	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	83	69	78	76	77	75	71	67
Outlet	85	68	76	81	79	78	73	71
Surrounding	73	58	67	67	66	64	59	57
Measured at 11073 m³/h, 151 Pa								
100-630	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	85	69	79	78	77	76	74	73
Outlet	87	68	77	82	80	79	75	76
Surrounding	76	60	69	71	69	67	64	60
Measured at 13359 m³/h, 149 Pa								

50-355	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	50	59	65	62	61	57	53
Outlet	73	51	62	68	69	66	61	55
Surrounding	56	38	47	51	50	47	42	39
Measured at 2366 m³/h, 150 Pa								

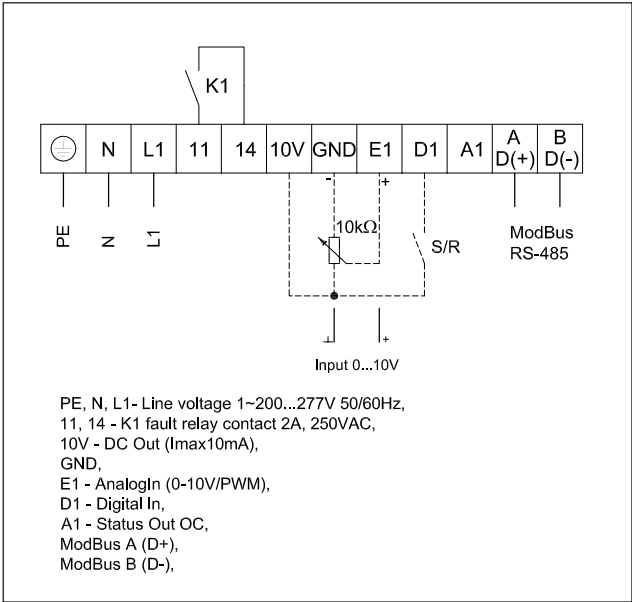
67-400	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	59	62	68	65	62	63	61
Outlet	76	58	64	70	73	68	64	60
Surrounding	60	45	51	56	54	49	47	45
Measured at 4264 m³/h, 150 Pa								

67-500	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	64	69	71	67	67	65	64
Outlet	80	61	72	75	75	71	67	65
Surrounding	62	48	57	57	55	52	50	49
Measured at 6138 m³/h, 150 Pa								

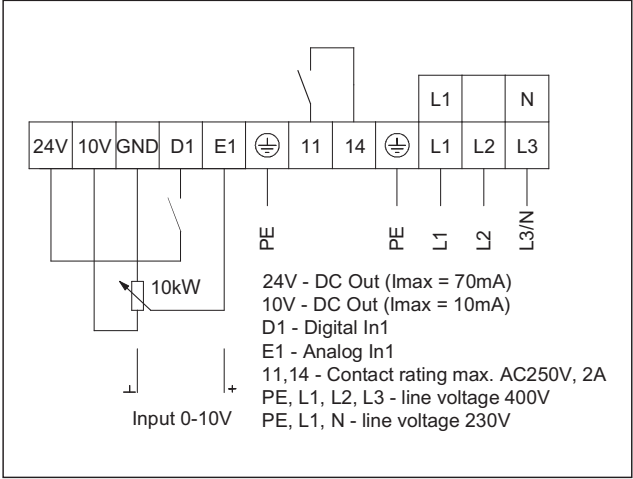
80-500	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	79	67	72	74	70	69	67	65
Outlet	83	69	74	78	76	74	72	67
Surrounding	66	54	59	61	59	55	54	50
Measured at 6907 m³/h, 181 Pa								

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

Wiring diagram No.1



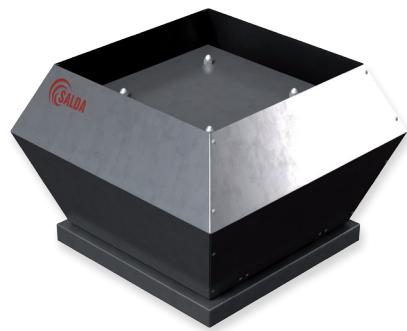
Wiring diagram No.2



SQUARE BOX FANS

VSV EKO / VSVI EKO

VSV EKO



VSVI EKO



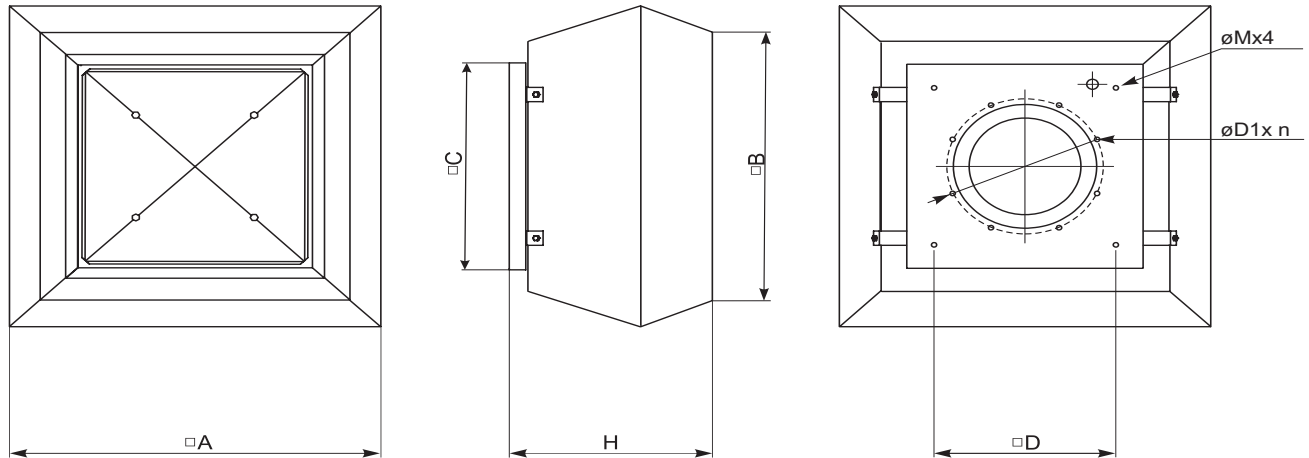
Features	› 7 sizes; › Airflow up to 14500 m³/h; › Vertical exhaust; › Backward-curved plastic impeller; › Acoustically insulated VSVI version; › Fan speed 100% controllable by 0-10 V signal; › Energy efficient.
Power supply	230V/50Hz/1f or 400V/50Hz/3f.
Temperature range	From -25°C up to 40/60°C, depending on size.
Sizes	311, 355, 400, 450, 500, 560, 630.
Construction	› Casing: galvanized steel or aluminium; › Motor protected from external objects; › Acoustic and thermal wall insulation – 50mm (VSVI only); › Fan: centrifugal impeller and external rotor motor; › Motor protection integrated into motor electronics; › Motor protection class: IP54; › Terminal box protection class: IP55.
Installation	› Device can be connected to pull air directly from ventilated room or air duct system. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› 10 kΩ potentiometer; › External signal 0-10 VDC/PWM from user controller. › Can be connected directly to optional constant pressure sensors, CO2, RH or an on/off switch.

VSV	I	311	L1	EKO	Fans with EC motors
					Phase
					Nominal impeller diameter
					Insulated version
					Product name

Accessories

0-10V speed controller	Controller	Main switch	Flange-adapter	Back draft shutter	Flexible connection
MTP010 p. 128	Stouch p. 130	Main switch p. 164	FSV p. 137	ATS p. 135	LSV p. 136

VSV EKO / VSVI EKO

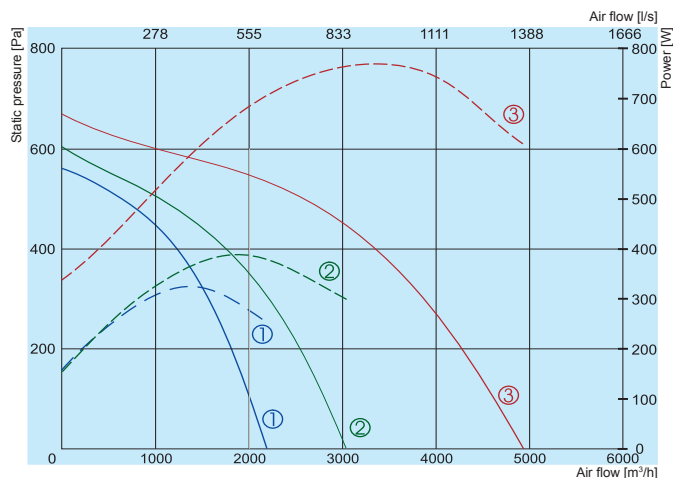


Type	Dimensions [mm]							
	□A [mm]	□B [mm]	□C [mm]	□H [mm]	øM [mm]	□D [mm]	øD1	n
VSV 311 EKO	555	470	435	323	M6	330	285	6
VSV 355 EKO	720	618	595	420	M10	450	438	6
VSV 400 EKO	720	618	595	420	M10	450	438	6
VSV 450 EKO	900	700	665	485	M10	535	438	6
VSV 500 EKO	900	700	665	485	M10	535	438	6
VSV 560 EKO	1150	972	939	609	M10	750	605	8
VSV 630 EKO	1150	972	939	609	M10	750	605	8
VSVI 311 EKO	675	567	435	370	M6	330	285	6
VSVI 355 EKO	844	716	595	420	M10	450	438	6
VSVI 400 EKO	844	716	595	420	M10	450	438	6
VSVI 450 EKO	966	817	665	488	M10	535	438	6
VSVI 500 EKO	966	817	665	488	M10	535	438	6
VSVI 560 EKO	1265	1033	939	611	M10	750	605	8
VSVI 630 EKO	1265	1033	939	611	M10	750	605	8

Type	Accessories						
	MTP010	S-RCO2-F2 S-KCO2	S-RFF-U-D-F2 S-KFF-U	Stouch	KS-K KSP-K	FSV LSV	ATS
VSV/VSVI 311 EKO	+	+	+	+	311	311	311
VSV/VSVI 355 EKO	+	+	+	+	355/500	355/400	355/400
VSV/VSVI 400 EKO	+	+	+	+	355/500	355/400	355/400
VSV/VSVI 450 EKO	+	+	+	+	450/500	450/500	450/500
VSV/VSVI 500 EKO	+	+	+	+	450/500	450/500	450/500
VSV/VSVI 560 EKO	+	+	+	+	560/630	560/630	560/630
VSV/VSVI 630 EKO	+	+	+	+	560/630	560/630	560/630

Roof curb	Roof curb	CO2 sensor	Humidity sensor	CO2 sensor	Humidity sensor
					
KSP-K p. 134	KS-K p. 133	S-RCO2-F2 p. 162	S-KFF-U p. 163	S-KCO2 p. 162	S-RFF-U-D-F2 p. 163

VSV EKO / VSVI EKO



- ① VSV/VSVI 311 L1 EKO
- ② VSV/VSVI 355 L1 EKO
- ③ VSV/VSVI 400 L1 EKO
- Performance
- - - Power consumption

		311 L1 EKO	355 L1 EKO	400 L1 EKO
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50
Power consumption	[kW]	0,323	0,35	0,772
Current	[A]	1,51	1,61	3,5
Speed	[min ⁻¹]	2270	2010	1700
Max. airflow	[m³/h]	2185	2835	4940
Min./Max. air temperature	[°C]	-25/60	-25/60	-25/60
Weight	[kg]	20/24	30/38	33/38
Wiring diagram		No.1	No.1	No.2
Protection class:	motor	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55
Comply with ERP 2018		+	+	+

VSV 311 L1 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	75	51	63	72	68	67	64	61
Outlet	76	56	62	71	72	66	65	59
Surrounding	78	56	67	73	72	71	68	63

Measured at 1901 m³/h, 150 Pa

VSV 355 L1 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	75	51	63	70	67	70	65	60
Outlet	76	54	67	68	70	70	66	58
Surrounding	78	58	68	71	73	72	68	63

Measured at 2816 m³/h, 172 Pa

VSV 400 L1 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	79	62	74	75	71	66	66	60
Outlet	78	66	71	72	71	70	66	61
Surrounding	82	68	77	77	73	71	69	64

Measured at 4370 m³/h, 183 Pa

VSVI 311 L1 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	52	61	70	68	66	62	61
Outlet	74	56	63	69	70	67	63	59
Surrounding	77	57	65	73	72	70	66	63

Measured at 1901 m³/h, 150 Pa

VSVI 355 L1 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	74	49	62	69	67	68	65	59
Outlet	74	55	65	66	70	68	64	58
Surrounding	77	56	67	71	71	71	68	62

Measured at 2816 m³/h, 172 Pa

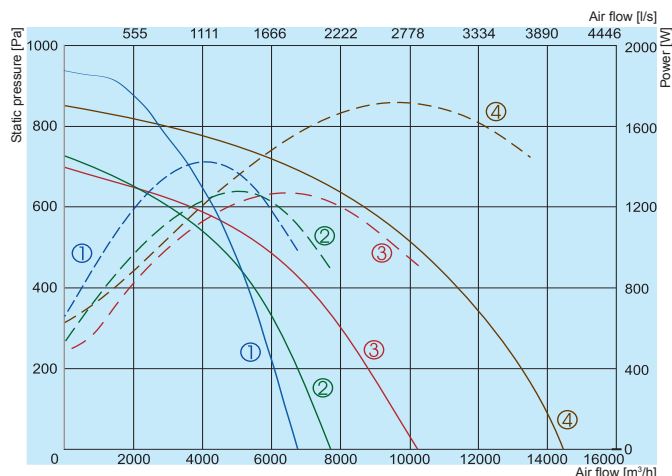
VSVI 400 L1 EKO

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	78	62	75	73	68	66	65	59
Outlet	77	64	70	71	71	68	66	60
Surrounding	81	66	76	75	73	70	69	63

Measured at 4370 m³/h, 183 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VSV EKO / VSVI EKO



- ① **VSV/VSVI 450 L3 EKO**
 - ② **VSV/VSVI 500 L3 EKO**
 - ③ **VSV/VSVI 560 L3 EKO**
 - ④ **VSV/VSVI 630 L3 EKO**
- Performance
- - - Power consumption

		450 L3 EKO	500 L3 EKO	560 L3 EKO	630 L3 EKO
Voltage/Frequency	[V/Hz]	400/50	400/50	400/50	400/50
Power consumption	[kW]	1,418	1,28	1,595	2,87
Current	[A]	2,22	2,02	2,51	4,42
Speed	[min ⁻¹]	1800	1400	1230	1230
Max. airflow	[m³/h]	6760	7670	10220	14500
Min./Max. air temperature	[°C]	-25/60	-25/60	-25/40	-25/60
Weight	[kg]	50/60	50/60	82/100	103/121
Wiring diagram		No.2	No.2	No.2	No.2
Protection class:	motor	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		+	+	+	+

ROOF FANS

VSV 450 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	83	66	77	80	74	73	71	69
Outlet	85	71	77	80	78	76	73	69
Surrounding	87	71	78	83	80	76	75	72

Measured at 6345 m³/h, 121 Pa

VSV 500 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	79	66	74	75	68	67	67	66
Outlet	80	69	74	75	73	70	68	64
Surrounding	83	70	75	79	76	72	71	68

Measured at 7139 m³/h, 120 Pa

VSV 560 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	78	69	73	72	70	68	66	62
Outlet	78	69	71	73	70	69	66	59
Surrounding	81	72	73	75	73	71	70	65

Measured at 9113 m³/h, 160 Pa

VSV 630 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	82	65	75	79	75	72	71	65
Outlet	83	70	74	80	76	72	72	68
Surrounding	85	72	77	82	76	75	75	69

Measured at 13018 m³/h, 230 Pa

VSVI 450 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	82	67	75	79	72	72	71	68
Outlet	84	69	76	79	78	74	73	68
Surrounding	86	71	79	82	79	76	75	71

Measured at 6345 m³/h, 121 Pa

VSVI 500 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	78	67	72	74	67	67	67	65
Outlet	79	67	73	74	73	68	68	62
Surrounding	82	70	76	77	74	71	71	67

Measured at 7139 m³/h, 120 Pa

VSVI 560 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	77	69	71	70	68	68	66	61
Outlet	77	67	70	72	70	68	66	58
Surrounding	80	71	74	74	72	71	69	63

Measured at 9113 m³/h, 160 Pa

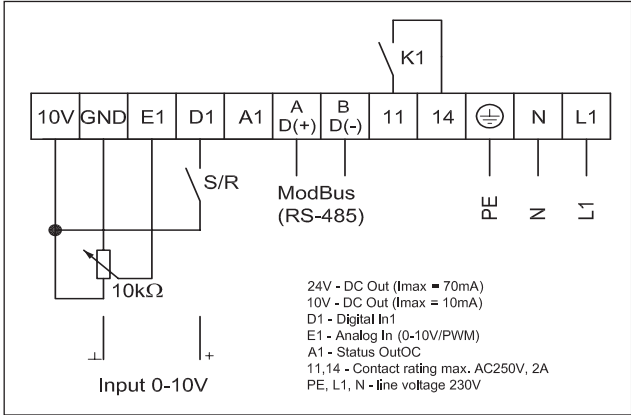
VSVI 630 L3 EKO

	LWA total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	65	73	78	73	70	71	63
Outlet	82	69	74	78	74	71	72	67
Surrounding	84	70	76	81	76	74	75	68

Measured at 13018 m³/h, 230 Pa

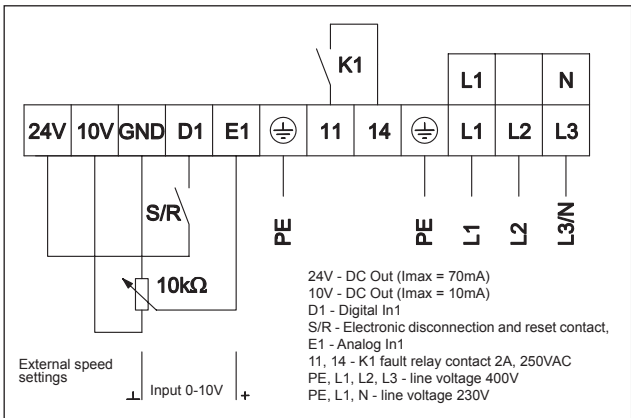
The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice



Wiring diagram No. 1

PE - yellow - green
BU - blue
BN- brown
RD - red
GN - green
YE - yellow
WH - white
GY - gray

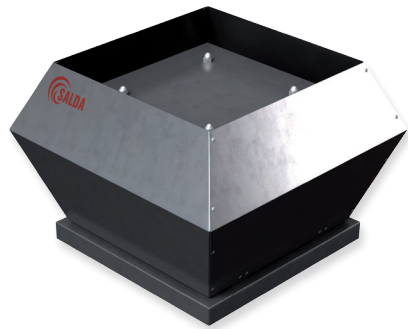


Wiring diagram No. 2

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

VSV / VSVI

VSV



VSVI

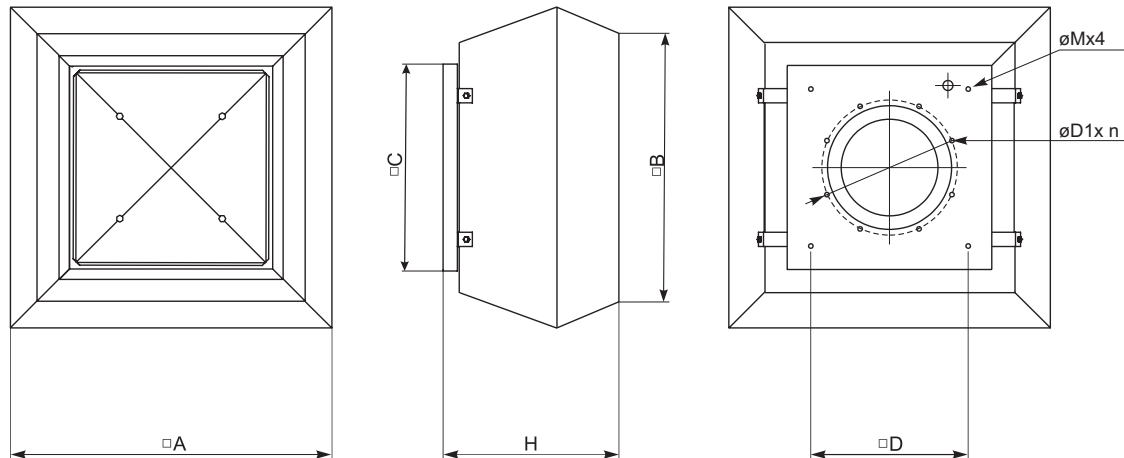


Features	› 9 sizes; › Airflow up to 15300 m³/h; › Vertical exhaust; › Backward-curved plastic or galvanized steel impeller; › Acoustically insulated VSVI version; › Cost-effective.
Power supply	230V/50Hz/1f or 400V/50Hz/3f.
Temperature range	From -25°C up to 40/60°C, depending on size.
Sizes	250-2S L1, 311-4 L1, 311-4 L3, 355-4 L1, 355-4 L3, 400-4 L1, 400-4 L3, 450-4 L1, 450-4 L3, 450-6 L1, 450-6 L3, 500-4 L3, 500-6 L3, 560-4 L3, 560-6 L3, 630-4 L3, 630-6 L3, 630-8 L3, 710-6 L3, 710-8 L3.
Construction	› Casing: galvanized steel or aluminium; › Motor protected from external objects; › Acoustic and thermal wall insulation – 50mm (VSVI only); › Fan: centrifugal impeller and external rotor motor; › Motor protection with built-in thermal-contact; › Motor protection class: IP44/ IP54 depending on unit; › Terminal box protection class: IP55.
Installation	› Device can be connected to pull air directly from ventilated room or air duct system. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› Electronic voltage controller (phase cut). › Voltage controlled speed controller.

VSV	311	4	L1	Phase
				Number of motor axes
				Nominal impeller diameter
				Insulated version
				Product name

Accessories

Single phase speed controller	Three phase speed controller	Single phase speed controller	Roof curb	Roof curb	Flange-adapter
TGRV p. 127	TGRT p. 127	ETY/MTY p. 128	KS-K p.133	KSP-K p. 134	FSV p. 137



Type	Dimensions [mm]							
	□ A	□ B	□ C	H	øM	□ D	øD1	n
VSV 250	415	320	355	275	M6	245	230	6
VSV 311	555	470	435	323	M6	330	285	6
VSV 355	720	618	595	420	M10	450	438	6
VSV 400	720	618	595	420	M10	450	438	6
VSV 450	900	700	665	485	M10	535	438	6
VSV 500	900	700	665	485	M10	535	438	6
VSV 560	1150	972	939	609	M10	750	605	8
VSV 630	1150	972	939	609	M10	750	605	8
VSV 710	1350	1176	1040	717	M10	840	674	8

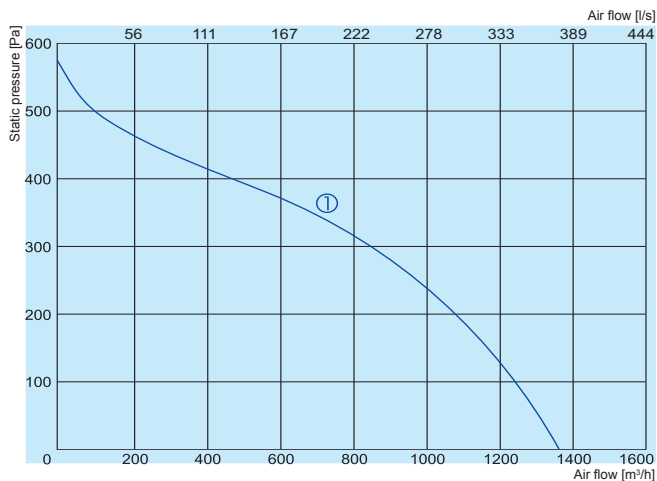
Type	Dimensions [mm]							
	□ A	□ B	□ C	H	øM	□ D	øD1	n
VSVI 311	675	567	435	369	M6	330	285	6
VSVI 355	844	716	595	422	M10	450	438	6
VSVI 400	844	716	595	422	M10	450	438	6
VSVI 450	966	817	665	488	M10	535	438	6
VSVI 500	966	817	665	488	M10	535	438	6
VSVI 560	1265	1033	939	611	M10	750	605	8
VSVI 630	1265	1033	939	611	M10	750	605	8
VSVI 710	1447	1178	1040	747	M10	840	674	8

Type	Accessories								
	TGRV	TGRT	ETY/MTY	KS-K	KSP-K	FSV	LSV	ATS	Main switch
VSV 250-2S L1	1,5	-	1,5	250	250	250	250	250	BWS316 Y TPN
VSV/VSVI 311-4 L1	1,5	-	1,5	311	311	311	311	311	BWS316 Y TPN
VSV/VSVI 311-4 L3	-	1	-	311	311	311	311	311	BWS316 Y TPN
VSV/VSVI 355-4 L1	2	-	2,5	355/400	355/400	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 355-4 L3	-	1	-	355/400	355/400	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 400-4 L1	3	-	4	355/400	355/400	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 400-4 L3	-	1	-	355/400	355/400	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 450-4 L1	5	-	-	450/500	450/500	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 450-4 L3	-	2	-	450/500	450/500	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 450-6 L1	-	-	-	450/500	450/500	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 450-6 L3	-	1	-	450/500	450/500	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 500-4 L3	-	4	-	450/500	450/500	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 500-6 L3	-	2	-	450/500	450/500	355-500	355/500	355/500	BWS316 Y TPN
VSV/VSVI 560-4 L3	-	5	-	560/630	560/630	560-630	560/630	560/630	BWS316 Y TPN
VSV/VSVI 560-6 L3	-	2	-	560/630	560/630	560-630	560/630	560/630	BWS316 Y TPN
VSV/VSVI 630-4 L3	-	11	-	560/630	560/630	560-630	560/630	560/630	BWS316 Y TPN
VSV/VSVI 630-6 L3	-	4	-	560/630	560/630	560-630	560/630	560/630	BWS316 Y TPN
VSV/VSVI 630-8 L3	-	2	-	560/630	560/630	560-630	560/630	560/630	BWS316 Y TPN
VSV/VSVI 710-6 L3	-	7	-	710	710	710	710	710	BWS316 Y TPN
VSV/VSVI 710-8 L3	-	3	-	710	710	710	710	710	BWS316 Y TPN



VSV / VSVI

VSV 250-2S L1



① 230V

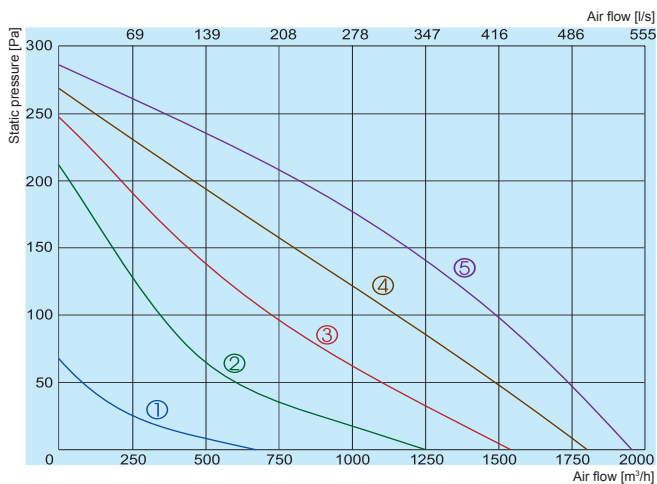
250-2S L1

Inlet
Outlet
Surrounding

Measured at 1155 m³/h, 100 Pa

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	67	54	56	61	62	60	59
Outlet	71	56	61	64	67	65	58
Surrounding	65	49	56	57	60	58	46

VSV/VSVI 311-4 L1



① 80V

③ 140V

⑤ 230V

② 120V

④ 170V

VSV 311-4 L1

Inlet
Outlet
Surrounding

Measured at 1511 m³/h, 100 Pa

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	52	64	66	56	55	51
Outlet	68	52	59	65	60	57	53
Surrounding	71	55	64	69	62	58	46

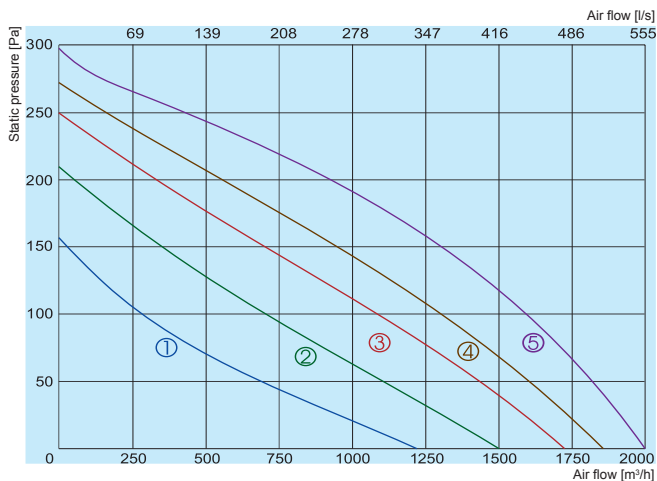
VSVI 311-4 L1

Inlet
Outlet
Surrounding

Measured at 1511 m³/h, 100 Pa

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	68	50	63	65	56	53	51
Outlet	67	51	57	64	59	56	51
Surrounding	70	54	64	68	60	58	44

VSV/VSVI 311-4 L3



① 130V

③ 220V

⑤ 400V

② 170V

④ 270V

VSV 311-4 L3

Inlet
Outlet
Surrounding

Measured at 1706 m³/h, 75 Pa

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	70	51	62	68	60	52	54
Outlet	69	52	60	67	59	60	53
Surrounding	72	55	63	70	64	57	47

VSVI 311-4 L3

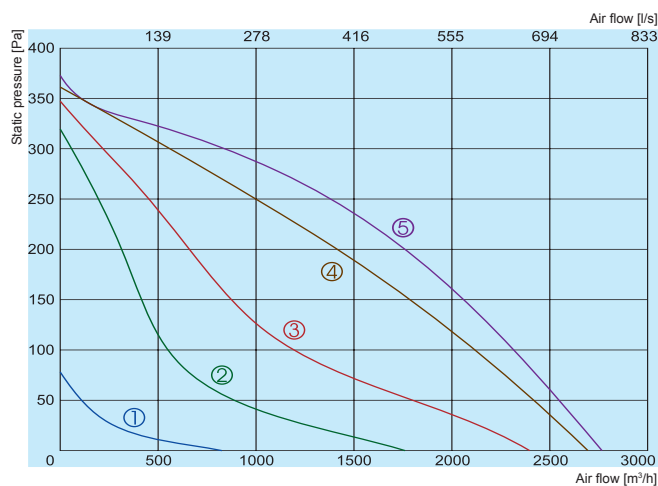
Inlet
Outlet
Surrounding

Measured at 1706 m³/h, 75 Pa

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	50	62	67	58	52	53
Outlet	68	50	59	66	58	58	53
Surrounding	71	54	63	69	62	57	45

		250-2 L1	250-2S L1	311-4 L1	311-4 L3
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	400/50
Power consumption	[kW]	0,23	0,185	0,183	0,153
Current	[A]	1,00	0,81	0,83	0,35
Speed	[min ⁻¹]	2631	2650	1310	1370
Capacitor	[μF]	6	8	4	-
Max. airflow	[m³/h]	1428	1350	1957	2010
Min./Max. air temperature	[°C]	-25/60	-25/50	-25/60	-25/60
Weight	[kg]	8,3	8,1	19/26	19/26
Wiring diagram		No. 4	No. 3	No. 1	No. 2
Protection class:	motor	IP-44	IP-44	IP-44	IP-44
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		-	-	-	-

VSV/VSVI 355-4 L1



- ① 80V ③ 140V ⑤ 230V
② 120V ④ 170V

VSV 355-4 L1

Inlet
Outlet
Surrounding

Measured at 2230 m³/h, 124 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	64	49	57	59	56	55	51
Outlet	66	56	60	57	60	57	53
Surrounding	68	57	61	61	62	58	54

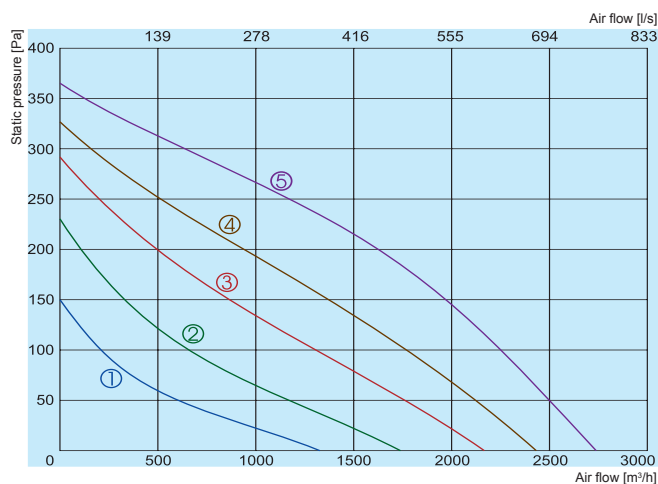
VSVI 355-4 L1

Inlet
Outlet
Surrounding

Measured at 2230 m³/h, 124 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	63	48	55	59	55	54	49
Outlet	64	55	58	57	59	56	51
Surrounding	67	56	60	61	60	58	53

VSV/VSVI 355-4 L3



- ① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 355-4 L3

Inlet
Outlet
Surrounding

Measured at 2278 m³/h, 102 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	65	52	56	60	57	57	53
Outlet	66	55	57	60	59	59	51
Surrounding	69	56	58	64	63	59	55

VSVI 355-4 L3

Inlet
Outlet
Surrounding

Measured at 2278 m³/h, 102 Pa

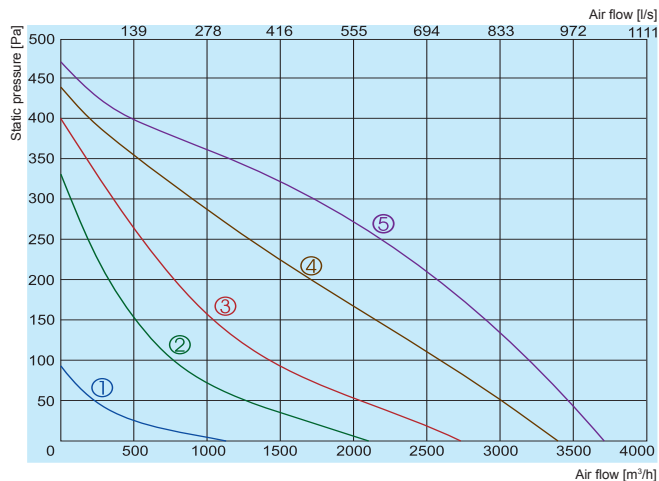
Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	64	51	54	60	56	56	51
Outlet	65	53	56	59	59	57	51
Surrounding	68	55	58	63	61	59	54

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VSV / VSVI

VSV/VSVI 400-4 L1



① 80V

② 120V

VSV 400-4 L1

Inlet

Outlet

Surrounding

Measured at 2897 m³/h, 160 Pa

VSVI 400-4 L1

Inlet

Outlet

Surrounding

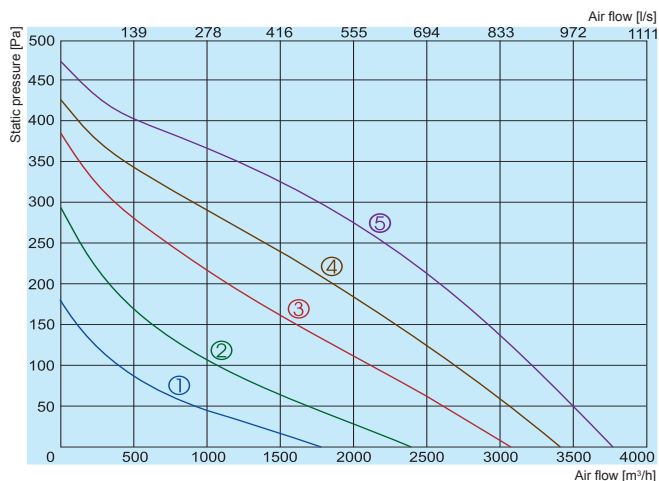
Measured at 2897 m³/h, 160 Pa

③ 140V ④ 170V ⑤ 230V

L _{WA} total, dB(A)	L _{WA} , dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	70	56	67	64	59	57	52
Outlet	69	58	63	61	62	59	52
Surrounding	72	60	67	66	64	61	56

L _{WA} total, dB(A)	L _{WA} , dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	54	66	63	57	57	51
Outlet	67	57	61	61	60	58	50
Surrounding	71	59	67	65	62	61	54

VSV/VSVI 400-4 L3



① 130V

② 170V

VSV 400-4 L3

Inlet

Outlet

Surrounding

Measured at 3009 m³/h, 145 Pa

VSVI 400-4 L3

Inlet

Outlet

Surrounding

Measured at 3009 m³/h, 145 Pa

③ 220V ④ 270V ⑤ 400V

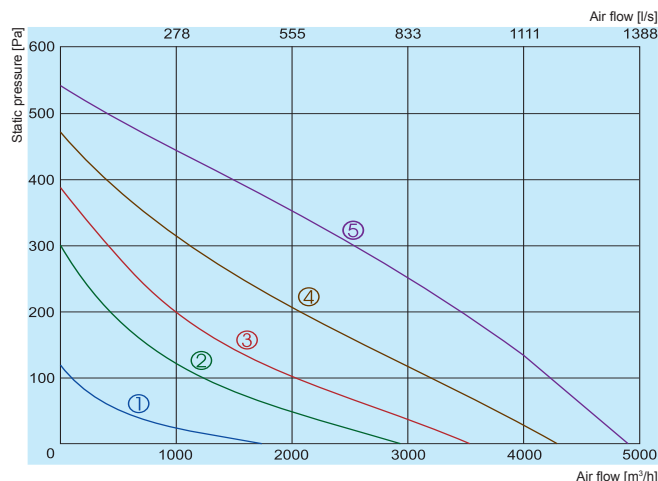
L _{WA} total, dB(A)	L _{WA} , dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	70	55	65	66	61	56	54
Outlet	70	57	65	63	60	61	52
Surrounding	73	59	69	67	64	63	55

L _{WA} total, dB(A)	L _{WA} , dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	54	65	65	59	56	52
Outlet	68	56	63	63	59	60	50
Surrounding	72	58	69	66	62	63	53

		355-4 L1	355-4 L3	400-4 L1	400-4 L3
Voltage/Frequency	[V/Hz]	230/50	400/50	230/50	400/50
Power consumption	[kW]	0,270	0,243	0,451	0,436
Current	[A]	1,3	0,48	2,15	0,81
Speed	[min ⁻¹]	1390	1340	1280	1320
Capacitor	[μF]	6	-	10	-
Max. airflow	[m³/h]	2770	2740	3710	3770
Min./Max. air temperature	[°C]	-25/60	-25/60	-25/60	-25/60
Weight	[kg]	31/39	31/38	33/42	32/41
Wiring diagram		No. 1	No. 2	No. 1	No. 2
Protection class:		IP-54	IP-54	IP-54	IP-54
	motor	IP-55	IP-55	IP-55	IP-55
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		-	-	-	-

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VSV/VSVI 450-4 L1



- ① 80V ③ 140V ⑤ 230V
② 120V ④ 170V

VSV 450-4 L1

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	57	66	69	60	62	55
Outlet	73	59	66	68	61	65	55
Surrounding	76	61	71	71	68	64	57

Measured at 4111 m³/h, 118 Pa

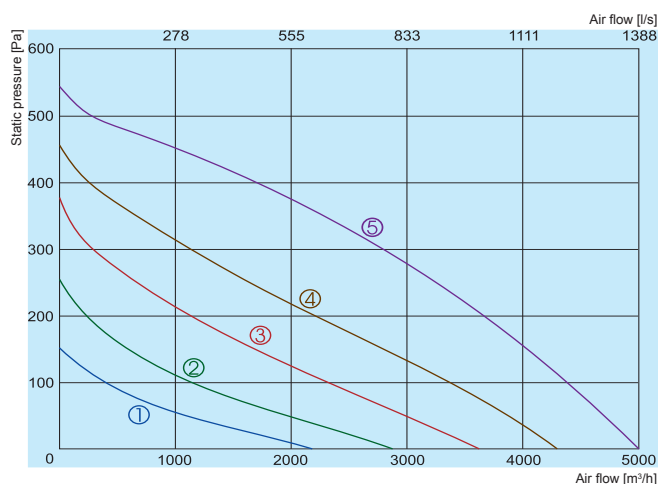
VSVI 450-4 L1

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	71	55	65	68	60	62	54
Outlet	72	58	64	68	60	63	52
Surrounding	75	60	71	70	66	64	55

Measured at 4111 m³/h, 118 Pa

VSV/VSVI 450-4 L3



- ① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 450-4 L3

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	56	64	71	61	60	54
Outlet	74	57	67	69	59	66	53
Surrounding	77	64	71	73	68	64	59

Measured at 4299 m³/h, 120 Pa

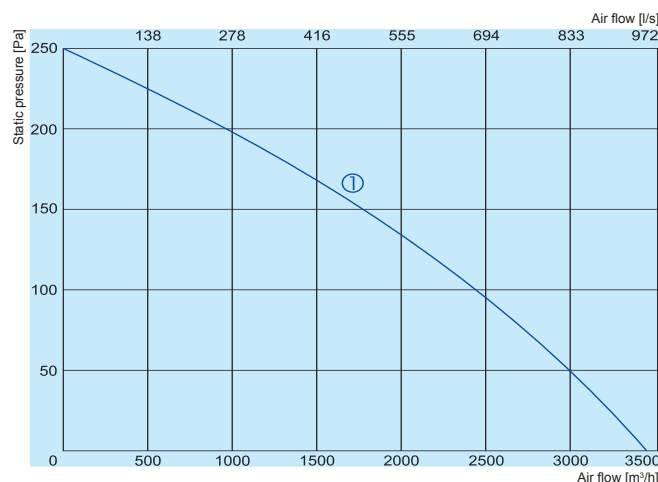
VSVI 450-4 L3

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	54	63	70	61	58	53
Outlet	73	56	65	69	58	65	51
Surrounding	76	63	71	72	66	62	57

Measured at 4299 m³/h, 120 Pa

VSV/VSVI 450-6 L1



- ① 230V

VSV 450-6 L1

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	63	50	57	57	55	54	40
Outlet	64	52	56	58	58	57	40
Surrounding	66	54	58	61	62	57	43

Measured at 2287 m³/h, 116 Pa

VSVI 450-6 L1

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	62	49	55	57	54	53	38
Outlet	63	50	55	57	58	55	39
Surrounding	65	53	58	60	60	57	41

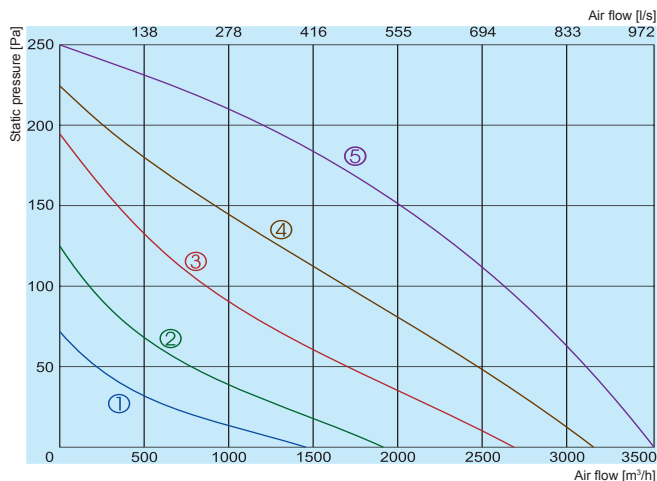
Measured at 2287 m³/h, 116 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VSV / VSVI

