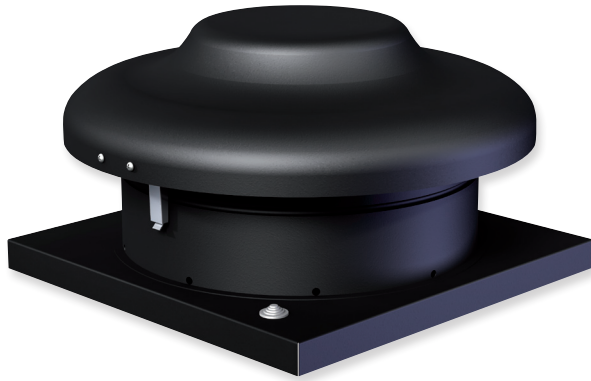
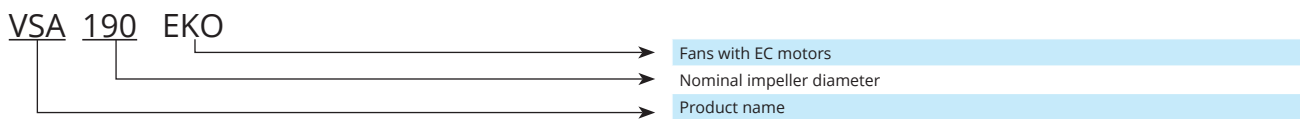


# VSA EKO

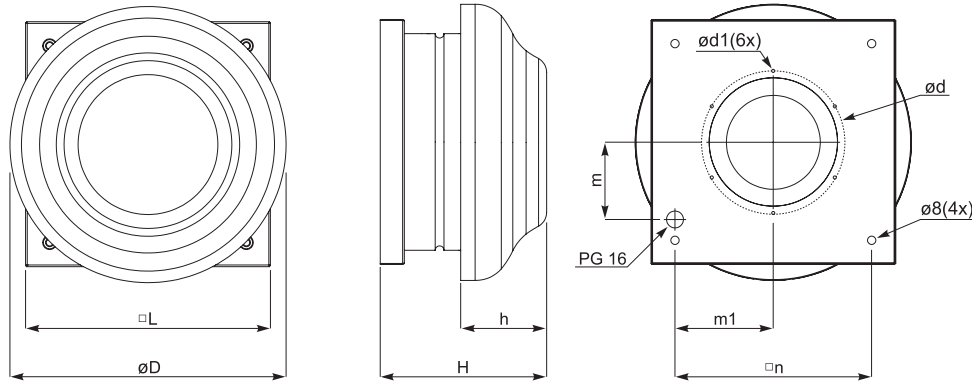


<b>Features</b>	<ul style="list-style-type: none"> <li>› 4 sizes;</li> <li>› Airflow up to 1350 m<sup>3</sup>/h;</li> <li>› Horizontal exhaust;</li> <li>› Backward-curved impeller;</li> <li>› Fan speed 100% controllable by 0-10 V signal;</li> <li>› Energy efficient.</li> </ul>
<b>Power supply</b>	230V/50Hz/1f.
<b>Temperature range</b>	From -25°C up to 60°C.
<b>Sizes</b>	190, 220, 225, 250.
<b>Construction</b>	<ul style="list-style-type: none"> <li>› Casing: powder-coated steel, RAL 9005;</li> <li>› Motor protected from external objects;</li> <li>› Fan: centrifugal impeller and external rotor motor;</li> <li>› Motor protection integrated into motor electronics;</li> <li>› Motor protection class: IP44;</li> <li>› Terminal box protection class: IP55.</li> </ul>
<b>Installation</b>	<ul style="list-style-type: none"> <li>› Device can be connected to pull air directly from ventilated room or air duct system.</li> <li>› Not suitable for polluted air or volatile and explosive gases.</li> </ul>
<b>Speed control options</b>	<ul style="list-style-type: none"> <li>› 10 kΩ potentiometer;</li> <li>› External signal 0-10 VDC/PWM from user controller.</li> <li>› Can be connected directly to optional constant pressure sensors, CO<sub>2</sub>, RH or an on/off switch.</li> </ul>



## Accessories

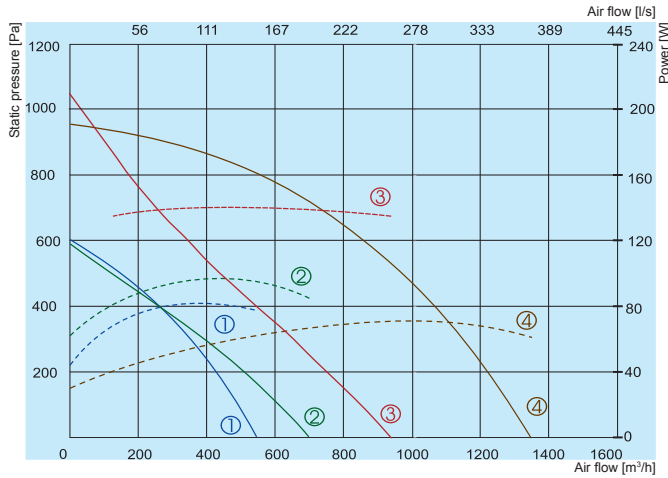
0-10V speed controller  MTP010 p. 128	Controller  Stouch p. 130	Curb skirt  SSA p. 138	Curb skirt  SSA 45 p. 138	Roof curb  KSV p. 132	Back draft shutter  ATS p. 135
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Type	Dimensions [mm]								
	øD	H	h	□L	ød	ød1	m	m1	□n
VSA 190 EKO	344	234	107	305	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	250	250
VSA 225 EKO	+	+	+	+	400	400/800 400/900	250	250
VSA 250 EKO	+	+	+	+	400	400/1000	250	250

Flexible connection  LSV p. 136	Flange-adapter  FSV p. 137	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
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- 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 <sup>-1</sup> ]	3150	2700	2860	3400
Max. airflow	[m <sup>3</sup> /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

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	59	53
Outlet	71	54	60	67	66	59	57	50
Surrounding	63	43	51	59	59	52	51	40

Measured at 480 m<sup>3</sup>/h, 120 Pa

### 220 EKO

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	57	51
Outlet	72	55	59	66	69	65	59	53
Surrounding	65	47	53	60	61	57	51	45

Measured at 589 m<sup>3</sup>/h, 121 Pa

### 225 EKO

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	67	60
Outlet	78	61	65	72	74	72	65	56
Surrounding	69	52	60	63	63	64	57	48

Measured at 789 m<sup>3</sup>/h, 160 Pa

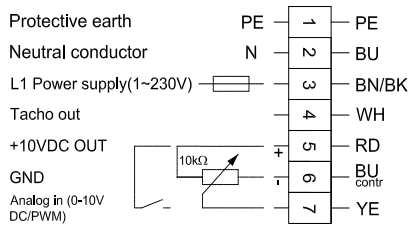
### 250 EKO

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	70	64
Outlet	81	64	68	74	77	75	69	61
Surrounding	71	56	62	65	66	65	59	52

Measured at 1274 m<sup>3</sup>/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.

## 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)

