8317082274
VBS0190RSLDS

EC centrifugal fan

backward-curved, single-intake

Nominal data

Type	8317082274
Motor	**E0**6004-17 (M3G060-BH)

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3650
Power input	W	119
Current draw	A	0.9
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical description

Weight	1.4 kg
Size	190 mm
Motor size	60
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	Plastic
Number of blades	7
Balancing grade according to DIN ISO 1940-1	G 6.3
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
Cooling hole/opening	On rotor side
Mode	S1
Motor mounting	Ball bearing
Technical features	- Output 10VDC, max. 10 mA
	- Tach output
	- Power limiter
	- Motor current limitation
	- Soft start
	- Control input 0-10 VDC / PWM
	- Control interface with SELV potential safely disconnected from the mains
	- Overvoltage protection
	- Thermal overload protection for electronics / motor
	- Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2(industrial environment)
EMC interference emission	According to EN 61000-6-3(household environment)
Touch current acc.IEC 60990	<=3.5 mA
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	GB12350, EN60034-1, EN60335-1
Approval	-

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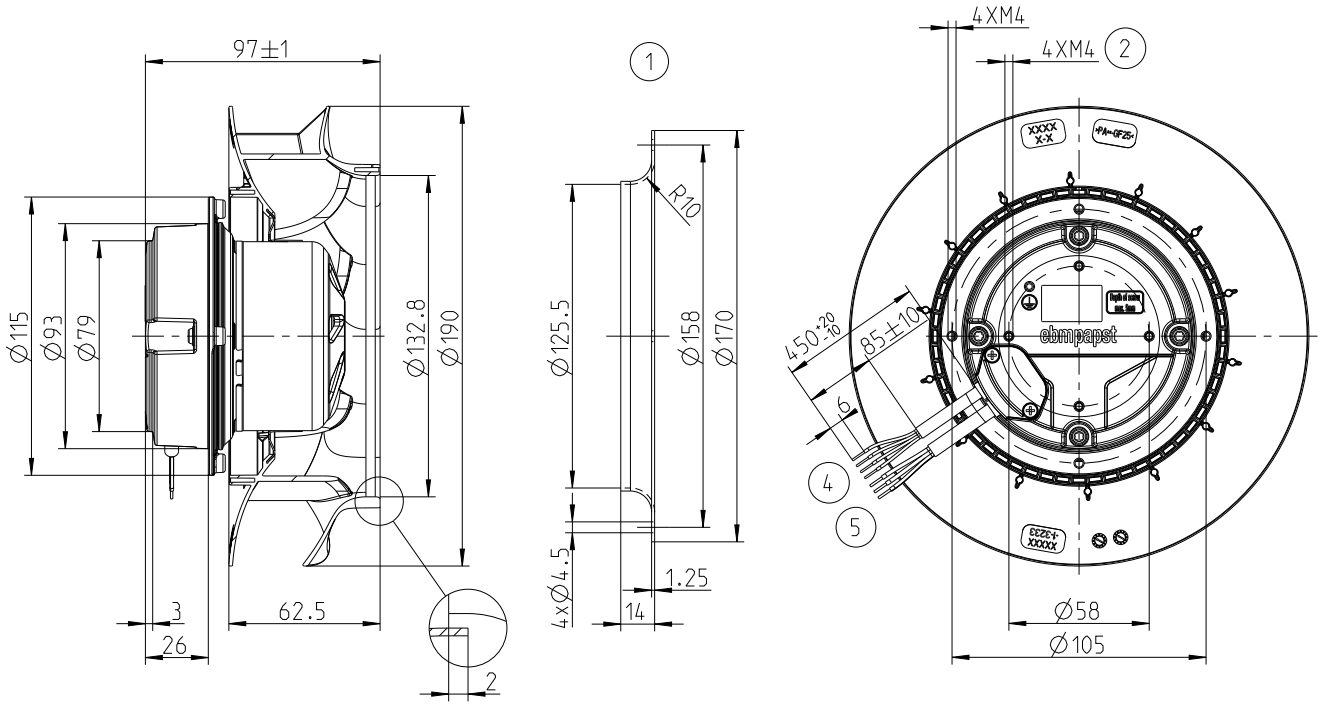
Product drawing



1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 10 mm
4	Cable PVC 4x0.25 mm^2
5	Cable PVC 3x0.5 mm^2