VSV/VSVI 450-6 L3



- ① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 450-6 L3

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	61	50	53	56	54	52	38
Outlet	63	51	57	57	55	56	39
Surrounding	65	53	60	59	58	57	42

Measured at 2033 m³/h, 150 Pa

VSVI 450-6 L3

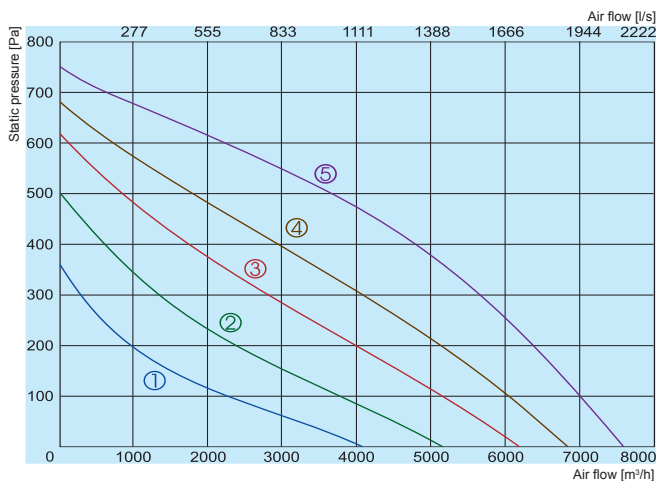
Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	60	49	53	55	52	52	36
Outlet	62	49	56	56	55	54	38
Surrounding	64	52	58	59	57	56	40

Measured at 2033 m³/h, 150 Pa

		450-4 L1	450-4 L3	450-6 L1	450-6 L3
Voltage/Frequency	[V/Hz]	230/50	400/50	230/50	400/50
Power consumption	[kW]	0,628	0,652	0,243	0,267
Current	[A]	2,87	1,32	1,06	0,61
Speed	[min⁻¹]	1230	1250	920	880
Capacitor	[μF]	12	-	12	-
Max. airflow	[m³/h]	4880	5050	3440	3530
Min./Max. air temperature	[°C]	-25/60	-25/55	-25/60	-25/55
Weight	[kg]	50/62,5	48/61	48,562,5	47/59,5
Wiring diagram		No. 1	No. 2	No. 1	No. 2
Protection class:	motor	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		-	-	-	-

VSV/VSVI 500-4 L3



- ① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 500-4 L3

Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	66	74	78	72	72	67
Outlet	83	67	77	78	75	73	68
Surrounding	85	70	77	81	79	74	72

Measured at 6732 m³/h, 150 Pa

VSVI 500-4 L3

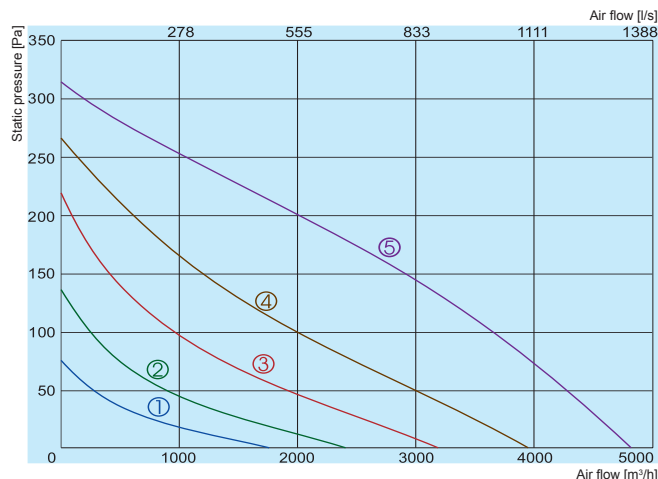
Inlet
Outlet
Surrounding

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	80	64	73	77	72	70	65
Outlet	82	66	75	78	74	72	66
Surrounding	84	69	77	80	78	74	70

Measured at 6732 m³/h, 150 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VSV/VSVI 500-6 L3



① 130V

② 170V

③ 220V

④ 270V

⑤ 400V

VSV 500-6 L3

Inlet
Outlet
Surrounding

Measured at 3152 m³/h, 137 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	62	53	57	54	54	55	46
Outlet	66	51	64	56	56	57	45
Surrounding	68	55	64	59	60	58	50

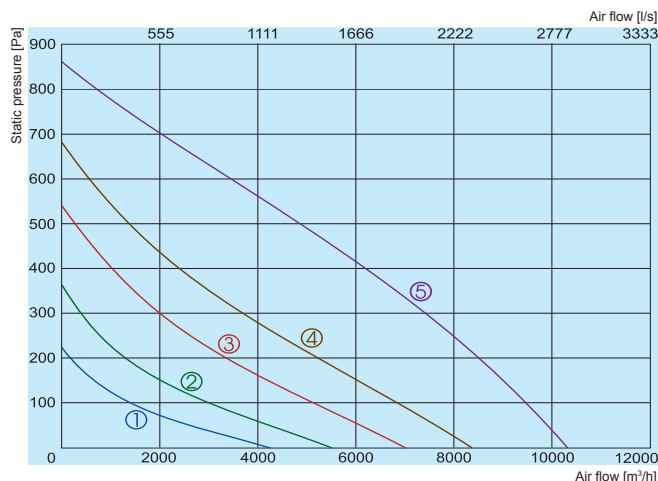
VSVI 500-6 L3

Inlet
Outlet
Surrounding

Measured at 3152 m³/h, 137 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	61	51	56	53	54	53	45
Outlet	65	49	63	55	56	55	44
Surrounding	67	53	64	57	58	57	48

VSV/VSVI 560-4 L3



① 130V

② 170V

③ 220V

④ 270V

⑤ 400V

VSV 560-4 L3

Inlet
Outlet
Surrounding

Measured at 9047 m³/h, 152 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	77	69	70	72	69	65	62
Outlet	77	69	70	71	68	69	57
Surrounding	80	71	73	74	73	70	66

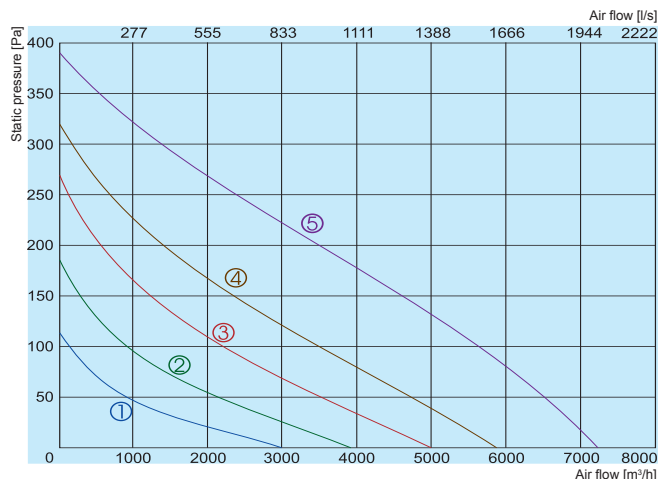
VSVI 560-4 L3

Inlet
Outlet
Surrounding

Measured at 9047 m³/h, 152 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	68	70	71	67	65	60
Outlet	76	67	69	70	68	67	56
Surrounding	79	70	71	74	72	69	64

VSV/VSVI 560-6 L3



① 130V

② 170V

③ 220V

④ 270V

⑤ 400V

VSV 560-6 L3

Inlet
Outlet
Surrounding

Measured at 4773 m³/h, 169 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	63	52	57	53	55	55	50
Outlet	63	53	55	58	56	56	47
Surrounding	66	55	58	59	59	58	51

VSVI 560-6 L3

Inlet
Outlet
Surrounding

Measured at 4773 m³/h, 169 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	62	51	55	53	54	54	48
Outlet	63	52	55	57	54	56	45
Surrounding	65	54	58	58	57	58	49

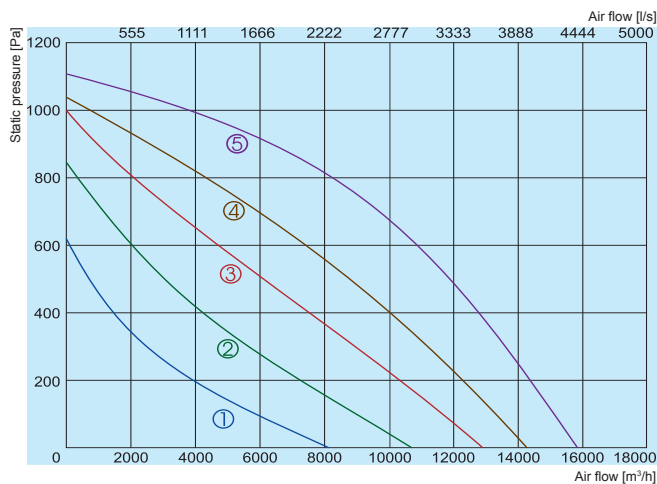
The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

VSV / VSVI

		500-4 L3	500-6 L3	560-4 L3	560-6 L3
Voltage/Frequency	[V/Hz]	400/50	400/50	400/50	400/50
Power consumption	[kW]	1,242	0,388	1,798	0,628
Current	[A]	2,31	0,79	3,47	1,09
Speed	[min ⁻¹]	1330	840	1180	800
Max. airflow	[m ³ /h]	7584	4810	10330	7215
Min./Max. air temperature	[°C]	-25/55	-25/60	-25/50	-25/40
Weight	[kg]	55,5/65	49/59	90,5/109	80/98
Wiring diagram		No. 2	No. 2	No. 2	No. 2
Protection class:	motor	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		-	-	-	-

VSV/VSVI 630-4 L3



① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 630-4 L3

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	85	72	77	82	77	72	69
Outlet	87	73	79	83	80	75	73
Surrounding	90	76	82	86	82	79	75

Measured at 14077 m³/h, 242 Pa

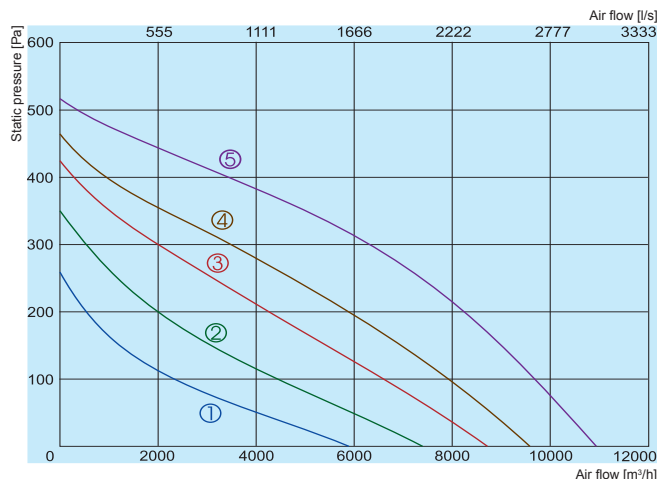
VSVI 630-4 L3

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	84	70	76	81	77	72	68
Outlet	85	71	77	82	78	72	69
Surrounding	88	74	80	85	79	76	71

Measured at 14077 m³/h, 242 Pa

VSV/VSVI 630-6 L3



① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 630-6 L3

Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	58	69	68	59	62	58
Outlet	73	59	71	63	62	61	58
Surrounding	75	61	71	70	64	63	62

Measured at 8003 m³/h, 201 Pa

VSVI 630-6 L3

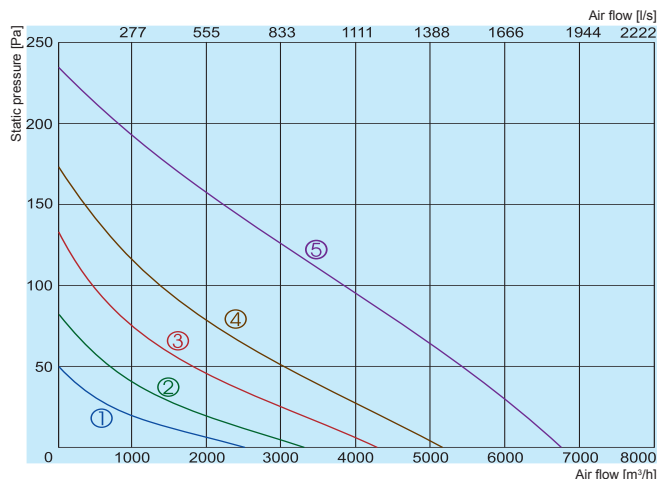
Inlet
Outlet
Surrounding

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	56	68	67	59	60	57
Outlet	72	58	69	63	60	60	56
Surrounding	74	60	71	69	62	63	60

Measured at 8003 m³/h, 201 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VSV/VSVI 630-8 L3



- ① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 630-8 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	63	44	59	45	49	50	59	37
Outlet	64	48	63	50	49	52	56	37
Surrounding	66	49	63	52	53	55	59	40

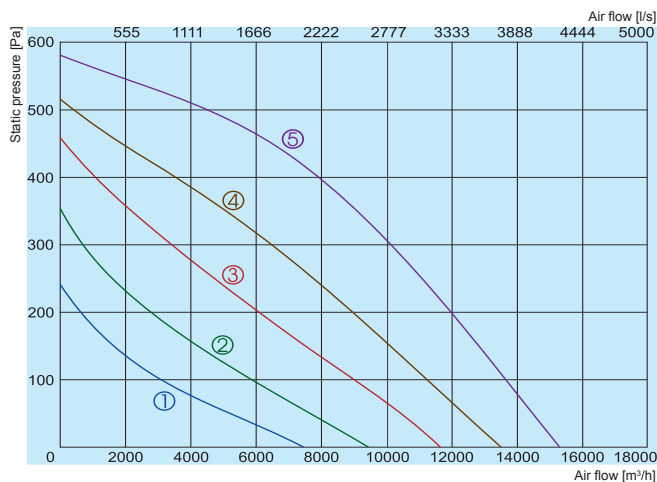
Measured at 5221 m³/h, 59 Pa

VSVI 630-8 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	61	43	57	45	48	49	57	35
Outlet	63	46	62	50	48	51	54	35
Surrounding	65	48	63	51	51	53	58	38

Measured at 5221 m³/h, 59 Pa

VSV/VSVI 710-6 L3



- ① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 710-6 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	84	70	76	80	75	75	70	69
Outlet	84	70	74	81	77	74	72	71
Surrounding	87	73	76	83	79	78	76	72

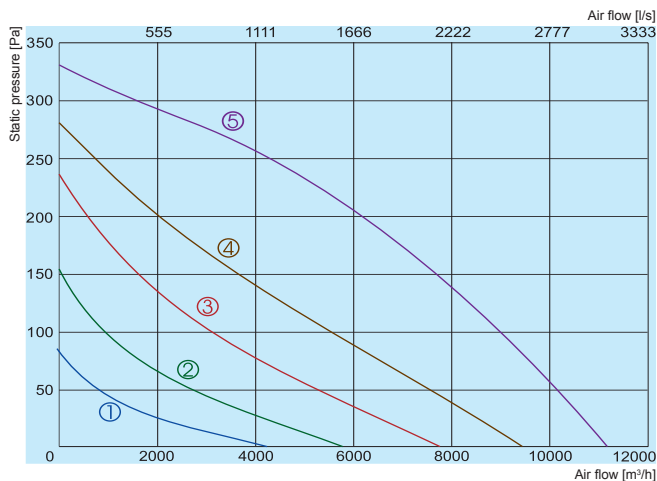
Measured at 12590 m³/h, 160 Pa

VSVI 710-6 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	83	68	74	79	75	73	70	68
Outlet	83	69	74	80	75	74	71	69
Surrounding	85	71	75	82	77	76	76	71

Measured at 12590 m³/h, 160 Pa

VSV/VSVI 710-8 L3



- ① 130V ③ 220V ⑤ 400V
② 170V ④ 270V

VSV 710-8 L3

	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	75	59	73	62	67	60	62	62
Outlet	75	60	73	65	67	62	63	59
Surrounding	78	63	76	67	69	66	64	63

Measured at 8948 m³/h, 100 Pa

VSVI 710-8 L3

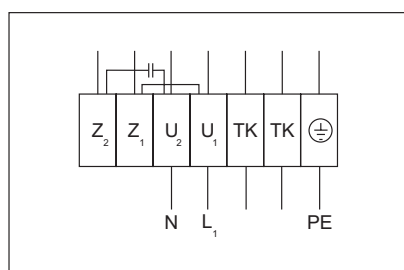
	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	75	58	73	61	65	60	61	60
Outlet	74	59	71	65	66	61	61	57
Surrounding	77	61	75	66	69	64	64	62

Measured at 8948 m³/h, 100 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

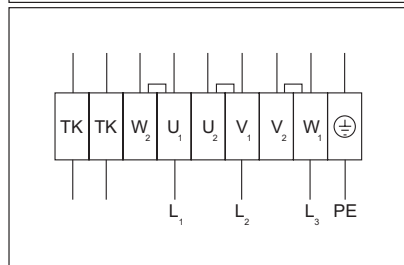
The company reserves the right to make changes of technical data without prior notice

		630-4 L3	630-6 L3	630-8 L3	710-6 L3	710-8 L3
Voltage/Frequency	[V/Hz]	400/50	400/50	400/50	400/50	400/50
Power consumption	[kW]	4,137	1,240	0,393	2,00	0,99
Current	[A]	7,18	2,73	0,9	3,9	1,93
Speed	[min ⁻¹]	1360	880	520	890	650
Max. airflow	[m ³ /h]	15900	10890	6750	15300	11215
Min./Max. air temperature	[°C]	-25/50	-25/60	-25/60	-25/40	-25/40
Weight	[kg]	124/140	109/123,5	101/117,5	156/207	147,5/198,5
Wiring diagram		No. 2	No. 2	No. 2	No. 2	No. 2
Protection class:	motor	IP-54	IP-54	IP-54	IP-54	IP-54
	terminal box	IP-55	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		-	-	-	-	-



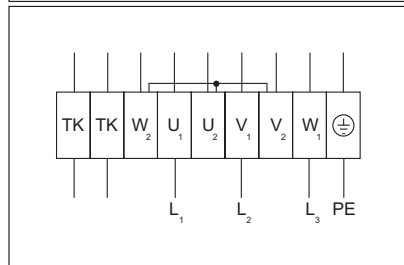
Wiring diagram No. 1 (1~230V)

U₁ - brown
U₂ - blue
Z₁ - black
Z₂ - orange
TK - white
PE - yellow-green



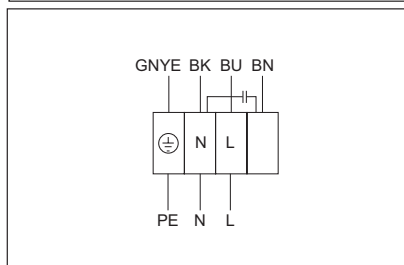
Wiring diagram No. 2 (Δ - 3~230V)

U₁ - brown
V₁ - blue
W₁ - black
U₂ - red
V₂ - grey
W₂ - orange
TK - white
PE - yellow-green



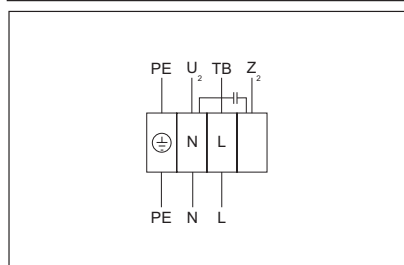
Wiring diagram No. 2 (Y - 3~400V)

U₁ - brown
V₁ - blue
W₁ - black
U₂ - red
V₂ - grey
W₂ - orange
TK - white
PE - yellow-green



Wiring diagram No. 3 (1~230V)

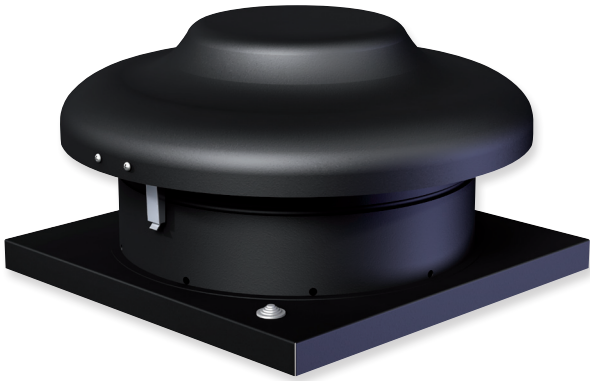
GNYE - green-yellow
BK - black
BU - blue
BN - brown
PE - yellow-green



Wiring diagram No. 4 (1~230V)

U₂ - blue or grey
Z₂ - black
TB - brown
PE - yellow-green

This image shows a full page of blank, lined paper. It features approximately 30 evenly spaced horizontal blue or grey lines across its entire width, providing a guide for handwriting. The paper itself is a clean, off-white color, and there are no margins, text, or other markings present.



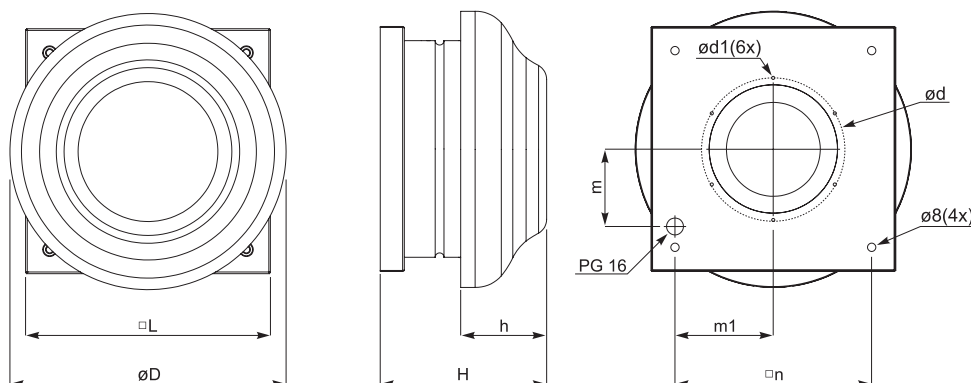
Features	› 4 sizes; › Airflow up to 1350 m³/h; › Horizontal exhaust; › Backward-curved impeller; › Fan speed 100% controllable by 0-10 V signal; › Energy efficient.
Power supply	230V/50Hz/1f.
Temperature range	From -25°C up to 60°C.
Sizes	190, 220, 225, 250.
Construction	› Casing: powder-coated steel, RAL 9005; › Motor protected from external objects; › Fan: centrifugal impeller and external rotor motor; › Motor protection integrated into motor electronics; › Motor protection class: IP44; › Terminal box protection class: IP55.
Installation	› Device can be connected to pull air directly from ventilated room or air duct system. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› 10 kΩ potentiometer; › External signal 0-10 VDC/PWM from user controller. › Can be connected directly to optional constant pressure sensors, CO2, RH or an on/off switch.

VSA 190 EKO

	Fans with EC motors
	Nominal impeller diameter
	Product name

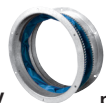
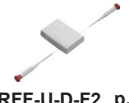
Accessories

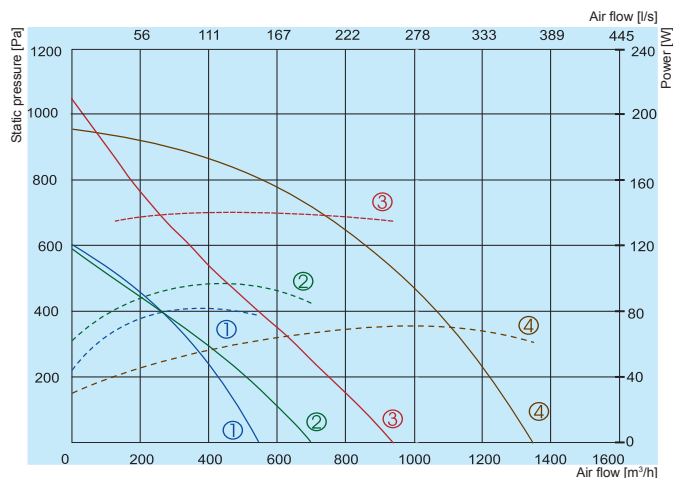
0-10V speed controller	Controller	Curb skirt	Curb skirt	Roof curb	Back draft shutter
					
MTP010 p. 128	Stouch p. 130	SSA p. 138	SSA 45 p. 138	KSV p. 132	ATS p. 135



Type	Dimensions [mm]								
	$\varnothing D$	H	h	$\square L$	$\varnothing d$	$\varnothing d1$	m	m1	$\square n$
VSA 190 EKO	344	234	107	305	177	M4	96,5	123,5	245
VSA 220 EKO	450	241	109	405	230	M5	138	165	330
VSA 225 EKO	450	245	109	405	230	M5	138	165	330
VSA 250 EKO	450	315	109	405	230	M5	138	165	330

Type	Accessories							
	MTP010	Stouch	S-RCO2-F2 S-KCO2	S-RFF-U-D-F2 S-KFF-U	SSA SSA 45	KSV	FSV LSV	ATS
VSA 190 EKO	+	+	+	+	300	300/600 300/800 300/900	160	190
VSA 220 EKO	+	+	+	+	400	400/600 400/800 400/900	250	250
VSA 225 EKO	+	+	+	+	400	400/900	250	250
VSA 250 EKO	+	+	+	+	400	400/1000	250	250

Flexible connection	Flange-adapter	CO2 sensor	Humidity sensor	CO2 sensor	Humidity sensor
					
LSV p. 136	FSV p. 137	S-RCO2-F2 p. 162	S-KFF-U p. 163	S-KCO2 p. 162	S-RFF-U-D-F2 p. 163



- ① **VSA 190 EKO**
- ② **VSA 220 EKO**
- ③ **VSA 225 EKO**
- ④ **VSA 250 EKO**

— Performance
- - - Power consumption

		190 EKO	220 EKO	225 EKO	250 EKO
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	230/50
Power consumption	[kW]	0,084	0,097	0,170	0,360
Current	[A]	0,66	0,77	1,29	2,4
Speed	[min ⁻¹]	3150	2700	2860	3400
Max. airflow	[m³/h]	550	700	935	1350
Min./Max. air temperature	[°C]	-25/60	-25/60	-25/60	-25/55
Weight	[kg]	4,4	7,0	7,6	8,0
Wiring diagram		No.1	No.1	No.1	No.2
Protection class:					
	motor	IP-44	IP-44	IP-44	IP-44
	terminal box	IP-55	IP-55	IP-55	IP-55
Comply with ERP 2018		+	+	+	+

190 EKO

Inlet
Outlet
Surrounding

Measured at 480 m³/h, 120 Pa

220 EKO

Inlet
Outlet
Surrounding

Measured at 589 m³/h, 121 Pa

225 EKO

Inlet
Outlet
Surrounding

Measured at 789 m³/h, 160 Pa

250 EKO

Inlet
Outlet
Surrounding

Measured at 1274 m³/h, 120 Pa

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	49	55	65	65	60	53
Outlet	71	54	60	67	66	59	50
Surrounding	63	43	51	59	59	52	40

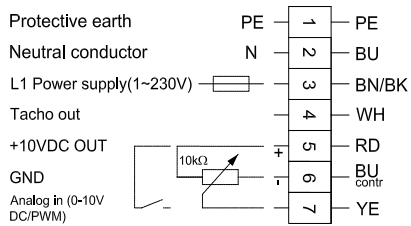
LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	50	57	64	62	63	51
Outlet	72	55	59	66	69	65	53
Surrounding	65	47	53	60	61	57	45

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	75	59	65	69	68	68	60
Outlet	78	61	65	72	74	72	56
Surrounding	69	52	60	63	63	64	48

LWA total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	78	63	69	71	70	72	64
Outlet	81	64	68	74	77	75	61
Surrounding	71	56	62	65	66	65	52

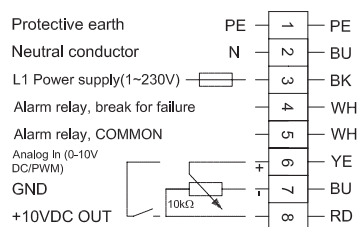
The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

Wiring diagram No. 1 (1~230V)

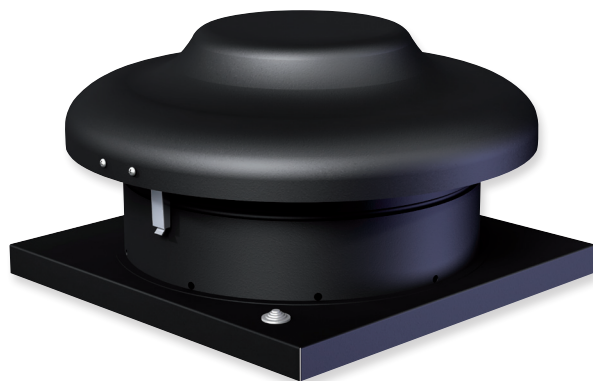


PE - yellow-green
 BU - blue
 BN/BK - brown/black
 WH - white
 RD - red
 YE - yellow
 BK - black

Wiring diagram No. 2 (1~230V)



VSA 3.0



Features	› 4 sizes; › Airflow up to 1170 m³/h; › Horizontal exhaust; › Backward-curved impeller; › Cost-effective.
Power supply	230V/50Hz/1f.
Temperature range	From -40°C up to 40/65°C.
Sizes	190 S, 190 L, 220 S, 220 M, 225 L, 250 L.
Construction	› Casing: powder-coated steel, RAL 9005; › Motor protected from external objects; › Fan: centrifugal impeller and external rotor motor; › Motor protection with built-in thermal contact; › Motor protection class: IP44; › Terminal box protection class: IP55.
Installation	› Device can be connected to pull air directly from ventilated room or air duct system. › Not suitable for polluted air or volatile and explosive gases.
Speed control options	› Electronic voltage controller (phase cut); › Voltage controlled speed controller.

VSA 190 S 3.0

	Version
	Motor power level (S – low, M – medium, L – high).
	Nominal impeller diameter
	Product name

Accessories

Single phase speed controller



Single phase speed controller



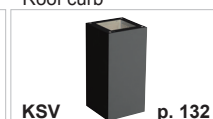
Curb skirt



Curb skirt

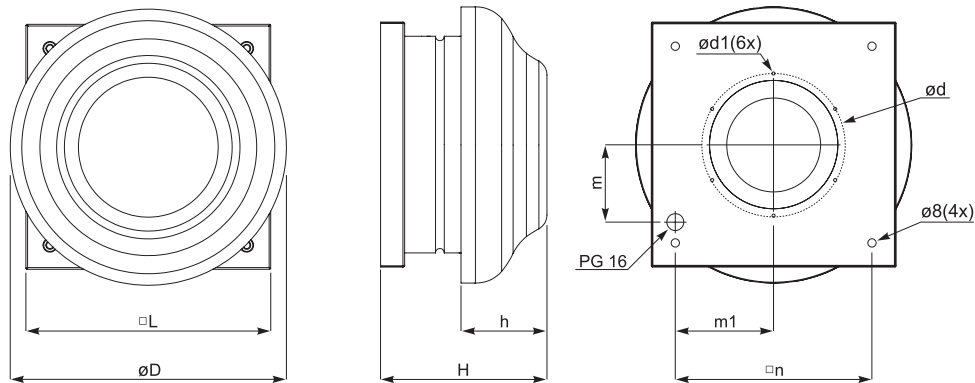


Roof curb



Flange-adapter

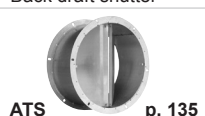




Type	Dimensions [mm]								
	$\varnothing D$	H	h	$\square L$	$\varnothing d$	$\varnothing d1$	m	m1	$\square n$
VSA 190 S 3.0	344	207	107	305	177	M4	96,5	123,5	245
VSA 190 L 3.0	344	207	107	305	177	M4	96,5	123,5	245
VSA 220 S 3.0	450	214,35	109	405	230	M5	138	168	330
VSA 220 M 3.0	450	214,35	109	405	230	M5	138	168	330
VSA 225 L 3.0	450	245,55	109	405	230	M5	138	168	330
VSA 250 L 3.0	450	245,55	109	405	230	M5	138	168	330

Type	Accessories							
	TGRV	ETY	SSA	SSA 45	KSV	FSV	ATS	LSV
VSA 190 S 3.0	1,5	1,5	300	300	300/600	160	190	160
VSA 190 L 3.0	1,5	1,5	300	300	300/800 300/900	160	190	160
VSA 220 S 3.0	1,5	1,5	400	400	400/600	250	250	250
VSA 220 M 3.0	1,5	1,5	400	400	400/800	250	250	250
VSA 225 L 3.0	1,5	1,5	400	400	400/900	250	250	250
VSA 250 L 3.0	1,5	1,5	400	400	400/1000	250	250	250

Back draft shutter



ATS

p. 135

Flexible connection

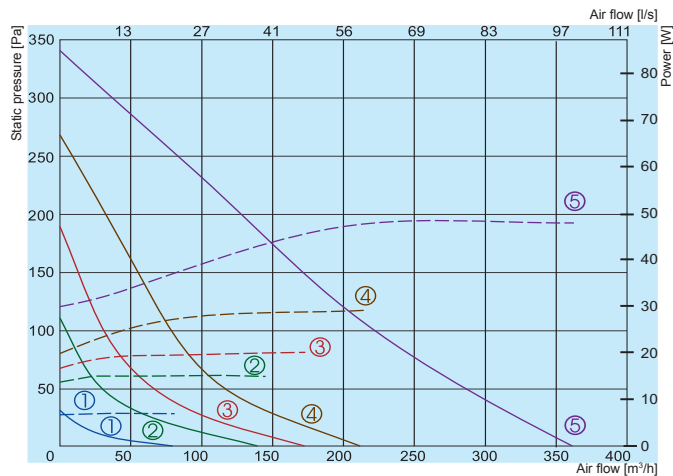


LSV

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VSA 3.0

VSA 190 S 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

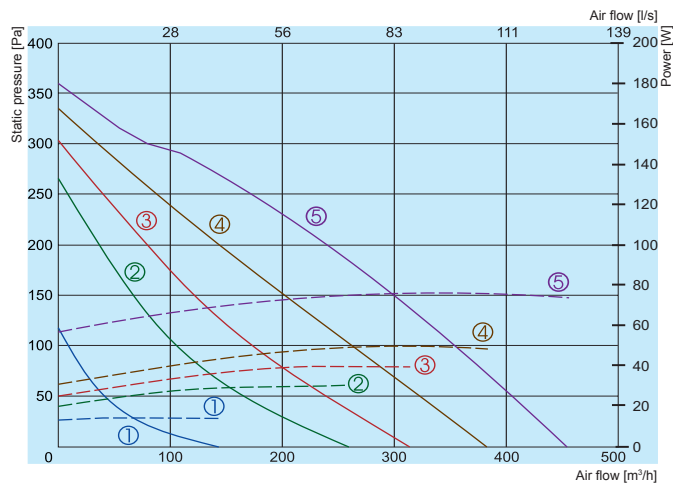
190 S 3.0

Inlet
Outlet
Surrounding

Measured at 236 m³/h, 82 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	61	43	50	53	57	54	48
Outlet	62	42	56	52	56	51	43
Surrounding	59	44	53	51	53	51	38

VSA 190 L 3.0



Performance
Power consumption

- ① 80V
- ② 120V
- ③ 140V
- ④ 170V
- ⑤ 230V

190 L 3.0

Inlet
Outlet
Surrounding

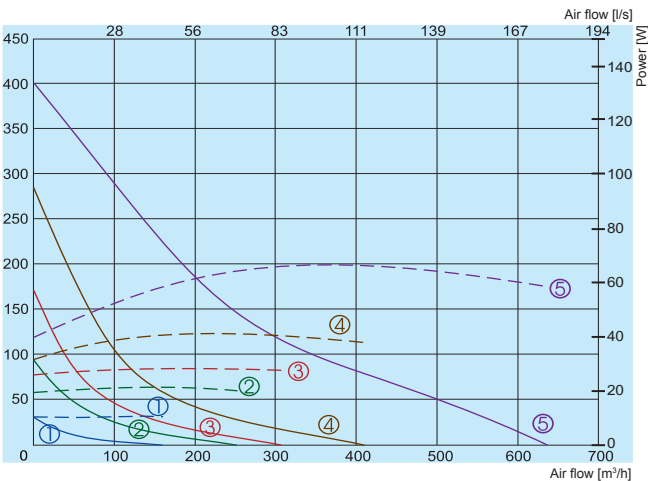
Measured at 299 m³/h, 152 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	66	44	55	59	60	61	57
Outlet	69	45	60	62	65	60	56
Surrounding	61	38	52	54	58	54	48

		VSA 190 S 3.0	VSA 190 L 3.0
Voltage/Frequency	[V/Hz]	230/50	230/50
Power consumption	[kW]	0,049	0,074
Current	[A]	0,2	0,31
Speed	[min ⁻¹]	2750	2800
Capacitor	[μF]	4	2
Max. airflow	[m³/h]	360	456
Min./Max. air temperature	[°C]	-40\55	-40\55
Weight	[kg]	4,4	4,4
Wiring diagram		No. 2	No. 1
Protection class:	motor	IP-44	IP-44
	terminal box	IP-54	IP-54
Comply with ERP 2016		+	+

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VSA 220 S 3.0



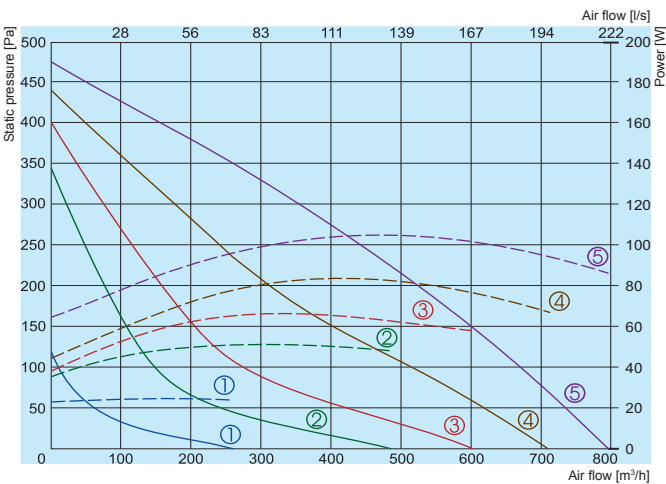
- Performance
Power consumption
- ① 80V
 - ② 120V
 - ③ 140V
 - ④ 170V
 - ⑤ 230V

220 S 3.0

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	67	48	54	61	62	59	56
Outlet	68	50	58	63	63	60	55
Surrounding	60	43	51	54	56	51	47

Measured at 299 m³/h, 114 Pa

VSA 220 M 3.0



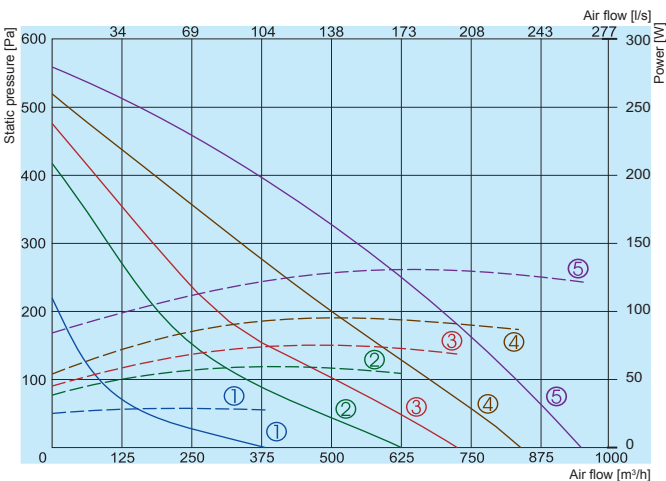
- Performance
Power consumption
- ① 80V
 - ② 120V
 - ③ 140V
 - ④ 170V
 - ⑤ 230V

220 M 3.0

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	71	56	58	66	65	63	61
Outlet	71	53	63	64	66	62	60
Surrounding	65	48	55	58	62	57	53

Measured at 556 m³/h, 182 Pa

VSA 225 L 3.0



- Performance
Power consumption
- ① 80V
 - ② 120V
 - ③ 140V
 - ④ 170V
 - ⑤ 230V

225 L 3.0

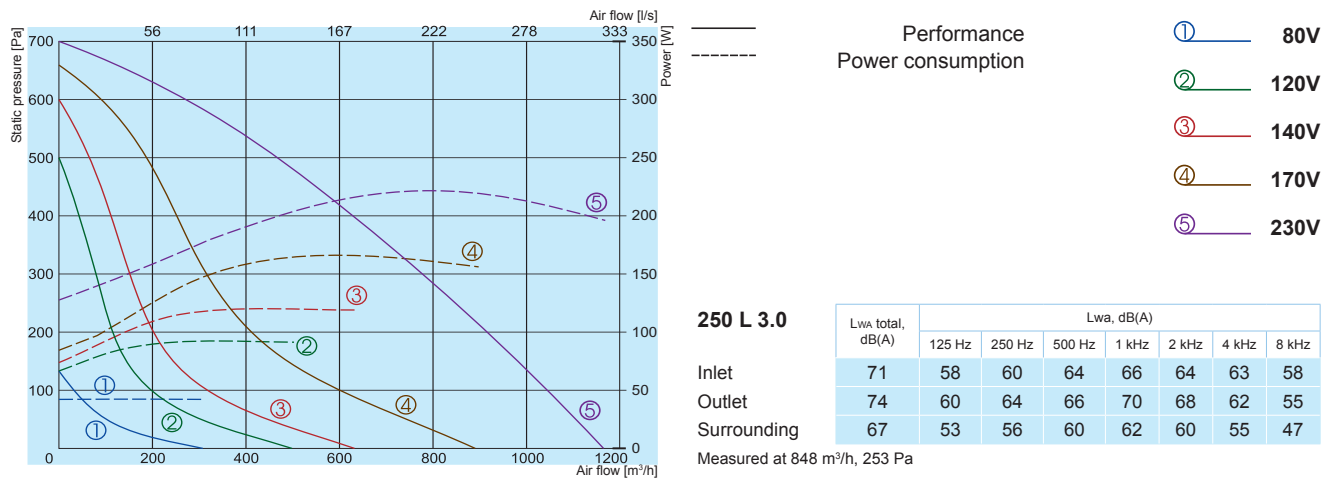
Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	69	52	57	63	65	63	56
Outlet	72	51	59	66	68	66	62
Surrounding	66	45	54	57	62	60	54

Measured at 594 m³/h, 273 Pa

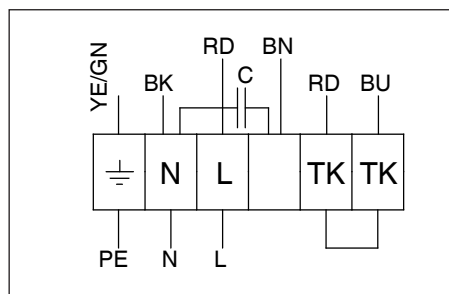
The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

VSA 3.0

VSA 250 L 3.0

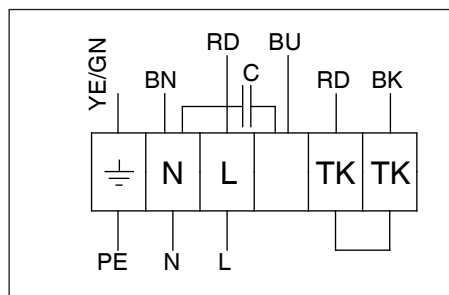


		VSA 220 S 3.0	VSA 220 M 3.0	VSA 225 L 3.0	VSA 250 L 3.0
Voltage/Frequency	[V/Hz]	230/50	230/50	230/50	230/50
Power consumption	[kW]	0,067	0,106	0,133	0,221
Current	[A]	0,28	0,45	0,6	0,94
Speed	[min ⁻¹]	2600	2800	2660	2700
Capacitor	[μF]	4,0	2,0	4,0	5,0
Max. airflow	[m³/h]	636	795	950	1170
Min.\Max. air temperature	[°C]	-40\75	-40\75	-40\85	-40\70
Weight	[kg]	6,7	6,7	7,6	7,9
Wiring diagram		No. 2	No. 1	No. 1	No. 1
Protection class:	motor	IP-44	IP-44	IP-44	IP-44
	terminal box	IP-54	IP-54	IP-54	IP-54
Comply with ERP 2016		-	+	+	+



Wiring diagram No. 1

YE/GN - green-yellow
 BK - black
 RD - red
 BU - blue
 BN - brown



Wiring diagram No. 2

YE/GN - green-yellow
 BK - black
 RD - red
 BU - blue
 BN - brown

[illegible]

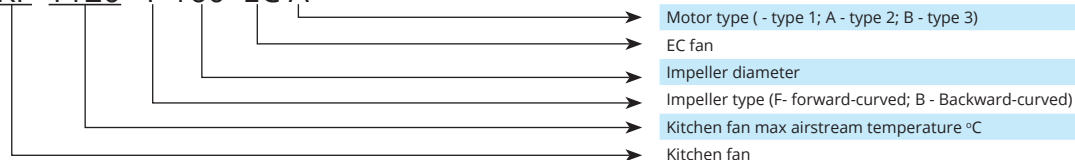
KF-T120 EC



NEW!

