

8300101372
VBS0355CSNFS

EC centrifugal fan - RadiPac

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Item	8300101372	
Motor	E07433-29	
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	1450
Power consumption	W	170
Current draw	A	1.4
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

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	71.2	43.4	09 Power consumption P_{ed}	kW	0.16
02 Measurement category		A		09 Air flow q_v	m³/h	1985
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	192
04 Efficiency grade N		89.8	62	10 Speed (rpm) n	min ⁻¹	1470
05 Variable speed drive		Yes		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.
The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$ LU-227960

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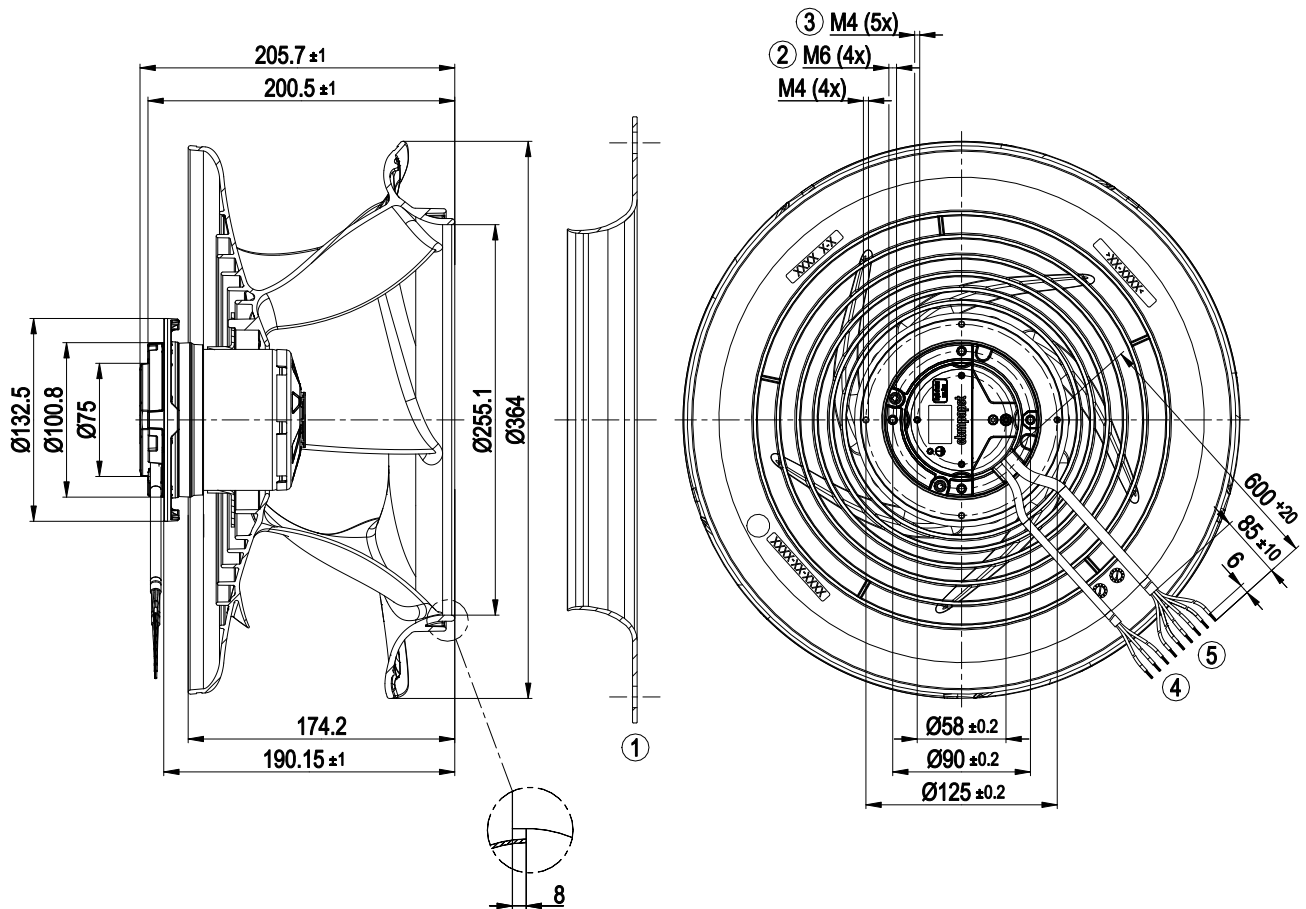
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Technical description