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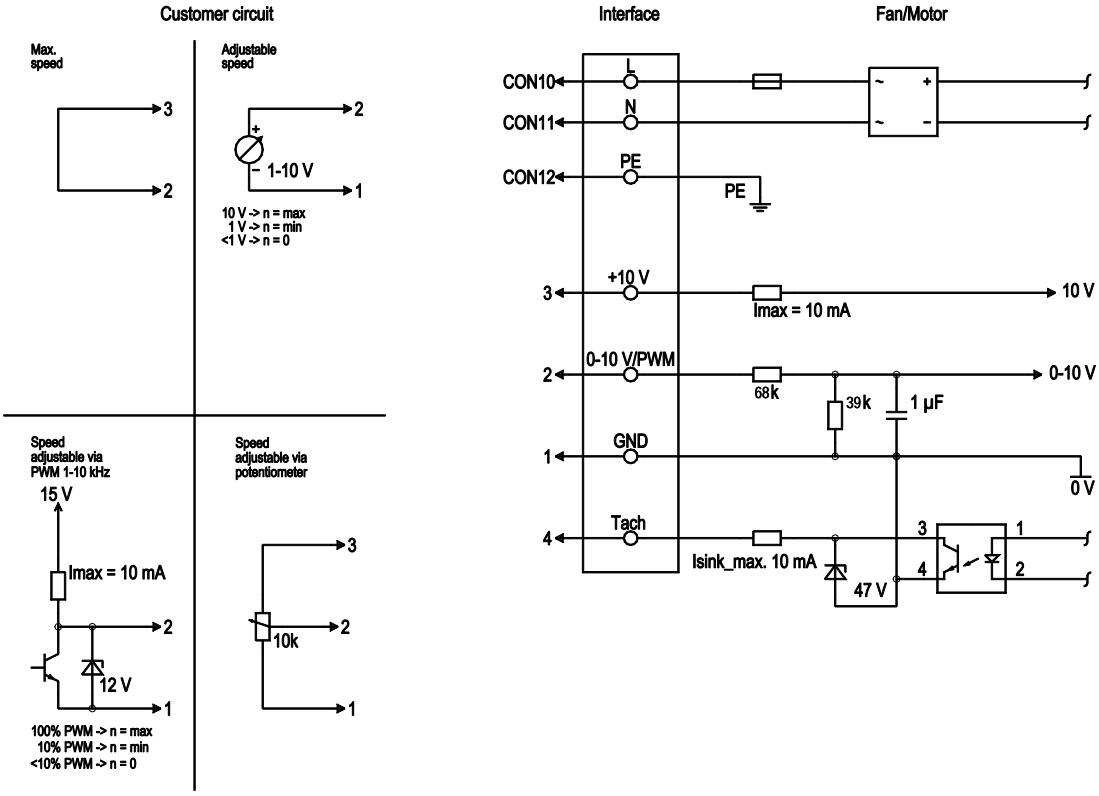
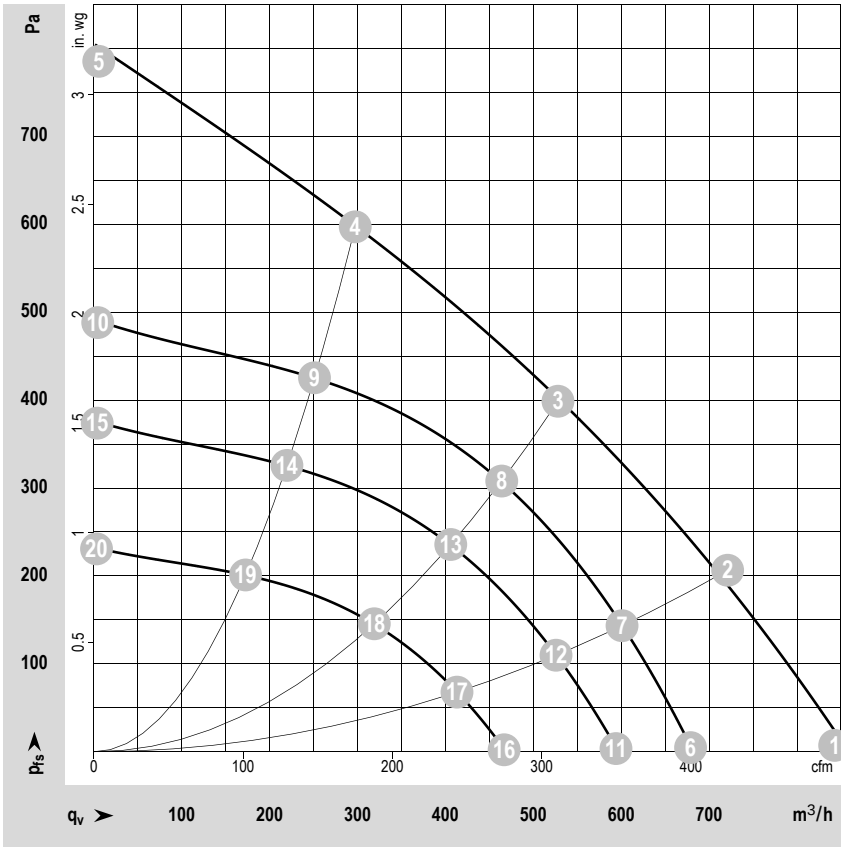
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	1	GND	blue	Reference ground for control interface, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV

Curves: Air performance



ρ = 1.2 kg/m3 ± 2 %

Measurement: ID 14757

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.

Fan performance

Index	U	f	n	P_{ed}	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
01	230	50	3973	121.8	0.98	70	78	843	7	496	0.03
02	230	50	3842	121.9	0.98	64	72	721	208	424	0.84
03	230	50	3640	121.7	0.96	61	69	528	399	311	1.60
04	230	50	3789	122.0	0.97	68	76	297	597	175	2.40
05	230	50	4059	79.2	0.67			5.5	785	3	3.15
06	230	50	3200	63.6	0.51	65	72	679	5	399	0.02
07	230	50	3200	70.4	0.57	60	67	601	144	354	0.58
08	230	50	3200	82.7	0.66	58	66	464	308	273	1.24
09	230	50	3200	73.5	0.58	64	72	251	425	148	1.71
10	230	50	3200	38.8	0.33			4.4	488	3	1.96
11	230	50	2800	42.6	0.34	61	69	594	4	349	0.02
12	230	50	2800	47.2	0.38	56	64	526	110	309	0.44
13	230	50	2800	55.4	0.44	55	62	406	236	239	0.95
14	230	50	2800	49.3	0.39	60	69	220	326	129	1.31
15	230	50	2800	26.0	0.22			3.8	374	2	1.50
16	230	50	2200	20.7	0.17	55	63	467	2	275	0.01
17	230	50	2200	22.9	0.18	50	58	413	68	243	0.27
18	230	50	2200	26.9	0.21	49	56	319	146	188	0.59
19	230	50	2200	23.9	0.19	54	62	173	201	102	0.81
20	230	50	2200	12.6	0.11			3	231	2	0.93

U = Power supply · n = Speed (rpm) · P_{ed} = 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