Features	› 8 sizes; › Airflow up to 6687 m³/h; › Forward- or Backward-curved galvanized steel impeller; › Max air stream temperature - 120°C; › Fan speed 100% controllable by 0-10 V signal; › Energy efficient; › Easily serviceable.
Power supply	230V/50Hz/1f or 400V/50Hz/3f.
Temperature range	-25°C to +40°C.
Sizes	160, 180, 200, 250, 280, 315, 355, 400.
Construction	› Casing: galvanized steel; › Acoustic and thermal wall insulation – 50mm; › Anti-vibration pads; › Easily removable grease tray; › Stainless steel drain connection; › Service door opening on left side; › Galvanized steel roofing; › On/Off safety switch (optional); › Fan: centrifugal impeller and external rotor motor; › Motor protection integrated into motor electronics; › Motor protection class: IP54; › Terminal box protection class: IP55.
Installation	› Can be installed outdoors. › Mounting position: vertical.
Speed control options	› 10 kΩ potentiometer; › External signal 0-10 VDC/PWM from user controller. › Can be connected directly to optional constant pressure sensors, CO2, RH

KF T120 F 160 EC A



Accessories

Coupling



NPU

p. 194

Flexible connection for high temperature



RC-MAN-PU

p. 195

Air outlet



AB

p. 196

0-10V speed controller



MTP010*

p. 128

Controller



Stouch*

p. 130

Main switch



Main switch

p. 164

Controller



SMT-D-4P-EL

SPS differential pressure transmitter



S-1141**

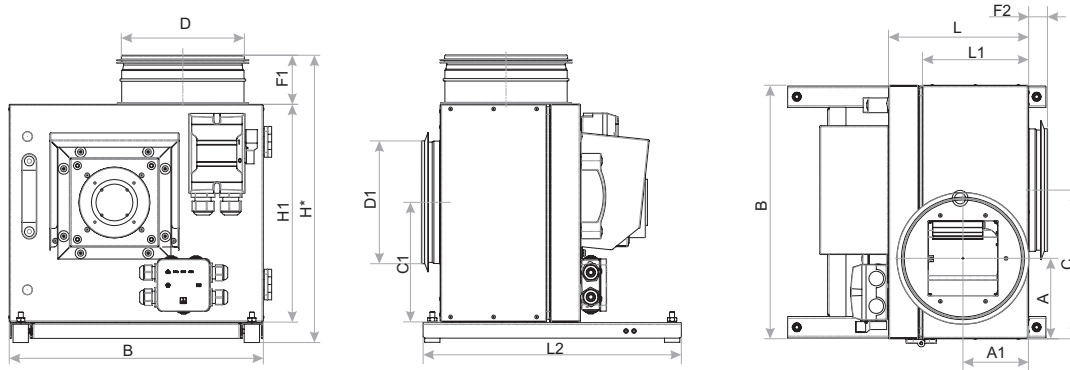
p. 161

Back draft shutter



ATS

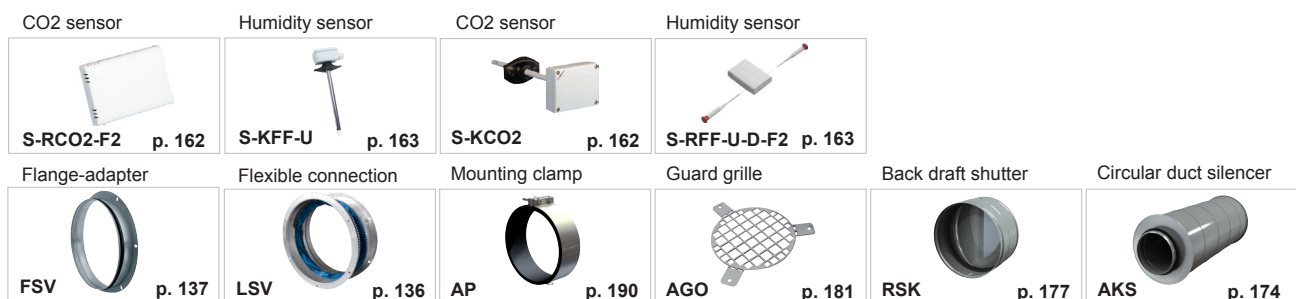
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*Estimated dimension

Type	Dimensions [mm]													
	A	A1	B	C	C1	øD	øD1	F1	F2	H	H1	L	L1	L2
KF-T120 F 160 EC	131	107	413	242	195	200	200	80	31	469	355	228	173	420
KF-T120 F 180 EC	146	112	456	270	213	200	200	80	31	495	382	237	182	420
KF-T120 F 200 EC	149	119	484	285	228	200	200	80	31	520	407	251	196	500
KF-T120 F 250 EC	170	126	577	341	278	315	315	90	40	623	500	291	236	620
KF-T120 F 280 EC	180	153	625	367	304	315	315	90	40	661	537	308	253	620
KF-T120 B 315 EC	195	142	695	410	339	315	315	90	40	724	601	298	243	620
KF-T120 B 355 EC	211	163	770	455	370	400	400	190	71	878	655	340	285	620
KF-T120 B 400 EC	202	170	750	451	355	400	400	190	71	863	640	353	298	620

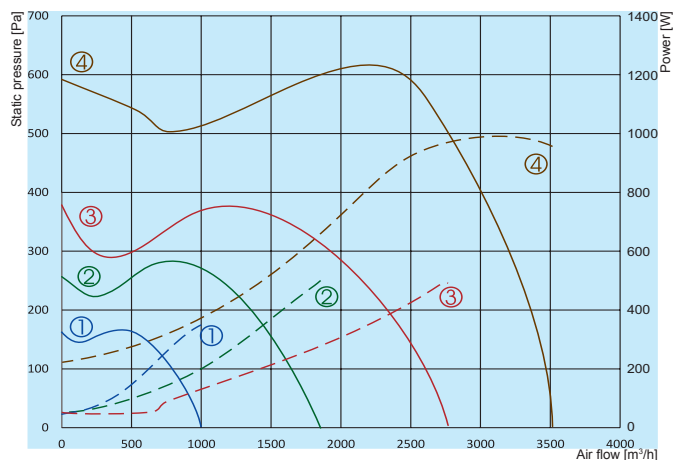
Type	Accessories								
	Stouch* MTP010* S-1141**	S-RCO2-F2 S-KCO2	S-RFF-U-D-F2 S-KFF-U	SMT-D-4P- EL	Main switch	AP AGO AKS/ SAKS	ATS LSV FSV	RSK NPU AB	RC- MAN-PU
KF-T120 F 160 EC	+	+	+	+	+	200	-	200	200
KF-T120 F 180 EC	+	+	+	+	+	200	-	200	200
KF-T120 F 200 EC	+	+	+	+	+	200	-	200	200
KF-T120 F 250 EC	+	+	+	+	+	315	355-500	315	315
KF-T120 F 280 EC	+	+	+	+	+	315	355-500	315	315
KF-T120 B 315 EC	+	+	+	+	+	315	355-500	315	315
KF-T120 B 355 EC	+	+	+	+	+	400	355-500	400	400
KF-T120 B 400 EC	+	+	+	+	+	400	355-500	400	400



* Can be used only with frequency inverters FI

** Pressure transducer S-1141 is supported only with the remote controller Stouch

KF-T120 EC



NEW!

- ① KF T120 F 160 EC
- ② KF T120 F 180 EC
- ③ KF T120 F 200 EC
- ④ KF T120 F 250 EC

—— Performance
----- Power consumption

Estimated data

		160	180	200	250
Voltage/Frequency	[V/Hz]	~1,230/50	~1,230/50	~3,400/50	~3,400/50
Power consumption	[kW]	0,178	0,501	0,984	0,956
Current	[A]	1,33	2,12	1,93	2,14
Speed	[min ⁻¹]	1487	1566	1576	1108
Max. airflow	[m³/h]	1061	1850	2766	3516
Min/Max ambient air temperature	[°C]	-25/+40	-25/+40	-25/+40	-25/+40
Weight	[kg]	17	21	26	50
Protection class:	motor	IP-54	IP-54	IP-54	IP-54
Comply with ERP 2018		*	*	*	*

*Fans for transportation of gases hotter than 100 °C are not subject to ErP regulations.

Estimated data

160

160	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	63	66	70	64	59	57	52
Outlet	75	64	70	71	63	62	59	54
Surrounding	58	50	52	54	48	44	41	35

Measured at 802 m³/h, 100 Pa

180

180	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	67	70	80	72	65	64	58
Outlet	83	67	71	82	71	70	66	61
Surrounding	67	57	62	63	58	55	51	47

Measured at 1641 m³/h, 102 Pa

200

200	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	84	75	76	82	75	71	67	61
Outlet	85	76	79	82	76	70	69	64
Surrounding	71	62	64	68	59	54	51	47

Measured at 2603 m³/h, 103 Pa

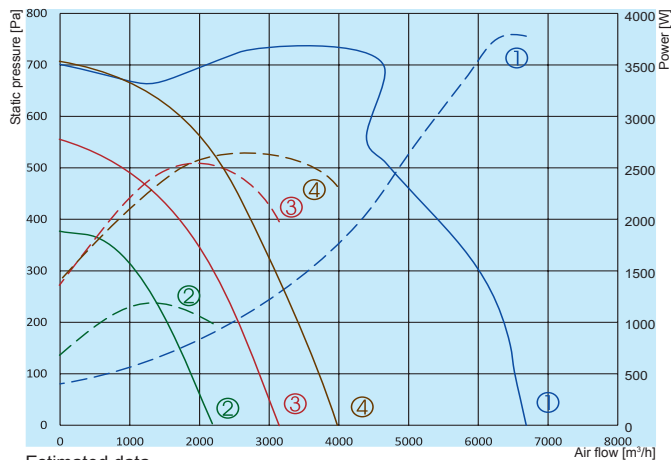
250

250	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	72	75	77	70	68	64	57
Outlet	83	74	77	79	72	70	66	62
Surrounding	68	59	63	65	56	52	48	44

Measured at 3506 m³/h, 125 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

KF-T120 EC



NEW!

- ① KF T120 F 280 EC
- ② KF T120 B 315 EC
- ③ KF T120 B 355 EC
- ④ KF T120 B 400 EC

— Performance
- - - Power consumption

Estimated data

		280	315	355	400
Voltage/Frequency	[V/Hz]	~3,400/50	~1,230/50	~1,230/50	~3,400/50
Power consumption	[kW]	3,779	0,148	0,263	0,464
Current	[A]	6,09	0,65	1,14	1,06
Speed	[min ⁻¹]	1405	1601	1601	1605
Max. airflow	[m³/h]	6687	2194	3133	3984
Min/Max ambient air temperature	[°C]	-25/+40	-25/+40	-25/+40	-25/+40
Weight	[kg]	40	40	48	51
Protection class:	motor	IP-54	IP-54	IP-54	IP-54
Comply with ERP 2018		*	*	*	*

*Fans for transportation of gases hotter than 100 °C are not subject to ErP regulations.

Estimated data

KITCHEN FANS

280

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	89	80	84	86	78	72	70	67
Outlet	91	82	85	88	81	75	71	69
Surrounding	76	69	70	72	65	61	56	51

Measured at 6343 m³/h, 207 Pa

315

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	64	67	68	64	59	53	49
Outlet	74	65	68	70	65	61	55	52
Surrounding	64	55	61	59	52	48	45	43

Measured at 1780 m³/h, 123 Pa

355

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	66	69	72	71	65	56	52
Outlet	78	68	71	75	68	66	59	54
Surrounding	64	56	58	59	55	51	43	39

Measured at 2826 m³/h, 100 Pa

400

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	81	72	71	78	75	70	64	63
Outlet	83	74	77	80	73	71	66	65
Surrounding	69	62	63	65	59	56	51	47

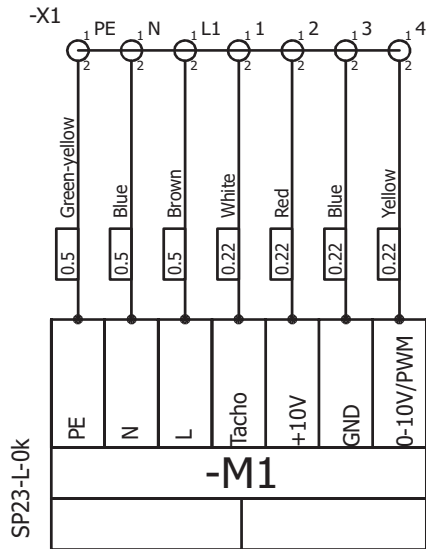
Measured at 3480 m³/h, 149 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

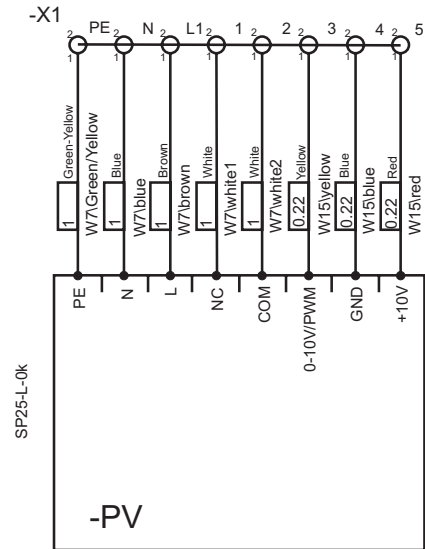
The company reserves the right to make changes of technical data without prior notice

KF-T120 EC

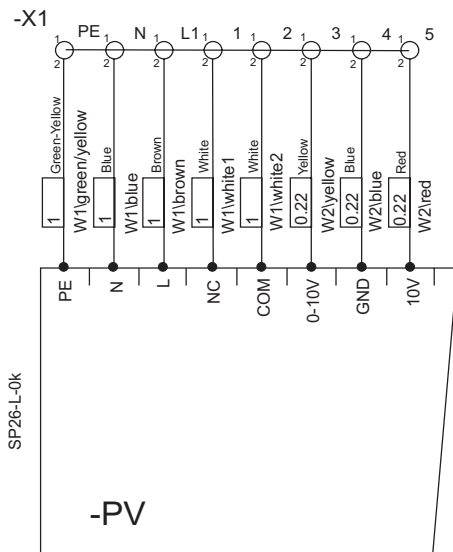
KF T120 F 160 EC
(SP23-L-0k)



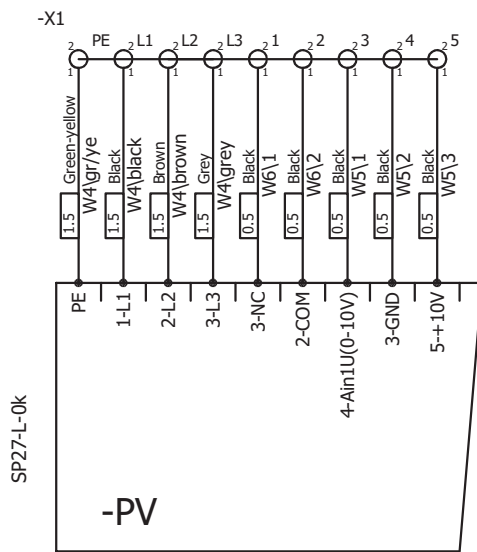
KF T120 F 180 EC, KF T120 B 315 EC, KF T120 B 355 EC
(SP25-L-0k)



KF T120 F 200 EC, KF T120 F 250 EC, KF T120 B 400 EC
(SP26-L-0k)

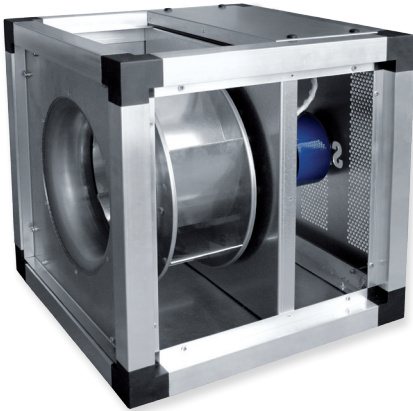


KF T120 F280 EC
(SP27-L-0k)



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

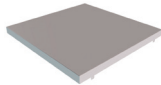
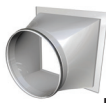
KUB T120

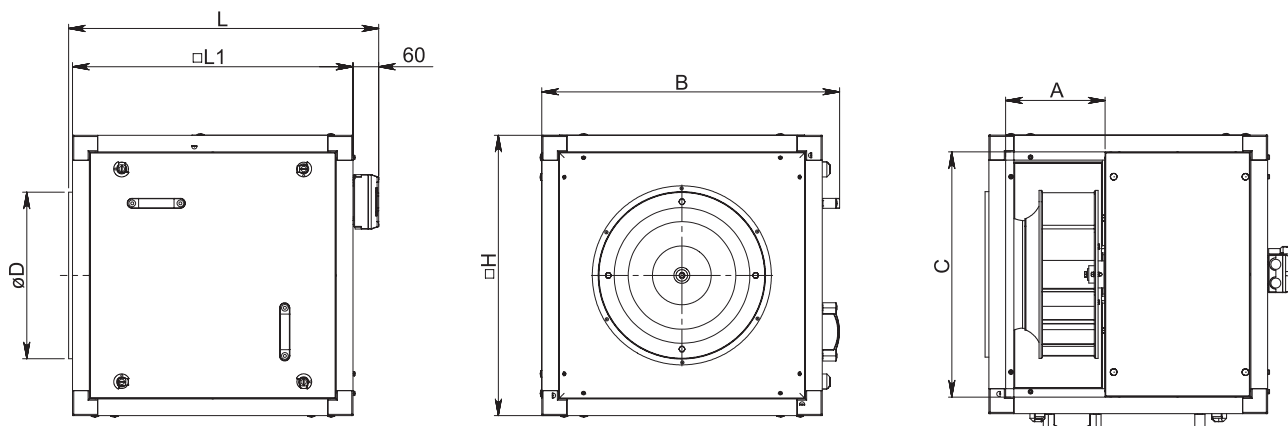


Features	› 6 sizes; › Airflow up to 15100 m³/h; › Backward-curved galvanized steel impeller; › Motor protection with built-in thermal contact; › Max air stream temperature - 120°C; › Easily serviceable; › Cost-effective.
Power supply	400V/50Hz/3f.
Temperature range	From -40°C up to 40°C.
Sizes	355-4L3, 400-4L3, 450-4-L3, 500-4L3, 560-4L3, 630-4L3.
Construction	› Casing: aluminium frame, galvanized steel panels; › Acoustic and thermal wall insulation – 20mm; › Easily removable grease tray; › Galvanized steel roofing; › On/Off safety switch (optional); › Fan: centrifugal impeller and external rotor motor; › Motor protection with built-in thermal contact; › Motor protection class: IP55.
Installation	› Can be installed outdoors. › Mounting position: flexible.
Speed control options	› Voltage controlled speed controller; › Frequency inverters.

KUB	T120	355	4	L3	
					Phase
					Number of motor axles
					Nominal impeller diameter
					Max. airstream temperature
					Product name

Accessories

Roof	Three phase speed controller	Frequency inverter	Flange - adapter	0-10V speed controller	Main switch
					
Top p. 197	TGRT p. 127	FI p. 129	PR p. 192	MTP010 * p. 128	Main switch p. 164



Type	Dimensions [mm]						
	øD	L	□ L1	□ H	A	B	C
KUB T120 355	355	570	500	500	225	540	420
KUB T120 400	400	740	670	670	240	712	590
KUB T120 450	450	740	670	670	275	712	590
KUB T120 500	500	740	670	670	310	712	590
KUB T120 560	560	870	800	800	355	840	720
KUB T120 630	630	940	865	865	385	905	785

Type	Accessories				
	Stouch* MTP010* S-1141**	TGRT	Mains		PR
			220-240V, 1-phase input, 3-phase output	380-480V, 3-phase input, 3-phase output	
KUB T120 355-4L3	+	2	ODE-3-120023-1F12	ODE-3-140022-3F12	420x420-355
KUB T120 400-4L3	+	2	ODE-3-120043-1F12	ODE-3-140022-3F12	590x590-400
KUB T120 450-4L3*	+	-	ODE-3-120070-1F12	ODE-3-140041-3F12	590x590-450
KUB T120 500-4L3*	+	-	ODE-3-120070-1F12	ODE-3-140041-3F12	590x590-500
KUB T120 560-4L3*	+	-	-	ODE-3-240095-3F42	695x695-560
KUB T120 630-4L3*	+	-	-	ODE-3-340140-3F42	790x790-630

* Speed is controlled only with the frequency inverter. Motors standard IE2.

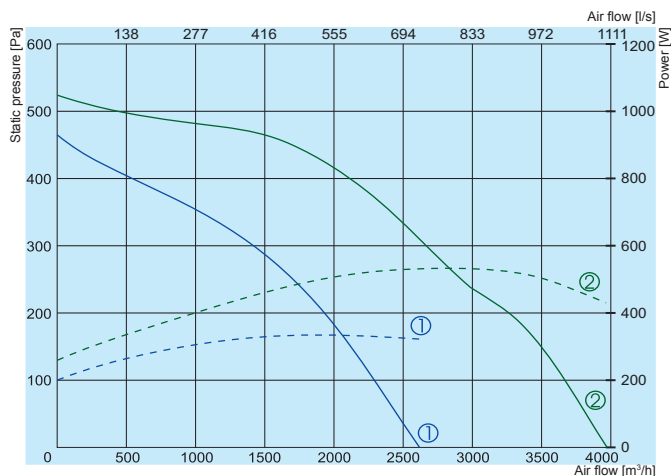
When frequency inverter is used for speed control, the shielded cable must be used for power supply.

Controller	SPS differential pressure transmitter	Rectangular duct silencer	Damper for rectangular ducts	Flexible connection
				
Stouch* p. 130	S-1141** p. 161	SKS p. 173	SSK p. 180	LJ/PG p. 191

* Can be used only with frequency inverters FI

** Pressure transducer S-1141 is supported only with the remote controller Stouch

KUB T120



① KUB T120 355-4L3

② KUB T120 400-4L3

— Performance
- - - - - Power consumption

		355-4L3	400-4L3
Voltage/Frequency	[V/Hz]	~3,400/50	~3,400/50
Power consumption	[kW]	0,35	0,54
Current	[A]	1,06	1,38
Speed	[min ⁻¹]	1340	1390
Max. airflow	[m³/h]	2619	3976
Min/Max ambient air temperature	[°C]	-40/+40	-40/+40
Weight	[kg]	33	55
Wiring diagram		No. 1/2	No. 1/2
Protection class:	motor	IP-55	IP-55
Comply with ERP 2018		*	*

The provided technical data is by using #1 el. connection scheme. Using #3 el. connection scheme, technical data will be different.

*Fans for transportation of gases hotter than 100 °C are not subject to ErP regulations.

355-4L3

	dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	68	56	62	64	60	59	56	47
Outlet	71	59	62	67	65	61	56	49
Surrounding	55	43	48	52	47	43	40	36

Measured at 2241 m³/h, 120 Pa

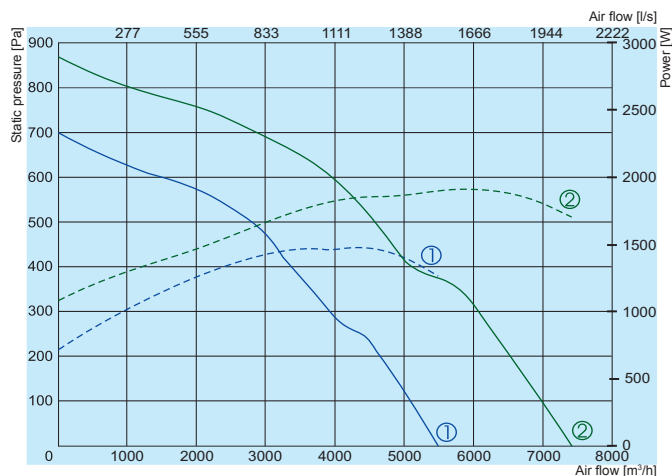
400-4L3

400-4L3	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	72	61	65	67	66	63	57	52
Outlet	76	63	66	74	68	65	60	54
Surrounding	59	47	54	55	52	49	43	37

Measured at 3583 m³/h, 120 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice



① **KUB T120 450-4L3**
 ② **KUB T120 500-4L3**

— Performance
 - - - Power consumption

		450-4L3	500-4L3
Voltage/Frequency	[V/Hz]	~3,400/50	~3,400/50
Power consumption	[kW]	0,92	1,44
Current	[A]	2,13	3,08
Speed	[min ⁻¹]	1430	1430
Max. airflow	[m³/h]	5645	7404
Min/Max ambient air temperature	[°C]	-40/+40	-40/+40
Weight	[kg]	62	66
Wiring diagram		No. 1	No. 1/2
Protection class:	motor	IP-55	IP-55
Comply with ERP 2018		*	*

The provided technical data is by using #1 el. connection scheme. Using #3 el. connection scheme, technical data will be different.

*Fans for transportation of gases hotter than 100 °C are not subject to ErP regulations.

450-4L3

Inlet
 Outlet
 Surrounding

Measured at 5277 m³/h, 99 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	65	70	72	69	67	61
Outlet	78	66	71	73	70	69	66
Surrounding	62	51	57	58	54	51	47

500-4L3

Inlet
 Outlet
 Surrounding

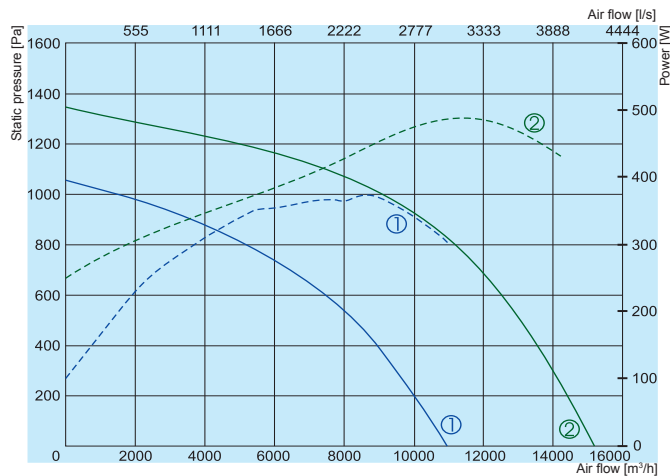
Measured at 6881 m³/h, 122 Pa

Lwa total, dB(A)	Lwa, dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	79	70	72	75	73	69	64
Outlet	81	73	73	76	75	72	65
Surrounding	65	56	58	60	58	54	47

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

KUB T120



① **KUB T120 560-4L3**
② **KUB T120 630-4L3**

— Performance
- - - Power consumption

		560-4L3	630-4L3
Voltage/Frequency	[V/Hz]	~3,400/50	~3,400/50
Power consumption	[kW]	2,5	4,88
Current	[A]	5,04	8,9
Speed	[min ⁻¹]	1440	1450
Max. airflow	[m³/h]	10942	15100
Min/Max ambient air temperature	[°C]	-40/+40	-40/+40
Weight	[kg]	98	134
Wiring diagram		No. 1/2	No. 3
Protection class:	motor	IP-55	IP-55
Comply with ERP 2018		*	*

The provided technical data is by using #1/3 el. connection scheme. Using #3/1 el. connection scheme, technical data will be different.

*Fans for transportation of gases hotter than 100 °C are not subject to ErP regulations.

560-4L3

Inlet
Outlet
Surrounding

Measured at 10307 m³/h, 145 Pa

630-4L3

Inlet
Outlet
Surrounding

Measured at 14159 m³/h, 239 Pa

L _{wa} total, dB(A)	L _{wa} , dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
85	74	78	80	79	76	61	64
87	76	80	82	81	78	74	66
71	60	65	66	64	60	51	49

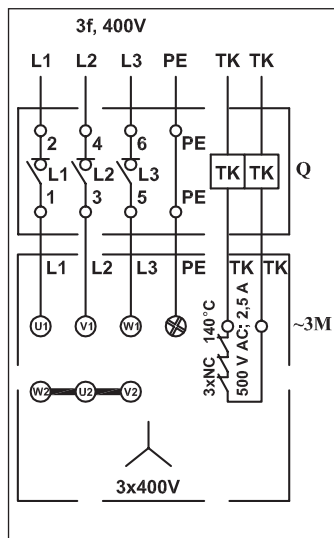
n, 145 Pa

L _{wa} total, dB(A)	L _{wa} , dB(A)						
	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
91	80	85	86	84	81	67	65
94	82	87	90	87	84	78	73
78	68	72	73	70	65	59	55

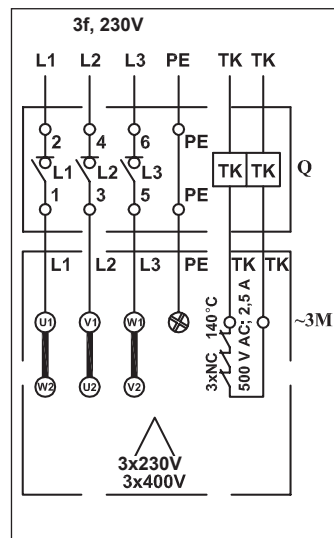
The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

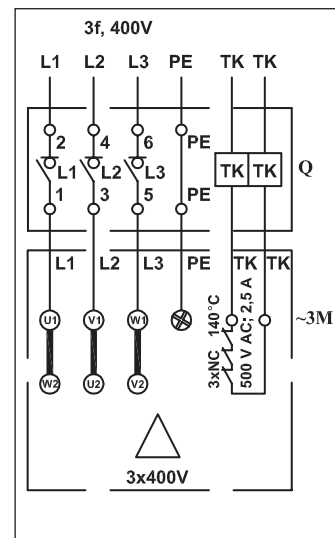
Wiring diagram No. 1*



Wiring diagram No 2*



Wiring diagram No. 3*



* Fans must be connected with frequency converters (if used) with screened cable complying EMC standards.

KF T120



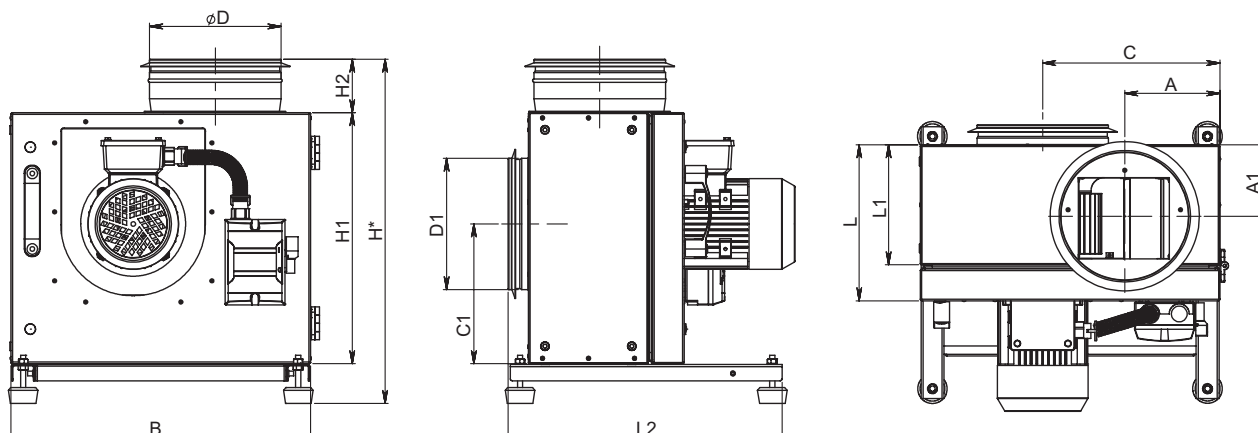
Features	› 9 sizes; › Airflow up to 3480 m³/h; › Forward- or backward-curved galvanized steel impeller; › Max air stream temperature - 120°C; › Easily serviceable; › Cost-effective.
Power supply	400V/50Hz/3f.
Temperature range	From -40°C up to 40°C.
Sizes	160-4L3, 180-4L3, 200-4L3, 225-4L3, 250-4L3, 280-4L3, 315-4L3, 355-4L3, 400-4L3.
Construction	› Casing: galvanized steel; › Acoustic and thermal wall insulation – 50mm; › Anti-vibration pads; › Easily removable grease tray; › Galvanized steel roofing; › On/Off safety switch (optional); › Fan: centrifugal impeller and external rotor motor; › Motor protection with built-in thermal contact; › Motor protection class: IP54.
Installation	› Can be installed outdoors. › Mounting position: vertical.
Speed control options	› Voltage controlled speed controller; › Frequency inverters.

KF T120 160 4 L3

	Phase
	Number of axles
	Nominal impeller diameter
	Max. airstream temperature
	Product name (kitchen fan)

Accessories

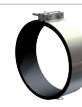
Coupling NPU p. 194	Flexible connection for high temperature RC-MAN-PU p. 195	Air outlet AB p. 196	Frequency inverter FI p. 129
0-10V speed controller MTP010 * p. 128	Controller Stouch* p. 130	Main switch Main switch p. 164	Controller SMT-D-4P-EL
	SPS differential pressure transmitter S-1141** p. 161	Back draft shutter ATS p. 135	



Type	Dimensions [mm]												
	øD	øD1	L	L1	L2	H*	H1	H2	B	A	A1	C	C1
KF T120 160	200	200	228	173	414	496	355	80	413	123	109	237	195
KF T120 180	200	200	237	182	417	524	382	80	456	145	109	270	213
KF T120 200	200	200	250	196	500	548	407	80	484	145	117	287	228
KF T120 225	250	250	277	222	500	597	456	80	537	161	131	305	253
KF T120 250	315	315	290	136	620	651	500	90	577	170	146	342	278
KF T120 280	315	315	308	253	620	688	537	90	626	180	153	367	304
KF T120 315	315	315	298	242	620	752	600	90	695	195	142	410	339
KF T120 355	400	400	340	285	620	905	655	190	770	211	170	455	370
KF T120 400	400	400	358	298	620	890	640	190	750	202	170	450	355

Type	Accessories			
	Stouch* MTP010* S-1141**	TGRT	Mains	
			220-240V, 1-phase input, 3-phase output	380-480V, 3-phase input, 3-phase output
KF T120 160-4L3	+	1	ODE-3-12023-1F12	ODE-3-140022-3F12
KF T120 180-4L3	+	2	ODE-3-12023-1F12	ODE-3-140022-3F12
KF T120 200-4L3	+	3	ODE-3-120043-1F12	ODE-3-140022-3F12
KF T120 225-4L3*	+	-	ODE-3-120043-1F12	ODE-3-140022-3F12
KF T120 250-4L3*	+	-	ODE-3-120070-1F42	ODE-3-240058-3F42
KF T120 280-4L3	+	-	ODE-3-220105-1F42	ODE-3-240058-3F42
KF T120 315-4L3	+	1	ODE-3-120023-1F12	ODE-3-140022-3F12
KF T120 355-4L3	+	2	ODE-3-120023-1F12	ODE-3-140022-3F12
KF T120 400-4L3	+	3	ODE-3-120043-1F12	ODE-3-140022-3F12

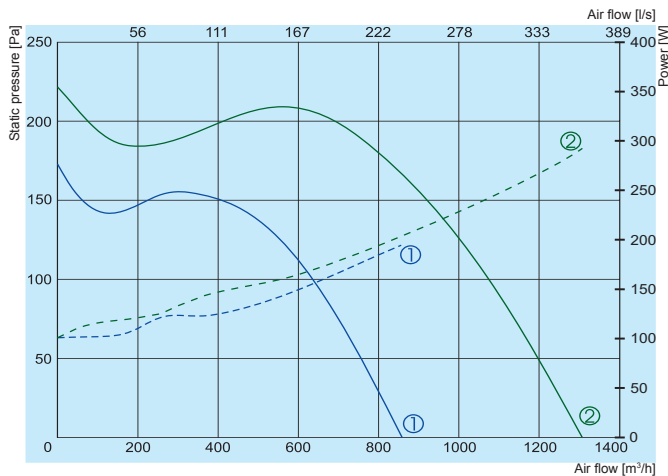
* performance operating area is limited. Do not exceed the normal current, additional overload protection is required.
When frequency inverter is used for speed control, the shielded cable must be used for power supply.

Flange-adapter  FSV p. 137	Flexible connection  LSV p. 136	Mounting clamp  AP p. 190	Guard grille  AGO p. 181	Back draft shutter  RSK p. 177	Circular duct silencer  AKS p. 174
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* Can be used only with frequency inverters FI

** Pressure transducer S-1141 is supported only with the remote controller Stouch

KF T120



① **KF T120 160-4L3**
 ② **KF T120 180-4L3**

— Performance
 - - - Power consumption

		160-4L3	180-4L3
Voltage/Frequency	[V/Hz]	~3,400/50	~3,400/50
Power consumption	[kW]	0,18	0,29
Current	[A]	0,57	1,0
Speed	[min ⁻¹]	1310	1340
Max. airflow	[m³/h]	849	1303
Min/Max ambient air temperature	[°C]	-40/+40	-40/+40
Weight	[kg]	22	25
Wiring diagram		No.1	No.1
Protection class:	motor	IP-54	IP-54
Comply with ERP 2018		*	*

*Fans for transportation of gases hotter than 100°C are not subject to ErP regulations.

160-4L3

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	62	64	72	60	55	54	48
Outlet	75	63	69	73	59	60	56	50
Surrounding	56	47	52	53	43	40	38	33

Measured at 621 m³/h, 103 Pa

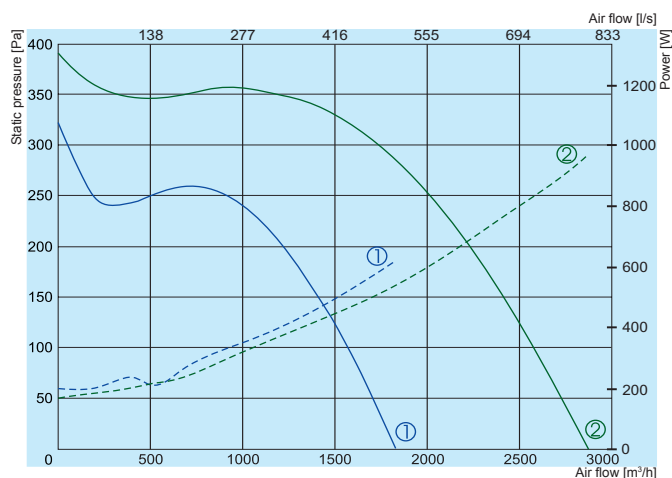
180-4L3

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	76	65	67	75	63	58	57	51
Outlet	78	68	70	76	65	61	58	53
Surrounding	60	51	54	57	48	42	40	36

Measured at 1052 m³/h, 106 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice



① **KF T120 200-4L3**
② **KF T120 225-4L3**

— Performance
- - - Power consumption

		200-4L3	225-4L3
Voltage/Frequency	[V/Hz]	~3,400/50	~3,400/50
Power consumption	[kW]	0,54	0,92
Current	[A]	1,44	1,72
Speed	[min ⁻¹]	1390	1430
Max. airflow	[m³/h]	1826	2860
Min/Max ambient air temperature	[°C]	-40/+40	-40/+40
Weight	[kg]	29	34
Wiring diagram		No. 1	No. 1
Protection class:	motor	IP-54	IP-54
Comply with ERP 2018		*	*

*Fans for transportation of gases hotter than 100°C are not subject to ErP regulations.

200-4L3

200-4L3	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	79	69	72	77	65	63	58	55
Outlet	82	73	75	80	66	64	60	58
Surrounding	64	56	58	62	49	47	42	40

Measured at 1570 m³/h, 101 Pa

225-4L3

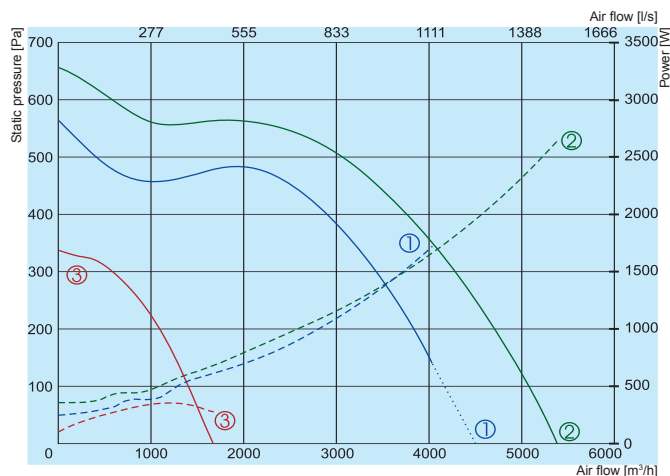
225-4L3	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	83	72	74	81	70	68	63	60
Outlet	85	75	79	82	71	69	65	61
Surrounding	69	59	63	66	54	51	47	44

Measured at 2585 m³/h, 102 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

KF T120



- ① **KF T120 250-4L3**
 - ② **KF T120 280-4L3**
 - ③ **KF T120 315-4L3**
- Performance
 - - - Power consumption
 Not operating zone

		250-4L3	280-4L3	315-4L3
Voltage/Frequency	[V/Hz]	~3,400/50	~3,400/50	~3,400/50
Power consumption	[kW]	1,6	2,66	0,18
Current	[A]	3,37	4,7	0,68
Speed	[min ⁻¹]	1430	1440	1330
Max. airflow	[m³/h]	3860	5236	1676
Min/Max ambient air temperature	[°C]	-40/+40	-40/+40	-40/+40
Weight	[kg]	55	45	45
Wiring diagram		No.1	No.1	No.1
Protection class:	motor	IP-54	IP-54	IP-54
Comply with ERP 2018		*	*	*

*Fans for transportation of gases hotter than 100°C are not subject to ErP regulations.

