

8300101627

VBS0280SSNDS

EC centrifugal fan - RadiCal

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Item	8300101627	
Motor	E07432-18	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min ⁻¹	1600
Power consumption	W	85
Current draw	A	0.7
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment

Subject to change

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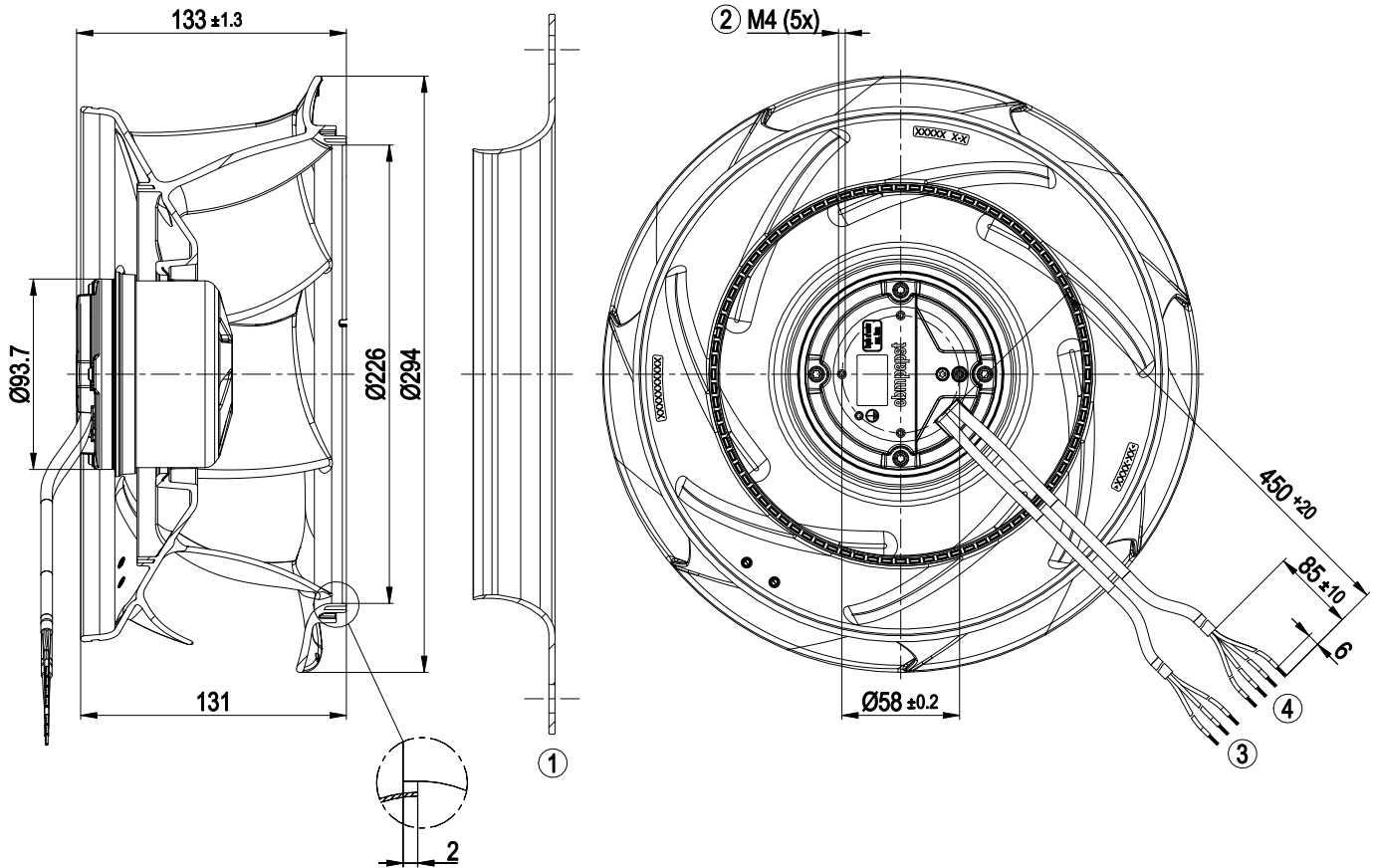
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Technical description

Size	280 mm
Motor size	74
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Cooling hole/opening	On rotor side
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Locked-rotor detection - Tach output - Speed control - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class assignment	I; If a protective earth is connected. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 60335-1; EN 60034-1; EN 60204-1; CE; UKCA

