

Series  
**VENTS VCU**



Scroll-type single-inlet centrifugal fans powered by external rotor motor.  
Air capacity up to **2000 m<sup>3</sup>/h**.

■ **Applications**

Designed for supply and exhaust ventilation of various premises. The fan can be used as a components for ventilation and air conditioning systems and is suitable for outside mounting.

■ **Design**

The fan casing is made of steel with polymeric coating.

■ **Motor**

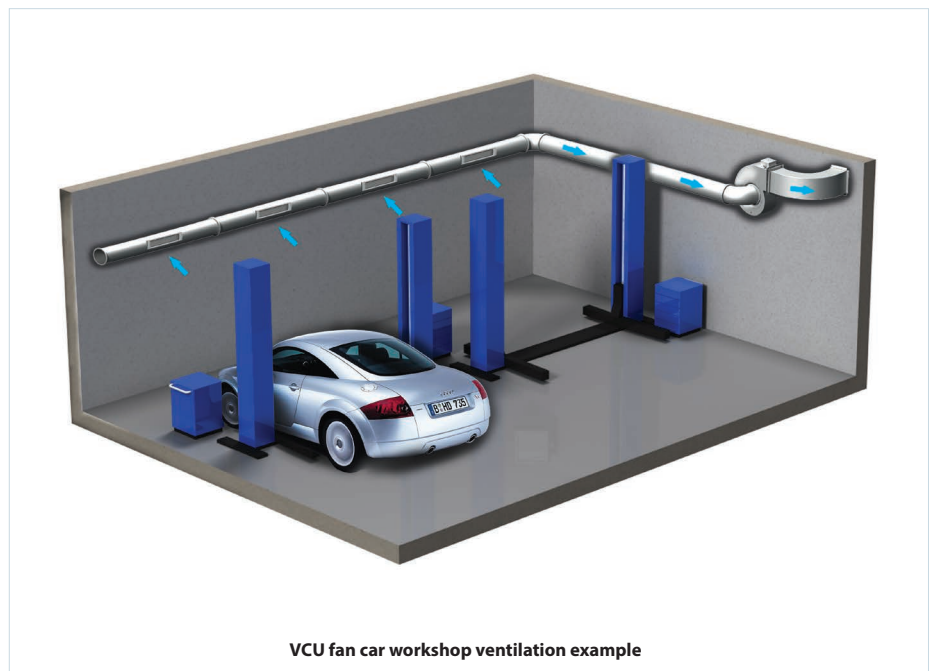
The impeller with forward curved blades made of galvanized steel is powered by 2- or 4-pole single phase external rotor asynchronous motor. The motors are equipped with incorporated thermal overheating protection with automatic restart as well as ball bearings for long service life. For precise features, safe operation and low noise, each turbine is dynamically balanced while assembling. Motor protection rating IP 44.

■ **Speed control**

Both smooth and step speed control is performed with the symistor or autotransformer controller. Several fans can be connected to one controller in case the total power and operating current do not exceed the controller rated values.

■ **Mounting**

The fan is suitable for installation in ventilating chambers, air conditioning units or can be used individually. In case of independent operation it can be connected to air ducts by means of either both exhaust and inlet branch pipes or exhaust branch pipe only. The exhaust and intake branch pipes have rectangular or circular sections accordingly. Power is supplied by means of the external terminals.



VCU fan car workshop ventilation example

Designation key:

Series	Motor modification		Impeller diameter, mm	Impeller width, mm
<b>VENTS VCU</b>	Number of poles	Phase	140; 160; 180; 200; 225; 250	60; 62; 80; 90; 92; 102; 140
	2 4	<b>E</b> – single phase		

Accessories



page 378    page 386    page 388    page 392    page406    page 442    page 446    page 461    page 462    page 476    page 477

**Technical data:**

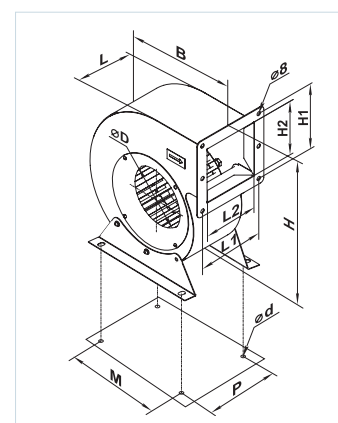
	VCU 2E 140x60	VCU 2E 160x62	VCU 2E 160x90	VCU 4E 180x92
Voltage [V / 50 Hz]	230	230	230	230
Power [W]	148	264	258	160
Current [A]	0,64	1,17	1,16	0,7
Max. air capacity [m <sup>3</sup> /h]	515	560	640	800
RPM [min <sup>-1</sup> ]	2820	2630	2745	1465
Noise level at 3 m [dBA]	68	70	70	62
Transported air temperature [°C]	-25 +45	-25 +50	-25 +45	-25 +45
Protection rating	IP X4	IP X4	IP X4	IP X4