250-4L3

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	86	78	80	83	73	70	67	63
Outlet	88	80	81	86	75	74	66	65
Surrounding	72	64	66	68	59	56	49	48

Measured at 3860 m³/h, 190 Pa

280-4L3

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	90	82	83	88	75	71	68	67
Outlet	92	85	83	89	78	76	68	69
Surrounding	74	67	68	71	60	56	51	50

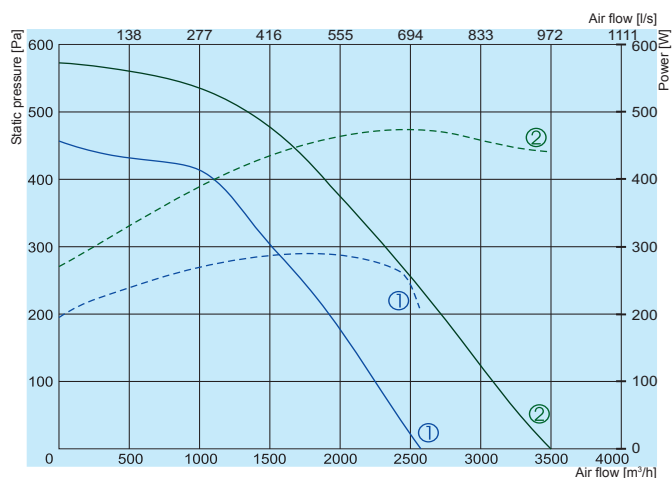
Measured at 5077 m³/h, 100 Pa

315-4L3

	L _{wa} total, dB(A)	L _{wa} , dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	78	67	73	74	66	64	56	54
Outlet	80	69	74	77	67	65	59	55
Surrounding	63	53	59	59	50	47	40	38

Measured at 1401 m³/h, 100 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.



① **KF T120 355-4L3**
② **KF T120 400-4L3**

— Performance
- - - Power consumption

		355-4L3	400-4L3
Voltage/Frequency	[V/Hz]	~3,400/50	~3,400/50
Power consumption	[kW]	0,29	0,47
Current	[A]	0,98	1,45
Speed	[min ⁻¹]	1340	1390
Max. airflow	[m³/h]	2561	3487
Min/Max ambient air temperature	[°C]	-40/+40	-40/+40
Weight	[kg]	53	56
Wiring diagram		No.1	No.1
Protection class:	motor	IP-54	IP-54
Comply with ERP 2018		*	*

*Fans for transportation of gases hotter than 100°C are not subject to ErP regulations.

355-4L3

355-4L3	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	84	75	78	82	71	70	63	58
Outlet	86	77	79	83	73	72	65	61
Surrounding	67	61	62	63	56	54	47	43

Measured at 2219 m³/h, 104 Pa

400-4L3

400-4L3	Lwa total, dB(A)	Lwa, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	86	77	76	82	80	74	69	68
Outlet	88	79	81	85	78	75	71	70
Surrounding	71	63	65	67	63	58	53	52

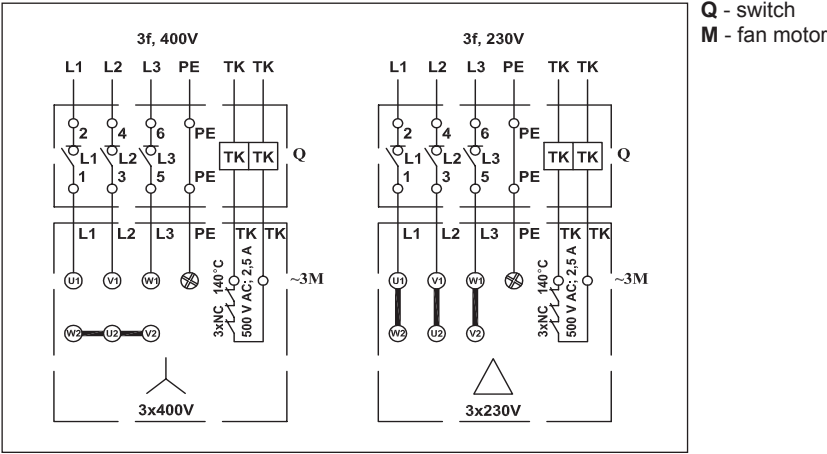
Measured at 2956 m³/h, 134 Pa

The fan characteristic curves were determined in accordance with EN ISO 5801. The sound levels were determined in accordance with DIN 45635 resp. ISO 3744 at a distance of 1 m from the fan.

The company reserves the right to make changes of technical data without prior notice

KF T120

Wiring diagram No. 1*



* Fans must be connected with frequency inverters (if used) with screened cable complying EMC standards.

[illegible]

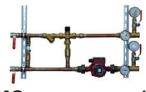


Features	› 4 sizes; › Ideal solution for rapid heating of premises; › Water heater capacity up to 118,6 kW; › Air flow can be directed upwards or downwards; › Functional design.
Power supply	230V/50Hz/1f or 400V/50Hz/3f.
Temperature range	Up to 50/60/70/80/90°C, depending on unit size.
Sizes	2000, 4000, 6000, 9000.
Construction	› Casing: powder-coated galvanized steel; › Fan: axial; › On/Off safety switch (optional); › Motor protection with built-in thermal contact; › Motor protection class: IP44.
Installation	› Can only be installed indoors. › Not suitable for polluted air or volatile and explosive gases. › Maximum water temperature - 100°C. › Maximum water pressure - 1.6 MPa.
Speed control options	› Voltage controlled speed controller; › Electronic voltage controller (phase cut).

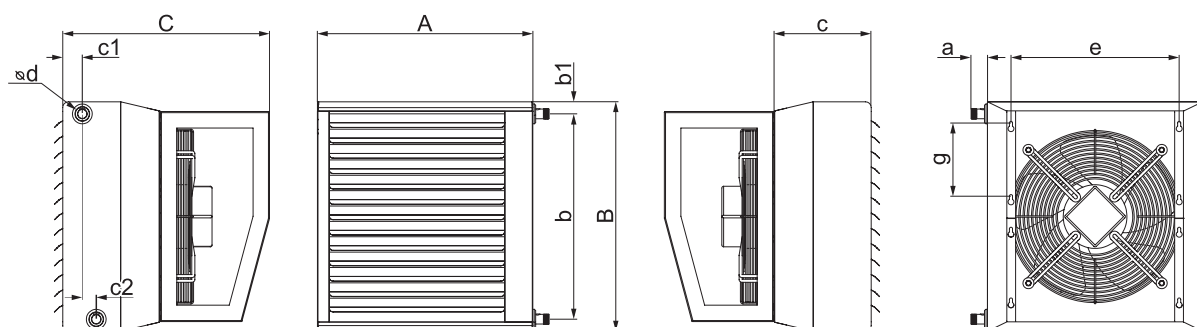
SAV 2000

Product size
Product name

Accessories

Single phase speed controller	Three phase speed controller	Monophase speed controller	Thermic water valve actuator	Electromotoric actuator	Mixing point
					
TGRV p. 127	TGRT p. 127	ETY p. 128	SSB/SSC p. 158	STA p. 158	RMG p.159

Outside diameter



Type	Dimensions [mm]													
	A	B	C	a	b	b1	c	c1	c2	g	e	ød	Thread size*	Weight [kg]
SAV 2000	533	502	565	40	440	31	265	61	34	170	401	26,5	3/4"	21,0
SAV 4000	588	627	565	43	561	33	265	84	30	220	455	26,5	3/4"	34,0
SAV 6000	738	777	783	43	711	33	283	84	34	280	596	26,5	3/4"	45,0
SAV 9000	818	852	818	56	786	33	318	33	29	280	676	26,5	3/4"	57,0

* Male thread size

Type	Accessories						
	TGRV	TGRT	ETY	SSB/SSC	STA	RMG	2 way valve
SAV 2000	1,5	-	1,5	+	+	+	+
SAV 4000	4	-	2,5	+	+	+	+
SAV 6000	-	2	-	+	+	+	+
SAV 9000	-	3	-	+	+	+	+

2 - way valves



Fan technical data

		SAV 2000	SAV 4000	SAV 6000	SAV 9000
Phase / Voltage	[50 Hz / V]	~1 / 230	~1 / 230	~3 / 400	~3 / 400
Power	[kW]	0,173	0,484	0,54	0,992
Current	[A]	0,8	2,32	1,1	1,9
Speed	[min ⁻¹]	1392	1410	1405	1415
Max. air temperature	[°C]	+60	+70	+70	+70
Capacitor	[µF]	8,0	8,0	-	-
Protection class		IP-44	IP-44	IP-44	IP-44
Speed controller		MTY1,5 / TGRV1,5	MTY2,5 / TGRV4	TGRT2	TGRT3

Heater technical data

Type	Air flow [m³/h]	Water temperature in/out 70/50°C											
		Air temp. in -15°C				Air temp. in 0°C				Air temp. in +15°C			
		Power [kW]	Air temp.out [°C]	Water flow [l/s]	Pressure drop (water) [kPa]	Power [kW]	Air temp.out [°C]	Water flow [l/s]	Pressure drop (water) [kPa]	Power [kW]	Air temp.out [°C]	Water flow [l/s]	Pressure drop (water) [kPa]
SAV 2000	570	11,1	42,8	0,1	3,6	8,7	45,5	0,1	2,3	6,3	47,8	0,1	1,3
	1080	18,0	34,7	0,2	8,5	14,2	39,0	0,2	5,6	10,3	43,2	0,1	3,1
	1330	20,9	31,8	0,3	11,2	16,5	36,8	0,2	7,3	12,0	41,5	0,2	4,1
	1630	24,1	29,0	0,3	14,5	19,0	34,5	0,2	9,4	13,8	39,9	0,2	5,3
	1950	35,75	26,86	0,32	17,44	21,01	32,85	0,3	11,3	15,2	38,7	0,2	6,3
SAV 4000	870	16,7	42,0	0,2	3,1	13,1	44,8	0,2	2,0	9,5	47,3	0,1	1,1
	1800	28,8	32,6	0,4	8,2	22,6	37,3	0,3	5,3	16,4	41,9	0,2	3,0
	2400	35,1	28,6	0,4	11,8	27,6	34,2	0,3	7,6	20,0	39,6	0,2	4,3
	3200	42,5	24,6	0,5	16,6	33,4	31,0	0,4	10,7	24,2	37,3	0,3	6,0
	3550	59,92	22,7	0,6	19,4	36,4	29,6	0,4	12,5	26,3	36,3	0,3	7,0
SAV 6000	2800	40,6	28,2	0,5	9,2	32,0	34,0	0,4	6,0	23,4	39,6	0,3	3,4
	3680	48,8	24,5	0,6	12,9	38,5	31,0	0,5	8,4	28,0	37,4	0,3	4,7
	4590	56,2	21,5	0,7	16,7	44,4	28,7	0,5	10,8	32,3	35,7	0,4	6,1
	5130	60,3	20,0	0,7	19,0	47,6	27,5	0,6	12,3	34,6	34,9	0,4	6,9
	6400	91,16	18,5	0,8	21,6	51,0	26,4	0,6	14,0	37,2	34,0	0,5	7,8
SAV 9000	4080	55,0	25,2	0,7	11,4	43,5	31,7	0,5	7,4	31,8	38,0	0,4	4,2
	5400	66,0	21,4	0,8	15,8	52,2	28,7	0,6	10,3	38,2	35,8	0,5	5,9
	6750	75,9	18,5	0,9	20,3	60,0	26,4	0,7	13,3	43,8	34,1	0,5	7,5
	7600	81,5	17,0	1,0	23,2	64,5	25,2	0,8	15,1	47,1	33,3	0,6	8,6
	8950	118,6	15,3	1,1	26,9	69,9	23,8	0,9	17,5	51,0	32,3	0,6	9,9

Heater technical data													
Type	Air flow [m³/h]	Water temperature in/out 80/60°C											
		Air temp. in -15°C				Air temp. in 0°C				Air temp. in +15°C			
SAV 2000	570	12,8	51,6	0,2	4,5	10,4	54,3	0,1	3,1	8,1	56,8	0,1	2,0
	1080	20,8	42,3	0,3	10,8	17,0	46,7	0,2	7,5	13,1	50,9	0,2	4,7
	1330	24,1	39,0	0,3	14,2	19,7	44,0	0,2	9,8	15,2	48,8	0,2	6,2
	1630	27,8	35,8	0,3	18,4	22,7	41,4	0,3	12,7	17,5	46,8	0,2	7,9
	1900	30,8	33,3	0,4	22,2	25,2	39,3	0,3	15,3	19,4	45,2	0,2	9,6
SAV 4000	870	19,2	50,7	0,2	3,9	15,7	53,5	0,2	2,7	12,2	56,1	0,2	1,7
	1800	33,2	39,9	0,4	10,4	27,1	44,7	0,3	7,2	21,0	49,3	0,3	4,5
	2400	40,6	35,3	0,5	14,9	33,1	40,9	0,4	10,3	25,6	46,4	0,3	6,5
	3200	49,1	30,7	0,6	21,2	40,1	37,2	0,5	14,6	31,0	43,5	0,4	9,1
	3650	53,5	28,6	0,7	24,7	43,6	35,5	0,5	17,0	33,7	42,2	0,4	10,6
SAV 6000	2800	46,8	34,8	0,6	11,7	38,3	40,6	0,5	8,1	29,7	46,3	0,4	5,1
	3680	56,2	30,5	0,7	16,3	46,0	37,1	0,6	11,3	35,7	43,5	0,4	7,1
	4590	64,9	27,1	0,8	21,2	53,1	34,3	0,7	14,7	41,1	41,4	0,5	9,2
	5130	69,6	25,4	0,9	24,2	56,9	32,9	0,7	16,7	44,1	40,3	0,5	10,5
	5750	74,7	23,7	0,9	27,5	61,1	31,5	0,8	19,0	47,3	39,2	0,6	11,9
SAV 9000	4080	63,4	31,3	0,8	14,3	51,9	37,8	0,6	10,0	40,4	44,1	0,5	6,3
	5400	76,0	26,9	0,9	20,0	62,3	34,2	0,8	13,9	48,4	41,4	0,6	8,8
	6750	87,4	23,6	1,1	25,7	71,6	31,5	0,9	17,9	55,6	39,3	0,7	11,3
	7600	94,0	21,8	1,2	29,4	77,0	30,1	0,9	20,4	59,8	38,2	0,7	12,9
	8700	101,9	19,9	1,2	34,1	83,4	28,5	1,0	23,7	64,8	36,9	0,8	14,9
Type	Air flow [m³/h]	Water temperature in/out 90/70°C											
		Air temp. in -15°C				Air temp. in 0°C				Air temp. in +15°C			
		Power [kW]	Air temp.out [°C]	Water flow [l/s]	Pressure drop (water) [kPa]	Power [kW]	Air temp.out [°C]	Water flow [l/s]	Pressure drop (water) [kPa]	Power [kW]	Air temp.out [°C]	Water flow [l/s]	Pressure drop (water) [kPa]
SAV 2000	570	14,4	60,3	0,2	5,5	12,1	63,0	0,2	4,0	9,8	65,5	0,1	2,7
	1080	23,5	49,9	0,3	13,3	19,7	54,3	0,2	9,6	15,9	58,5	0,2	6,5
	1330	27,3	46,2	0,3	17,5	22,9	51,2	0,3	12,7	18,5	56,0	0,2	8,6
	1630	31,5	42,6	0,4	22,6	26,4	48,1	0,3	16,4	21,3	53,5	0,3	11,1
	1900	34,9	39,8	0,4	27,4	29,3	45,8	0,4	19,8	23,6	51,7	0,3	13,4
SAV 4000	870	21,7	59,4	0,3	4,7	18,2	62,2	0,2	3,4	14,7	64,8	0,2	2,3
	1800	37,6	47,2	0,5	12,7	31,6	52,0	0,4	9,2	25,5	56,6	0,3	6,3
	2400	46,0	42,1	0,6	18,4	38,6	47,7	0,5	13,3	31,1	53,1	0,4	9,0
	3200	55,7	36,9	0,7	26,2	46,7	43,3	0,6	18,9	37,6	49,6	0,5	12,8
	3650	60,7	34,5	0,7	30,6	50,8	41,3	0,6	22,1	41,0	48,0	0,5	14,9
SAV 6000	2800	53,0	41,4	0,7	14,4	44,5	47,2	0,6	10,5	36,0	52,9	0,4	7,1
	3680	63,7	36,5	0,8	20,2	53,5	43,2	0,7	14,6	43,3	49,6	0,5	9,9
	4590	73,5	32,7	0,9	26,3	61,7	39,9	0,8	19,0	49,9	47,0	0,6	12,9
	5130	78,8	30,8	1,0	29,9	66,2	38,3	0,8	21,7	53,5	45,7	0,7	14,6
	5750	84,6	28,8	1,0	34,1	71,1	36,7	0,9	24,7	57,4	44,4	0,7	16,7
SAV 9000	4080	71,7	37,3	0,9	17,6	60,3	43,9	0,7	12,8	48,8	50,2	0,9	8,7
	5400	86,0	32,4	1,1	24,5	72,4	39,8	0,9	17,9	58,6	46,9	0,7	12,2
	6750	98,9	28,6	1,2	31,7	83,2	36,6	1,0	23,1	67,3	44,4	0,8	15,7
	7600	106,3	26,7	1,3	36,2	89,4	34,9	1,1	26,4	72,4	43,0	0,9	17,9
	8700	115,3	24,5	1,4	42,0	97,0	33,1	1,2	30,6	78,4	41,6	1,0	20,7

SPEED CONTROL OPTIONS

Product name	MTP010	Stouch	10 k Ω potentiometer	External signal 0-10 VDC	ETY	MTY	TGRV (1f)	TGRT (3f)	Frequency inverters
VKA EKO	+	+	+	+					
VKAP 3.0					+	+	+		
AKU EKO	+	+	+	+					
AKU					+	+	+		
VKS/VKSA					+	+	+	+	
VKSB					+	+	+	+	
KUB EKO	+	+	+	+					
VSV/VSVI EKO	+	+	+	+					
VSV/VSVI					+	+	+	+	
VSA EKO	+	+	+	+					
VSA 3.0					+	+	+		
KF T120 EC	+	+	+	+					
KUB T120								+	+
KF T120								+	+
SAV					+	+	+	+	

Phase speed controllers



Title	Article No.
TGRT 1	PRGR0029
TGRT 2	PRGR0032
TGRT 3	PRGR0034
TGRT 4	PRGR0035
TGRT 5	PRGR0036
TGRT 7	PRGR0037
TGRT 11	PRGR0030
TGRT 14	PRGR0031

Title	Article No.
TGRV 1.5	PRGR0045
TGRV 2	PRGR0041
TGRV 3	PRGR0042
TGRV 4	PRGR0043
TGRV 5	PRGR0039
TGRV 7	PRGR0044
TGRV 11	PRGR0038
TGRV 14	PRGR0040

Title	Article No.
TGRT 1Ex	PRGR0067
TGRT 2Ex	PRGR0033
TGRT 3Ex	PRGR0068
TGRT 4Ex	PRGR0069
TGRT 5Ex	PRGR0070
TGRT 7Ex	PRGR0071
TGRT 11Ex	PRGR0072
TGRT 14Ex	PRGR0073

Transformer controllers are designed to change motor rotating speed by changing voltage. All controllers are with motors and transformers thermo protection function. 3 phase controllers are with power supply fault protection. Once power supply is recovered, controller does not switch on previous step, until it is switched OFF and On to required step. Steps have fixed voltage and are switched by rotary knob. Controllers also have power indication led. All controllers have 230 VAC output for connection servo motors, actuators, heaters relays and etc. To one controller more than one motor can be connected, if total current of all controllers is less than maximum controller current. In this case all motors thermo protections must be connected in series.

Marking TGR a b c

a
b
c

V – 1x230 VAC, T – 3x400 VAC.
Max. current [A]

ex – for explosion proof motors

Controllers conform with LST EN 600335-1:2003+A11:2004+A12:2005+A12:2006+A2:2007 standards and are CE marked.

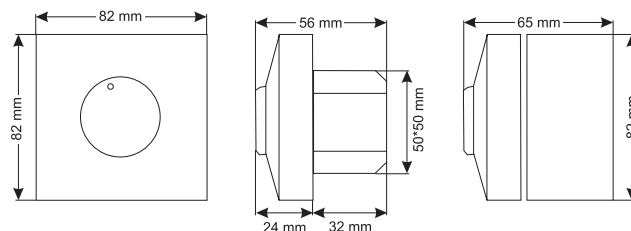
Technical data

Type	Max. current (A)	Dimensions	Weight (kg)	Enclosure (P -plastic, M – metal)	Type	Max. current (A)	Dimensions	Weight (kg)	Enclosure (P -plastic, M – metal)
TGRV 1,5	1,5	178x155x99	2,6	P	TGRT 1/1ex	1	335x245x133	6,3	P
TGRV 2	2	178x155x99	3,0	P	TGRT 2/2ex	2	335x245x133	8,1	P
TGRV 3	3	178x155x99	3,5	P	TGRT 3/3ex	3	335x245x133	10,7	P
TGRV 4	4	178x155x150	4,4	P	TGRT 4/4ex	4	335x245x133	14,6	P
TGRV 5	5	178x155x150	4,9	P	TGRT 5/5ex	5	300x290x160	18,7	M
TGRV 7	7	244x184x178	7,3	P	TGRT 7/7ex	7	365x320x190	24,7	M
TGRV 11	11	244x184x178	9,5	P	TGRT 11/11ex	11	365x320x190	34,1	M
TGRV 14	14	244x184x178	10,4	P	TGRT 14/14ex	14	365x320x190	37,2	M

Technical data 1. 5 steps motor rotation speed controller. 2. Power supply: 1x230 VAC – TGRV., 3x400 VAC – TGRT ..(ex). 3.Frequency [Hz]: 50-60Hz. 4. Steps voltage: TGRV.. - 80V I_{max}*0.6, 120V I_{max}*0.9, 140V I_{max}*1, 170V I_{max}*1, 230V I_{max}*1. TGRT.. - 130V I_{max}*0.9, 170V I_{max}*1, 220V I_{max}*1, 270V I_{max}*1, 400V I_{max}*1. 5. Protection class IP44. 6. Max. ambient temperature 40°C. 7. Max. controller temperature 70°C is limited by transformer thermo protection. Max. possible transformers temperature T=130°C-ambient temperature.

ETY / MTY-4 / MTP010

Single phase speed controller



Title	Article No.
ETY-1,5	PRGR0020
ETY-2,5	PRGR0021
MTY-4	PRGR0024
MTP010	PRGR0025

ETY/MTY-4

Manual regulation of speed or airflow of voltage controllable (230 Vac, 50 Hz) motors and fans. Several motors can be connected as long as the current limit is not exceeded. These speed-controllers offer an excellent and accurate regulation. The moisture resistant casing (with the possibility to be mounted internally or externally) allows the regulator to be used in humid conditions.

Technical data			
Model	ETY1,5	ETY2,5	MTY4
Supply	~1, 230, 50 Hz		
Current rating (A)	0,1 - 1,5 A	0,2 - 2,5 A	0,4 - 4 A
Current fuse (A) (5*20 mm)	F2,0A-H	F3,15A-H	M5,00A-H
IP	44/54	44/54	54
Control	full	full	full
Weight	200g	235g	325g
Mounting	inset/surface		surface

All models have an extra (not regulated) 230 V output. The models 0,5 till 2,0 A are suitable for inset and for surface mounting. Model 4,0 A can be used only for surface mounting.

Directive 2006/95/EC on low voltage.

Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1:2001 (Modified))

Amendment A11:2004 to EN 60335-1:2002

Amendment A1:2004 to EN 60335-1:2002 (IEC 60335-1:2001/A1:2004)

Amendment A12:2006 to EN 60335-1:2002

EN 60669-1:1999

Switches for household and similar fixed-electrical installations — Part 1:

General requirements (IEC 60669-1:1998 (Modified))

Amendment A1:2002 to EN 60669-1:1999 (IEC 60669-1:1998/A1:1999

(Modified))

EN 60669-2-1:2004

Switches for household and similar fixed electrical installations — Part

2- 1: Particular requirements — Electronic switches (IEC 60669-2-1:2002

(Modified))

EMC:

Directive 2004/108/EC relating to electromagnetic compatibility

MTP010

Regulator is intended for the devices with the input voltage of 0-10V and the output voltage of +10V. Desired output voltage can be set from 0V up to 10V using the rotating knob. The regulator can be switched on and off using the existing additional function. The moisture resistant casing (with the possibility to be mounted internally or externally) allows the regulator to be used in humid conditions.

Technical data	
Model	MTP010
Supply (VDC)	+10 V
Resistance value	10 kΩ
Output	0-10 VDC
Switch rating	4 A/250VAC, 10A/12VDC
IP	44
Control	full
Dimensions (WxHxL)	82x82x65
Weight	145g

Controllers comply with requirements of standards LVD 2006/95/EC, EMC 2004/108/EC, EN61000-6-3, EN 61000-6-2.

Frequency inverters



Title	Article No.
ODE-3-120023-1F12	ZAKD079
ODE-3-120043-1F12	ZAKD080
ODE-3-120070-1F12	ZAKD081
ODE-3-220105-1F42	ZAKD083
ODE-3-140022-3F12	ZAKD089
ODE-3-240058-3F42	ZAKD092
ODE-3-140041-3F12	ZAKD090
ODE-3-240095-3F42	ZAKD093
ODE-3-340140-3F42	ZAKD094

Frequency inverters are utilized for ventilators' speed control. They are compact in size, easy to use and have good compatibility with other devices.

Functions:

- EMC filter.
- Ground-fault protection during running.
- Analog control from -0V to 10V.
- Built-in PID control.
- Built-in dynamic braking circuit.
- Built-in 485 communication.

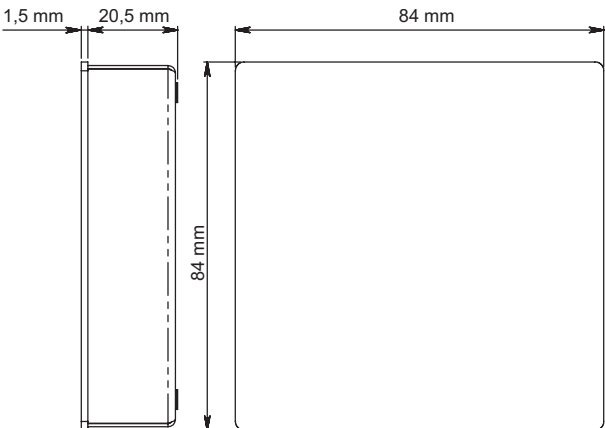
Technical data

Type	ODE-3-120023-1F12	ODE-3-120043-1F12	ODE-3-120070-1F12	ODE-3-220070-1F42	ODE-3-220105-1F42	ODE-3-320153-1042
Power Rating, kW	0,37	0,75	1,5	1,5	2,2	4
Supply Voltage, V	1 Ph. Input, 200 – 240V ± 10%					
Supply frequency, Hz	48 – 62Hz					
Output voltage, V	3 Ph. Output, 200-240V					
Output current, A	2,3	4,3	7	7	10,5	15,3
Output frequency, Hz	0 – 500Hz, 0.1Hz resolution					
Internal EMC Filter	Yes	Yes	Yes	Yes	Yes	No
Ambient temperature (operating)	-10 to 50 °C					
Ambient humidity	95% Max, non condensing					
Ingress Protection	IP20					
Communication	Modbus RTU; CANopen					
Internal Brake Transistor	No	No	No	Yes	Yes	Yes

Technical data

Type	ODE-3-120023-3012	ODE-3-120043-3012	ODE-3-120070-3012	ODE-3-220070-3F42	ODE-3-220105-3F42	ODE-3-320180-3F42
Power Rating, kW	0,37	0,75	1,5	1,5	2,2	4
Supply Voltage, V	3 Ph. Input, 200 – 240V ± 10%					
Supply frequency, Hz	48 – 62Hz					
Output voltage, V	3 Ph. Output, 200-240V					
Output current, A	2,3	4,3	7	7	10,5	18
Output frequency, Hz	0 – 500Hz, 0.1Hz resolution					
Internal EMC Filter	No	No	No	Yes	Yes	Yes
Ambient temperature (operating)	-10 to 50°C					
Ambient humidity	95% Max, non condensing					
Ingress Protection	IP20					
Communication	Modbus RTU; CANopen					
Internal Brake Transistor	No	No	No	Yes	Yes	Yes

Remote controller



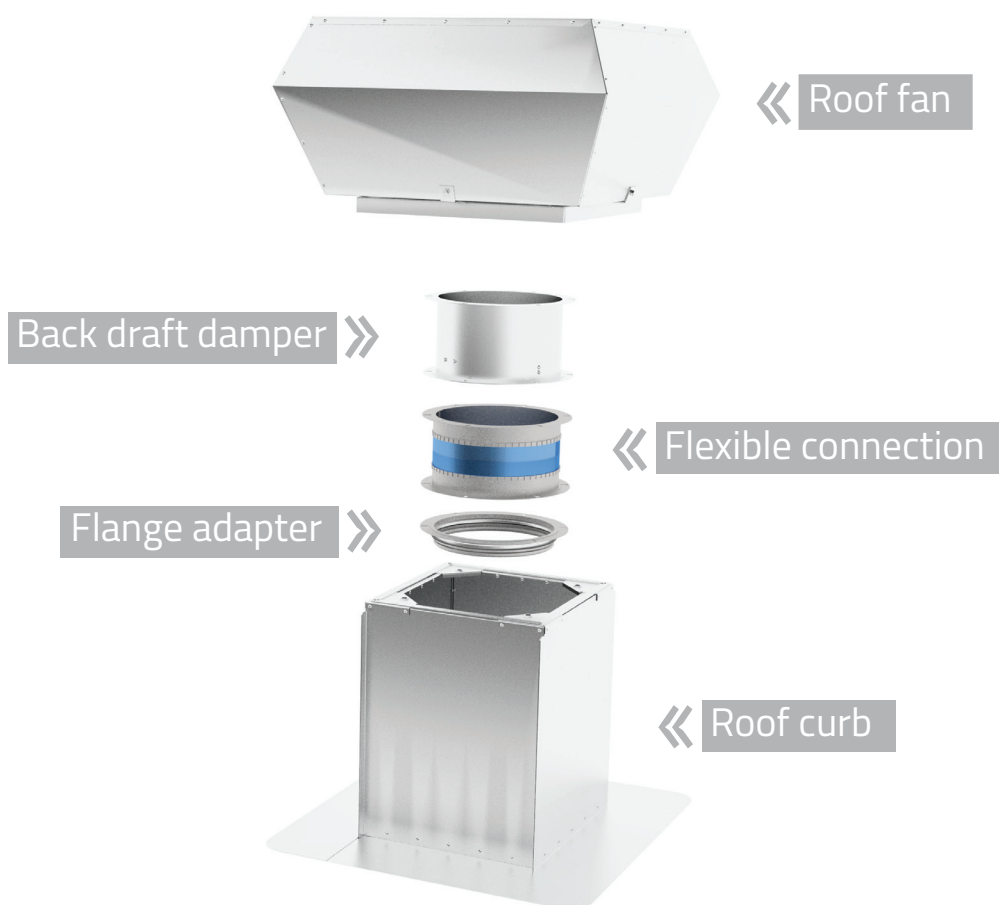
Title	Article No.
Stouch	PRGPU051

Stouch controllers specially designed for easy control of Salda Air handling units.

- › No complex features: ideal for facilities with occasional or novice users (e.g. hotels, offices, schools and etc.);
- › 4 configurable speeds (indicated pressure or velocity as a percentage);
- › Boost function;
- › On/Off function;
- › Display of fan speed;
- › Display of warnings;
- › Constant pressure control with external pressure sensor;
- › Carbon dioxide level control with external CO2 sensor;
- › Modbus master/slave modes.
- › One-touch sensory control, sound response;
- › LED and digital indication;
- › Sleep mode;
- › Blocking of turn off;
- › Child lock.

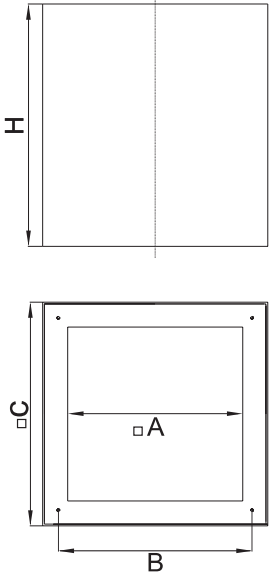
Technical data		
Supply voltage	[VDC]	24VDC ± 10% / 24VAC ± 10%
Communication line		RS-485
Dimensions (WxHxL)	[mm]	84x84x22
Protection class		IP30
Ambient temperature	[°C]	10 to 40
Ambient humidity	[%]	10-80 (non-condensing)

ACCESSORIES FOR ROOF FANS



Roof fans are used to extract air in ventilation systems where the air has a low amount of impurities. Fan motors are protected from external objects. Roof fans are typically mounted with roof curbs and back-draft shutters. Demand control ventilation is available (for EC fans with 0-10VDC control) with Stouch controllers and CO₂ sensors that regulate fan speed depending on CO₂ levels. EC fans (controlled via 0-10 VDC signal) can also be connected directly to constant pressure sensors or on/off switches.

Roof curb

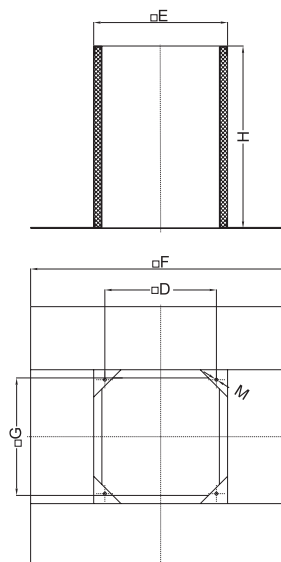


Title	Article No.
KSV 300-600	GVETFUC001
KSV 300-800	GVETFUC002
KSV 300-900	GVETFUC012
KSV 400-600	GVETFUC003
KSV 400-800	GVETFUC004
KSV 400-900	GVETFUC005
KSV 400-1000	GVETFUC006

Used for the mounting of roof fans VSA, VSA EKO on flat roofs. It also works as a silencer. Made of galvanized steel. Thickness of insulation is 50 mm. Powder coated painting RAL 9005.

Dimensions					
Type	Application	A, [mm]	B, [mm]	H, [mm]	C, [mm]
KSV 300/600	VSA 190L, VSA 190S, VSA 190 EKO	190	245	600	295
KSV 300/800		190	245	800	295
KSV 300/900		190	245	900	295
KSV 400/600	VSA 220S, VSA 220M, VSA 225L, VSA 250L, VSA 220 EKO ,VSA 225 EKO, VSA 250 EKO	290	330	600	395
KSV 400/800		290	330	800	395
KSV 400/900		290	330	900	395
KSV 400/1000		290	330	1000	395

Roof curb



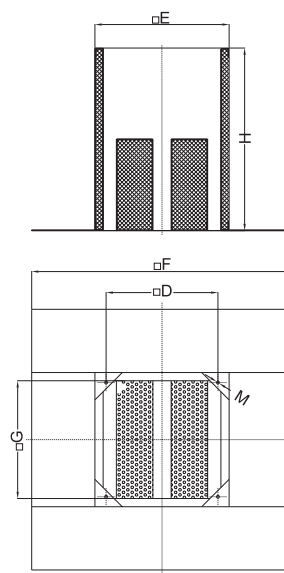
Title	Article No.
KS-K 250	GVESSDC014
KS-K 311	GVEKSC008
KS-K 355-400	GVEKSC012
KS-K 450-500	GVEKSC013
KS-K 560-630	GVEKSC011
KS-K 710	GVEKSC014
KS-K 250 AL	GVEKSKAL001
KS-K 311 AL	GVEKSKAL002
KS-K 355-400 AL	GVEKSKAL003
KS-K 450-500 AL	GVEKSKAL004
KS-K 560-630 AL	GVEKSKAL005
KS-K 710 AL	GVEKSKAL006

Used for the mounting of roof fans VSV on flat roofs. Made of galvanized steel. Thickness of insulation is 50 mm. Versions from aluminum are available.

Dimensions

Type	Application	D, [mm]	E, [mm]	F, [mm]	G, [mm]	M, [mm]	H, [mm]
KS-K 250	VSV 250-2L1, VSV 250-2SL1	245	324	590	260	M6	300
KS-K 311	VSV/VSVI 311, VSV 311 EKO	330	395	657	324	M6	300
KS-K 355/400	VSV 355,400, VSV/VSVI 355, 400 EKO	450	575	817	504	M10	300
KS-K 450/500	VSV/VSVI 450, 500, VSV/VSVI 450, 500 EKO	535	655	877	585	M10	300
KS-K 560/630	VSV/VSVI 560,630, VSV/VSVI 560,630 EKO	750	895	1147	825	M10	300
KS-K 710	VSV/VSVI 710	840	985	1300	915	M10	300

Roof curb



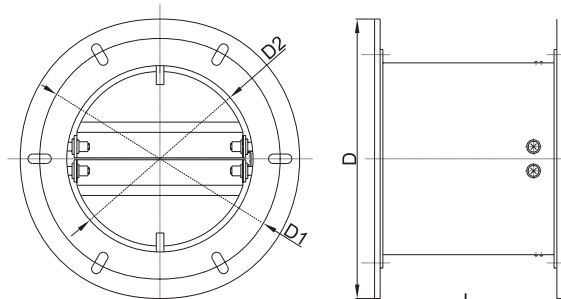
Title	Article No.
KSP-K 250	GVESSDC015
KSP-K 311	GVESSDC007
KSP-K 355-400	GVESSDC008
KSP-K 450-500	GVESSDC009
KSP-K 560-630	GVESSDC010
KSP-K 710	GVESSDC011
KSP-K 250 AL	GVEKSPKAL001
KSP-K 311 AL	GVEKSPKAL002
KSP-K 355-400 AL	GVEKSPKAL003
KSP-K 450-500 AL	GVEKSPKAL004
KSP-K 560-630 AL	GVEKSPKAL005
KSP-K 710 AL	GVEKSPKAL006

Used for the mounting of roof fans VSV on flat roofs. Made of galvanized steel. Sound absorption material is resistant to wear when the air speed is below 20 m/s. Versions from aluminum available.

Dimensions

Type	Application	D, [mm]	E, [mm]	F, [mm]	G, [mm]	M, [mm]	H, [mm]
KSP-K 250	VSV 250-2L1, VSV 250-2SL1	245	325	590	260	M6	400
KSP -K 311	VSV/VSVI 311, VSV/VSVI 311 EKO	330	395	710	324	M6	500
KSP-K 355/400	VSV 355,400, VSV/VSVI 355, 400 EKO	450	575	874	504	M10	650
KSP-K 450/500	VSV/VSVI 450, 500, VSV/VSVI 450, 500 EKO	535	655	900	585	M10	650
KSP-K 560/630	VSV/VSVI 560,630, VSV/VSVI 560,630 EKO	750	895	1200	825	M10	700
KSP-K 710	VSV/VSVI 710	840	985	1300	915	M10	800

Back draft shutter



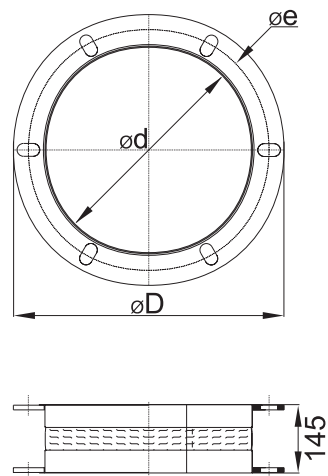
Title	Article No.
ATS 190	GVEATS009
ATS 250	GVEATS008
ATS 311	GVEATS001
ATS 355-500	GVEATS002
ATS 560-630	GVEATS003
ATS 710	GVEATS004

Used to allow circulation of air in one direction only. The housing is made of galvanized steel, the blades are made of aluminum. The dampers can be installed in vertical air exhaust ducts with VSV and VSA fans only.

Dimensions

Type	Application	ØD, [mm]	ØD1, [mm]	ØD2, [mm]	L, [mm]	Weight
ATS 190	VSA 190, VSA 190 EKO	185	177	161	108	0,6 kg
ATS 250	VSA 220, 225, 250, VSA 220, 225, 250 EKO	250	230	202	115	1,4 kg
ATS 311	VSV/VSVI 311, VSV/VSVI 311 EKO	306	285	256	156	1,8 kg
ATS 355/500	VSV/VSVI 355, 400, 450, 500, VSV/VSVI 355, 400, 450, 500 EKO	464	438	402	220	2,1 kg
ATS 560/630	VSV/VSVI 560, 630, VSV/VSVI 560, 630 EKO	639	605	569	255	2,4 kg
ATS 710	VSV/VSVI 710	708	674	634	250	8 kg

Flexible connection



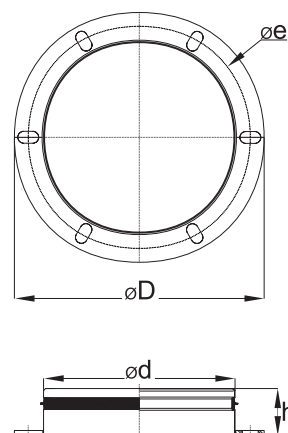
Title	Article No.
LSV 190	GVELSV012
LSV 250	GVELSV011
LSV 311	GVELSV001
LSV 355-500	GVELSV002
LSV 560-630	GVELSV004
LSV 710	GVELSV005

Used for the minimizing of vibrations, produced for VSV and VSA fans. LSV links are made of neoprene fabric, connection flanges are made of galvanized steel.

Dimensions

Type	Application	ød, [mm]	øe, [mm]	øD, [mm]
LSV 190	VSA 190S, VSA 190L, VSA 190 EKO	160	177	185
LSV 250	VSA 220M, VSA 220S, VSA 225L, VSA 250L, VSA 220 EKO, VSA 225 EKO, VSA 250 EKO	200	230	250
LSV 311	VSV/VSVI 311, VSV/VSVI 311 EKO	250	285	306
LSV 355/500	VSV/VSVI 355, 400, 450, 500, VSV/VSVI 355, 400, 450, 500 EKO	400	438	464
LSV 560/630	VSV/VSVI 560, 630, VSV/VSVI 560, 630 EKO	560	605	639
LSV 710	VSV/VSVI 710	630	674	708

Flange - adapter



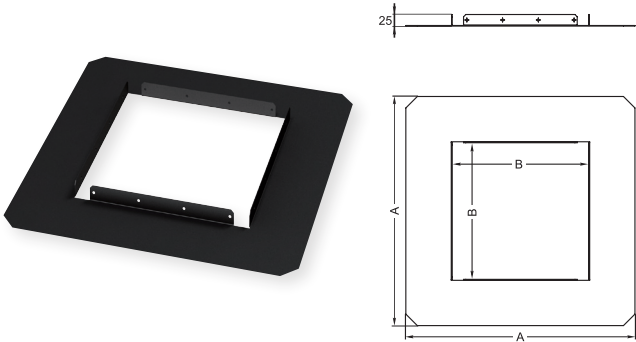
Title	Article No.
FSV 190	GVEFSV012
FSV 250	GVEFSV010
FSV 311	GVEFSV001
FSV 355-500	GVEFSV002
FSV 560-630	GVEFSV004
FSV 710	GVEFSV005

Flange-adapters with sealing rubber used for the connection of roof fans VSV, VSVI and VSA to air ducts. Made of galvanized steel.