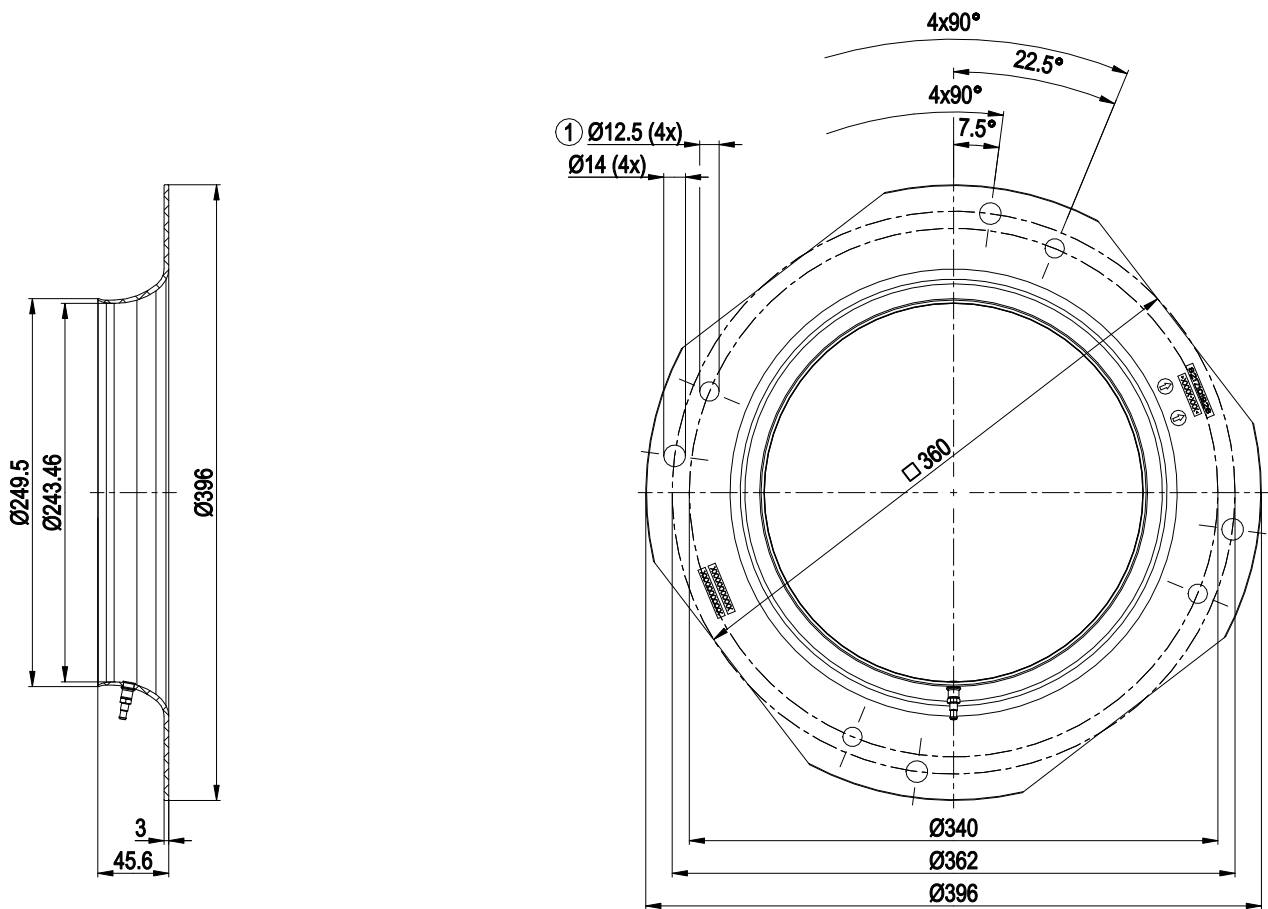
Size	355 mm
Motor size	74
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Number of blades	5
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 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 by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60335-1; EN 60034-1; EN 60204-1; CE; UKCA
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