**Technical data:**

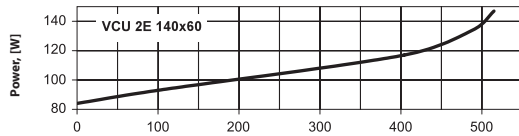
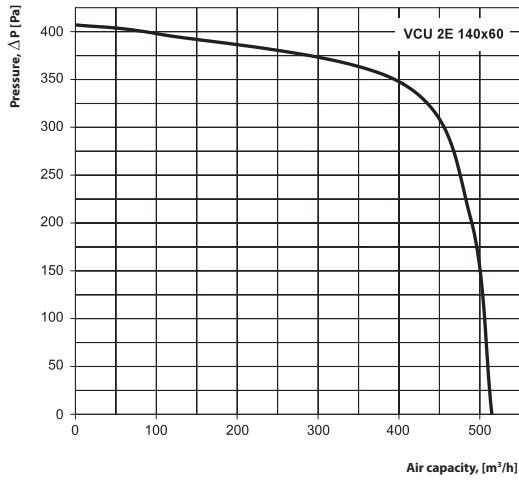
	VCU 4E 200x80	VCU 4E 200x102	VCU 4E 225x102	VCU 4E 250x102	VCU 4E 250x140
Voltage [V / 50 Hz]	230	230	230	230	230
Power [W]	125	280	395	810	570
Current [A]	0.55	1.25	1.98	3.65	2.48
Max. air capacity [m <sup>3</sup> /h]	730	1350	1480	2000	2000
RPM [min <sup>-1</sup> ]	1430	1475	1330	1330	1310
Noise level at 3 m [dBA]	63	65	69	63	60
Transported air temperature [°C]	-25 +45	-25 +40	-40 +70	-40 +70	-40 +70
Protection rating	IP X4	IP X4	IP X4	IP X4	IP X4

**Fan overall dimensions:**

Type	Dimensions [mm]											Weight [kg]
	∅D	B	H	H1	H2	L	L1	L2	P	M	d	
VCU 2E 140x60	140	243	287	125	93	85	107	75	116	150	9	3.5
VCU 2E 160x62	160	277	324	136	106	89	112	82	122	200	9	4.6
VCU 2E 160x90	160	277	324	136	106	136	158	127	168	200	9	5.5
VCU 4E 180x92	180	311	360	150	120	145	166	137	181	230	9	7.1
VCU 4E 200x80	200	345	398	165	134	116	140	108	150	240	9	7.5
VCU 4E 200x102	200	345	398	165	134	152	175	143	185	240	9	8.0
VCU 4E 225x102	225	365	441	210	171	145	170	137	178	250	11	11.9
VCU 4E 250x102	250	410	485	230	191	165	190	157	198	270	11	16.3
VCU 4E 250x140	250	410	485	230	191	205	230	197	238	270	11	16.3

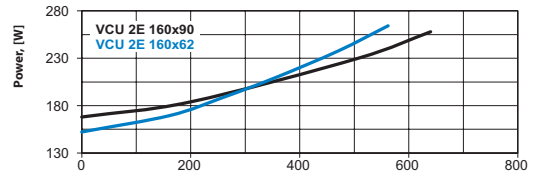
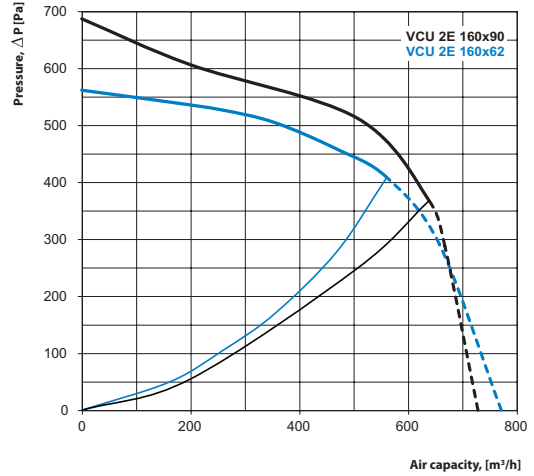


VENTS VCU



Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	60	44	51	50	37	33	31	27	17
L <sub>WA</sub> to outlet	dBA	58	45	53	44	43	38	31	26	19
L <sub>WA</sub> to environment	dBA	50	41	48	44	35	31	24	20	15