Dimensions

Type	Application	$\varnothing d$, [mm]	$\varnothing e$, [mm]	$\varnothing D$, [mm]	h [mm]	Weight, [kg]
FSV 190	VSA 190, VSA 190 EKO	160	177	185	36	0,2
FSV 250	VSA 220, 225, 250, VSA 220, 225, 250 EKO	200	230	250	36	0,4
FSV 311	VSV/VSVI 311, VSV/VSVI 311 EKO	250	285	306	55	0,5
FSV 355-500	VSV/VSVI 355, 400, 450, 500, VSV/VSVI 355, 400, 450, 500 EKO	400	438	464	75	0,9
FSV 560-630	VSV/VSVI 560, 630, VSV/VSVI 560, 630 EKO	560	605	639	75	1,4
FSV 710	VSV/VSVI 710	630	674	708	75	2,0

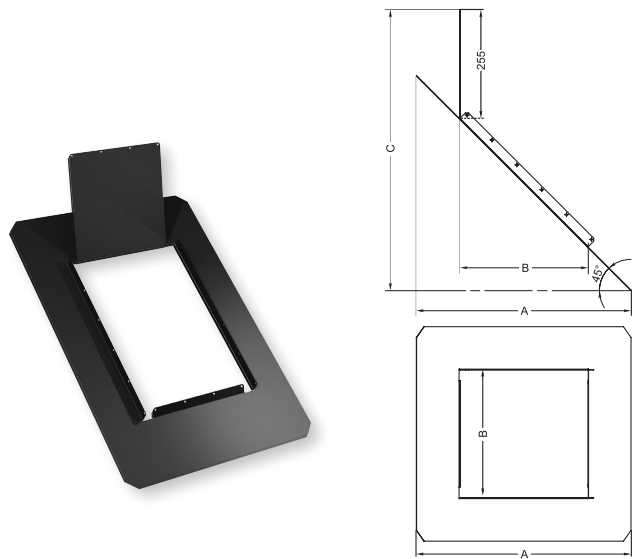
Curb skirt SSA



Title	Article No.
SSA 300	GFDSSA0001
SSA 400	GFDSSA0003

SSA curb skirt is made of galvanized steel. It is designed for the mounting of KSV curbs on the cover of flat roofs. Powder coated painting RAL 9005.

Curb skirt SSA 45



Title	Article No.
SSA 300 45	GFDSSA0002
SSA 400 45	GFDSSA0004

SSA 45 curb skirt is made of galvanized steel. It is designed for the mounting of KSV curbs on the cover of inlined roofs of 45°. Powder coated painting RAL 9005.

Dimensions		
Type	A, [mm]	B, [mm]
SSA 300	298	500
SSA 400	398	600

Dimensions			
Type	A, [mm]	B, [mm]	C, [mm]
SSA 300 (45°)	298	500	655
SSA 400 (45°)	398	600	755

Electric duct heater



EKA duct heaters are designed to heat clean air in ventilation systems and to preheat air handling units. Corrosion resistant casing with excellent thermal reflectivity is made from AluZinc. Duct connection is with rolled rubber seals, duct heater elements are made from stainless steel. To ensure safety in duct heaters are installed 2 protection thermostats and screw terminals for easy connection.

To ensure long service time of heaters, heaters casing is manufactured from AluZinc coated steel and heating elements from stainless steel AISI 304. AluZinc for heaters casing was selected for its properties:

- › Good corrosion resistance at high temperatures (up to 315°C).
- › Excellent thermal reflectivity.
- › Good abrasion resistance because of its surface hardness.
- › Durability: under normal conditions the AZ 150 coating grade will protect the steel substrate from corrosion for a minimum period of 15 years.

Double overheat protection.

To ensure security in case of fire in all electric air heaters are installed 2 heat protection thermostats:

- › First overheat protection automatically activates if temperature reaches 50°C, then protection disconnects heating elements, until it has cooled. When the temperature falls to the working temperature, heater automatically switches on.
- › Second overheat protection automatically activates if temperature reaches 100°C, then protection disconnects heating elements, until it has cooled. In this case need to figure the cause of the overheating of the heater. Heater needs to be reset manually with the pushbutton on the heaters casing.

Duct connection.

For easy duct connection heaters casing is with rolled rubber seals.

Heaters with built-in control.

Electric duct heaters with built-in control has installed internal controller EKR-KN which works by algorithm impulse/pause that enables fine temperature control. Regulator controls load by triacs without moving parts, which causes no-noise commutation.

MARKING

EKA	-	NV	-	400	-	15.0	-	3f	-	PTC	PS
1		2		3		4		5		6	7

1. EKA – circular duct heater

2. NV – heater type.

Type **NV** - you can set temperature of heater with potentiometer installed on heaters casing.

Type **NI** - you can set temperature from distance with wired remote potentiometer **TR5K**.

Type **NIS** - heater control from distance with 0 – 10V signal.

3. **400** – heater diameter.

4. **15.0** – power of heater kW.

5. **3f** – number of phases.

6. **PTC** – heater with installed air flow sensor.

7. **PS** – heater with installed pressure sensor.

8. **PTC/PS type can be marked also as NV PH if temperature setpoint of the heater -20°C to -5°C.**

CIRCULAR DUCT HEATER TYPES

Model	Control	Control type
EKA	External controller EKR	External control
EKA NV	Built-in controller EKR KN NV	Control on heaters casing, default temperature setpoint 0°C ... +30°C
EKA NV PTC/PS, NV PH	Built-in controller EKR KN NV PTC/PS EKR KN PH	Control on heaters casing, default temperature setpoint -10°C ... +50°C. Air flow sensor and pressure sensor are installed inside the heater. Difference between heaters is EKA NV PTC/PS and EKA NV PH, that EKA NV PH temperature setpoint is -20°C iki -5°C.
EKA NI	Built-in controller EKR KN NI	Remote control with wired potentiometer, default temperature setpoint 0°C ... +30°C
EKA NIS	Built-in controller EKR KN NIS	0-10V control

In heaters type NV PTC/PS are installed controllers with default temperature setpoint -10°C ... +50°C, on your needs we can install controllers with different temperature setpoints:

-40°C till -10°C	0°C till +30°C	-5°C till 0°C
-20°C till -5°C	-10°C till 0°C	-20°C till +30°C
-10°C till +40°C	-	-

EKA / EKA NV/ EKA NI / EKA NIS

ACCESSORIES

Controller for electrical heater	Controller for electrical heater	Controller for electrical heater	Controller for electrical heater	Controller for electrical heater	Temperature sensor
					
EKR 6.1 p. 146	EKR 15.1 p. 144	EKR 15.1P p. 144	EKR 30 p. 145	EKR 30P p. 145	TJK-10K p. 147

CONTROL

Model	Controlled load [kW]	Extra load control*	Full load	Relay output	Voltage output**
EKR15.1	15 kW	Up to 12 kW	27 kW	1x5A/230V	3x230/3x400
EKR15.1P	15 kW	Up to 225 kW	240 kW	4x5A/230V	3x230/3x400
EKR30	30 kW	Up to 42 kW	42 kW	1x5A/230V	3x230/3x400
EKR30P	30 kW	Up to 420 kW	450 kW	4x5A/230V	3x230/3x400

* Extra load control with contactor.

** Available voltage 3x230V, according to the current selected controlled power.

Model	Controlled load [kW]	Maximum controlled current [A]	Voltage output
EKR 6.1	6,4 kW/400V	16 A	2x400V
	3.2 kW/230V		1x230V

CIRCULAR DUCT HEATERS POWER & DIMENSIONS

All circular duct heaters EKA regardless of the type can be produced in following dimensions and power:

Type	Diameter	Min. airflow [m³/h]	Voltage [V/50Hz]	Power [kW]
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	100	40	1x230	0.3, 0.6, 0.9, 1.2
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	125	70	1x230	0.3, 0.6, 0.9, 1.2, 1.8, 2.4
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	160	110	1x230	0.3, 0.6, 0.9, 1.2, 1.8, 2.4
			2x400	3.0, 5.0, 6.0
			3x400	6.0
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	200	170	1x230	0.9, 1.2, 1.8, 2.4, 3.0
			2x400	3.0, 5.0, 6.0
			3x400	6.0
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	250	270	1x230	1.2, 2.0, 2.4, 3.0
			2x400	3.0, 5.0, 6.0
			3x400	6.0, 9.0, 12.0
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	315 315	415 550	1x230	1.2, 2.0, 2.4, 3.0
			2x400	3.0, 5.0, 6.0
			3x400	6.0, 9.0, 12.0
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	400	690	1x230	3.0, 5.0, 6.0
			2x400	3.0, 5.0, 6.0
			3x400	6.0, 9.0, 12.0, 15.0, 18.0
EKA (NV, NV PTC/PS, NV PH, NI, NIS)	500	1060	2x400	3.0, 5.0, 6.0
			3x400	6.0, 9.0, 12.0, 15.0, 18.0, 24.0

18.0 and 24.0 kW heaters are produced on customers request.

Production time can be longer than usual.

270 mm – dimension of heaters up to 12kW

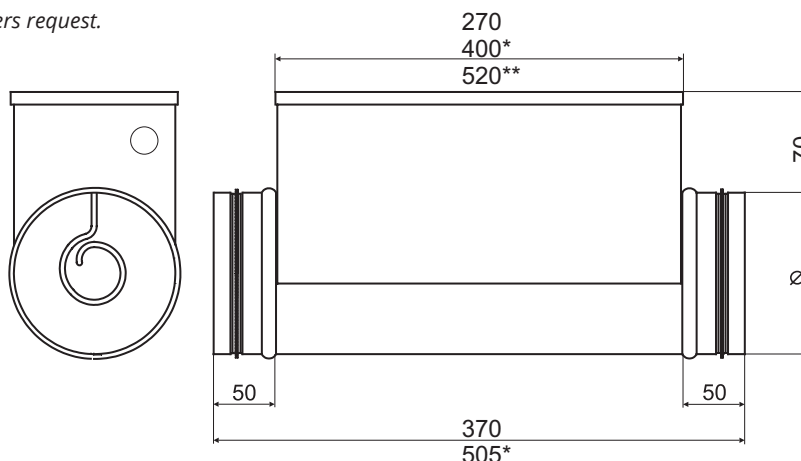
400 mm – dimension of 12 kW heaters

520 mm – dimension of 15 kW heaters

370 mm – dimension of heaters up to 12kW

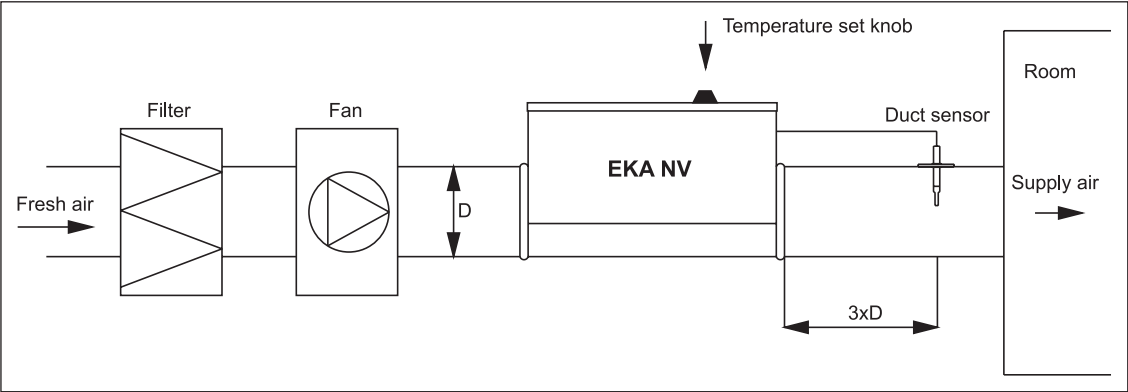
505 mm – dimension of 12 kW heaters

630 mm – dimension of 15 kW heaters

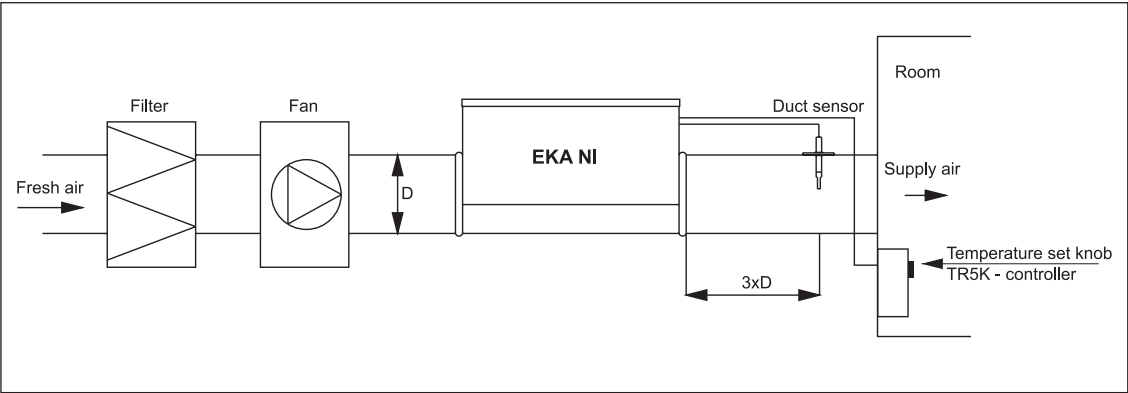


EKA / EKA NV / EKA NI / EKA NIS

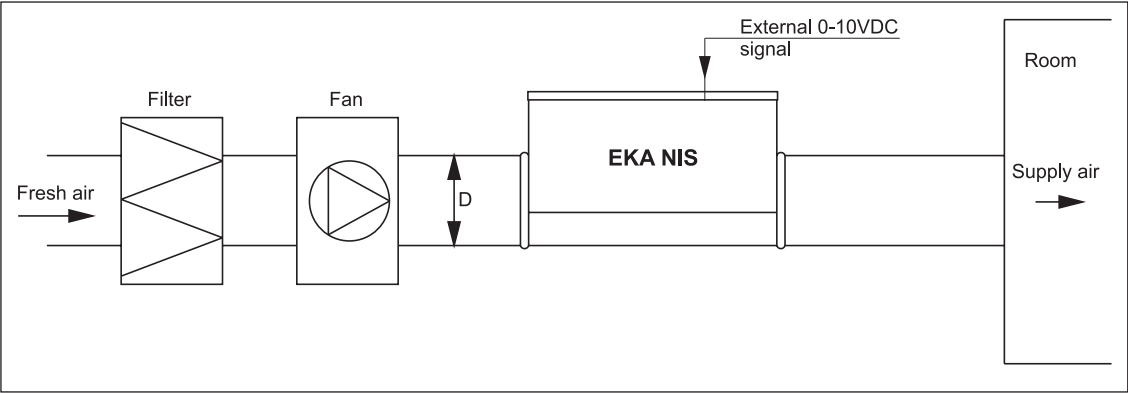
EKA NV connection diagram



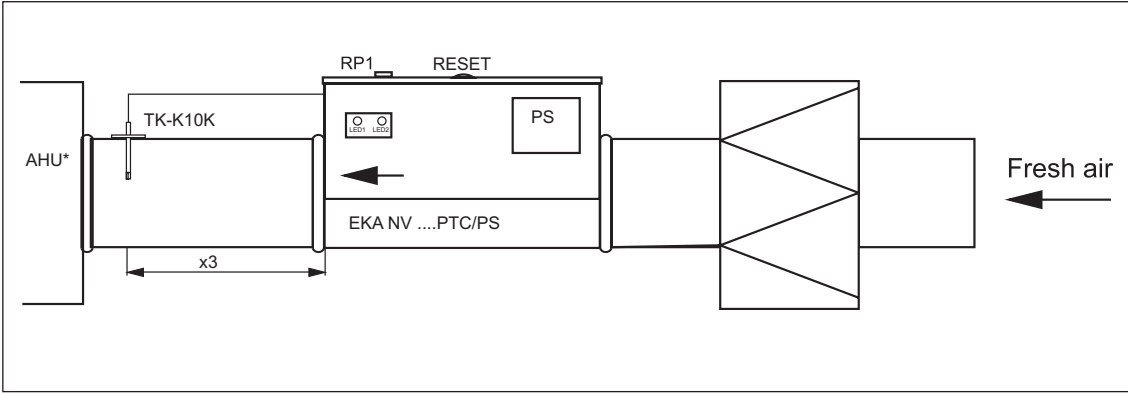
EKA NI connection diagram



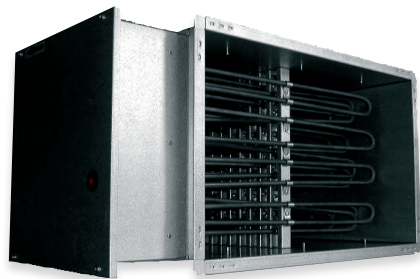
EKA NIS connection diagram



Installation example EKA NV PTC/PS



Electric duct heater



Duct heaters are designed to heat clean air in ventilation systems and to preheat air handling units. Corrosion resistant casing with excellent thermal reflectivity is made from AluZinc. Duct connection is with rolled rubber seals, duct heater elements are made from stainless steel. To ensure safety in duct heaters are installed 2 protection thermostats and screw terminals for easy connection.

To ensure long service time of heaters, heaters casing is manufactured from AluZinc coated steel and heating elements from stainless steel AISI 304. AluZinc for heaters casing was selected for its properties:

- › Good corrosion resistance at high temperatures (up to 315°C).
- › Excellent thermal reflectivity.
- › Good abrasion resistance because of its surface hardness.
- › Durability: under normal conditions the AZ 150 coating grade will protect the steel substrate from corrosion for a minimum period of 15 years.

Double overheat protection.

To ensure security in case of fire in all electric air heaters are installed 2 heat protection thermostats:

- › First overheat protection automatically activates if temperature reaches 50°C, then protection disconnects heating elements, until it has cooled. When the temperature falls to the working temperature, heater automatically switches on.
- › Second overheat protection automatically activates if temperature reaches 100°C, then protection disconnects heating elements, until it has cooled. In this case need to figure the cause of the overheating of the heater. Heater needs to be reset manually with the pushbutton on the heaters casing.

Duct connection.

For easy duct connection heaters casing is with rolled rubber seals.

MARKING

EKS NV 40 x 20/21 PTC/PS

1 2 3 4 5 6 7

1. EKS – circular duct heater.

2. NV – heater type.

Type **NV** - you can set temperature of heater with potentiometer installed on heaters casing.

Type **NI** - you can set temperature from distance with wired remote potentiometer TR5K.

Type **NIS** - heater control from distance with 0 – 10V signal.

3. **40** – heater height cm.

4. **20** – heaters width.

5. **21** – power of heater kW.

6. **PTC** – heater with installed air flow sensor.

7. **PS** – heater with installed pressure sensor.

PTC/PS type can be marked also as NV PH if temperature setpoint of the heater -20°C to -5°C.

RECTANGULAR DUCT HEATER TYPES

Model	Control	Control type
EKS	External controller EKR	External control
EKS NV	Built-in controller EKR-KN NV	Control on heaters casing, default temperature setpoint 0°C ... +30°C
EKS NV PTC/PS, NV PH	Built-in controller EKR-KN NV PTC/PS EKR-KN NV PH	Control on heaters casing, default temperature setpoint -10°C ... +50°C. Air flow sensor and pressure sensor are installed inside the heater. Difference between heaters is EKS NV PTC/PS and EKS NV PH, that EKS NV PH temperature setpoint is -20°C iki -5°C.
EKS NI	Built-in controller EKR-KN NI	Remote control with wired potentiometer, default temperature setpoint 0°C ... +30°C
EKS NIS	Built-in controller EKR-KN NIS	0-10V control

In heaters type NV PTC/PS are installed controllers with default temperature setpoint -10°C ... +50°C, on your needs we can install controllers with different temperature setpoints:

-40°C till -10°C	0°C till +30°C	-5°C till 0°C
-20°C till -5°C	-10°C till 0°C	-20°C till +30°C
-10°C till +40°C	-	-

ACCESSORIES

Controller
for electrical heater



EKR 6.1 p. 146

Controller
for electrical heater



EKR 15.1 p. 144

Controller
for electrical heater



EKR 15.1P p. 144

Controller
for electrical heater



EKR 30 p. 145

Controller
for electrical heater



EKR 30P p. 145

Temperature sensor



TJK-10K p. 147

CONTROL

Model	Controlled load [kW]	Extra load control*	Full load	Relay output	Voltage output**
EKR15.1	15 kW	Up to 12 kW	27 kW	1x5A/230V	3x230/3x400
EKR15.1P	15 kW	Up to 225 kW	240 kW	4x5A/230V	3x230/3x400
EKR30	30 kW	Up to 42 kW	42 kW	1x5A/230V	3x230/3x400
EKR30P	30 kW	Up to 420 kW	450 kW	4x5A/230V	3x230/3x400

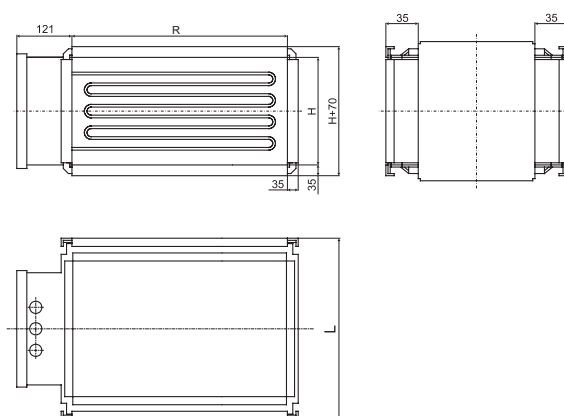
* Extra load control with contactor.

** Available voltage 3x230V, according to the current selected controlled power.

Model	Controlled load [kW]	Maximum controlled current [A]	Voltage output
EKR 6.1	6,4 kW/400V	16 A	2x400V
	3,2 kW/230V		1x230V

DUCT HEATERS POWER & DIMENSIONS

All, regardless of the type of electric duct heaters ECS dimensions and power (voltage 3x400V)*



EKS NV/NI/NIS/PTC/PS/PH 400x200						
Length L	[mm]	370	420	520		
Total rated power	[kW]	6	9	12	15	21

EKS NV/NI/NIS/PTC/PS/PH 500x250								
Length L	[mm]	370		420	520	600	820	970
Total rated power	[kW]	9	12	15	21	24	36	45

EKS NV/NI/NIS/PTC/PS/PH 500x300													
Length L	[mm]	370						440			520	600	
Total rated power	[kW]	9	12	15	18	21	24	27	30	33	36	42	45

EKS NV/NI/NIS/PTC/PS/PH 600x300													
Length L	[mm]	370						440			520	600	
Total rated power	[kW]	9	12	15	18	21	24	27	30	33	36	42	45

EKS NV/NI/NIS/PTC/PS/PH 600x350														
Length L	[mm]	370								420			500	
Total rated power	[kW]	9	12	15	18	21	24	27	30	33	36	39	42	45

EKS NV/NI/NIS/PTC/PS/PH 700x400																
Length L	[mm]	370												440		520
Total rated power	[kW]	9	12	15	18	21	24	27	30	33	36	42	45	51	60	66

EKS NV/NI/NIS/PTC/PS/PH 800x500																		
Length L	[mm]	370													420		440	500
Total rated power	[kW]	9	12	15	18	21	24	27	30	33	36	39	42	45	51	54	60	66

EKS NV/NI/NIS/PTC/PS/PH 1000x500																		
Length L	[mm]	370													420		440	500
Total rated power	[kW]	9	12	15	18	21	24	27	30	33	36	39	42	45	51	54	60	66

*According to the technical inquiries can be made non-standard power, voltage, and dimensions heaters.

EKR 15.1 / EKR 15.1 P

Controller of electrical heating



Title	Article No.
EKR 15.1	PRGR0018

EKR15.1 is a proportional controller for electric heaters with automatic voltage adaptation. EKR15.1 controls the whole load On-Off. The ratio between On-time and Off-time is varied 0-100% to suit the prevailing heat demand.

EKR15.1 is designed only for electric heating control. The control principle makes it unsuitable for motor or lighting control.

EKR15.1 can control 15kW heater and has relay output for extra load control with contactor, on which can be connected load up to 12kW. Full load can be 27kW.

Control principle

EKR15.1 has zero phase-angle detection to prevent RFI (radio frequency interference).

EKR15.1 automatically adapts its control mode to suit the dynamics of the controlled object. For rapid temperature changes i. e. supply air control EKR15.1 will act as a PID controller. For slow temperature changes i.e. room control EKR15.1 will act as a PID* controller.

*PID- proportional-integral-derivative.

Night set-back

Potential-free closure will give a night set-back of 0-10°C. Settable with a potentiometer (Contacts 10, 11) in the EKR15.1.

Technical data	
Controlled load [kW]	15
Extra controlled load (recommended) * [kW]	12
Total controlled load [kW]	27
Max. controlled current [A]	25
Voltage [V]	3x230/3x400
Frequency [Hz]	50-60
Phases	3~
Dimensions (WxHxL) [mm]	270x145x130
Fuse [A]	2 x 0,315
Protection class	IP20
Ambient temperature without condensation [°C]	0-40
Heat dissipation [W]	50
Ambient humidity	90%RH max.

* Extra load should be connected via contactor to the relay output.

Controllers conform to requirements of standards EN 61010-1+A2: 2000, EN 50081-1: 1995, EN 55022: 2000 and carry the CE mark.

Title	Article No.
EKR 15.1P	PRGR0008

EKR15.1P is a proportional controller for multistep(up to 5 steps) electric heaters with automatic voltage adaptation. EKR15.1P controls the whole load On-Off. The ratio between On-time and Off-time is varied 0-100% to suit the prevailing heat demand.

EKR15.1P is designed only for electric heating control. The control principle makes it unsuitable for motor or lighting control.

EKR15.1P can control with triac output 15kW heater and has four relay outputs for 4 extra load steps control with contactors, on which can be connected load up to 225kW. Full load can be 240kW.

Control principle

Triac output of EKR15.1P has zero phase-angle detection to prevent RFI (radio frequency interference).

If triac output is ON more then 5 min controller will increase output by one step. Second step will be switch on after 2 min if previous is switched on for this time. All steps are switching in such order to increasing output. In case then output decreasing is needed, step will be switch off after 5min. Other steps will be switch off after 2 min to decrease output.

Extra load steps can be switched in binary or serial mode. Number of connected extra load steps can be selected with rotating switch. In binary mode switching steps can be 0-15, in serial mode 0-4.

Night set-back

Potential-free closure will give a night set-back of 0-10°C. Settable with a potentiometer (Contacts 10, 11) in the EKR15.1P.

Technical data	
Controlled load [kW]	15
Extra load control output	4x5A/230V
Max. triac controlled current [A]	25
Voltage [V]	3x230/3x400
Frequency [Hz]	50-60
Phases	3~
Dimensions (WxHxL) [mm]	105 x 260 x 120
Fuse [A]	2x 0,315
Protection class	IP20
Ambient temperature without condensation [°C]	0-40
Heat dissipation [W]	50
Ambient humidity	90%RH max.

* Extra load should be connected via contactor to the relay output.

Controllers conform to requirements of standards EN 61010-1+A2: 2000, EN 50081-1: 1995, EN 55022: 2000 and carry the CE mark.

Controller of electrical heating



Title	Article No.
EKR 30	PRGR0009

EKR30 is a proportional controller for electric heaters with automatic voltage adaptation. EKR 30 controls the whole load On-Off. The ratio between On-time and Off-time is varied 0-100% to suit the prevailing heat demand. EKR 30 is designed only for electric heating control. The control principle makes it unsuitable for motor or lighting control. EKR30 can control 30kW heater and has relay output for extra load control with contactor, on which can be connected load up to 12kW. Full load can be 42kW.

Title	Article No.
EKR 30P	PRGR0084

EHC-30-P is a proportional controller for multistep(up to 5 steps) electric heaters with automatic voltage adaptation. EHC-30-P controls the whole load On-Off. The ratio between On-time and Off-time is varied 0-100% to suit the prevailing heat demand. EHC-30-P is designed only for electric heating control. The control principle makes it unsuitable for motor or lighting control. EHC-30-P can control with triac output 15kW heater and has four relay outputs for 4 extra load steps control with contactors, on which can be connected load up to 225kW. Full load can be 255kW.

Control principle

EKR30 has zero phase-angle detection to prevent Radio Frequency Interference. EKR 30 automatically adapts its control mode to suit the dynamics of the controlled object. For rapid temperature changes i. e. supply air control EKR 30 will act as a PI controller. For slow temperature changes i.e. room control EKR 30 will act as a P controller.

Night set-back: potential-free closure will give a night set-back of 1-10°C. Settable with a potentiometer (Contacts Timer-GND) in the EKR 30.

Control principle

Control principle:

Triac output of EHC-30-P has zero phase-angle detection to prevent Radio Frequency Interference.

If triac output is ON more than 5 min controller will increase output by one step. Second step will be switch on after 2 min if previous is switched on for this time. All steps are switching in such order to increasing output. In case then output decreasing is needed, step will be switch off after 5min. Other steps will be switch off after 2 min to decrease output. Extra load steps can switching in binary or serial mode (switch 4). Number of connected extra load steps can be selected with micro switch 5, 6.

Night set-back: potential-free closure will give a night set-back of 0-10°C. Settable with a potentiometer (Contacts Timer-GND) in the EHC-30-P.

Technical data

Controlled load [kW]	30
Extra controlled load [kW] (recommended) *	12
Total controlled load [kW]	42
Max. controlled current [A]	45
Voltage [V]	3 x 230/3 x 400
Frequency [Hz]	50-60
Phases	3~
Dimensions (LxWxH) [mm]	240x260x175
Fuse [A]	2 x 0,315
Protection class	IP20
Ambient temperature without condensation [°C]	0-40
Heat dissipation [W]	120
Ambient humidity	90% RH max.

* Extra load should be connected via contactor to the relay output. Controllers conform to requirements of standards EN 61010-1+A2:2000, EN 50081-1:1995, EN 55022:2000 and carry the CE mark.

Technical data

Controlled load [kW]	30
Extra load control output	4 x 5A/230V
Max. controlled current [A]	45
Voltage [V]	3 x 230/3 x 400
Frequency [Hz]	50-60
Phases	3~
Dimensions (LxWxH) [mm]	240x260x175
Fuse [A]	2 x 0,315
Protection class	IP20
Ambient temperature without condensation [°C]	0-40
Heat dissipation [W]	120
Ambient humidity	90% RH max.

* Extra load should be connected via contactor to the relay output. Controllers conform to requirements of standards EN 61010-1+A2:2000, EN 50081-1:1995, EN 55022:2000 and carry the CE mark.

EKR 6.1

Controller of electrical heating



Title	Article No.
EKR 6.1	PRGR0011

EKR6.1 is a proportional controller of electrical heating with automatic adaptation of voltage. An internal or an external sensor is used with the device. EKR6.1 controls the heating intensity by switching electrical power on or off. The ratio between the off-time and on-time depends on the need for heating and can vary in the range between 0% and 100%. EKR6.1 is suitable for the control of electrical heating only. Its principle of operation preclude its being used for the control of motors or lighting systems. EKR6.1 is not suitable for the control of three-phase electrical current, it is used to control monophasic and biphasic heaters only.

Technical data

Max. controlled load [kW]	6,4/400V, 3,2/230V
Max. controlled current [A]	16
Voltage [V]	230-415
Frequency [Hz]	50-60
Phases	1~230V, 2~400V
Dimensions (WxHxL) [mm]	150 x 80 x 55
Protection class	IP20
Ambient temperature [°C]	30 max.
Ambient humidity	90% RH max.

Controllers conform to requirements of standards LST EN 61010-1:2002, LST EN 55022:2000, LST EN 60730-1+A11: 2002/A16 2007 and carry the CE mark.

Control principle

EKR6.1 controls the full load On-Off. EKR6.1 adjusts the mean power output to the prevailing power demand by proportionally adjusting the ratio between On-time and Off-time.

EKR6.1 has zero phase-angle detection for preventing RFI (radio frequency interference).

EKR6.1 automatically adjusts its control mode to suit the controlled object's dynamics.

For rapid temperature changes i.e. supply air control EKR6.1 will act as a PID controller.

For slow temperature changes i.e. room control EKR6.1 will act as a PID controller.

Night temperature set-back

Potential-free closure will give a night set-back of 1 - 10°C. Settable with a potentiometer which is in the EKR6.1.

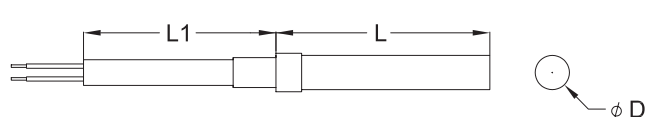
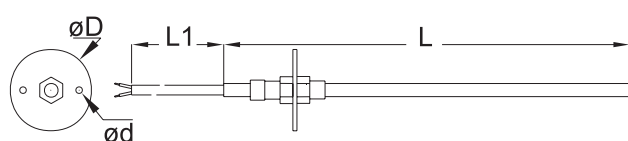
Temperature sensors



TJK-10K



TJP-10K



Title	Article No.
TJK-10K	PJUT0024

Duct sensors used in measuring air temperature in ventilation ducts. With adjustable insertion length.

Title	Article No.
TJP-10K	PJUT0028

TJP-10K temperature sensors used in measuring return water temperature.

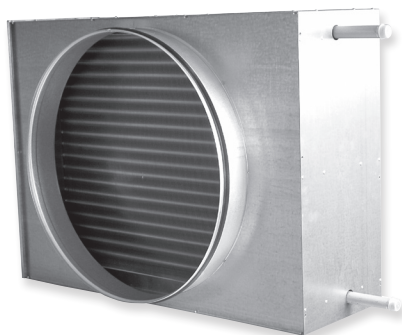
Technical data

Type	Temperature range [°C]	Time constant [s]	Casing
TJK-10K	-30...+105	15	Plastic
TJP-10K	-30...+105	15	Stainless steel

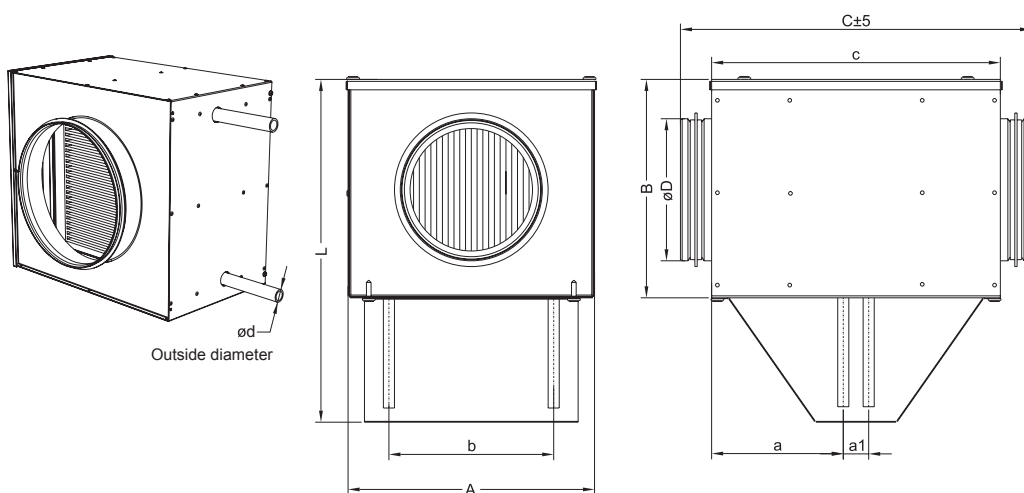
Dimensions

Type	L, [mm]	L1, [mm]	øD, [mm]	ød, [mm]
TJK-10K	230	1500	40	3,2
TJP-10K	50	2000	8	-

Heating coil for circular ducting



Title	Article No.
AVS 100	GSIAVS019
AVS 125	GSIAVS020
AVS 160	GSIAVS021
AVS 200	GSIAVS022
AVS 250	GSIAVS005
AVS 315	GSIAVS006
AVS 400	GSIAVS023
AVS 500	GSIAVS024



Used in ventilation systems. AVS heaters are made of copper tubes and aluminum plates. The housing is made of galvanized steel. The service panel is easily removed after unscrewing 4 bolts. With the cover removed, the heater can be cleaned and inspected. Heating and cooling units may be selected according to available parameters, with the help of selection program 'Heaters/coolers', which can be found in Internet page www.salda.it

Dimensions

Type	A [mm]	B [mm]	C [mm]	a [mm]	a1 [mm]	b [mm]	ød [mm]	Thread size*	L [mm]	øD [mm]	[kg]
AVS 100	214	190	333	114	22	138	21,7	1/2"	287	100	5,2
AVS 125	214	190	333	114	22	138	21,7	1/2"	287	125	6,0
AVS 160	289	265	304	115	20	213	21,7	1/2"	361	160	8,2
AVS 200	289	265	304	115	20	213	21,7	1/2"	361	200	8,5
AVS 250	364	395	342	110	29	283	22	1/2"	531	250	12,5
AVS 315	439	460	342	110	29	350	22	1/2"	611	315	16,0
AVS 400	514	550	367	110	29	383	22	3/4"	691	400	20,0
AVS 500	599	730	367	109	32	463	26,7	3/4"	846	500	28,0

* Male thread size

Technical data											AVS 100			
Air flow	Pressure drop	Inlet air temp.	Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
			Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
60	10,99	-25	51,62	1,54	0,02	0,75	42,45	1,36	0,02	0,62	21,92	0,94	0,01	0,35
60	11,37	-15	53,6	1,38	0,02	0,62	44,33	1,20	0,01	0,5	24,06	0,79	0,01	0,26
60	11,56	-10	54,55	1,30	0,02	0,56	45,22	1,11	0,01	0,44	25,76	0,72	0,01	0,22
60	11,95	0	56,39	1,14	0,01	0,44	46,85	0,95	0,01	0,33	29,16	0,59	0,01	0,16
60	12,37	10	58,09	0,98	0,01	0,34	48,15	0,77	0,01	0,23	32,59	0,46	0,01	0,10
110	23,14	-25	40,67	2,42	0,03	1,68	32,82	2,13	0,03	1,38	16,16	1,52	0,02	0,81
110	23,98	-15	43,81	2,17	0,03	1,38	35,92	1,88	0,02	1,10	18,84	1,25	0,02	0,58
110	24,41	-10	45,35	2,05	0,03	1,24	37,44	1,75	0,02	0,97	20,01	1,11	0,01	0,47
110	25,29	0	48,37	1,79	0,02	0,98	40,39	1,50	0,02	0,74	23,62	0,82	0,01	0,28
110	26,22	10	51,31	1,54	0,02	0,75	43,21	1,23	0,02	0,52	27,03	0,63	0,01	0,18
170	41,02	-25	32,31	3,27	0,04	2,87	25,45	2,88	0,04	2,34	11,08	2,06	0,02	1,38
170	42,57	-15	36,32	2,93	0,04	2,36	29,44	2,54	0,03	1,87	14,87	1,70	0,02	0,99
170	43,36	-10	38,3	2,76	0,03	2,12	31,40	2,36	0,03	1,65	16,68	1,52	0,02	0,81
170	45,00	0	42,2	2,42	0,03	1,67	35,27	2,02	0,03	1,25	19,95	1,14	0,01	0,49
170	46,73	10	46,04	2,07	0,03	1,27	39,04	1,67	0,02	0,89	23,4	0,77	0,01	0,25

Technical data											AVS 125			
Air flow	Pressure drop	Inlet air temp.	Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
			Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
90	17,96	-25	44,43	2,10	0,03	1,30	36,14	1,85	0,02	1,07	18,32	1,31	0,02	0,62
90	18,60	-15	47,17	1,88	0,02	1,07	38,83	1,63	0,02	0,85	20,41	1,07	0,01	0,44
90	18,92	-10	48,51	1,77	0,02	0,96	40,14	1,52	0,02	0,75	21,15	0,94	0,01	0,35
90	19,59	0	51,14	1,55	0,02	0,76	42,66	1,29	0,02	0,57	24,44	0,74	0,01	0,23
90	20,30	10	53,67	1,33	0,02	0,58	45,01	1,06	0,01	0,41	28,82	0,57	0,01	0,15
180	44,31	-25	31,21	3,39	0,04	3,07	24,48	2,99	0,04	2,50	10,40	2,14	0,03	1,47
180	46,00	-15	35,33	3,04	0,04	2,52	28,58	2,63	0,03	2,00	14,32	1,77	0,02	1,06
180	46,86	-10	37,37	2,86	0,04	2,26	30,60	2,46	0,03	1,76	16,21	1,58	0,02	0,87
180	48,64	0	41,39	2,51	0,03	1,79	34,59	2,10	0,03	1,33	19,65	1,19	0,01	0,53
180	50,53	10	45,34	2,15	0,03	1,36	38,49	1,73	0,02	0,95	22,96	0,79	0,01	0,26
270	85,23	-25	23,51	4,39	0,05	4,88	17,67	3,86	0,05	3,97	5,57	2,77	0,03	2,33
270	87,92	-15	28,42	3,94	0,05	4,00	22,58	3,41	0,04	3,16	10,38	2,30	0,03	1,68
270	89,29	-10	30,86	3,71	0,05	3,59	25,00	3,17	0,04	2,79	12,74	2,06	0,02	1,38
270	92,16	0	35,68	3,24	0,04	2,83	29,81	2,71	0,03	2,10	17,29	1,57	0,02	0,86
270	95,23	10	40,45	2,78	0,03	2,14	34,55	2,24	0,03	1,50	21,17	1,02	0,01	0,40

Technical data

AVS 160

			Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
Air flow	Pressure drop	Inlet air temp.	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
140	6,51	-25	48,37	3,45	0,04	5,13	40,62	3,08	0,04	4,32	24,9	2,34	0,03	2,85
140	6,74	-15	51,24	3,11	0,04	4,29	43,48	2,75	0,03	3,53	27,68	2,01	0,02	2,17
140	6,85	-10	52,65	2,95	0,04	3,89	44,88	2,58	0,03	3,16	29,03	1,84	0,02	1,86
140	7,10	0	55,41	2,61	0,03	3,14	47,62	2,25	0,03	2,47	31,61	1,49	0,02	1,30
140	7,35	10	58,10	2,28	0,03	2,46	50,28	1,91	0,02	1,85	33,94	1,13	0,01	0,81
290	17,51	-25	34,33	5,77	0,07	12,92	28,02	5,16	0,06	10,81	15,28	3,92	0,05	7,04
290	18,15	-15	38,58	5,22	0,06	10,77	32,27	4,60	0,06	8,81	19,48	3,36	0,04	5,36
290	18,45	-10	40,69	4,94	0,06	9,76	34,36	4,32	0,05	7,88	21,55	3,07	0,04	4,59
290	19,16	0	44,83	4,38	0,05	7,86	38,36	3,76	0,05	6,14	25,61	2,50	0,03	3,19
290	19,88	10	48,91	3,81	0,05	6,15	42,56	3,19	0,04	4,59	29,55	1,92	0,02	2,00
430	31,40	-25	26,74	7,46	0,09	20,54	21,23	6,67	0,08	17,14	10,10	5,06	0,06	11,10
430	32,38	-15	31,74	6,75	0,08	17,12	26,21	5,95	0,07	13,96	15,05	4,34	0,05	8,43
430	32,89	-10	34,21	6,39	0,08	15,50	28,68	5,59	0,07	12,47	17,49	3,97	0,05	7,21
430	34,15	0	39,1	5,66	0,07	12,47	33,56	4,86	0,06	9,71	22,32	3,23	0,04	5,01
430	35,47	10	43,93	4,93	0,06	9,73	38,37	4,12	0,05	7,24	27,06	2,48	0,03	3,14

Technical data

AVS 200

			Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
Air flow	Pressure drop	Inlet air temp.	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
225	15,42	-25	44,79	5,27	0,06	10,97	37,40	4,71	0,06	9,19	22,47	3,58	0,04	6,01
225	15,97	-15	47,99	4,76	0,06	9,14	40,60	4,20	0,05	7,49	25,62	3,07	0,04	4,57
225	16,25	-10	49,57	4,50	0,06	8,28	42,17	3,94	0,05	6,69	27,16	2,81	0,03	3,91
225	16,83	0	52,67	3,99	0,05	6,67	45,26	3,43	0,04	5,22	30,16	2,28	0,03	2,73
225	17,44	10	55,70	3,48	0,04	5,21	48,27	2,91	0,04	3,90	33,02	1,75	0,02	1,71
455	40,29	-25	30,91	8,54	0,10	26,2	24,95	7,63	0,09	21,83	12,93	5,79	0,07	14,09
455	41,82	-15	35,48	7,71	0,09	21,79	29,51	6,80	0,08	17,75	17,45	4,96	0,06	10,69
455	42,60	-10	37,74	7,30	0,09	19,72	31,76	6,38	0,08	15,85	19,69	4,54	0,05	9,13
455	44,22	0	42,20	6,47	0,08	15,85	36,22	5,55	0,07	12,32	24,10	3,69	0,04	6,34
455	45,94	10	46,60	5,63	0,07	12,34	40,60	4,71	0,06	9,17	28,42	2,83	0,03	3,97
680	81,64	-25	23,16	10,99	0,13	41,47	18,02	9,81	0,12	34,46	7,63	7,44	0,09	22,09
680	84,28	-15	28,48	9,93	0,12	34,47	23,33	8,75	0,11	27,99	12,91	6,37	0,08	16,72
680	85,63	-10	31,12	9,39	0,12	31,17	25,96	8,21	0,10	24,97	15,53	5,83	0,07	14,27
680	88,44	0	36,35	8,32	0,10	25,01	31,17	7,14	0,09	19,37	20,72	4,74	0,06	9,88
680	91,44	10	41,51	7,24	0,09	19,45	36,33	6,05	0,07	14,39	25,82	3,64	0,04	6,17

Technical data

AVS 250

			Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
Air flow	Pressure drop	Inlet air temp.	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
360	10,92	-25	43,35	8,26	0,10	5,82	36,06	7,38	0,09	4,87	21,28	5,59	0,07	3,17
360	11,31	-15	46,35	7,46	0,09	4,85	39,38	6,57	0,08	3,97	24,53	4,78	0,06	2,40
360	11,51	-10	48,32	7,06	0,09	4,39	41,01	6,17	0,08	3,54	26,12	4,37	0,05	2,05
360	11,93	0	51,55	6,25	0,08	3,53	44,22	5,36	0,07	2,76	29,21	3,54	0,04	1,42
360	12,36	10	54,70	5,44	0,07	2,76	47,35	4,55	0,06	2,06	32,08	2,69	0,03	0,88
710	28,15	-25	30,12	13,13	0,16	13,43	24,21	11,72	0,14	11,19	12,25	8,87	0,11	7,19
710	29,21	-15	34,76	11,86	0,15	11,18	28,83	10,45	0,13	9,09	16,84	7,59	0,09	5,44
710	29,75	-10	37,05	11,22	0,14	10,11	31,12	9,81	0,12	8,12	19,10	6,94	0,08	4,65
710	30,87	0	41,58	9,94	0,12	8,12	35,64	8,52	0,10	6,30	23,56	5,63	0,07	3,21
710	32,06	10	46,04	8,65	0,11	6,32	40,09	7,22	0,09	4,69	27,91	4,30	0,05	1,99
1050	54,80	-25	22,70	16,80	0,21	21,03	17,57	14,99	0,18	17,46	7,21	11,34	0,14	11,15
1050	56,57	-15	28,06	15,18	0,19	17,48	22,92	13,37	0,16	14,18	12,53	9,70	0,12	8,43
1050	57,48	-10	30,72	14,36	0,18	15,81	25,57	12,65	0,15	12,65	15,16	8,87	0,11	7,19
1050	59,37	0	35,98	12,72	0,16	12,68	30,82	10,90	0,13	9,81	20,37	7,20	0,09	4,96
1050	61,39	10	41,18	11,06	0,14	9,86	36,01	9,23	0,11	7,28	25,49	5,49	0,07	3,07

Technical data

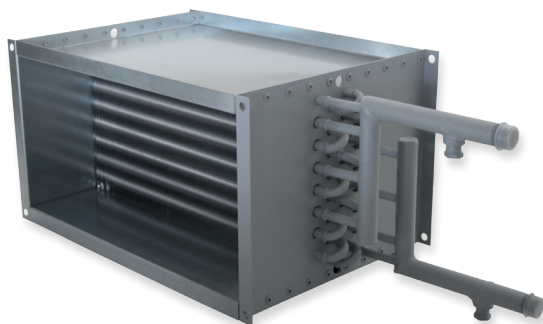
AVS 315

			Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
Air flow	Pressure drop	Inlet air temp.	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
560	10,69	-25	43,86	12,94	0,16	6,61	36,55	11,57	0,14	5,53	21,75	8,78	0,11	3,58
560	11,07	-15	47,16	11,69	0,14	5,50	39,84	10,31	0,13	4,50	24,98	7,52	0,09	7,52
560	11,26	-10	48,79	11,06	0,14	4,98	41,46	9,68	0,12	4,02	26,55	6,88	0,08	2,32
560	11,67	0	51,98	9,80	0,12	4,01	44,63	8,42	0,10	3,13	29,62	5,58	0,07	1,61
560	12,09	10	55,10	8,54	0,10	3,13	47,73	7,14	0,09	2,33	32,50	4,26	0,05	1,00
1120	28,05	-25	30,35	20,80	0,25	15,64	24,44	18,57	0,23	13,00	12,50	14,09	0,17	8,33
1120	29,10	-15	34,98	18,79	0,23	13,01	29,05	16,56	0,20	10,57	17,08	12,06	0,15	6,31
1120	29,64	-10	37,26	17,78	0,22	11,76	31,34	15,55	0,19	9,43	19,34	11,04	0,13	5,38
1120	30,76	0	41,79	15,76	0,19	9,45	35,85	13,52	0,16	7,32	23,80	8,97	0,11	3,72
1120	31,94	10	46,24	13,72	0,17	7,35	40,29	11,47	0,14	5,44	28,15	6,97	0,08	2,32
1680	55,96	-25	22,65	26,85	0,33	24,96	17,55	23,98	0,29	20,69	7,25	18,17	0,22	13,17
1680	57,78	-15	28,03	24,27	0,30	20,73	22,92	21,38	0,26	16,79	12,59	15,56	0,19	9,95
1680	58,70	-10	30,69	22,97	0,28	18,75	25,58	20,08	0,25	14,97	15,23	14,23	0,17	8,49
1680	60,64	0	35,97	20,35	0,25	15,03	30,85	17,44	0,21	11,60	20,46	11,57	0,14	5,85
1680	62,70	10	41,19	17,71	0,22	11,67	36,05	14,79	0,18	8,61	25,61	8,86	0,11	3,64

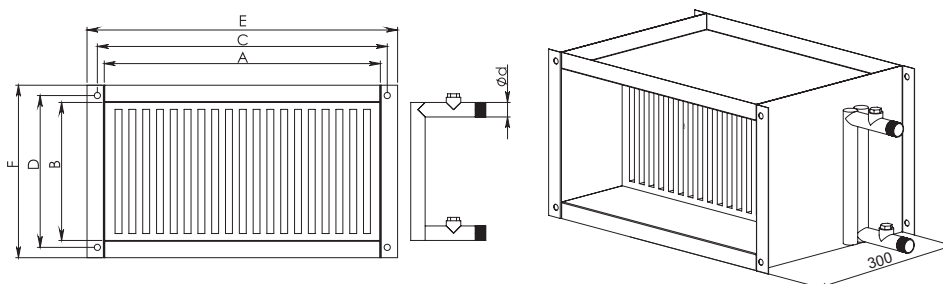
Technical data											AVS 400			
			Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
Air flow	Pressure drop	Inlet air temp.	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
900	12,10	-25	42,40	20,35	0,25	10,18	35,29	18,21	0,22	8,49	20,93	13,87	0,17	5,49
900	12,54	-15	45,87	18,40	0,23	8,47	38,75	16,24	0,20	6,91	24,34	11,89	0,14	4,17
900	12,76	-10	47,58	17,41	0,21	7,67	40,45	15,26	0,19	6,17	26,02	10,89	0,13	3,56
900	13,22	0	50,94	15,44	0,19	6,17	43,80	13,27	0,16	4,80	29,28	8,87	0,11	2,47
900	13,70	10	54,24	13,46	0,17	4,81	47,08	11,28	0,14	3,58	32,41	6,81	0,08	1,55
1800	32,10	-25	28,85	32,52	0,40	23,99	23,14	29,07	0,35	19,91	11,62	22,11	0,27	12,72
1800	33,32	-15	33,65	29,40	0,36	19,94	27,93	25,94	0,32	16,17	16,38	18,96	0,23	9,63
1800	33,94	-10	36,02	27,83	0,34	18,03	30,30	24,37	0,30	14,43	18,73	17,37	0,21	8,23
1800	35,22	0	40,72	24,68	0,30	14,47	34,98	21,20	0,26	11,20	23,36	14,16	0,17	5,70
1800	36,59	10	45,34	21,50	0,26	11,26	39,59	18,00	0,22	8,32	27,91	10,89	0,13	3,56
2700	66,16	-25	21,21	41,85	0,51	38,17	16,30	37,40	0,46	31,60	6,40	28,44	0,34	20,07
2700	68,33	-15	26,75	37,84	0,46	31,71	21,83	33,38	0,41	25,64	11,90	24,37	0,30	15,17
2700	69,44	-10	29,50	35,82	0,44	28,66	24,57	31,35	0,38	22,86	14,62	22,33	0,27	12,94
2700	71,76	0	34,94	31,76	0,39	22,97	30,00	27,27	0,33	17,71	20,02	18,19	0,22	8,94
2700	74,22	10	40,32	27,67	0,34	17,84	35,37	23,15	0,28	13,14	25,34	13,99	0,17	5,58

Technical data											AVS 500			
			Water temperature in/out 90°/70°C				Water temperature in/out 80°/60°C				Water temperature in/out 60°/40°C			
Air flow	Pressure drop	Inlet air temp.	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)	Outlet air temp.	Power	Water flow	Pressure drop (water)
m³/h	Pa	°C	°C	kW	l/s	kPa	°C	kW	l/s	kPa	°C	kW	l/s	kPa
1400	13,58	-25	40,57	30,80	0,38	8,34	33,62	27,54	0,34	6,94	19,58	20,94	0,25	4,48
1400	14,07	-15	44,21	27,84	0,34	6,93	37,25	24,56	0,30	5,65	23,16	17,93	0,22	3,39
1400	14,32	-10	46,00	26,34	0,32	6,27	39,04	23,06	0,28	5,04	24,91	16,42	0,20	2,90
1400	14,84	0	49,53	23,35	0,29	5,04	42,55	20,06	0,24	3,92	28,35	13,36	0,16	2,01
1400	15,39	10	52,99	20,35	0,25	3,93	45,99	17,03	0,21	2,92	31,63	10,23	0,12	1,25
2500	30,81	-25	29,24	45,49	0,56	17,00	23,47	40,65	0,50	14,11	11,82	30,87	0,37	9,00
2500	31,97	-15	33,99	41,12	0,50	14,13	28,21	36,26	0,44	11,45	16,52	26,45	0,32	6,81
2500	32,57	-10	36,34	38,92	0,48	12,77	30,55	34,05	0,42	10,21	18,84	24,22	0,29	5,81
2500	33,80	0	40,98	34,50	0,42	10,25	35,18	29,61	0,36	7,92	23,43	19,71	0,24	4,02
2500	35,11	10	45,56	30,05	0,37	7,97	39,75	25,13	0,31	5,89	27,91	15,13	0,18	2,50
3500	55,51	-25	22,86	56,20	0,69	25,07	17,76	50,20	0,61	20,75	7,46	38,11	0,46	13,17
3500	57,31	-15	28,23	50,80	0,62	20,82	23,12	44,78	0,55	16,84	12,79	32,64	0,40	9,95
3500	58,23	-10	30,89	48,08	0,59	18,82	25,77	42,05	0,51	15,01	15,43	29,89	0,36	8,49
3500	60,15	0	36,16	42,61	0,52	15,08	31,03	36,56	0,45	11,63	20,65	24,32	0,29	5,86
3500	62,19	10	41,37	37,10	0,45	11,70	36,23	31,02	0,38	8,62	25,79	18,66	0,23	3,64

Heating coil for rectangular ducting



Title	Article No.
SVS 400x200-2	ZESSVS003
SVS 400x200-4	ZESSVS004
SVS 500x250-2	ZESSVS005
SVS 500x250-4	ZESSVS006
SVS 500x300-2	ZESSVS007
SVS 500x300-4	ZESSVS008
SVS 600x300-2	ZESSVS009
SVS 600x300-4	ZESSVS010
SVS 600x350-2	ZESSVS011
SVS 600x350-4	ZESSVS012
SVS 700x400-2	ZESSVS013
SVS 700x400-4	ZESSVS014
SVS 800x500-2	ZESSVS015
SVS 800x500-4	ZESSVS016
SVS 1000x500-2	ZESSVS017
SVS 1000x500-4	ZESSVS018
SVS V 500x250-2	ZESSVS016
SVS V 600x300-2	ZESSVS017
SVS V 900x300-2	ZESSVS018



Used in ventilation systems. SVS heaters are made of copper tubes and aluminium plates. The housing is made of galvanized steel. Heating and cooling units may be selected according to available parameters, with the help of selection programme 'Heaters/coolers', which can be found in Internet page www.salda.it

Dimensions

Type	Heat output		ΔT air		V	Pressure drop	Flow rate	A	B	C	D	E	F	d
	KW (1)	KW (2)	T (1)	T(2)	m ³ /h	kPA	l/s	mm	mm	mm	mm	mm	mm	Ø
SVS 400x200-2	12,38	8,25	26,3	17,6	1300	9/4,5	0,14/0,09	400	200	420	220	470	270	¾
SVS 400x200-4	20,83	14,05	44,3	29,9	1300	6,7/3,5	0,24/0,16	400	200	420	220	470	270	¾
SVS 500x250-2	19,5	12,6	29	18,64	2000	5,8/2,6	0,24/0,15	500	250	520	270	540	290	¾
SVS 500x250-4	30	20,1	44,5	29,8	2000	7,7/3,9	0,37/0,24	500	250	520	270	540	290	¾
SVS 500x300-2	24,32	16,22	29,3	19,5	2300	8,5/4,2	0,28/0,18	500	300	520	320	570	370	¾
SVS 500x300-4	37,58	25,35	45,2	30,5	2300	6,3/3,1	0,42/0,28	500	300	520	320	570	370	¾
SVS 600x300-2	28,13	18,98	28,8	19,4	2700	7,1/3,5	0,33/0,21	600	300	620	320	670	370	¾
SVS 600x300-4	46,52	31,77	47,7	32,6	2700	9/4,5	0,55/0,37	600	300	620	320	670	370	¾
SVS 600x350-2	29,4	19,4	28,2	18,6	3100	9,5/4,7	0,36/0,24	600	350	620	370	640	390	¾
SVS 600x350-4	50,4	34,1	48,3	32,7	3100	9,6/4,9	0,62/0,41	600	350	620	370	640	390	¾
SVS 700x400-2	45,37	30,32	27,3	18,2	4600	8,7/4,3	0,51/0,33	700	400	720	420	770	437	1
SVS 700x400-4	77,61	53,38	46,7	32,1	4600	15,5/5,6	0,84/0,56	700	400	720	420	770	437	1
SVS 800x500-2	72,7	47,35	25,8	16,8	7800	9/4,2	0,84/0,54	800	500	820	520	870	570	1
SVS 800x500-4	118,65	78,15	42,1	27,7	7800	16,5/8,2	1,38/0,92	800	500	820	520	870	570	1
SVS 1000x500-2	91,95	61,07	26,8	17,8	9500	13,4/6,6	1,09/0,71	1000	500	1020	520	1070	570	1
SVS 1000x500-4	149,43	100,37	43,5	29,2	9500	20,3/10,1	1,66/1,11	1000	500	1020	520	1070	570	1

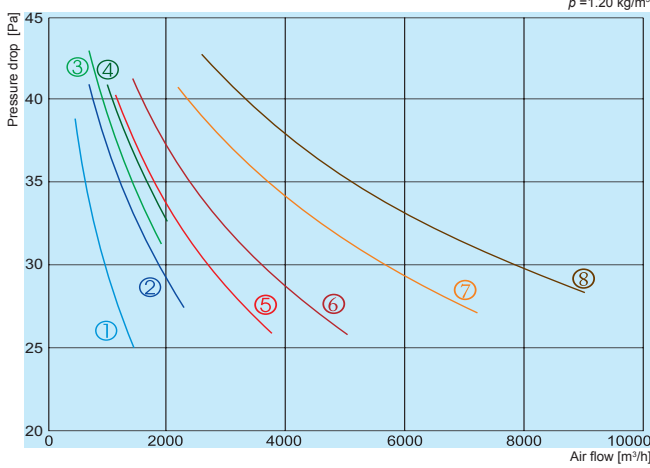
The above values apply for an intake air temperature of 0 °C and flow/return water temperatures ¹80/60 °C ²60/40 °C

Type	Heat output	ΔT air	V	Pressure drop	Flow rate	A	B	C	D	E	F	d
	KW	T	m ³ /h	kPA	l/s	mm	mm	mm	mm	mm	mm	Ø
SVS V 500x250-2	10,15	20	2500	10,6	0,12	500	250	520	270	540	290	1/2
SVS V 600x300-2	15,4	20,3	3500	9,3	0,17	600	300	620	320	670	370	1/2
SVS V 900x300-2	24,07	20,4	5500	13,8	0,27	900	300	920	320	970	370	1/2

The above values apply for an intake air temperature of 0 °C and flow/return water temperatures 55/35 °C

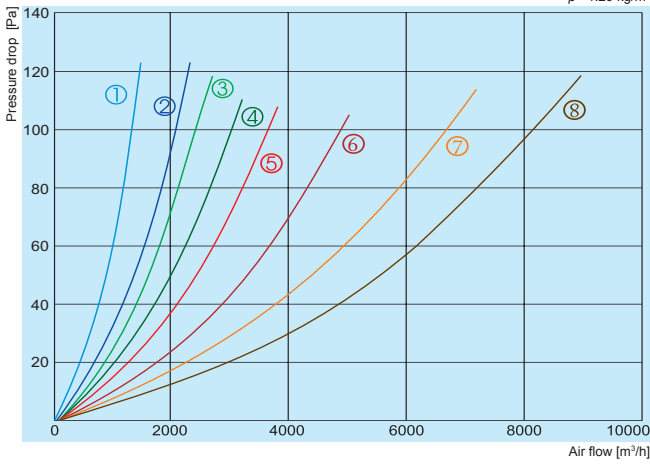
The company reserves the right to make changes of technical data without prior notice

Temperature increase at air flow volume, water 80 ° / 60 °C



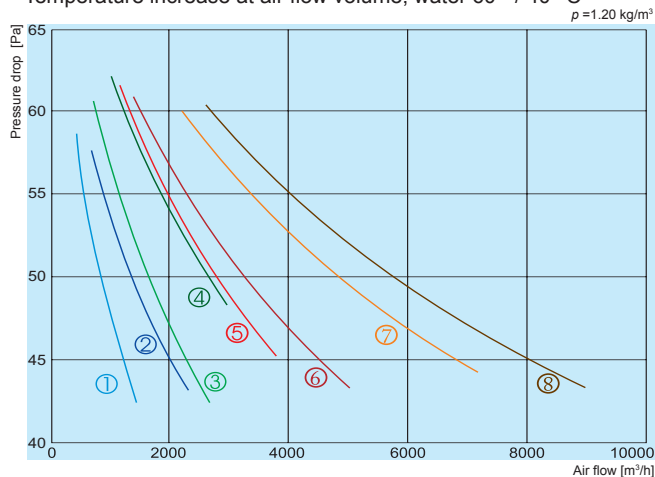
- ① SVS 400x200-2
- ② SVS 500x250-2
- ③ SVS 500x300-2
- ④ SVS 600x300-2
- ⑤ SVS 600x350-2
- ⑥ SVS 700x400-2
- ⑦ SVS 800x500-2
- ⑧ SVS 1000x500-2

Pressure drop at air flow volume



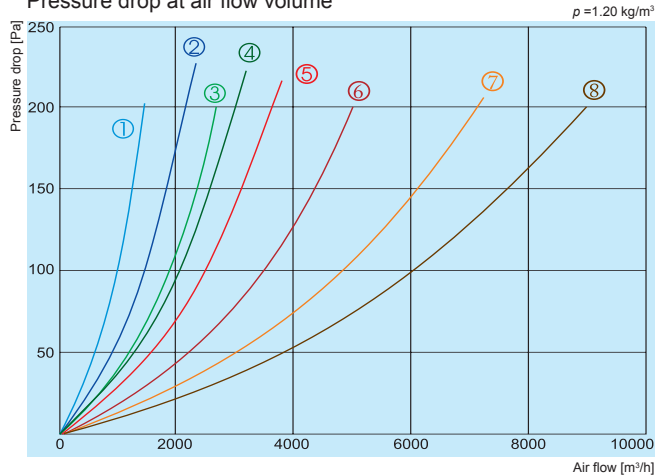
- ① SVS 400x200-2
- ② SVS 500x250-2
- ③ SVS 500x300-2
- ④ SVS 600x300-2
- ⑤ SVS 600x350-2
- ⑥ SVS 700x400-2
- ⑦ SVS 800x500-2
- ⑧ SVS 1000x500-2

Temperature increase at air flow volume, water 60 ° / 40 °C



- ① SVS 400x200-4
- ② SVS 500x250-4
- ③ SVS 500x300-4
- ④ SVS 600x300-4
- ⑤ SVS 600x350-4
- ⑥ SVS 700x400-4
- ⑦ SVS 800x500-4
- ⑧ SVS 1000x500-4

Pressure drop at air flow volume

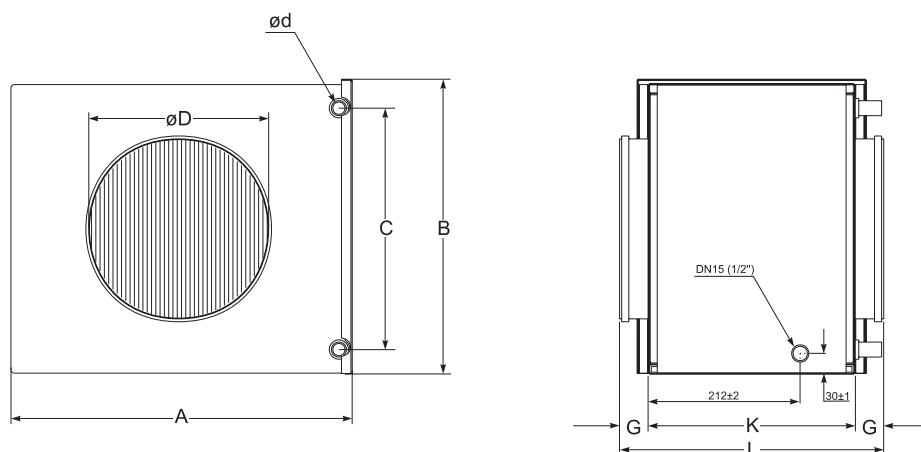


- ① SVS 400x200-4
- ② SVS 500x250-4
- ③ SVS 500x300-4
- ④ SVS 600x300-4
- ⑤ SVS 600x350-4
- ⑥ SVS 700x400-4
- ⑦ SVS 800x500-4
- ⑧ SVS 1000x500-4

Circular duct water coolers



Title	Article No.
AVA 100	GSIAVA001
AVA 125	GSIAVA002
AVA 160	GSIAVA003
AVA 200	GSIAVA004
AVA 250	GSIAVA005
AVA 315	GSIAVA006
AVA 400	GSIAVA007



Duct coolers are used in ventilation systems, which require a supply of cooled air. AVA coolers are made of copper tubes and aluminium plates. The housing is made of galvanized steel. Contains a system for condensate drainage.

Heating and cooling units may be selected according to available parameters, with the help of selection programme "Heaters/coolers", which can be found on web page www.salda.it

Type	Dimensions [mm]								
	$\varnothing D$	$\varnothing d$	Thread size*	C	B	A	K	G	L
AVA 100	100	10	1/2"	98	236	170	265	48	365
AVA 125	125	22	1/2"	188	330	257	286	48	388
AVA 160	160	22	1/2"	188	330	255	286	40	360
AVA 200	200	22	1/2"	263	396	328	286	40	365
AVA 250	250	22	1/2"	338	475	415	286	55	396
AVA 315	315	22	1/2"	413	555	480	286	55	396
AVA 400	400	22	1/2"	438	720	505	316	65	445

* Male thread size

Technical data

q - air flow
 Δp - pressure drop on air side
 t_{in} - inlet air temperature
 t_{out} - outlet air temperature

P - output
qr - water flow
 Δp_r - pressure drop on water side

With water temperature: 6/12°C and relative humidity: 50%

Type	q [m³/h]	Δp [Pa]	t_{in} [C°]	t_{out} [C°]	P [kW]	qr [l/s]	Δp_r [kPa]
AVA 100	60	9,99	25	15,23	0,24	0,01	0,51
		11,25	28	16,92	0,31	0,01	0,77
	110	23,19	25	17,09	0,33	0,01	0,84
		26,06	28	19,07	0,43	0,02	1,30
	165	43,01	25	18,28	0,40	0,02	1,16
		47,41	28	20,41	0,52	0,02	1,78
AVA 125	90	5,40	25	13,91	0,43	0,02	0,41
		6,07	28	15,34	0,56	0,02	0,58
	180	13,22	25	16,08	0,63	0,03	0,71
		14,87	28	17,90	0,82	0,03	1,11
	270	23,40	25	17,32	0,77	0,03	1,00
		26,52	28	19,32	1,00	0,04	1,56
AVA 160	140	9,44	25	15,29	0,55	0,02	0,57
		10,62	28	16,99	0,72	0,03	0,88
	290	25,95	25	17,53	0,80	0,03	1,06
		29,55	28	19,66	1,04	0,04	1,66
	400	42,85	25	18,50	0,93	0,04	1,36
		50,51	28	20,34	1,34	0,05	2,55
AVA 200	230	9,75	25	15,46	0,88	0,03	0,65
		10,97	28	17,18	1,15	0,05	1,02
	450	24,76	25	17,52	1,23	0,05	1,15
		28,66	28	19,57	1,66	0,07	1,91
	700	50,99	25	18,92	1,52	0,06	1,64
		61,37	28	20,28	2,43	0,10	3,72
AVA 250	360	7,91	25	15,00	1,47	0,06	1,15
		8,99	28	16,71	1,93	0,08	1,84
	700	20,44	25	16,69	2,32	0,09	2,53
		24,11	28	17,93	3,45	0,14	5,04
	1060	39,32	25	17,35	3,28	0,13	4,61
		45,92	28	19,07	4,63	0,18	8,44
AVA 315	570	8,85	25	15,34	2,24	0,09	1,89
		10,47	28	16,04	3,42	0,14	3,94
	1130	24,78	25	16,34	4,11	0,16	5,44
		28,71	28	17,91	5,73	0,23	9,78
	1700	47,81	25	17,25	5,51	0,22	9,13
		55,30	28	19,12	7,55	0,30	15,97
AVA 400	900	9,86	25	15,92	3,19	0,13	1,20
		11,83	28	16,66	4,99	0,20	2,62
	1800	28,69	25	16,85	5,99	0,24	3,60
		33,48	28	18,41	8,51	0,34	6,58
	2500	49,50	25	17,51	7,65	0,30	5,53
		57,57	28	19,36	10,64	0,42	9,91

Electromotoric actuators



SSB/SSC

Electromotoric actuator for modulating or 3-position control of valves V...P45... for water-side control of hot water and cooling water in heating, ventilation and air conditioning systems.

Title	Article No.
SSB 31 200 NM	PRGP004
SSB 61 200 NM	PRGP005
SSB 81 200 NM	PRGP006

Title	Article No.
SSC 31 200 NM	PRGP007
SSC 61 300 NM	PRGP008
SSC 81 200 NM	PRGP009



STA

Electromotoric actuator for 2-position control valves for water-side control of hot water and cooling water ventilation systems.

Title	Article No.
STA	PRGP001

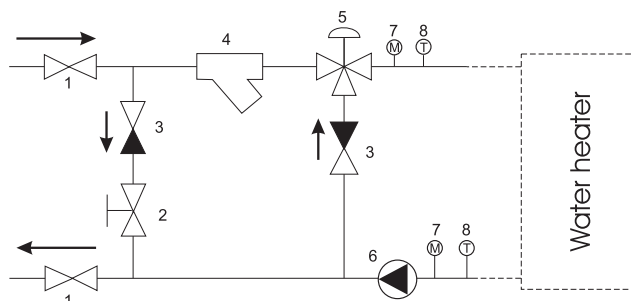
Technical data

Type	SSB31	SSB81	SSB61	SSC31	SSC81	SSC61
Power supply	AC230V (±15%)	AC24V (±20%)	AC24V (±20%) or DC24V (±25%)	AC230V (±15%)	AC24V (±20%)	AC24V (±20%)
Control signal	3-position		DC 0...10 V	3-position		DC 0...10 V
Input impedance for DC 0...10 V	-		> 100 kOhm	-		> 100 kOhm
Run time for 5.5 mm stroke at 50 Hz	150 s		75 s	150 s ± 2%		30 s ± 10%
Nominal stroke	5,5 mm					
Nominal force	200 N			300N		
Housing protection	IP40					
Operation temperature	+1...+50 °C			+5 ... +50°C		
Operation humidity	5...85 % r.h.			5 ... 95% r.h.		
Connecting cable, length	1.5 m				terminal connections	

Technical data

Type	STA
Power supply	AC 230 V, 50...60 Hz (±15 %)
Control signal	2-position control signal
Run time for 2,5 mm stroke	3 min
Nominal stroke	2,5 mm
Nominal force	105N
Housing protection	IP41(3)
Operation temperature	+5...+50°C
Operation humidity	5...85 % r.h.
Connecting cable, length	1,2 m

Mixing point



The main function of the mixing point is to control, jointly with the control system, the temperature of supplied water in water heaters. Used for water temperature control in heaters, air curtains, etc. The mixing point is used alongside other devices (shut-off damper, temperature sensor, control system) in order to protect the heaters from freezing.

Title	Article No.
RMG3-0,63-4	PRMG0001
RMG3-1,0-4	PRMG0002
RMG3-1,6-4	PRMG0003
RMG3-1,6-6	PRMG0010
RMG3-2,5-4	PRMG0004
RMG3-2,5-6	PRMG0011
RMG3-4,0-4	PRMG0005
RMG3-4,0-6	PRMG0012

Title	Article No.
RMG3-4,0-8	PRMG0013
RMG3-6,3-4	PRMG0006
RMG3-6,3-6	PRMG0014
RMG3-6,3-8	PRMG0007
RMG3-10,0-6	PRMG0009
RMG3-10,0-8	PRMG0016
RMG3-16,0	PRMG0017
RMG3-25,0	PRMG0008

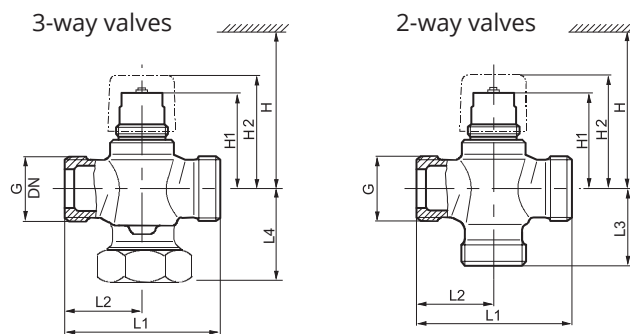
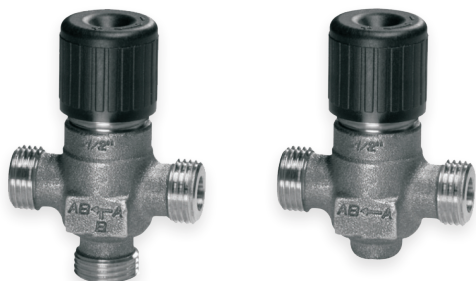
Components

- 1 - in, out valves
- 2 - pressure reducing valve
- 3 - backflow preventing valve
- 4 - filter
- 5 - 3-way valve
- 6 - rotary pump
- 7 - pressure gauge
- 8 - thermometer

Technical data

Type	Type of 3-way valve	Recommended actuator for water valve	Type of rotary pump	DN [mm]
RMG3-0,63-4E	VXP45.10-0,6	SSB	UPBAS 25-4	15
RMG3-1,0-4E	VXP45.10-1,0	SSB	UPBAS 25-4	15
RMG3-1,6-4E	VXP45.10-1,6	SSB	UPBAS 25-4	15
RMG3-1,6-6E	VXP45.10-1,6	SSB	UPBAS 25-6	15
RMG3-2,5-4E	VXP45.15-2,5	SSB	UPBAS 25-4	15
RMG3-2,5-6E	VXP45.15-2,5	SSB	UPBAS 25-6	15
RMG3-4,0-4E	VXP45.20-4,0	SSB	UPBAS 25-4	20
RMG3-4,0-6E	VXP45.20-4,0	SSB	UPBAS 25-6	20
RMG3-4,0-8E	VXP45.20-4,0	SSB	UPS 25-8	20
RMG3-6,3-4E	VXP45.25-6,3	SSB	UPBAS 25-6	20
RMG3-6,3-6E	VXP45. 25-6,3	SSB	UPBAS 25-6	20
RMG3-6,3-8E	VXP45.25-6,3	SSB	UPS 25-8	20
RMG3-10-6E	VXP45.25-10	SSC	UPBAS 25-6	25
RMG3-10-8E	VXP45.25-10	SSC	UPS 25-8	25

2 and 3 way valves



Used in ventilation systems to control the temperature of supplied water in water heaters. For fan coil units, small re-heaters and small re-coolers.

Title	Article No.	Title	Article No.
VXP45.10-0.63	PRMV019	VVP45.25-6.3	PRMV013
VXP45.10-1.0	PRMV020	VVP45.25-10	PRMV012
VXP45.10-1.6	PRMV021	VVP45.32-16	PRMV010
VXP45.15-2.5	PRMV018	VVP45.40-25	PRMV014
VXP45.25-4.0	PRMV023	VVP45.10-0.25	PRMV003
VXP45.25-6.3	PRMV025	VVP45.10-0.4	PRMV004
VXP45.25-10	PRMV024	VVP45.10-0.63	PRMV005
VXP45.32-16	PRMV026	VVP45.10-1	PRMV006
VXP45.40-25	PRMV027	VVP45.10-1.6	PRMV007
		VVP45.15-2.5	PRMV010
		VVP45.20-4	PRMV011

2-way valves

Type	DN	G [inch]	H [mm]	H1 [mm]	H2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Weight [kg]
VVP45.10-0.25...1.6	10	G½B	> 200	44,9	≈ 54	60	30	20	0,26
VVP45.15-2.5	15	G¾B		44,9	≈ 54	65	32,5	20	0,30
VVP45.20-4	20	G1B		48,9	≈ 58	80	40	24	0,42
VVP45.25-6.3	25	G1¼B	> 280	51	≈ 60	80	40	49	0,76
VVP45.25-10		G1½B		62,5	≈ 71	105	52,5	62,5	1,40
VVP45.32-16	32	G2B		69	≈ 78	105	52,5	63,5	1,95
VVP45.40-25	40	G2¼B		72	≈ 81	130	65	76	2,75

3-way valves

Type	DN	G [inch]	H [mm]	H1 [mm]	H2 [mm]	L1 [mm]	L2 [mm]	L4 [mm]	Weight [kg]
VXP45.10-0.25...1.6	10	G½B	> 200	44,9	≈ 54	60	30	30	0,28
VXP45.15-2.5	15	G¾B		44,9	≈ 54	65	32,5	32,5	0,34
VXP45.20-4	20	G1B		48,9	≈ 58	80	40	40	0,48
VXP45.25-6.3	25	G1¼B	> 280	51	≈ 60	80	40	40	0,64
VXP45.25-10	25	G1½B		62,5	≈ 81	105	52,5	52,5	1,20
VXP45.32-16	32	G2B		69	≈ 88	105	52,5	52,5	1,60
VXP45.40-25	40	G2¼B		72	≈ 91	130	65	65	2,30

VVP45... 2-way	VXP45... 3-way	DN	Connection	kvs A→AB [m³/h]	kvs 1) B→AB [m³/h]	Sv
VVP45.10-0.25	VXP45.10-0.25	10	G½B	0,25	0,18	> 50
VVP45.10-0.4	VXP45.10-0.4			0,4	0,28	
VVP45.10-0.63	VXP45.10-0.63			0,63	0,44	
VVP45.10-1	VXP45.10-1			1,0	0,70	
VVP45.10-1.6	VXP45.10-1.6			1,6	1,12	
VVP45.15-2.5	VXP45.15-2.5	15	G¾B	2,5	1,75	> 100
VVP45.20-4	VXP45.20-4	20	G1B	4,0	2,80	
VVP45.25-6.3	VXP45.25-6.3	25	G1¼B	6,3	4,40	
VVP45.25-10	VXP45.25-10		G1½B	10		
VVP45.32-16	VXP45.32-16	32	G2B	16		
VVP45.40-25	VXP45.40-25	40	G2¼B	25		

1) - Valid for 3-way version only

DN = Nominal size

k_{vs} = Nominal flow rate of cold water (5...30 °C) through the fully open valve (H_{100})

by a differential pressure of 100 kPa (1 bar)

S_v = Range ability k_{vs} / k_{vr}

k_{vr} = Smallest k_v value, at which the flow characteristic tolerances can still be maintained, by a differential pressure of 100 kPa (1 bar)

Functionl data

Medium temperature	1...110 °C, short-term max. 120 °C
Nominal stroke	5.5 mm
Permissible media	low temperature hot water, chilled water, water with anti-freeze recommendation: water treatment to VDI 2035

Pressure sensor



Title	Article No.
S-1141	ZAKKT0047

The SPS is a multi-range differential pressure transmitter with an analog/digital output and Modbus RTU communication. This calibrated pressure transmitter has eight switchable measuring ranges and is equipped with a state-of-the-art monolithic silicon pressure sensor designed for a wide range of applications. The piezo-resistive transducer is temperature and pressure compensated and has a high degree of reliability and accuracy. The sensor can measure air or other non-aggressive, non-combustible gases.

Technical data:

- › Analog (0-10 VDC/0-20 mA) or digital output (PWM, open collector)
- › Measuring range: 0 to 2000 Pa, automatically switched according to set point
- › Modbus RTU (RS485)
- › Operating temperature: 10 to 60°C (temperature compensated)
- › Accuracy: ± 3 % of final value (analog voltage output)
- › Long-term stability: ± 1 % per year
- › Response time: 0,5/1/2/5 sec

Power consumption:

- › 18-34 VDC supply: 20-10 mA (no load)
- › 15-24 VAC supply: 15-10 mA (no load)

CO₂ sensors



S-RCO2-F2

Title	Article No.
S-RCO2-F2	ZAKKT0048

S-KCO2

Title	Article No.
S-KCO2	ZAKKT0049

The self-calibrating microprocessor-controlled room and duct CO₂ sensors are used for the detection of the CO₂ content in air within a range of 0 to 10000 ppm CO₂. The measurement signals generated by the CO₂ transmitter are converted into standard signals of 0 – 10 V. The CO₂ content in the air is determined by a NDIR sensor (non-dispersive infrared technology sensor). The detection range of the CO₂ sensor is calibrated for standard applications such as monitoring of apartment rooms or meeting rooms. Room ventilation on an as-needed basis, improvement of well-being and customer benefit, increased comfort as well as a reduction of operating costs by saving energy.

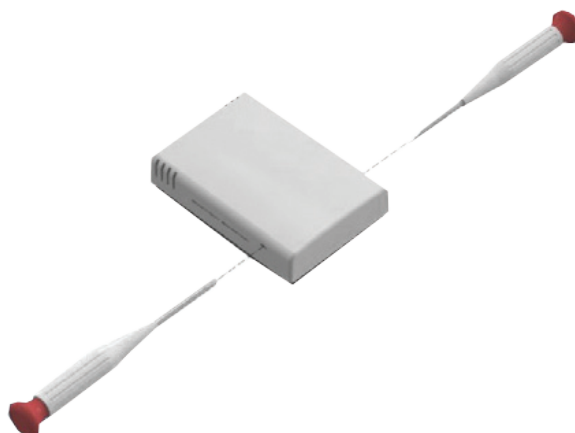
Technical data

Type	S-RCO2-F2	S-KCO2
Measuring range, CO ₂	Jumper selection: 450 to 1.850 ppm / 0 to 1.000 ppm / 0 to 1.500 ppm / 0 to 2.000 ppm	Jumper selection: 450 to 1.850 ppm / 0 to 1.000 ppm / 0 to 1.500 ppm / 0 to 2.000 ppm
Output, voltage	0-10 V	
Power supply	15-24 VAC ±10 %/18-34 VDC	
Ambient temperature	-10...+50 °C	0...+50 °C
Display	No	No
Dimensions	104.5x74.5x25.6	100x104x280
Protection class	IP30	IP20
Installation	Wall mounting or in wall flush box, 60mm	Duct

Humidity sensors



S-KFF-U



S-RFF-U-D-F2

Title	Article No.
S-KFF-U	ZAKKT0051

Title	Article No.
S-RFF-U-D-F2	ZAKKT0050

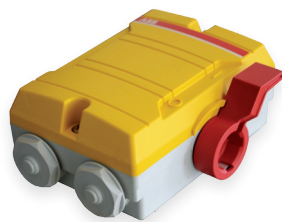
The calibrateable duct and room humidity sensors S-KFF-U, S-RFF-U-D-F2, accuracy class $\pm 3\%$ r.H., measures the relative humidity of air. The humidity transmitter converts the measurand humidity into standard signals of 0 – 10 V or 4...20 mA. This humidity sensor is applied in non-aggressive dust-free ambiances in refrigeration, air conditioning, ventilation and clean room technology. Relative humidity (in % r.H.) is the quotient of water vapour partial pressure divided by the saturation vapour pressure at the respective gas temperature. These measuring transducers are designed for exact detection of humidity. A digital long-term stable sensor is used as measuring element for humidity measurement. Fine adjustment by the user is possible.

Technical data

	S-KFF-U	S-RFF-U-D-F2
Type		
Measuring range, humidity	15-90 % RH	Jumper selection: 20-90 % RH/0-60 % RH/0-80 % RH/0-100 % RH
Output, voltage	0-10V	
Power supply	18-32 VDC $\pm 10\%$ / 15-24 VAC	
Electrical connection	0,14 - 1,5 mm ²	
Cable gland	M16	-
Dimensions	100x80x285mm	105x75x26
Protection class	IP54	IP 30
Installation	duct	Wall mounting or in wall flush box, 55mm

MAIN SWITCH

Main switch



Title	Article No.
ON_OFF SWITCH_BWS316 Y TPN	ZAKJN0003

Electrical equipment or machinery must be disconnected from the electrical supply during maintenance or repairs. In order to avoid unintentional or unauthorized start-ups, switch-disconnectors should be fitted to the supply circuits for machinery:

- › which can be started from different places.
- › which can be started automatically.
- › which cannot be seen from the place where it is started.

The enclosed disconnecter must not be used for starting and stopping or as an emergency stop device.