Product drawing



1	Accessory part: Inlet ring 8217102240 with pressure tap (k-factor: 145) (not included in scope of delivery)
2	Max. clearance for screw 10 mm
3	Max. clearance for screw 5 mm
4	Supply line (PWR) PVC AWG20 3x splice
5	Control wire (CTRL) PVC AWG22 6x splice

Accessory part



Inlet ring 8217102240 with pressure tap (k-factor: 145)

- | | |
|---|--|
| 1 | Fastening holes for FlowGrid 00400-2-2957 (not included in scope of delivery) are provided and must be subsequently opened as required |
|---|--|

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=10 mA Short-circuit-proof, power supply for external devices, SELV
	CTRL	-	gray	No function
	CTRL	-	brown	No function

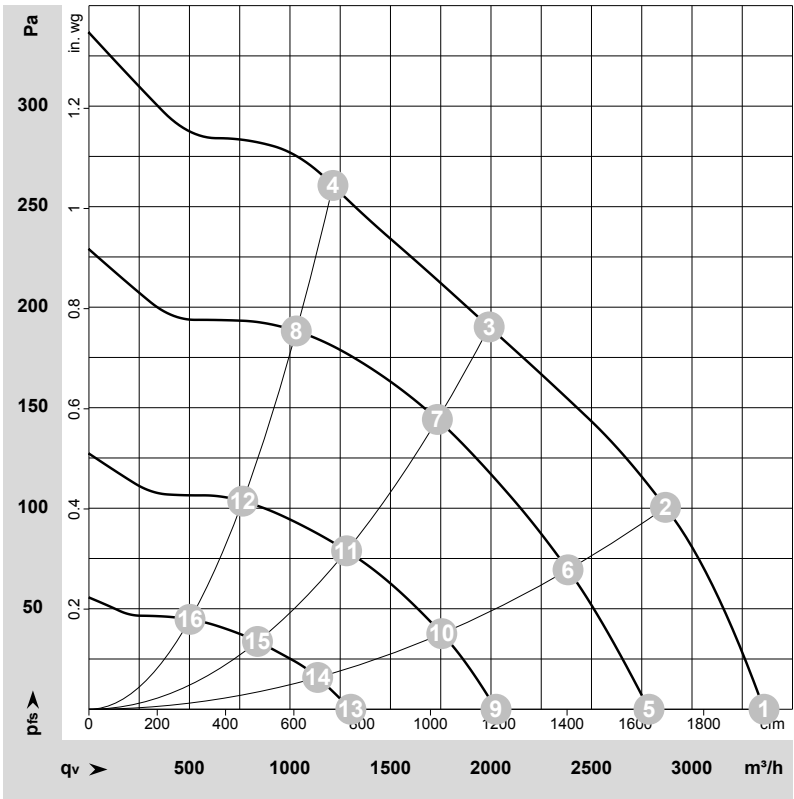
Terminal/plug assignment

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

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-227960-1
Date: 2023-07-20

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	1550	133	1.14	65	73	3360	0	1975	0.00
2	1~	230	50	1540	166	1.39	58	67	2870	100	1690	0.40
3	1~	230	50	1450	170	1.40	53	61	1990	190	1170	0.76
4	1~	230	50	1510	170	1.40	54	62	1215	260	715	1.04
5	1~	230	50	1290	77	0.69	60	69	2785	0	1640	0.00
6	1~	230	50	1280	98	0.86	55	62	2385	69	1405	0.28
7	1~	230	50	1280	113	0.98	49	57	1735	145	1020	0.58
8	1~	230	50	1285	105	0.92	49	57	1030	188	605	0.75
9	1~	230	50	955	35	0.33	54	61	2025	0	1190	0.00
10	1~	230	50	955	44	0.40	48	55	1755	38	1035	0.15
11	1~	230	50	955	49	0.45	43	50	1280	79	755	0.32
12	1~	230	50	955	46	0.42	41	49	765	104	450	0.42
13	1~	230	50	630	13	0.14	41	50	1305	0	765	0.00
14	1~	230	50	625	16	0.16	37	46	1140	16	670	0.06
15	1~	230	50	630	17	0.17	34	42	840	34	495	0.14
16	1~	230	50	630	16	0.16	30	38	505	45	295	0.18

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