VENTS VCU



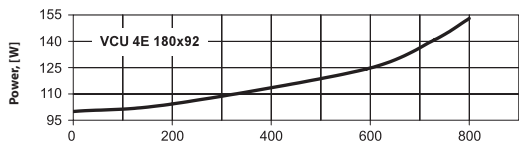
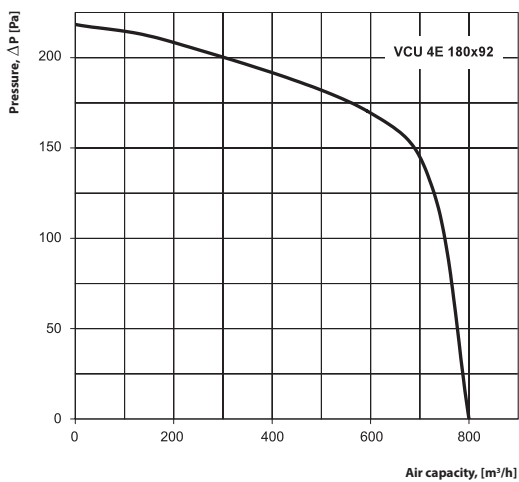
VCU 2E 160x90

Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	58	41	55	53	40	33	33	25	21
L <sub>WA</sub> to outlet	dBA	57	45	56	46	43	36	30	26	21
L <sub>WA</sub> to environment	dBA	51	39	48	45	36	32	25	20	17

VCU 2E 160x62

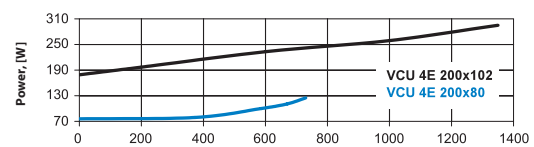
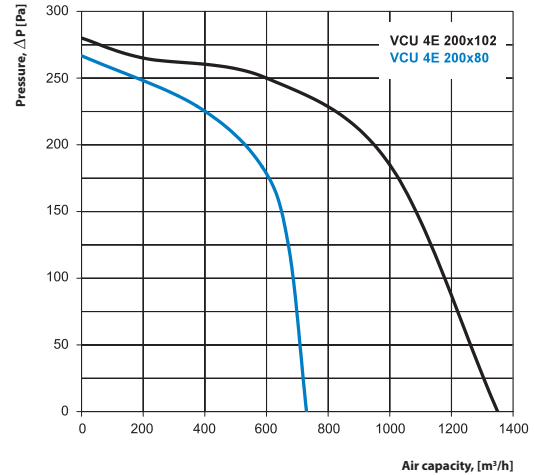
Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	57	42	54	54	38	34	31	28	21
L <sub>WA</sub> to outlet	dBA	57	46	57	45	42	38	31	26	20
L <sub>WA</sub> to environment	dBA	49	37	48	42	33	29	25	19	16

VENTS VCU



Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	56	43	54	52	38	34	30	29	17
L <sub>WA</sub> to outlet	dBA	56	46	55	45	42	35	30	27	21
L <sub>WA</sub> to environment	dBA	52	39	47	46	35	28	24	18	17

VENTS VCU

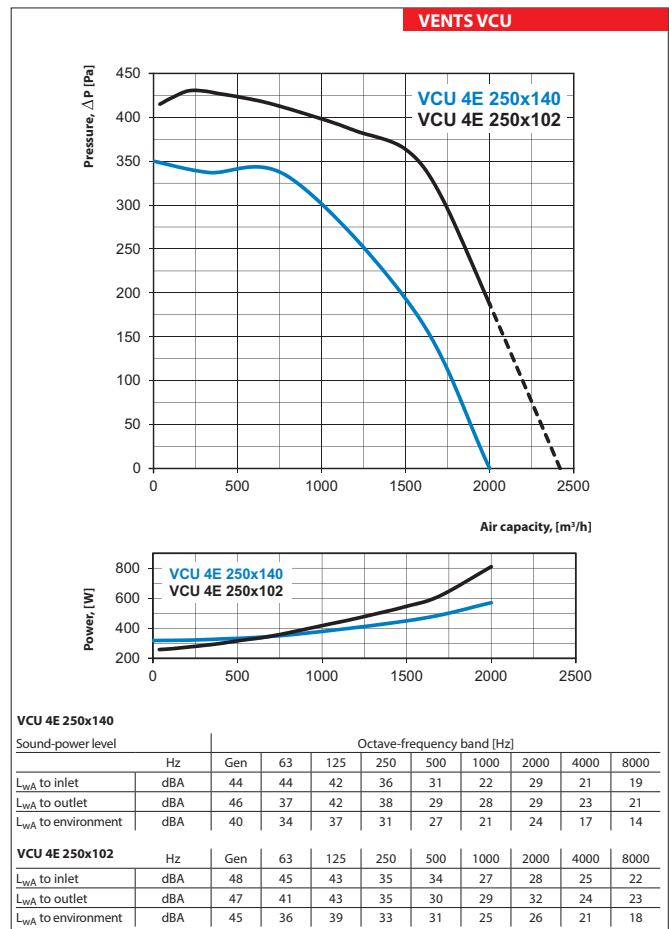
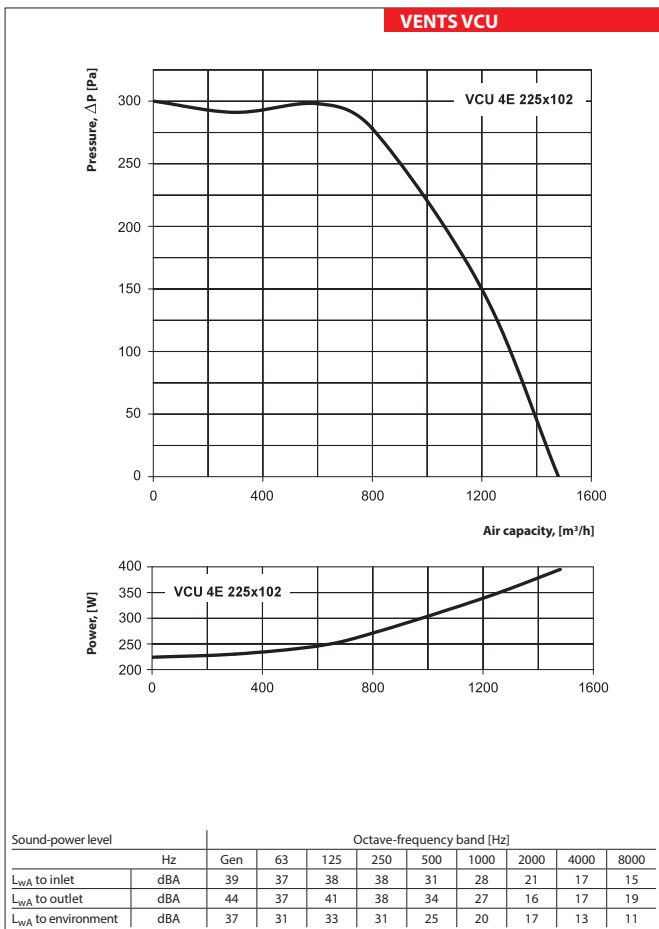


VCU 4E 200x102

Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	41	37	38	37	30	26	19	17	14
L <sub>WA</sub> to outlet	dBA	42	40	41	36	36	25	16	17	18
L <sub>WA</sub> to environment	dBA	37	32	35	29	26	20	16	11	11

VCU 4E 200x80

Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	41	38	39	34	31	29	20	18	13
L <sub>WA</sub> to outlet	dBA	44	40	40	36	34	25	20	16	17
L <sub>WA</sub> to environment	dBA	37	33	37	30	25	21	16	13	13



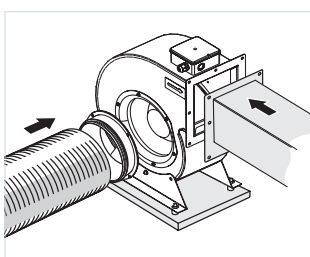
FAN SERIES VENTS VCU

**Selection table for accessories:**

Type	Rubber anti-vibration mounts	Flange	Grille
VCU 2E 140x60	VVCr 8	FVC-VCU 140	RVC-VCU 140
VCU 2E 160x62	VVCr 8	FVC-VCU 160	RVC-VCU 160
VCU 2E 160x90	VVCr 8	FVC-VCU 160	RVC-VCU 160
VCU 4E 180x92	VVCr 8	FVC-VCU 180	RVC-VCU 180
VCU 4E 200x80	VVCr 8	FVC-VCU 200	RVC-VCU 200
VCU 4E 200x102	VVCr 8	FVC-VCU 200	RVC-VCU 200
VCU 4E 225x102	VVCr 16	FVC-VCU 200 / FVC-VCU 225	RVC-VCU 200 / RVC-VCU 225
VCU 4E 250x102	VVCr 16	FVC-VCU 250	RVC-VCU 250
VCU 4E 250x140	VVCr 16	FVC-VCU 250	RVC-VCU 250

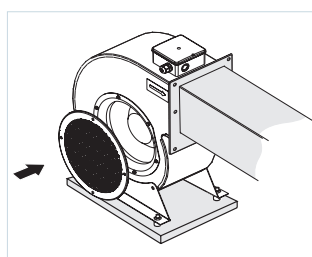
**FVC-VCU Flange**

designed to connect round ducts to VCU fans.



**RVC-VCU Grille**

designed for fan protection against foreign objects.



**Anti-vibration mounts VVCr**

Designed for noise reduction and vibration dampening produced by the fans. Provide dynamic loading decrease and increase reliability and durability of ventilation equipment.



**Anti-vibration mount VVCr**