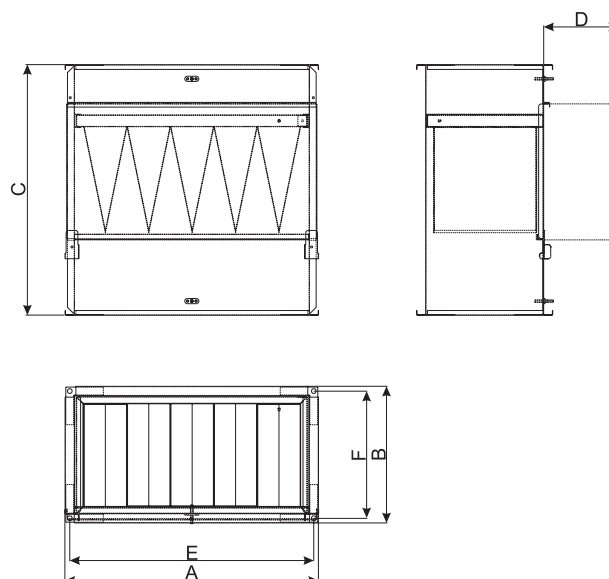
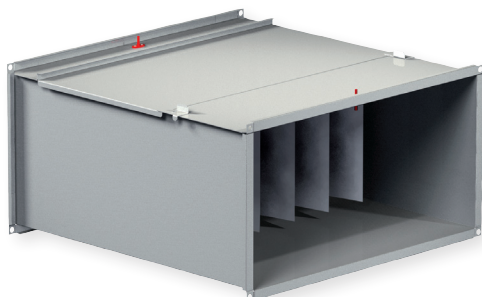
Technical data:			
Type	3-pole	2-pole	
	BWS316 Y TPN	BW225 DP	
Max motor power, kW	7,5		
Operating voltage, V	400	230	400
Rated current: Ie AC23A Ie AC22A	16 25	16 25	16 25
Enclosure	Robust thermoplastic (PBT)		
Cable entries	Metric threaded knock-outs. Membrane glands/sealing plugs (IP 54) are included. When IP 65 degree of protection is required compression glands must be used.		
Lockable	Yes		
Degree of protection	IP 65		
Neutral and PE terminal	Included		
Auxiliary contact	Included (1 NO)	Not included	
Enclosure	Light grey		
Handle and cover	Red, yellow		

ACCESSORIES FOR DUCT FANS



Duct fans are mostly used in low-to medium-pressure ducted systems with additional components such as heaters, filter boxes, dampers, etc.

Filter cassette



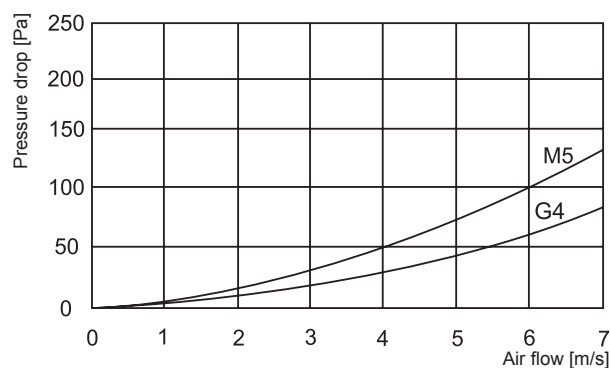
Title	Article No.
FDS 30-15/ G4	GFZFDS044
FDS 40-20/ G4	GFZFDS023
FDS 50-25/ G4	GFZFDS024
FDS 50-30/ G4	GFZFDS014
FDS 60-30/ G4	GFZFDS012
60-35/ G4	GFZFDS019
FDS 70-40/ G4	GFZFDS010
FDS 80-50/ G4	GFZFDS022
FDS 100-50/ G4	GFZFDS021
FDS 30-15/ M5	GFZFDS045
FDS 40-20/ M5	GFZFDS002
FDS 50-25/ M5	GFZFDS003
FDS 50-30/ M5	GFZFDS004

FDS 60-30/ M5	GFZFDS005
FDS 60-35/ M5	GFZFDS006
FDS 70-40/ M5	GFZFDS007
FDS 80-50/ M5	GFZFDS008
FDS 100-50/ M5	GFZFDS009
FDS 40-20/ F7	GFZFDS015
FDS 50-25/ F7	GFZFDS025
FDS 50-30/ F7	GFZFDS030
FDS 60-30/ F7	GFZFDS013
FDS 60-35/ F7	GFZFDS011
FDS 70-40/ F7	GFZFDS017
FDS 80-50/ F7	GFZFDS043
FDS 100-50/ F7	GFZFDS016

Filter boxes FDS are used to clean supplied air. They are mounted into a system of rectangular air ducts. Completed with exchangeable FMK-type G4-M5-F7 class pocket filters. In the filter box, a pocket filter is mounted in a horizontal position with pockets facing downwards. The casing is made of galvanized steel. Possibility to connect pressure switch for the filter pollution measurement.

Pressure drop

The diagram shows pressure drop in filter cassette type FDS which is equipped with a panel of standard filter G4 and M5 class.

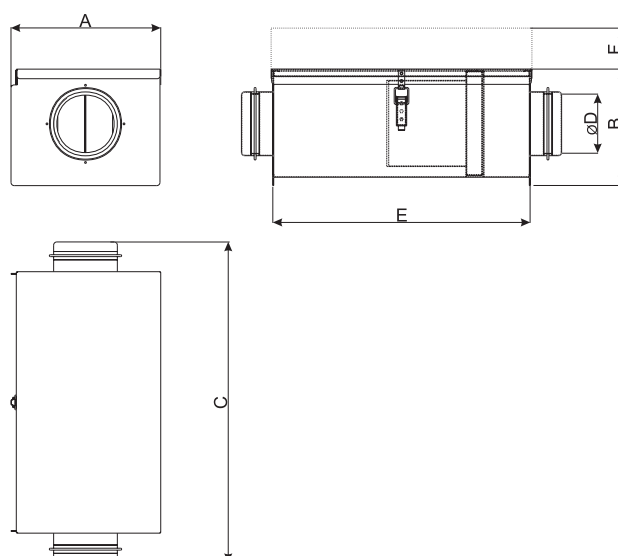


Dimensions

Type	W x H, [mm]	A, [mm]	B, [mm]	C, [mm]	D, [mm]	E, [mm]	F, [mm]
FDS 40-20	400x200	440	240	502	240	420	220
FDS 50-25	500x250	540	290	532	290	520	270
FDS 50-30	500x300	540	340	562	340	520	320
FDS 60-30	600x300	640	340	642	340	620	320
FDS 60-35	600x350	640	390	717	390	620	370
FDS 70-40	700x400	740	440	787	440	720	420
FDS 80-50	800x500	840	540	887	540	820	520
FDS 100-50	1000x500	1040	540	987	540	1020	520

FDS has to be installed into duct system in such a way that a certain space (according to dim. D) should be left for opening the door in case of changing a bag filter.

Filter cassette



Title	Article No.		
FDI 100/ G4	GFZFDI018	FDI 315/ M5	GFZFDI006
FDI 125/ G4	GFZFDI016	FDI 355/ M5	GFZFDI035
FDI 160/ G4	GFZFDI011	FDI 400/ M5	GFZFDI007
FDI 200/ G4	GFZFDI013	FDI 500/ M5	GFZFDI008
FDI 250/ G4	GFZFDI014	FDI 630/ M5	GFZFDI009
FDI 315/ G4	GFZFDI026	FDI 100/ F7	GFZFDI031
FDI 355/ G4	GFZFDI066	FDI 125/ F7	GFZFDI032
FDI 400/ G4	GFZFDI015	FDI 160/ F7	GFZFDI010
FDI 500/ G4	GFZFDI036	FDI 200/ F7	GFZFDI012
FDI 630/ G4	GFZFDI037	FDI 250/ F7	GFZFDI025
FDI 100/ M5	GFZFDI001	FDI 315/ F7	GFZFDI017
FDI 125/ M5	GFZFDI002	FDI 355/ F7	GFZFDI034
FDI 160/ M5	GFZFDI003	FDI 400/ F7	GFZFDI033
FDI 200/ M5	GFZFDI004	FDI 500/ F7	GFZFDI030
FDI 250/ M5	GFZFDI005	FDI 630/ F7	GFZFDI065

Filter boxes FDI are used to clean supplied air. They are mounted into a system of circular air ducts. Completed with exchangeable FMK-type G4-M5-F7 class pocket filters. The casing is made of galvanized steel with rubber sealed circular connection. Maintenance cover is attached to the casing using one hinge and is easily removable.

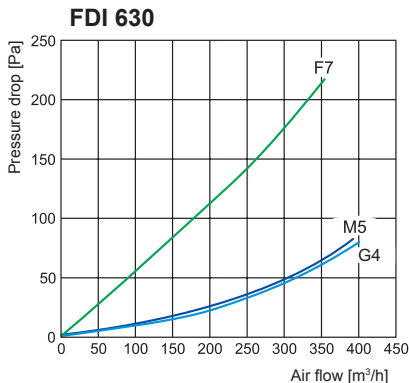
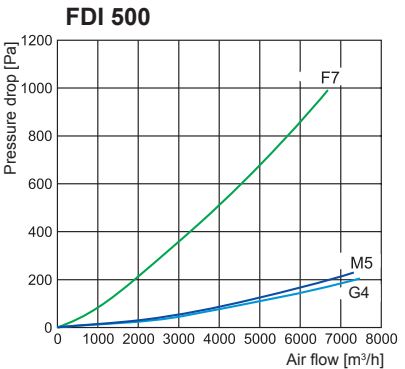
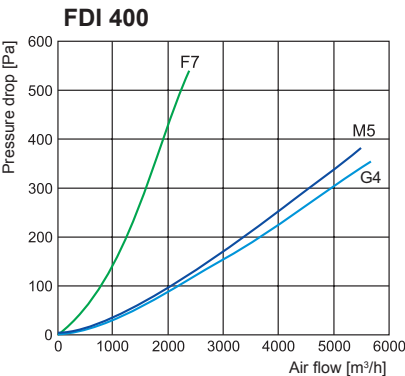
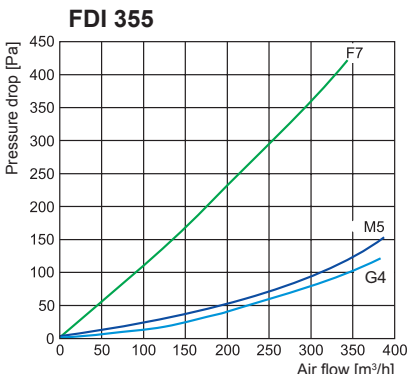
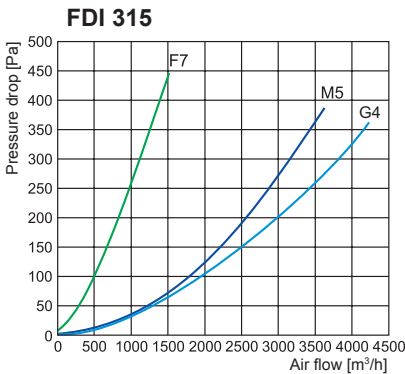
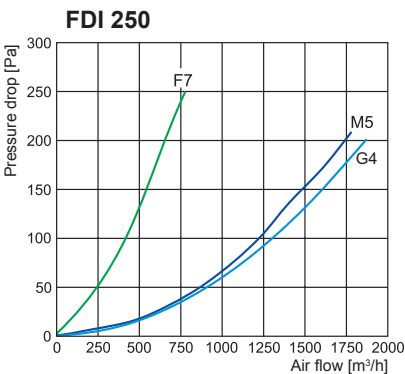
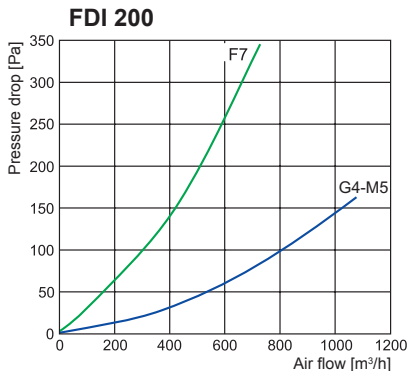
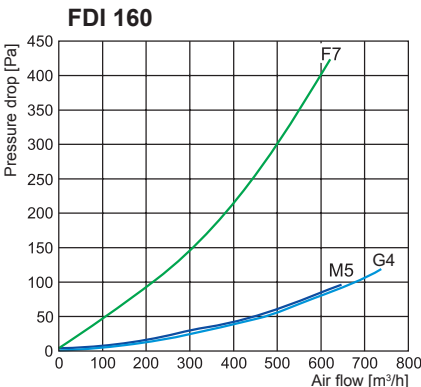
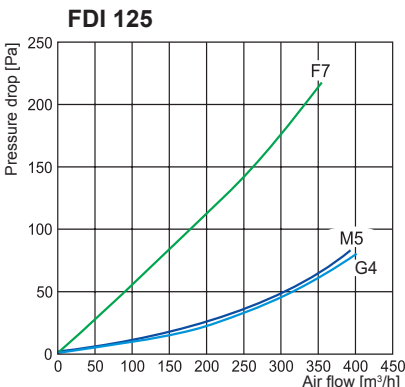
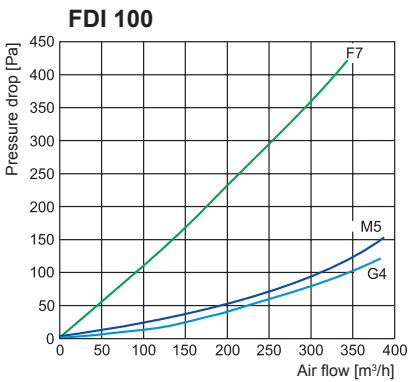
Dimensions

Type	A, [mm]	B, [mm]	C, [mm]	øD, [mm]	E, [mm]	F, [mm]
FDI 100	232	182	503	100	404	182
FDI 125	242	217	503	125	404	217
FDI 160	292	247	507	160	424	247
FDI 200	332	282	557	200	474	282
FDI 250	392	337	643	250	534	337
FDI 315	452	402	708	315	599	402
FDI 355	492	457	718	355	609	457
FDI 400	542	507	758	400	609	507
FDI 500	672	612	823	500	674	612
FDI 630	772	712	948	630	799	712

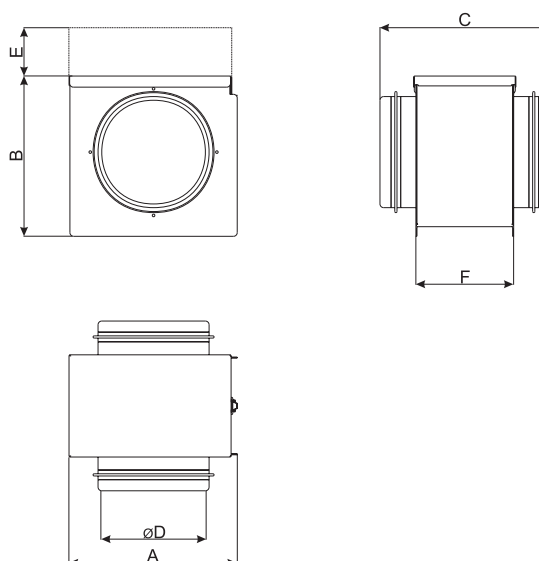
FDI has to be installed into duct system in such a way, that a certain space (according to dim. F) should be left for opening the door in case of changing a bag filter.

Pressure drop

The diagram shows pressure drop in filter cassette type FDI which is equipped with a standard bag filter of G4, M5 or F7 class.



Filter cassette

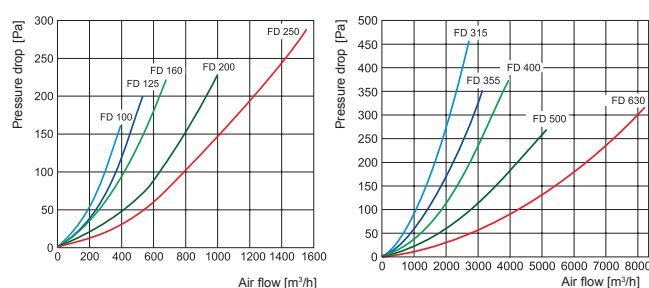


Title	Article No.
FD 100 -G4	GFZFD001
FD 125 -G4	GFZFD002
FD 150 -G4	GFZFD016
FD 160 -G4	GFZFD003
FD 200 -G4	GFZFD004
FD 250 -G4	GFZFD005
FD 315 -G4	GFZFD006
FD 355 -G4	GFZFD022
FD 400 -G4	GFZFD007
FD 500 -G4	GFZFD008
FD 630 -G4	GFZFD009

Filter boxes FD are used to clean supplied air. They are mounted into a system of circular air ducts. Completed with exchangeable FM-type G4 class panel filters. The casing is made of galvanized steel with rubber sealed circular connection. Maintenance cover is attached to the casing using one hinge and is easily removable.

Pressure drop

The diagram shows pressure drop in filter cassette type FD which is equipped with a panel of standard filter G4 class.

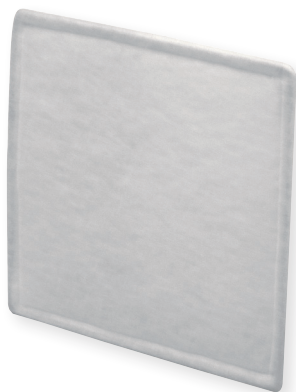


Dimensions

Type	A, [mm]	B, [mm]	C, [mm]	ØD, [mm]	E, [mm]	F, [mm]
FD 100	224	216	231	100	216	132
FD 125	224	216	231	125	216	132
FD 160	224	216	215	160	216	132
FD 200	268	256	215	200	256	132
FD 250	318	306	241	250	306	132
FD 315	366	356	241	315	356	132
FD 355	470	460	241	355	460	132
FD 400	470	460	281	400	460	132
FD 500	547	530	244	500	530	95
FD 630	690	670	281	630	670	132

FD has to be installed into duct system in such a way that a certain space (according to dim. E) should be left for opening the door in case of changing a bag filter.

Flat filter



Title	Article No.
FM 100-125-160/G4 (for FD filter box)	GFIFM001
FM 200/G4 (for FD filter box)	GFIFM004
FM 250/G4 (for FD filter box)	GFIFM005
FM 315/G4 (for FD filter box)	GFIFM006
FM 355/G4 (for FD filter box)	GFIFM061
FM 400/G4 (for FD filter box)	GFIFM007
FM 500/G4 (for FD filter box)	GFIFM008
FM 630/G4 (for FD filter box)	GFIFM030

G4 class flat filters FM for air cleaning. They are installed in filter boxes FD, that, in turn, are mounted into the system of round air ducts.

Dimensions			
Type	Filter class	Dimensions, [mm]	Application
FM 100	G4	227x200	FD
FM 125	G4	227x200	FD
FM 160	G4	227x200	FD
FM 200	G4	265x240	FD
FM 250	G4	310x290	FD
FM 315	G4	355x340	FD
FM 400	G4	484x444	FD
FM 500	G4	521x513	FD
FM 630	G4	670x684	FD

Pocket filter



Rectangular pocket filters used for air cleaning. Installed in filter boxes. Filtering material can be G4, M5 or F7 class. Frame is made of a galvanized steel, 25 mm width.

Dimensions

Type	Filter class	Pockets, [pcs.]	Application
FMK 100	G4	2	FDI
FMK 125	G4	2	FDI
FMK 160	G4	3	FDI
FMK 200	G4	4	FDI
FMK 250	G4	5	FDI
FMK 315	G4	6	FDI
FMK 400	G4	7	FDI
FMK 500	G4	7	FDI
FMK 630	G4	7	FDI
FMK 100	M5	2	FDI
FMK 125	M5	2	FDI
FMK 160	M5	3	FDI
FMK 200	M5	4	FDI
FMK 250	M5	5	FDI
FMK 315	M5	6	FDI
FMK 400	M5	7	FDI
FMK 500	M5	7	FDI
FMK 630	M5	7	FDI
FMK 100	F7	4	FDI
FMK 125	F7	4	FDI
FMK 160	F7	6	FDI
FMK 200	F7	8	FDI
FMK 250	F7	10	FDI
FMK 315	F7	12	FDI
FMK 400	F7	14	FDI
FMK 500	F7	14	FDI
FMK 630	F7	14	FDI

Dimensions

Type	Filter class	Pockets, [pcs.]	Application
FMK 40-20	G4	4	FDS
FMK 50-25	G4	5	FDS
FMK 50-30	G4	5	FDS
FMK 60-30	G4	6	FDS
FMK 60-35	G4	6	FDS
FMK 70-40	G4	7	FDS
FMK 80-50	G4	8	FDS
FMK 100-50	G4	10	FDS
FMK 40-20	M5	4	FDS
FMK 50-25	M5	5	FDS
FMK 50-30	M5	5	FDS
FMK 60-30	M5	6	FDS
FMK 60-35	M5	6	FDS
FMK 70-40	M5	7	FDS
FMK 80-50	M5	8	FDS
FMK 100-50	M5	10	FDS
FMK 40-20	F7	8	FDS
FMK 50-25	F7	10	FDS
FMK 50-30	F7	10	FDS
FMK 60-30	F7	12	FDS
FMK 60-35	F7	12	FDS
FMK 70-40	F7	14	FDS
FMK 80-50	F7	16	FDS
FMK 100-50	F7	20	FDS

Panel filter

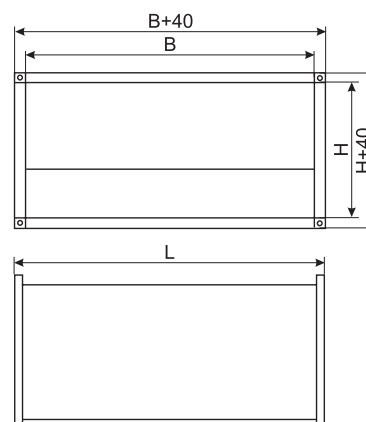
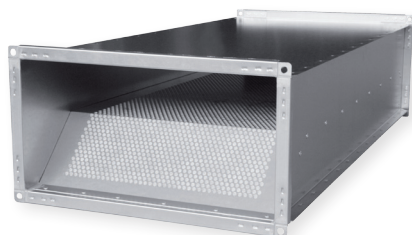


MPL panel filters are G4 or F7 filtration class.
New type principle of fluting and punctuate sticking of pleats ensures low resistance to air flow and a large capacity for dust. Filter material is made of a synthetic multilayer filter material.

Title	Article No.
MPL 217x208x25 G4	ZFEPF009
MPL 225X190X25 G4	ZFEPF107
MPL 250X168X28 G4	ZFEPF125
MPL 259X151X25 G4	ZFEPF100
MPL 270X187X25 G4	ZFEPF128
MPL 270X121X25 G4	ZFEPF129
MPL 278X151X25 G4	ZFEPF099
MPL 300X217X46 G4	ZFEPF012
MPL 315X151X25 G4	ZFEPF098
MPL 323X230X46 G4	ZFEPF014
MPL 339X195X25 G4	ZFEPF111
MPL 356X151X25 G4	ZFEPF097
MPL 360X217X46 G4	ZFEPF021
MPL 361X149X25 G4	ZFEPF103
MPL 374X195X25 G4	ZFEPF112
MPL 380X195X25 G4	ZFEPF114
MPL 400X151X25 G4	ZFEPF096
MPL 420X195X25 G4	ZFEPF115

Title	
MPL 440X180X25 G4	ZFEPF082
MPL 445X151X25 G4	ZFEPF095
MPL 450X170X46 G4	ZFEPF031
MPL 469X180X25 G4	ZFEPF118
MPL 469X195X25 G4	ZFEPF113
MPL 469X230X25 G4	ZFEPF123
MPL 490X240X25 G4	ZFEPF078
MPL 491X151X25 G4	ZFEPF094
MPL 500X155X25 G4	ZFEPF076
MPL 500X155X46 G4	ZFEPF074
MPL 530X195X25 G4	ZFEPF116
MPL 545X260X46 G4	ZFEPF034
MPL 552X542X46 G4	ZFEPF038
MPL 558X542X46 G4	ZFEPF040
MPL 647X615X90 G4	ZFEPF049
MPL 700X245X25 G4	ZFEPF122
MPL 700X270X25 G4	ZFEPF130
MPL 1000X444X90 G4	ZFEPF002

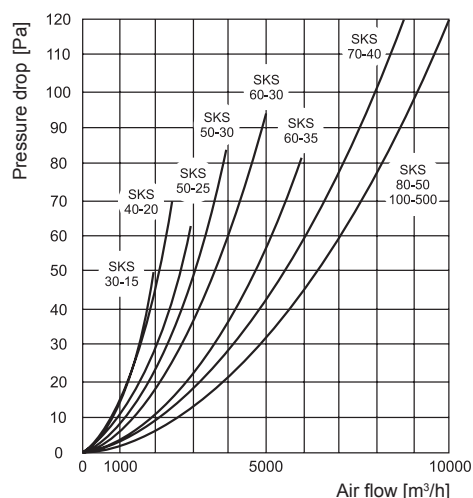
Rectangular duct silencer



Title	Article No.
SKS 30-15	GSOSKS001
SKS 40-20	GSOSKS002
SKS 50-25	GSOSKS003
SKS 50-30	GSOSKS004
SKS 60-30	GSOSKS005
SKS 60-35	GSOSKS006
SKS 70-40	GSOSKS007
SKS 80-50	GSOSKS008
SKS 100-50	GSOSKS009

Rectangular duct silencers SKS are designed for rectangular duct fans VKS/VKSA and can be mounted into a system of rectangular air ducts. SKS silencers have good sound attenuation characteristics. Several silencers can be mounted into a rectangular air duct system if there is requirement for bigger noise reduction. The casing is made of galvanized steel and inner casing is made of perforated sheet steel. Mineral wool is used for sound insulation.

Pressure drop



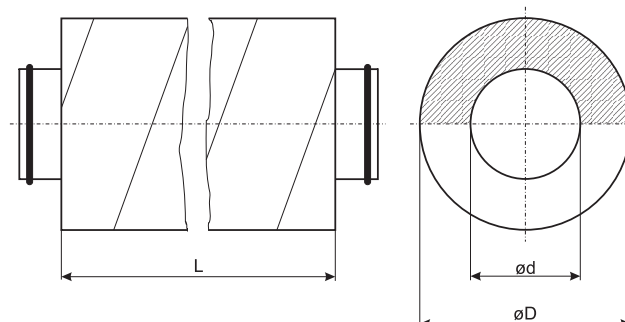
Dimensions

Type	B, [mm]	H, [mm]	L, [mm]	Weight, [kg]
SKS 30-15	300	150	950	10,0
SKS 40-20	400	200	950	13,0
SKS 50-25	500	250	950	17,0
SKS 50-30	500	300	950	19,0
SKS 60-30	600	300	950	21,0
SKS 60-35	600	350	950	23,0
SKS 70-40	700	400	950	27,0
SKS 80-50	800	500	950	29,0
SKS 100-50	1000	500	950	32,0

Attenuation values in frequency bands [dB]

Type	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
SKS 30-15	7	15	18	25	25	19	19
SKS 40-20	5	9	15	23	16	12	10
SKS 50-25	10	15	25	25	20	15	12
SKS 50-30	8	15	20	31	17	14	11
SKS 60-30	8	15	20	31	17	14	11
SKS 60-35	7	13	17	18	13	10	8
SKS 70-40	7	11	14	14	10	8	6
SKS 80-50	6	10	15	12	10	8	7
SKS 100-500	6	9	15	13	11	8	6

Circular duct silencers



Round duct silencers AKS/SAKS can be mounted into a system of round air ducts. These silencers have good sound attenuation characteristics. Several silencers can be mounted into a circular air duct system if there is requirement for bigger noise reduction. The housing is made of external SPIRO System duct and inner casing is made of perforated sheet steel. Mineral wool is used for sound insulation.

The insulating part in SAKS silencers is thicker than in AKS silencers.

Dimensions

Type	L, [mm]	ød, [mm]	øD, [mm]
AKS 100	300; 600; 900	100	200
AKS 125	300; 600; 900; 1000; 1200	125	200
AKS 160	600; 900; 1000; 1200	160	250
AKS 200	600; 900; 1000; 1200	200	315
AKS 250	600; 900; 1000; 1200	250	400
AKS 315	600; 900; 1000; 1200	315	500
AKS 400	900; 1000; 1200	400	630
AKS 500	900; 1000; 1200	500	630
AKS 630	900; 1000; 1200	630	800
AKS 800	900; 1000; 1200	800	1000
SAKS 100	300; 600; 900; 1000; 1200	100	315
SAKS 125	300; 600; 900; 1000; 1200	125	315
SAKS 160	300; 600; 900; 1000; 1200	160	400
SAKS 200	300; 600; 900; 1000; 1200	200	400
SAKS 250	300; 600; 900; 1000; 1200	250	500
SAKS 500	900; 1000; 1200	500	800

Weight

Type	Weight [kg]				
	300 mm	600 mm	900 mm	1000 mm	1200 mm
AKS 100	3,0	4,1	4,7	-	-
AKS 125	3,2	4,5	5,0	5,2	7,7
AKS 160	-	5,8	6,4	7,0	10,0
AKS 200	-	7,0	10,0	11,5	12,0
AKS 250	-	10,3	13,0	14,1	15,0
AKS 315	-	13,10	17,2	21,0	24,0
AKS 400	-	-	22,8	23,0	32,0
AKS 500	-	-	25,64	28,0	29,0
AKS 630	-	-	31,6	33,4	35,0
AKS 800	-	-	41,00	46,1	58,5
SAKS 100	2,1	4,2	6,3	7,0	8,4
SAKS 125	2,2	4,4	6,6	7,3	8,8
SAKS 160	3,3	5,6	9,2	10,2	12,2
SAKS 200	3,6	6,8	10,0	11,0	13,2
SAKS 250	4,1	8,2	12,4	13,8	16,6
SAKS 500	-	-	23,6	26,2	31,4

Attenuation values in frequency bands [dB]

Type	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
AKS 100/6	8	14	26	34	41	45	25
AKS 100/9	8	15	27	36	42	47	24
AKS 125/6	6	12	22	28	37	38	22
AKS 125/9	9	18	30	40	48	43	24
AKS 160/6	5	10	18	23	33	30	19
AKS 160/9	8	16	27	36	47	37	21
AKS 200/6	4	9	17	22	29	25	18
AKS 200/9	7	13	24	31	44	31	20
AKS 250/6	6	11	21	27	39	25	19
AKS 250/9	8	15	29	34	47	33	17
AKS 315/6	5	9	18	23	32	20	18
AKS 315/9	6	12	22	24	36	26	19
AKS 400/9	5	8	11	23	19	17	15
AKS 500/9	6	8	12	23	18	19	15
AKS 630/9	6	8	10	22	17	15	14
AKS 800/9	4	6	7	16	12	10	11

Actuator for dampers

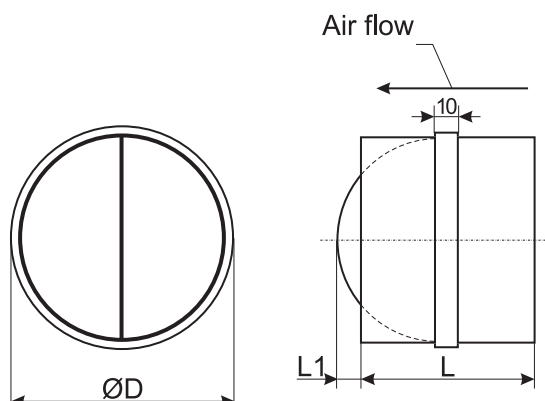


Title	Article No.
CM230-1-F-L	ZAKP0027
LF 230	ZAKP0039
TF 230	ZAKP0063
LM230A-TP	ZAKP0045
LM24A-TP	ZAKP0049
LM230A-SR-TP	ZAKP0043
NM24A-TP	ZAKP0058
NM230A-TP	ZAKP0055
NM24A-SR-TP	ZAKP0057
NF230A	ZAKP0051
NF24A	ZAKP0053
SF24A	ZAKP0072
SF230A	ZAKP0059
SF24A-SR	ZAKP0060
SM230A-TP	ZAKP0062
SM24A-TP	ZAKP0067
SM24A-SR-TP	ZAKP0068

Actuators for air dampers control in ventilation and air-conditioning systems.

Type	Area, m ²	Torque power, Nm	Power supply, VAC	Control signals
Actuator LM230A-TP	1	5	AC 100 ... 240 V, 50/60 Hz	2 point (ON/OFF)
Actuator LM24A-TP	1	5	AC 24 V, 50/60 HZ / DC 24 V	2/3 point
Actuator LM24A-SR-TP	1	5	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC
Actuator NM24A-TP	2	10	AC 24 V, 50/60 HZ / DC 24 V	2/3 point
Actuator NM230A-TP	2	10	AC 100 ... 240 V, 50/60 Hz	2 point (ON/OFF)
Actuator NM24A-SR-TP	1	10	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC
Actuator NF230A	2	10	AC 100 ... 240 V, 50/60 Hz	2 point (ON/OFF) Spring return
Actuator NF24A	2	10	AC 24 V, 50/60 HZ / DC 24 V	2 point (ON/OFF)
Actuator SF24A	4	20	AC 24 V, 50/60 HZ / DC 24 V	2 point (ON/OFF) Spring return
Actuator SF230A	4	20	AC 230 V, 50/60 Hz	2 point (ON/OFF) Spring return
Actuator SF24A-SR	4	20	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC Spring return
Actuator SM230A-TP	4	20	AC 100 ... 240 V, 50/60 Hz	2/3 point (ON/OFF)
Actuator SM24A-TP	4	20	AC 24 V, 50/60 HZ / DC 24 V	2/3 point
Actuator SM24A-SR-TP	4	20	AC 24 V, 50/60 HZ / DC 24 V	Modulating 0-10VDC
Actuator CM230-1-F-L	0,4	2	AC 100 ... 240 V, 50/60 Hz	3 point (ON/OFF)
Actuator LF230	0,8	4	AC 230 V, 50/60 Hz	2/3 point Spring return
Actuator TF230	0,5	2,5	AC 230 V, 50/60 Hz	On/OFF

Back draft shutter



Title	Article No.
RSK 100	GSKRSK001
RSK 125	GSKRSK002
RSK 150	GSKRSK008
RSK 160	GSKRSK003
RSK 200	GSKRSK004
RSK 250	GSKRSK005
RSK 315	GSKRSK006
RSK 355	GSKRSK009
RSK 400	GSKRSK007
RSK 450	GSKRSK011
RSK 500	GSKRSK012

Back draft dampers RSK are used in circular ducting. They allow circulation of air in one direction only. They are mounted into a system of round air ducts.

The damper casing is made of galvanized steel. Blades are made of aluminium, they are spring-loaded. Shutter RSK has to be installed as it is shown in the picture: shaft stands vertically rubber ring is fitted inside.

Dimensions

Type	ØD, [mm]	L, [mm]	L1, [mm]	Weight
RSK 100	100	88	26	0,13 kg
RSK 125	125	88	19	0,17 kg
RSK 150	150	88	31	0,22 kg
RSK 160	160	88	36	0,24 kg
RSK 200	200	88	56	0,29 kg
RSK 250	250	128	61	0,68 kg
RSK 315	315	128	94	0,81 kg
RSK 400	400	198	94	1,68 kg

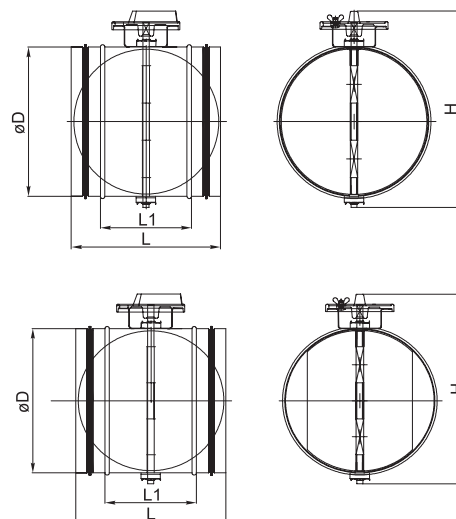
Shut-off dampers



SK



SKR



Title	Article No.
SK 100	GSKSK001
SK 125	GSKSK002
SK 160	GSKSK003
SK 200	GSKSK004
SK 250	GSKSK005
SK 315	GSKSK006
SK 355	GSKSK011
SK 400	GSKSK007
SK 450	GSKSK008
SK 500	GSKSK009
SK 630	GSKSK010

Title	Article No.
SKR 100	GSKSKR001
SKR 125	GSKSKR002
SKR 160	GSKSKR003
SKR 200	GSKSKR004
SKR 250	GSKSKR005
SKR 315	GSKSKR006
SKR 355	GSKSKR011
SKR 400	GSKSKR007
SKR 450	GSKSKR008
SKR 500	GSKSKR009
SKR 630	GSKSKR010

Shut-off dampers SK/ SKR are used for shutting off and controlling airflow. They are easily installed in a circular air duct system. Can be mounted in any position. The casing is made of galvanized steel.

Have a rotating, cut-off blade. The blade can be continually adjusted in a 0-90° angle by the handle (a handle is attached using one screw) on the top of damper.

The blade angle of SK/ SKR damper can be read from an embossed scale on the edge of the plate.

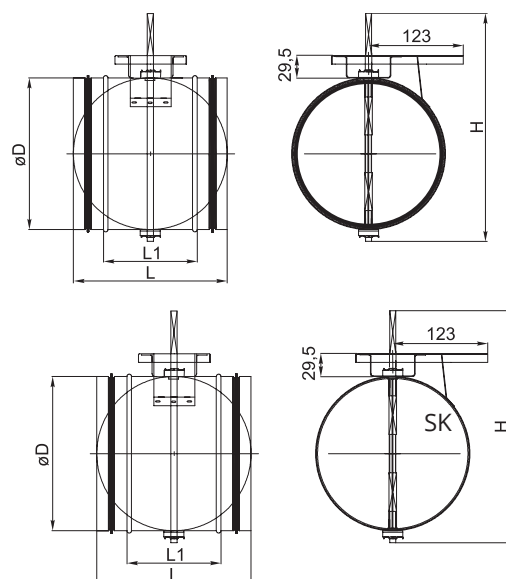
Dimensions

Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SK 100	100	100	200	165
SK 125	125	100	200	190
SK 160	160	100	200	225
SK 200	200	100	200	265
SK 250	250	100	200	315
SK 315	315	140	240	380
SK 355	355	140	240	420
SK 400	400	140	240	470
SK 450	450	140	240	515
SK 500	500	140	240	565
SK 630	630	140	240	695

Dimensions

Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SKR 100	100	100	200	165
SKR 125	125	100	200	190
SKR 160	160	100	200	225
SKR 200	200	100	200	265
SKR 250	250	100	200	315
SKR 315	315	140	240	380
SKR 355	355	140	240	420
SKR 400	400	140	240	470
SKR 450	450	140	240	515
SKR 500	500	140	240	565
SKR 630	630	140	240	695

Shut-off dampers



Title	Article No.
SKG 100	GSKSKG001
SKG 125	GSKSKG002
SKG 160	GSKSKG003
SKG 200	GSKSKG004
SKG 250	GSKSKG005
SKG 315	GSKSKG006
SKG 355	GSKSKG007
SKG 400	GSKSKG008
SKG 450	GSKSKG009
SKG 500	GSKSKG010
SKG 630	GSKSKG011

Title	Article No.
SKM 100	GSKSKM001
SKM 125	GSKSKM002
SKM 160	GSKSKM003
SKM 200	GSKSKM004
SKM 250	GSKSKM005
SKM 315	GSKSKM006
SKM 355	GSKSKM022
SKM 400	GSKSKM007
SKM 450	GSKSKM008
SKM 500	GSKSKM009
SKM 630	GSKSKM010

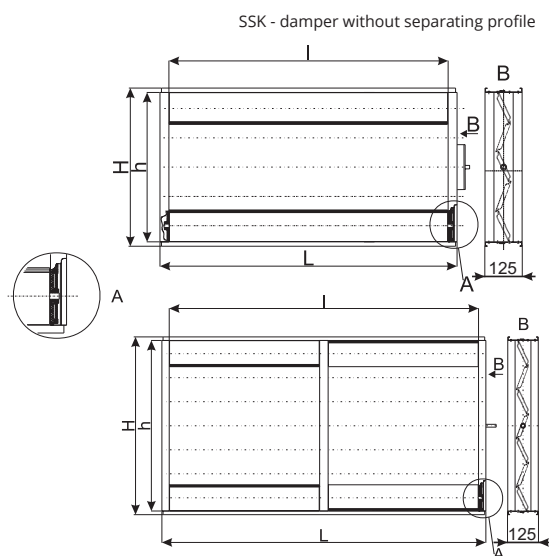
Shut-off dampers SKG/SKM are used for shutting off and controlling airflow. They are easily installed in a circular air duct system. Can be mounted in any position. The casing is made of galvanized steel. Have a rotating, cut-off blade. The blade can be continually adjusted in a 0-90° angle by a motor on the top of damper. The blade of SKG dampers has rubber seal that tightens the inside of the damper when it's in closed position. SKG/SKM shut-off damper is controlled by a motor which is supplied separately.

Dimensions

Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SKG 100	100	100	200	165
SKG 125	125	100	200	190
SKG 160	160	100	200	225
SKG 200	200	100	200	265
SKG 250	250	100	200	315
SKG 315	315	140	240	380
SKG 355	355	140	240	420
SKG 400	400	140	240	470
SKG 450	450	140	240	515
SKG 500	500	140	240	565
SKG 630	630	140	240	695

Type	øD, [mm]	L1, [mm]	L, [mm]	H, [mm]
SKM 100	100	100	200	230
SKM 125	125	100	200	255
SKM 160	160	100	200	290
SKM 200	200	100	200	330
SKM 250	250	100	200	380
SKM 315	315	140	240	445
SKM 355	355	140	240	485
SKM 400	400	140	240	535
SKM 450	450	140	240	580
SKM 500	500	140	240	630
SKM 630	630	140	240	760

Dampers for rectangular ducts



SSK dampers are used for closing airflow. The dampers are made of aluminium profile with sealing rubber gaskets. Palm driving gear is made of glass-fibre material. Silicon sealing strip provides proper tightness. Dampers are suitable to be used in the temperature ranges from -40° to $+80^{\circ}\text{C}$. The flange system of these dampers is the same as in the rectangular air ducts and fans, therefore mounting operations are simple.

Dimensions

Size range of manufactured SSK dampers varies from 100mm ($H_{\min}$ -100mm, $L_{\min}$ -100mm) to 3000mm ($H_{\max}$ -3000mm, $L_{\max}$ -3000mm).

If dimension L bigger than 1000mm, dampers SSK are produced with separating plate.