Product drawing

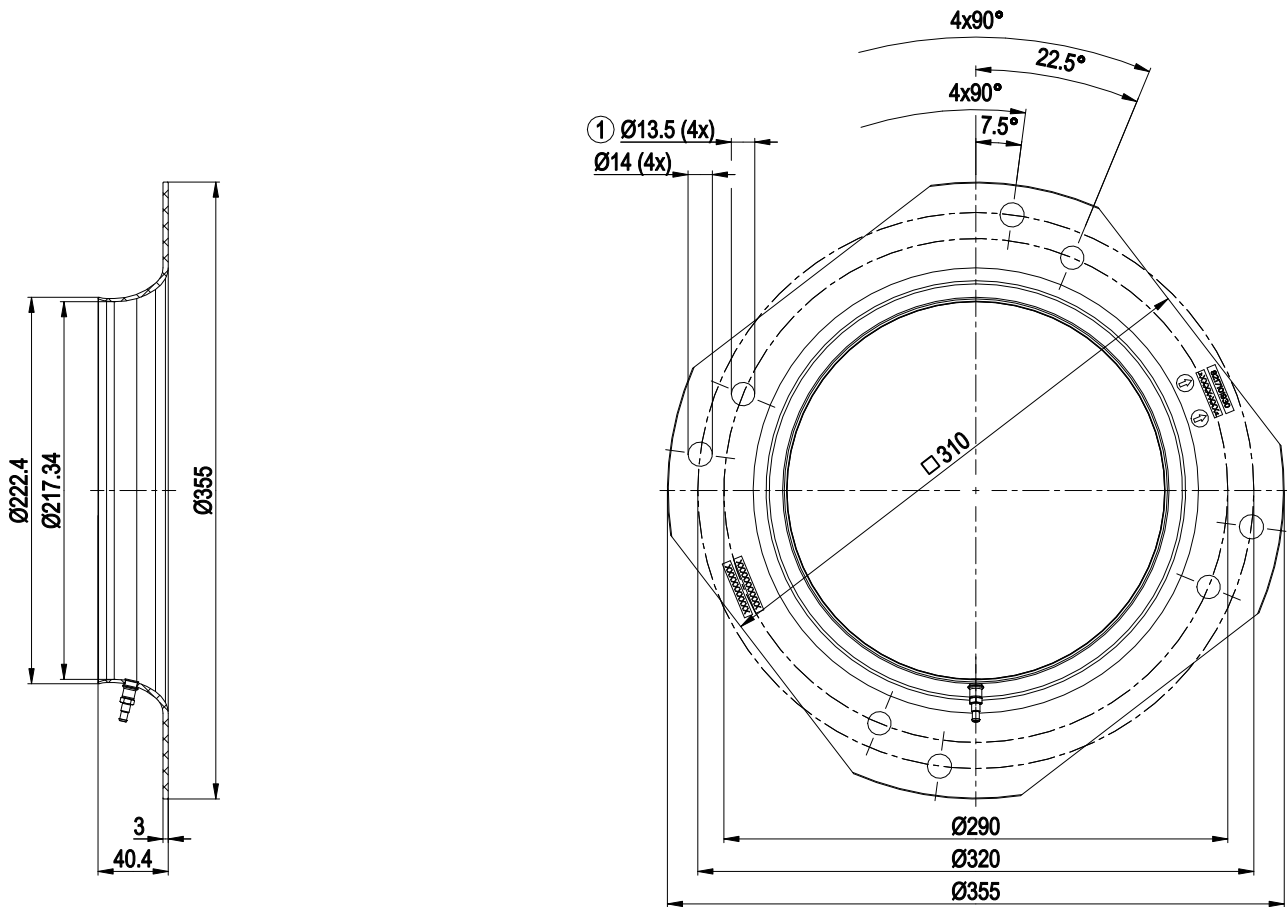


1	Accessory part: Inlet ring 8217102242 with pressure tap (k-factor: 115) (not included in scope of delivery)
2	Max. clearance for screw 5 mm
3	Supply line (PWR) PVC AWG20 3x splice
4	Control wire (CTRL) PVC AWG22 4x splice

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Accessory part



- | | |
|---|--|
| 1 | Fastening holes for FlowGrid 25310-2-2957 (not included in scope of delivery) are provided and must be subsequently opened as required |
| | Inlet ring 8217102242 with pressure tap (k-factor: 115) |

Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	PWR	L	black	Power supply, phase, see nameplate for voltage range
	PWR	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	PWR	PE	green/yellow	Protective earth
	CTRL	GND	blue	Reference ground for control interface, SELV
	CTRL	IO1	yellow	Factory setting: Analog input 0-10 V/PWM, Ri=100 KΩ, fPWM=1 kHz..10 kHz, Function: Speed set value Characteristic curve parameterizable (see "Input curve 1"), SELV Function parameterizable at the factory (see Optional interface functions table)
	CTRL	IO2	white	Factory setting: Open collector output, Umax=50 VDC, Imax= 10 mA, function: Tach output 1 pulse/revolution, SELV Function parameterizable at factory (see table Optional interface functions)
	CTRL	Vout	red	Voltage output 10 VDC +/-3%, Imax=1.1 mA Not short-circuit-proof, power supply for external devices, SELV