Calculation of required size:

$$H = H_n + 40$$

$$L = L_n + 40$$

$$h = H - 30$$

$$l = L - 60$$

H - height of damper

L - width of damper

h - inner height of damper

l - inner width of damper

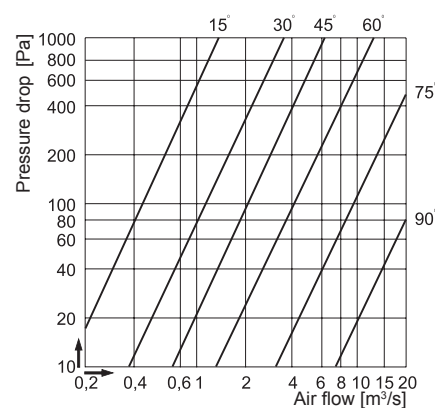
H_n - nominal height of damper

L_n - nominal width of damper

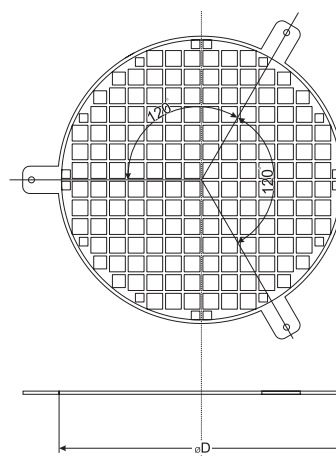
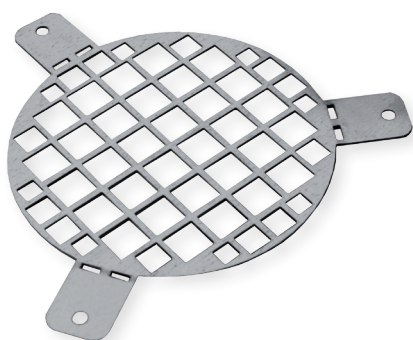
Specification

Specification	SSK L-H
Damper for rectangular ducts	SSK
Width [mm]	L
Height [mm]	H

Pressure drop



Guard grilles



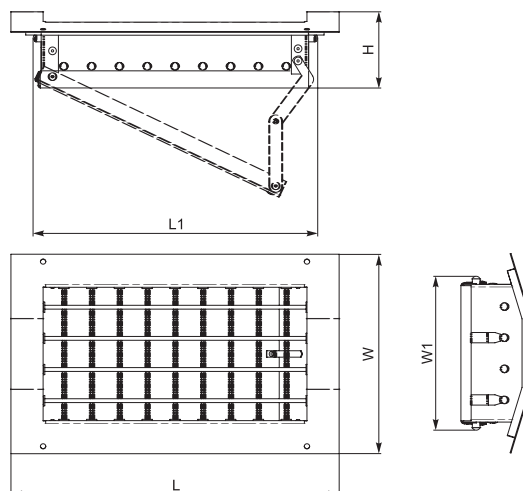
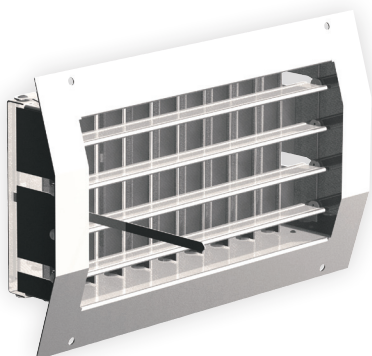
Title	Article No.
AGO 100	GGRAGO001
AGO 125	GGRAGO002
AGO 160	GGRAGO003
AGO 200	GGRAGO004
AGO 250	GGRAGO005
AGO 315	GGRAGO006
AGO 355	GGRAGO014
AGO 400	GGRAGO007
AGO 450	GGRAGO015
AGO 500	GGRAGO008
AGO 560	GGRAGO017
AGO 630	GGRAGO009
AGO 710	GGRAGO014
AGO 800	GGRAGO010
AGO 900	GGRAGO011
AGO 1000	GGRAGO012

Used for the protection of round duct fans and ventilation systems from extraneous objects. Made of galvanized steel. Attached using screws.

Dimensions

Type	ØD, [mm]
AGO 100	100
AGO 125	125
AGO 160	160
AGO 200	200
AGO 250	250
AGO 315	315
AGO 355	355
AGO 400	400
AGO 450	450
AGO 500	500
AGO 560	560
AGO 630	630
AGO 710	710
AGO 800	800
AGO 900	900
AGO 1000	1000

Duct grilles



Title	Article No.
GAO 225-85	GGRGAO0032
GAO 225-125	GGRGAO0291
GAO 225-150	GGRGAO0290
GAO 325-85	GGRGAO0017
GAO 325-125	GGRGAO0001
GAO 325-150	GGRGAO0053
GAO 325-225	GGRGAO0033
GAO 425-85	GGRGAO0003
GAO 425-125	GGRGAO0002
GAO 425-150	GGRGAO0005
GAO 425-225	GGRGAO0008
GAO 525-85	GGRGAO0006
GAO 525-125	GGRGAO0030
GAO 525-150	GGRGAO0031
GAO 525-225	GGRGAO0007

GAO 625-85	GGRGAO0018
GAO 625-125	GGRGAO0019
GAO 625-150	GGRGAO0004
GAO 625-225	GGRGAO0027
GAO 825-85	GGRGAO0022
GAO 825-125	GGRGAO0009
GAO 825-150	GGRGAO0020
GAO 825-225	GGRGAO0011
GAO 1025-85	GGRGAO0024
GAO 1025-125	GGRGAO0029
GAO 1025-150	GGRGAO0025
GAO 1025-225	GGRGAO0028
GAO 1225-85	GGRGAO0023
GAO 1225-125	GGRGAO0010
GAO 1225-150	GGRGAO0026
GAO 1225-225	GGRGAO0021

GAO is a ventilation grille with horizontal and vertical adjustable vanes for direct mounting on circular ducts. It is used for large locations where the circular duct is visible. Fits round ducts $\varnothing$ 160-1200mm. Made of sheet, zinc coated steel. The front is shaped to fit the spiro duct dimension. Air direction can be changed with the adjustable blades.

Possible variant painted RAL7040 (GAOd).

Dimensions

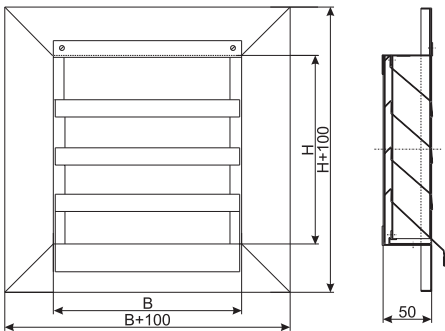
Type	L, [mm]	L1, [mm]	W, [mm]	W1, [mm]	H, [mm]	Duct [mm]
GAO 225x85	245	222	105	72	42	160-250
GAO 325x85	345	322	105	72	42	160-250
GAO 425x85	445	422	105	73	42	160-250
GAO 525x85	545	522	105	72	42	160-250
GAO 625x85	645	622	105	72	42	160-250
GAO 825x85	845	822	105	72	42	160-250
GAO 1025x85	1045	1022	105	72	42	160-250
GAO 1225x85	1245	1222	105	72	42	160-250

GAO 225x125	255	221	155	120	60	315-900
GAO 325x 125	355	321	155	120	60	315-900
GAO 425x125	455	421	155	120	60	315-900
GAO 525x125	555	521	155	120	60	315-900
GAO 625x125	655	621	155	120	60	315-900
GAO 825x125	855	822	155	120	60	315-900
GAO 1025x125	1055	1022	155	120	60	315-900
GAO 1225x125	1250	1222	150	120	60	315-900

Type	L, [mm]	L1, [mm]	W, [mm]	W1, [mm]	H, [mm]	Duct [mm]
GAO 225x150	255	221	180	145	60	400-1000
GAO 325x150	355	321	180	145	60	400-1000
GAO 425x150	455	421	180	145	60	400-1000
GAO 525x150	555	521	180	145	60	400-1000
GAO 625x150	655	621	180	145	60	400-1000
GAO 825x150	855	821	180	145	60	400-1000
GAO 1025x150	1055	1024	180	145	60	400-1000
GAO 1225x150	1255	1222	180	145	60	400-1000

GAO 325x 225	355	321	255	220	65	630-1400
GAO 425x225	455	421	255	220	65	630-1400
GAO 525x225	555	521	255	220	65	630-1400
GAO 625x225	655	621	255	220	65	630-1400
GAO 825x225	855	822	255	220	65	630-1400
GAO 1025x225	1055	1022	255	220	65	630-1400
GAO 1225x225	1250	1222	255	220	65	630-1400

Outdoor grilles



Outdoor grilles LGd can be mounted on the external side of walls. They are used for the air supply or extract. The grill is made of galvanized steel and has slanting blades, preventing water from getting inside air ducts. A mesh-work is installed which protects the air duct system from various external objects. The grill is painted RAL 7040. Possible variants: disjointable (LGAd), not painted (LG).

ACCESSORIES

Dimensions

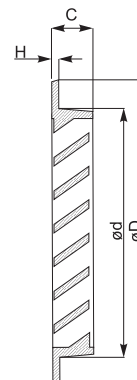
Size range of manufactured LGd (LGAd) grilles varies from 100mm (H_{min} -100mm, B_{min} -200mm) to 2000mm (H_{max} -2000mm, B_{max} -1400mm).

Calculation of required size:
 $H = H_n - 5$
 $B = B_n - 5$

- H - height
- B - width
- H_n - nominal height
- B_n - nominal width

Specification	LGd, LGAd B H
Outdoor grilles painted (RAL 7040)	LGd
Dismountable outdoor grilles painted (RAL 7040)	LGAd
Width (mm)	B
Height (mm)	H
Approx weight 1m²	13 kg

Outdoor aluminium grilles



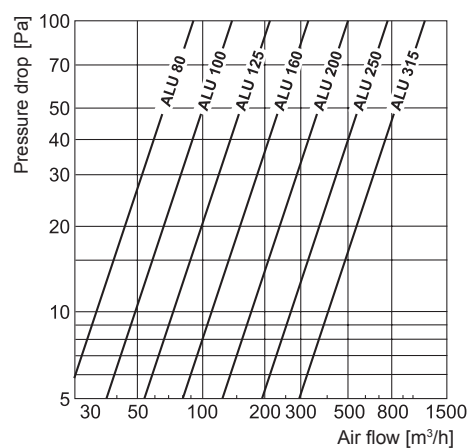
Title	Article No.
ALU 80	GGRALU007
ALU 100	GGRALU001
ALU 125	GGRALU002
ALU 160	GGRALU003
ALU 200	GGRALU004
ALU 250	GGRALU005
ALU 315	GGRALU006

Outdoor ventilation grille is used for covering inlet and exhaust ventilation openings.
ALU is made of cast aluminium and contains a net, protecting against insects and debris.

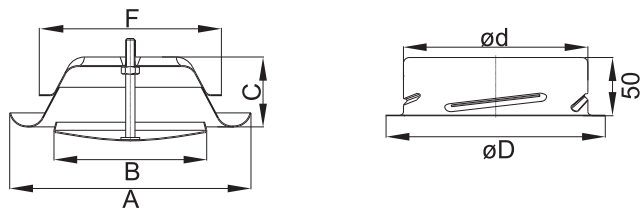
Dimensions

Type	ØD, [mm]	ød, [mm]	C, [mm]	H, [mm]	Weight [kg]
ALU 80	101	79	14	2,5	0,13
ALU 100	131	99	19	2,5	0,10
ALU 125	153	124	20	3,0	0,18
ALU 160	189	159	19	4,0	0,30
ALU 200	233	199	20	5,0	0,50
ALU 250	279	249	22	6,0	1,00
ALU 315	353	314	21	6,5	1,50

Pressure drop



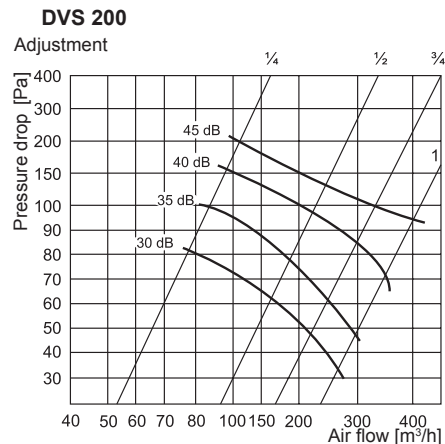
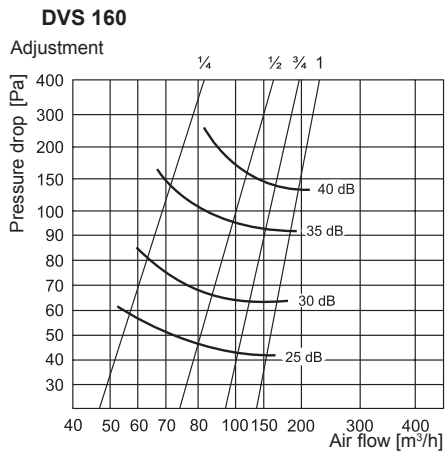
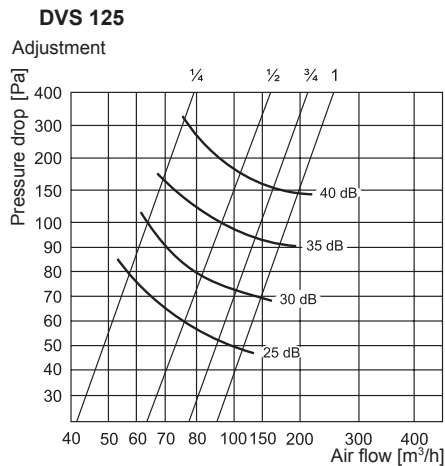
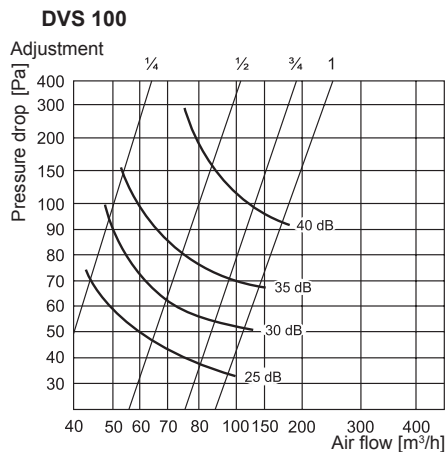
Exhaust air valve



Title	Article No.
DVS 100	GDIDVS001
DVS 125	GDIDVS002
DVS 160	GDIDVS003
DVS 200	GDIDVS004

Air exhaust valves DVS are used in ventilation systems with low pressure drops. Capacity of the valves is 3-130 l/s. Characterized by low noise level. The housing is made of steel sheet. The air valves are painted in standard white color (RAL 9016) which gives a shiny surface to them. Air exhaust valves DVS are provided with a ZR ring.

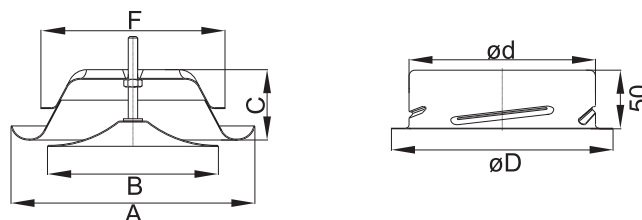
Pressure drop



Dimensions

Type	ØA, [mm]	B, [mm]	C, [mm]	F, [mm]	Ød, [mm]	ØD, [mm]
DVS 100	136	78	44	96	98,5	129
DVS 125	164	100	55	122	124	154
DVS 160	209	131	60	157	159	189
DVS 200	248,5	158	62	198	199	229

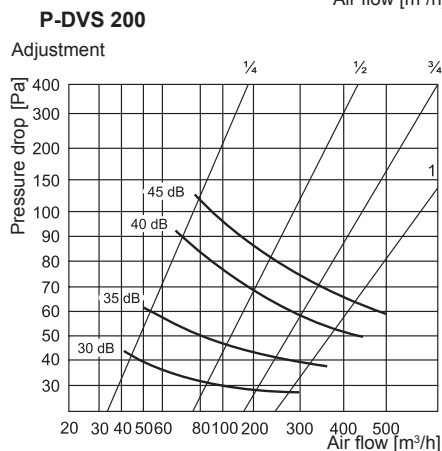
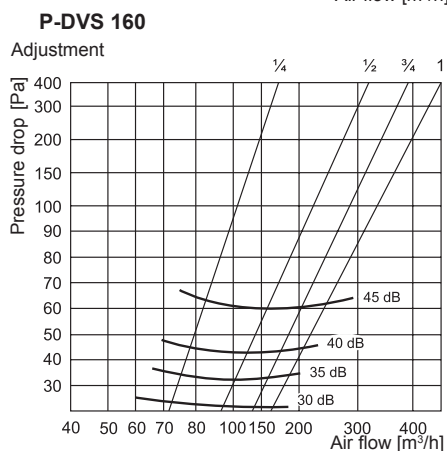
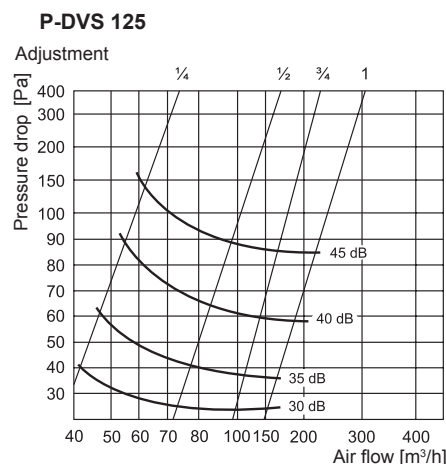
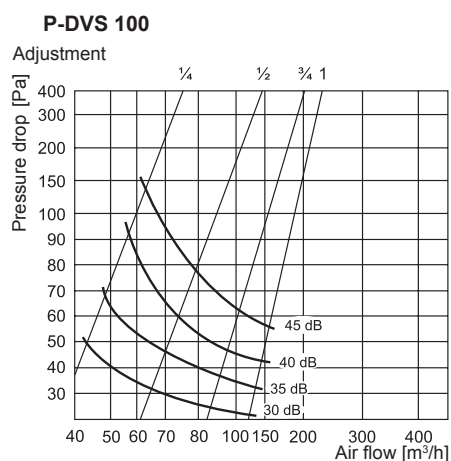
Supply air valve



Title	Article No.
P-DVS 100	GDIP-DVS001
P-DVS 125	GDIP-DVS002
P-DVS 160	GDIP-DVS003
P-DVS 200	GDIP-DVS004

Air supply valves DVS are used in ventilation systems with low pressure drops. Capacity of the valves is 3-130 l/s. Characterized by low noise level. The housing is made of steel sheet. The air valves are painted in standard white color (RAL 9016) which gives a shiny surface to them. Air supply valves DVS are provided with a ZR ring.

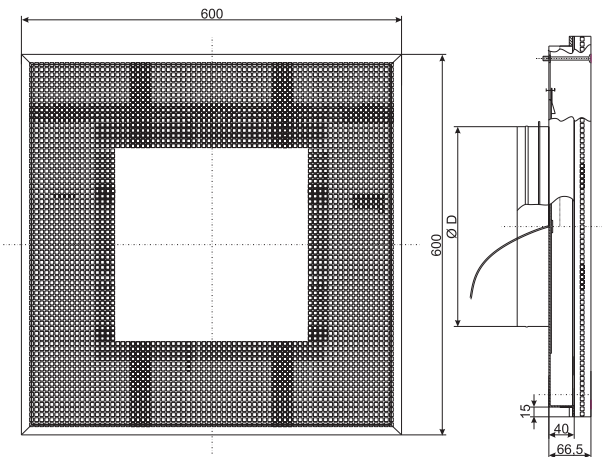
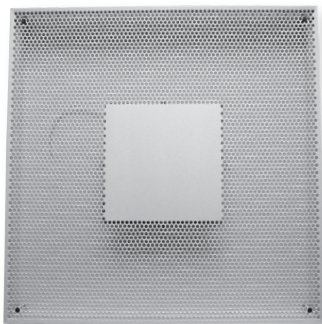
Pressure drop



Dimensions

Type	ØA, [mm]	B, [mm]	C, [mm]	F, [mm]	Ød, [mm]	ØD, [mm]
P-DVS 100	136	92	44	96	98,5	129
P-DVS 125	164	111	55	122	124	154
P-DVS 160	209	145	60	157	159	189
P-DVS 200	248,5	192	62	198	199	229

Perforated ceiling diffusers



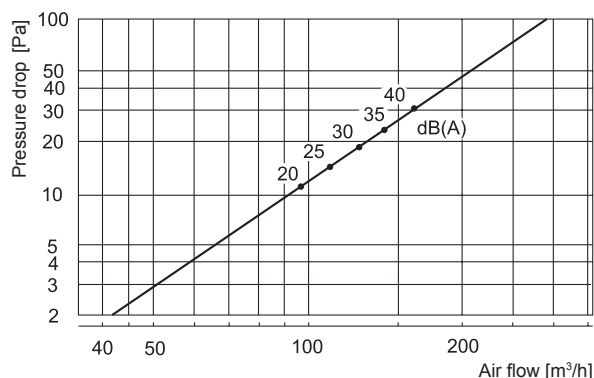
Title	Article No.
DSA 100	GDIDSA001
DSA 125	GDIDSA002
DSA 160	GDIDSA003
DSA 200	GDIDSA004
DSA 250	GDIDSA005
DSA 315	GDIDSA006
DSA 400	GDIDSA007

Diffusers DSA are used for air supply or extract. Ceiling diffusers are produced from round perforated plate, painted in white color using the powder method. Are suitable for constant or variable air flow. Can be mounted directly into suspended ceiling. The flange-adaptor of diffusers DSA is round and has a sealing rubber. Diffusers are connected to the ventilation system using connection box DPD. Diffuser consists of two parts: the backing box and perforated plate. Diffusers are painted in standard white color (RAL 9016).

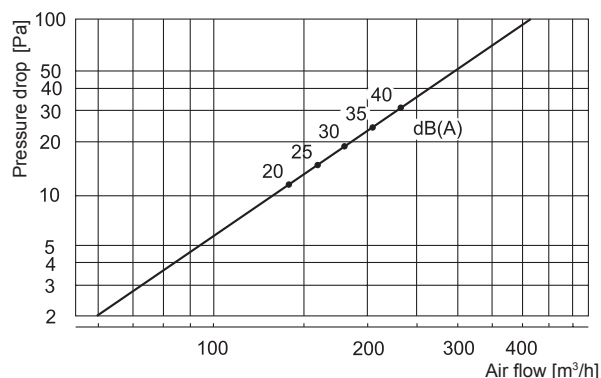
Dimensions	
Type	ØD, [mm]
DSA 100	100
DSA 125	125
DSA 160	160
DSA 200	200
DSA 250	250
DSA 315	315
DSA 400	400

Pressure drop

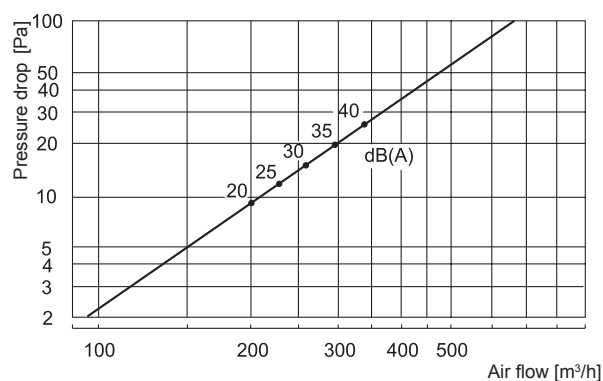
DSA 100



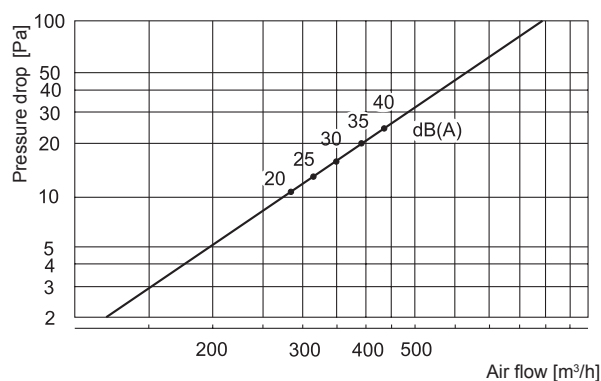
DSA 125



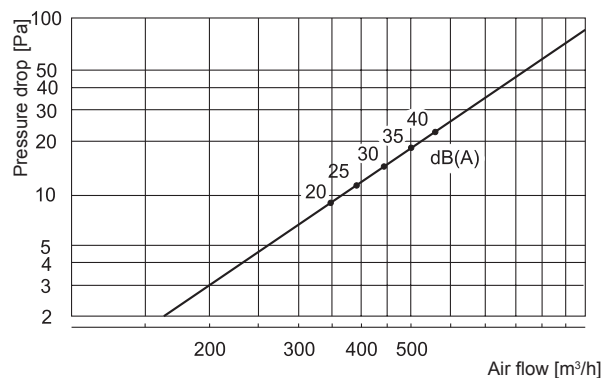
DSA 160



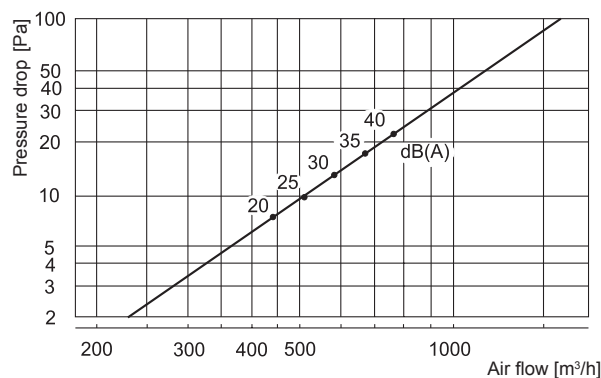
DSA 200



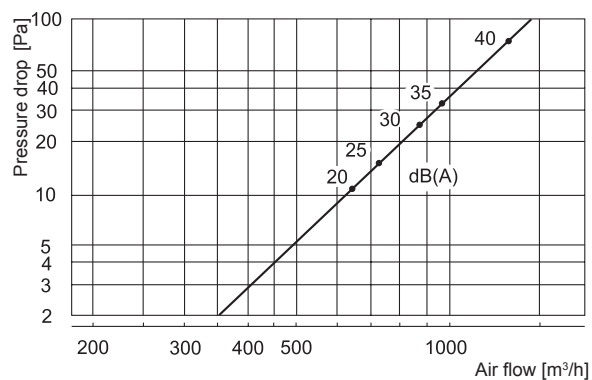
DSA 250



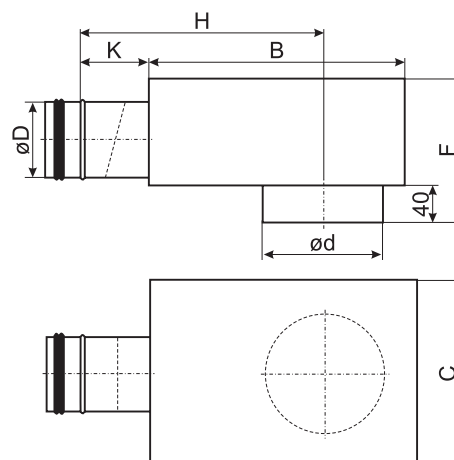
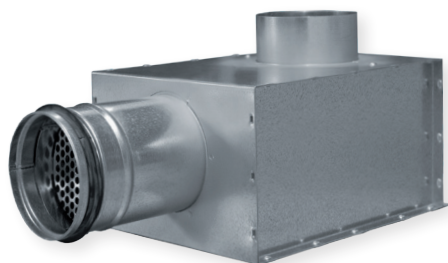
DSA 315



DSA 400



Plenum box



Title	Article No.
DPD 100-100	GDIDPD020
DPD 100-125	GDIDPD016
DPD 125-125	GDIDPD003
DPD 125-160	GDIDPD004
DPD 125-200	GDIDPD005
DPD 160-160	GDIDPD006
DPD 160-200	GDIDPD007
DPD 160-250	GDIDPD008
DPD 160-315	GDIDPD009
DPD 200-250	GDIDPD010
DPD 200-315	GDIDPD011
DPD 250-250	GDIDPD012
DPD 250-315	GDIDPD013
DPD 315-315	GDIDPD014
DPD 315-400	GDIDPD015

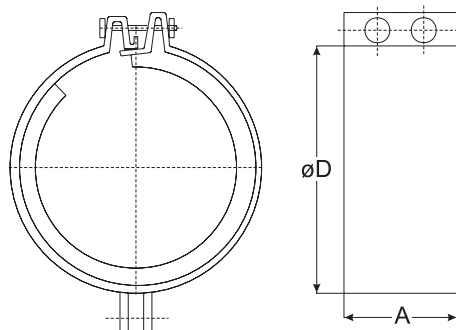
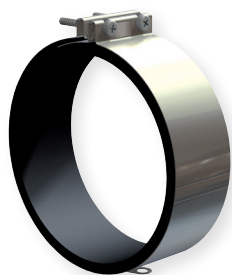
Plenum box DPD is made of galvanized steel. It includes commissioning damper and acoustic damping material with reinforced surface layer.

Plenum box DPD is used for the mounting of diffusers.

Dimensions

Type	ØD, [mm]	Ød, [mm]	K, [mm]	B, [mm]	H, [mm]	F, [mm]	C, [mm]
DPD 100-100	100	100	85	290	277	180	217
DPD 100-125	100	125	80	304	277	180	217
DPD 125-125	125	125	80	350	320	204	252
DPD 125-160	125	160	80	370	320	204	252
DPD 125-200	125	200	80	447	382	204	288
DPD 160-160	160	160	100	411	382	239	288
DPD 160-200	160	200	100	447	402	239	288
DPD 160-250	160	250	100	520	455	239	339
DPD 160-315	160	315	100	622	517	239	402
DPD 200-250	200	250	125	520	477	281	332
DPD 200-315	200	315	145	647	587	340	402
DPD 250-250	250	250	145	505	477	340	332
DPD 250-315	250	315	145	647	587	340	402
DPD 315-315	315	315	180	790	722	400	488
DPD 315-400	315	400	180	790	722	400	488

Mounting clamps for circular ducts



Title	Article No.
AP 100	GAPAP001
AP 125	GAPAP002
AP 150	GAPAP003
AP 160	GAPAP004
AP 200	GAPAP005
AP 250	GAPAP006
AP 315	GAPAP007
AP 355	GAPAP008
AP 400	GAPAP009
AP 450	GAPAP010
AP 500	GAPAP011
AP 560	GAPAP015
AP 630	GAPAP012
AP 710	GAPAP016
AP 800	GAPAP013

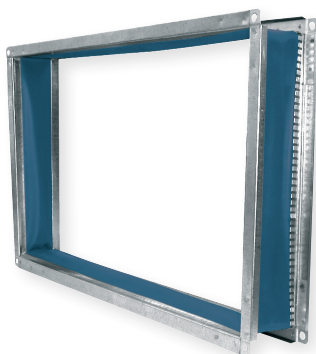
Clamps AP are used for the mounting of various elements of ventilation and air conditioning systems. They minimize vibrations and ensure tight fit of various parts of a system. Made of galvanized steel.

Dimensions

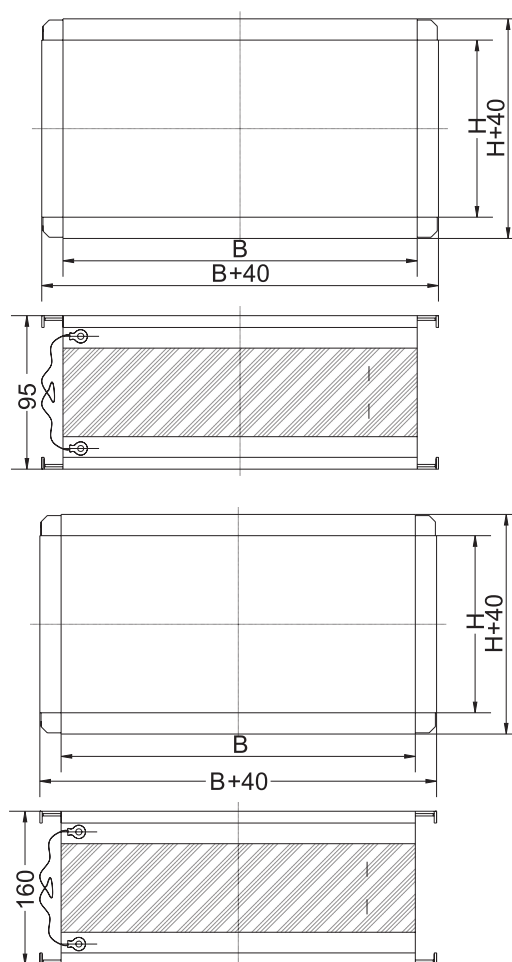
Type	$\varnothing D$, [mm]	A, [mm]	Weight, [kg]
AP 100	100	60	0,12
AP 125	125	60	0,15
AP 150	150	60	0,18
AP 160	160	60	0,20
AP 200	200	60	0,22
AP 250	250	60	0,25
AP 315	315	60	0,28
AP 355	355	60	0,30
AP 400	400	60	0,32
AP 450	450	60	0,35
AP 500	500	60	0,37
AP 560	560	60	0,4
AP 630	630	60	0,44
AP 710	710	60	0,48
AP 800	800	60	0,52

Flexible connection

LJ/PG



LJ/E



Title	Article No.
LJ-PG 30-15	GLJLJ/PG001
LJ-PG 40-20	GLJLJ/PG002
LJ-PG 42-42	GLJLJ/PG053
LJ-PG 50-25	GLJLJ/PG004
LJ-PG 50-30	GLJLJ/PG005
LJ-PG 59-59	GLJLJ/PG054
LJ-PG 60-30	GLJLJ/PG007
LJ-PG 60-35	GLJLJ/PG008
LJ-PG 70-40	GLJLJ/PG009
LJ-PG 72-72	GLJLJ/PG018
LJ-PG 80-50	GLJLJ/PG010
LJ-PG 80-80	GLJLJ/PG076
LJ-PG 92-92	GLJLJ/PG056
LJ-PG 100-50	GLJLJ/PG011

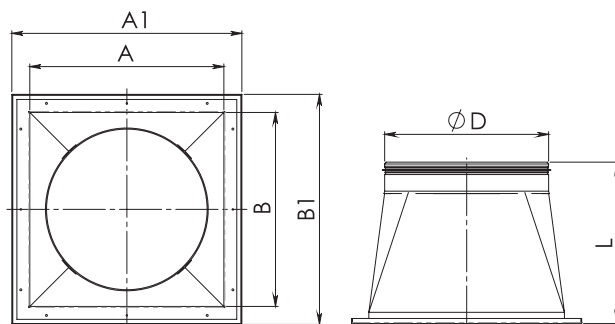
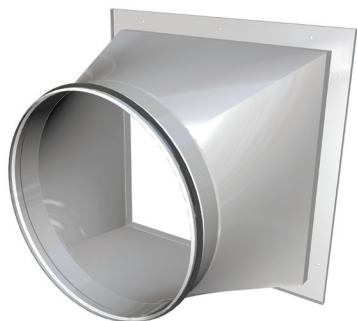
Flexible connection LJ/PG and LJ/E is made from galvanised steel sheet and neoprene fabric.

Dimensions			
Type	B, [mm]	H, [mm]	Weight, [kg]
LJ/PG 30x15	300	150	0,3
LJ/PG 40x20	400	200	0,4
LJ/PG 50x25	500	250	0,5
LJ/PG 50x30	500	300	0,7
LJ/PG 60x30	600	300	1,0
LJ/PG 60x35	600	350	1,2
LJ/PG 70x40	700	400	1,4
LJ/PG 80x50	800	500	1,7
LJ/PG 100x50	1000	500	2,0

Title	Article No.
LJ-E 30-15	GLJLJ/E001
LJ-E 40-20	GLJLJ/E002
LJ-E 50-25	GLJLJ/E004
LJ-E 50-30	GLJLJ/E005
LJ-E 60-30	GLJLJ/E007
LJ-E 60-35	GLJLJ/E008
LJ-E 70-40	GLJLJ/E009
LJ-E 80-50	GLJLJ/E010
LJ-E 100-50	GLJLJ/E011

Dimensions			
Type	B, [mm]	H, [mm]	Weight, [kg]
LJ/E 30x15	300	150	1,5
LJ/E 40x20	400	200	1,8
LJ/E 50x25	500	250	2,2
LJ/E 50x30	500	300	2,4
LJ/E 60x30	600	300	2,7
LJ/E 60x35	600	350	2,8
LJ/E 70x40	700	400	3,0
LJ/E 80x50	800	500	3,1
LJ/E 100x50	1000	500	3,3

Flange-adapter



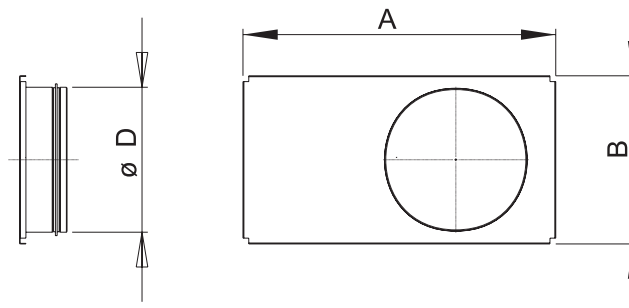
Title	Article No.
PR 420X420-355	GSFKUB169_037
PR 590X590-400	GSFKUB169_038
PR 590X590-450	GSFKUB169_039
PR 590X590-500	GSFKUB169_040
PR 695X695-560	GSFKUB169_041
PR 695X695X630	GSFKUB169_042
PR 790X790-630	GSFKUB169_044
PR 920X920-710	GSFKUB169_043

Flange-adapters PR are used to connect rectangular fans KUB to round air ducts. Made of galvanized steel.

Dimensions

Type	A, [mm]	A1, [mm]	B, [mm]	B1, [mm]	L, [mm]	ØD, [mm]
PR 420x420-355	420	498	420	498	350±5	355
PR 590x590-400	590	668	590	668	350±5	400
PR 590x590-450	590	668	590	668	350±5	450
PR 590x590-500	590	668	590	668	350±5	500
PR 695x695-560	695	796	695	796	350±5	560
PR 695x695-630	695	796	695	796	350±5	630
PR 790x790-630	790	866	790	866	400±5	630
PR 920x920-710	920	996	920	996	400±5	710

Flange-adapter



Title	Article No.
VKF 400-200 200	GVEVFKC008
VKF 500-250 250	GVEVFKC001
VKF 500-300 315	GVEVFKC002
VKF 600-300 315	GVEVFKC003
VKF 600-350 315	GVEVFKC004
VKF 700-400 400	GVEVFKC005
VKF 800-500 500	GVEVFKC006
VKF 1000-500 500	GVEVFKC006

Flange-adapters VKF are used to connect rectangular fans VKS, VKSA to round air ducts. Made of galvanized steel.

Dimensions

Type	A, [mm]	B, [mm]	$\varnothing D$, [mm]	Weight, [kg]
VKF 400x200	440	240	200	0,9
VKF 500x250	540	290	250	1,1
VKF 600x300	640	340	315	1,3
VKF 600x350	640	390	355	1,6
VKF 700x400	740	440	400	1,9
VKF 800x500	840	540	500	2,2
VKF 1000x500	1040	540	500	2,5

Mounting clamps for circular ducts



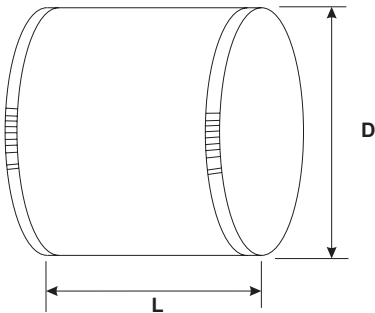
Title	Article No.
NPU 100	GFDNPUC001
NPU 125	GFDNPUC002
NPU 140	GFDNPUC030
NPU 150	GFDNPUC028
NPU 160	GFDNPUC003
NPU 180	GFDNPUC031
NPU 200	GFDNPUC004
NPU 250	GFDNPUC005
NPU 315	GFDNPUC006
NPU 400	GFDNPUC007
NPU 450	GFDNPUC029
NPU 500	GFDNPUC008
NPU 630	GFDNPUC009
NPU 710	GFDNPUC010
NPU 800	GFDNPUC011
NPU 1000	GFDNPUC012
NPU 1250	GFDNPUC012

Couplings NPU with sealing rubber.

Dimensions

Type	øD, [mm]	L, [mm]	Weight, [kg]
NPU 100	100	10	0,1
NPU 125	125	10	0,2
NPU 140	140	10	0,2
NPU 150	150	10	0,2
NPU 160	160	10	0,2
NPU 180	180	10	0,3
NPU 200	200	10	0,3
NPU 250	250	10	0,3
NPU 315	315	10	0,4
NPU 400	400	10	0,8
NPU 450	450	10	0,9
NPU 500	500	10	1,0
NPU 630	630	10	1,3
NPU 710	710	10	2,1
NPU 800	800	10	2,7
NPU 1000	1000	10	3,4
NPU 1250	1250	10	4,2

Flexible connection

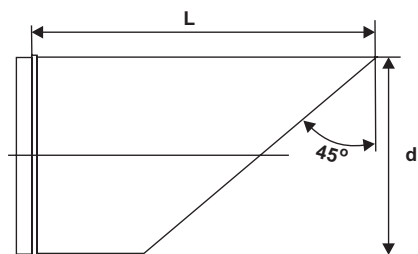
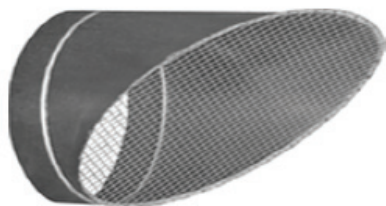


Title	Article No.
RC-MAN-PU -200	ZPDLJ001
RC-MAN-PU -250	ZPDLJ002
RC-MAN-PU - 315	ZPDLJ003
RC-MAN-PU - 400	ZPDLJ004

Flexible connection suitable for high temperature (up to 400 °C) polluted gases.
Construction: fiberglass fabric with polyurethane coating on both sides, circular straight sleeves, pre-inserted stainless steel bands.
Recommended for kitchen exhaust systems with kitchen fans.

Dimensions		
Type	ØD, [mm]	L, [mm]
RC-MAN-PU -200	200	160
RC-MAN-PU -250	250	160
RC-MAN-PU - 315	315	160
RC-MAN-PU - 400	400	160

Air outlet

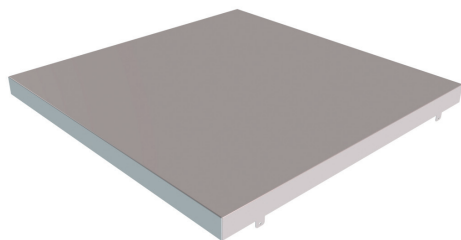


Title	Article No.
AB 100	GFDABC001
AB 120	GFDABC018
AB 125	GFDABC002
AB 140	GFDABC022
AB 150	GFDABC017
AB 160	GFDABC003
AB 180	GFDABC016
AB 200	GFDABC004
AB 225	GFDABC023
AB 250	GFDABC005
AB 280	GFDABC020
AB 300	GFDABC021
AB 315	GFDABC006
AB 350	GFDABC019
AB 400	GFDABC007
AB 500	GFDABC008
AB 630	GFDABC009
AB 800	GFDABC010
AB 1000	GFDABC011
AB 1250	GFDABC012

Dimensions

Type	ød, [mm]	L, [mm]	Weight, [kg]
AB 100	100	200	0,9
AB 120	120	220	1,2
AB 125	125	225	1,3
AB 140	140	240	1,6
AB 150	150	250	1,8
AB 160	160	260	2,4
AB 180	180	280	2,8
AB 200	200	300	3,7
AB 225	225	325	4,6
AB 250	250	350	5,4
AB 280	280	380	6,8
AB 300	300	400	7,4
AB 315	315	415	8,2
AB 350	350	450	9,6
AB 400	400	500	12,5
AB 500	500	600	22
AB 630	630	730	29,5
AB 800	800	900	57,7
AB 1000	1000	1350	79,6
AB 1250	1250	1350	122

Roof KUB



Title	Article No.
Roof for KUB, KUB T120 355	GAGSTOGKUB001
Roof for KUB, KUB T120 400-500	GAGSTOGKUB002
Roof for KUB 560-630, KUB T120 540	GAGSTOGKUB004
Roof for KUB 710	GAGSTOGKUB005
Roof for KUB T120 630	GAGSTOGKUB004

Used for the mounting of acoustically insulated fans KUB, KUB T120.
Made of galvanized steel.

[illegible]