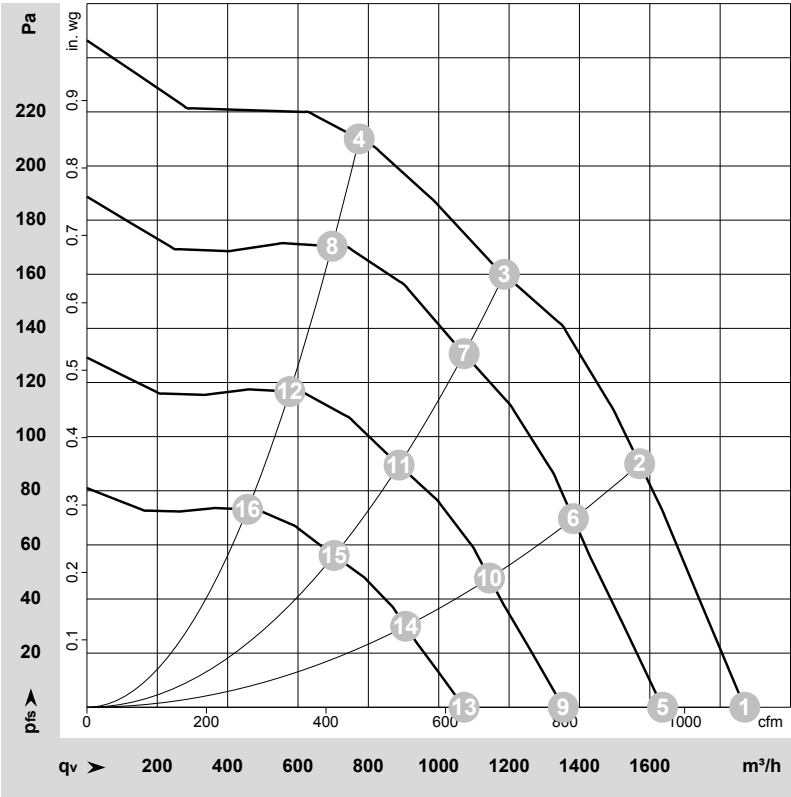
Terminal/plug assignment

		configurable IO mode		electrical specification		INPUT		OUTPUT			
IO1	Din1 (high active): digital input	Ain1 0-10 V/PWM: analog input	active: parameterizable voltage x -30 VDC not active: pin open or parameterizable voltage < x VDC, SELV Ri = 100 kΩ, characteristic curve parameterizable, f _{PWM} = 1 k - 10 kHz, SELV			switch: parameter set: #1 / #2	○	switch: enable/disable input	○	configurable function	
						switch: direction of rotation: cw / ccw	○	signal: tach out		signal: diagnostics out	
								signal: alarm out		signal: run monitoring	
								signal: status		signal: configurable function	
IO2	Tach out (open collector)	Diagnostics out (open collector)	U _{max} = 50 VDC, I _{max} = 10 mA, SELV								
Vout	Voltage output		Voltage 10 VDC, SELV								

Basic (B4)
Factory configuration option upon request

factory configuration option

Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-232376-1
Date: 2024-06-12
Nozzle: 8217101930

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	U	f	n	P _e	I	LpA _{in}	LwA _{in}	q _V	p _{fs}	q _V	p _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	1~	230	50	1655	58	0.49	61	69	1870	0	1100	0.00
2	1~	230	50	1650	83	0.68	56	64	1570	90	925	0.36
3	1~	230	50	1605	87	0.71	51	59	1185	160	700	0.64
4	1~	230	50	1610	87	0.71	55	63	775	210	455	0.84
5	1~	230	50	1450	39	0.33	58	65	1635	0	965	0.00
6	1~	230	50	1450	56	0.46	53	61	1385	70	815	0.28
7	1~	230	50	1450	64	0.52	49	57	1070	131	630	0.53
8	1~	230	50	1450	63	0.52	52	60	695	170	410	0.68
9	1~	230	50	1200	22	0.19	53	61	1355	0	795	0.00
10	1~	230	50	1200	32	0.26	48	56	1145	48	675	0.19
11	1~	230	50	1200	36	0.30	44	52	885	89	520	0.36
12	1~	230	50	1200	36	0.29	47	55	575	117	340	0.47
13	1~	230	50	950	11	0.09	47	55	1070	0	630	0.00
14	1~	230	50	950	16	0.13	43	50	905	30	535	0.12
15	1~	230	50	950	18	0.15	38	46	700	56	415	0.22
16	1~	230	50	950	18	0.15	41	49	455	73	270	0.29

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase