

8300100064
VFS0120XSLBS

EC centrifugal fan

forward-curved, single-intake

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Nominal data

Item	8300100064	
Motor	E06001-10 (M3G060-BA)	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	3000
Power consumption	W	85
Current draw	A	0.7
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
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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Technical description

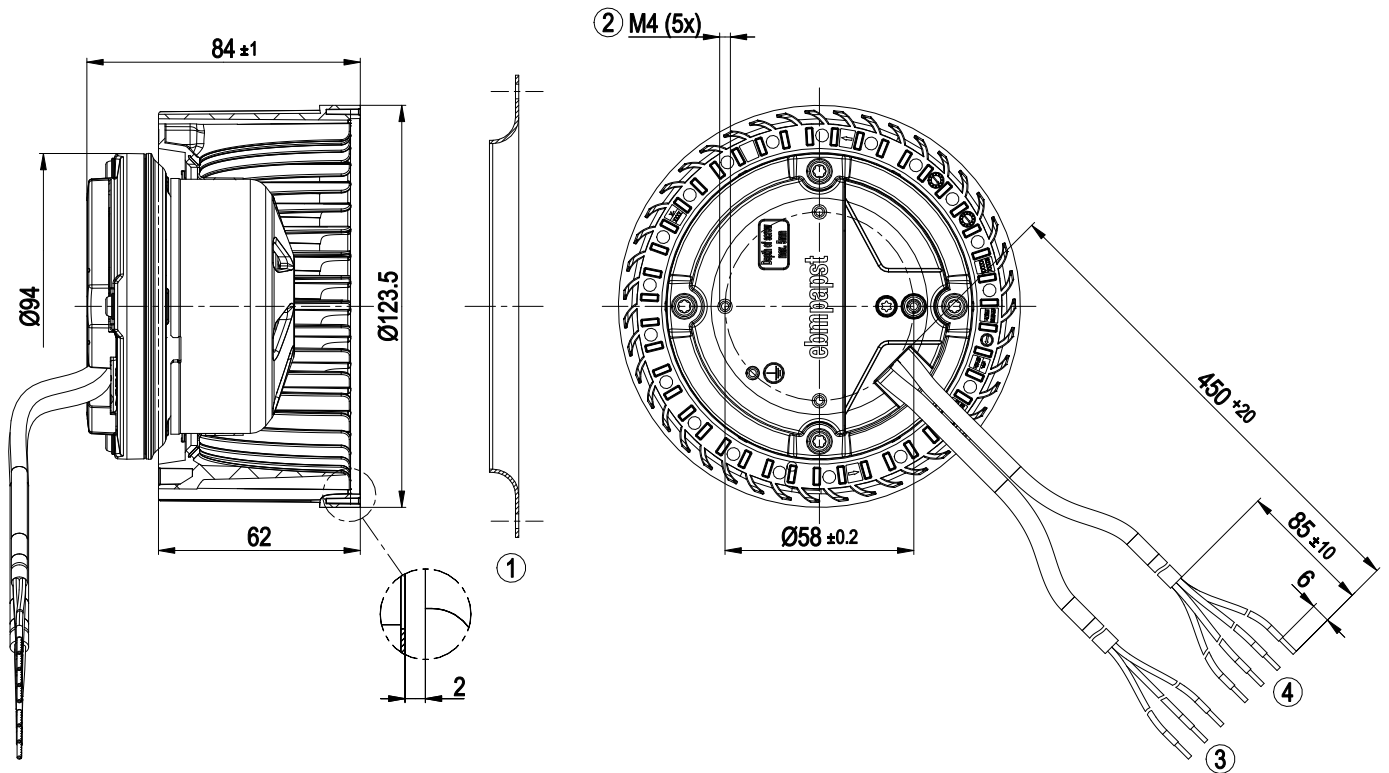
Weight	0.87 kg
Size	120 mm
Motor size	60
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	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
Mode	S1
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 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 60034-1; EN 60204-1; EN 60335-1; UKCA; CE
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

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Product drawing



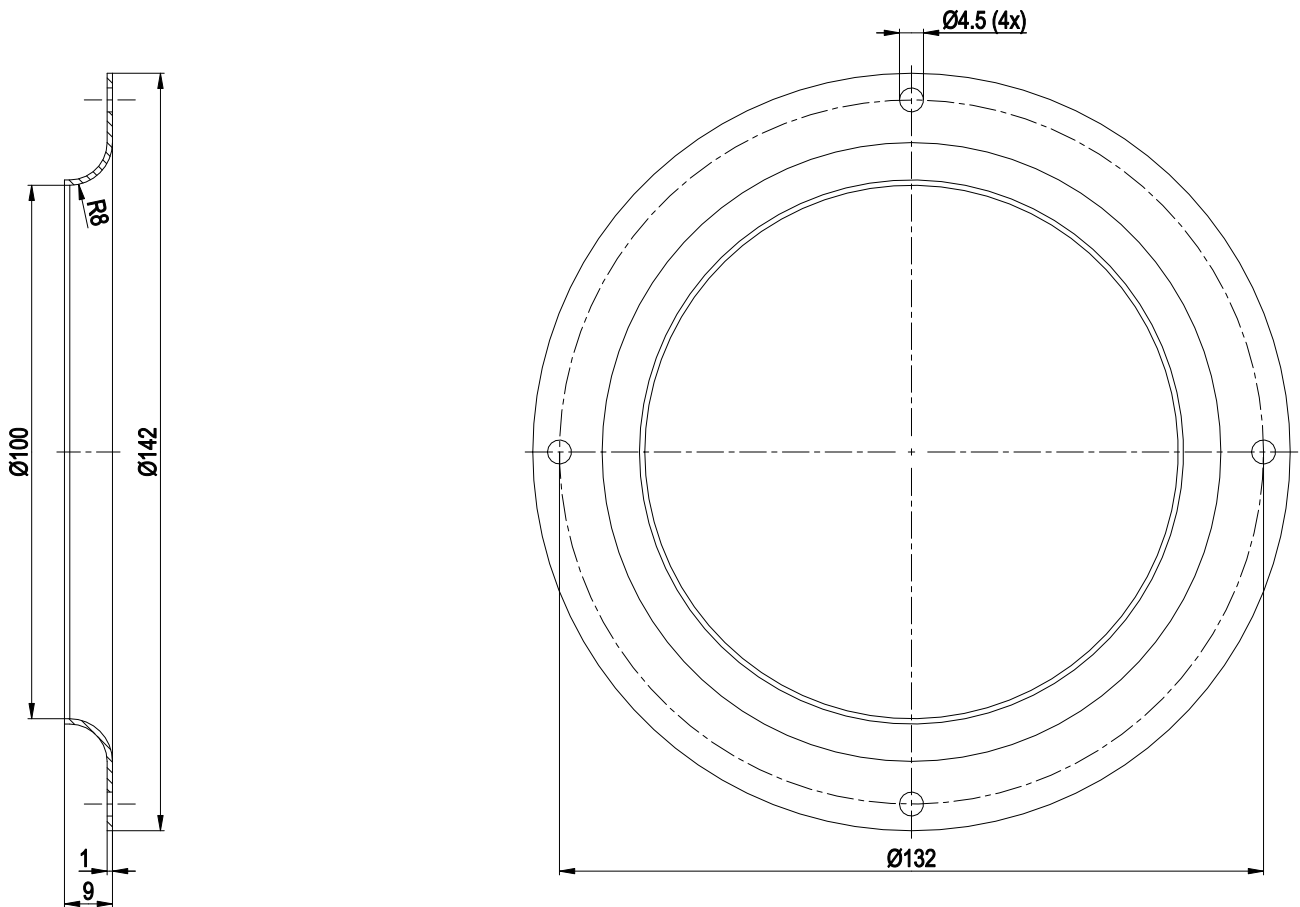
1	Accessory part: inlet ring 09569-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Supply line (PWR) PVC AWG20 3x splice
4	Control wire (CTRL) PVC AWG22 4x splice

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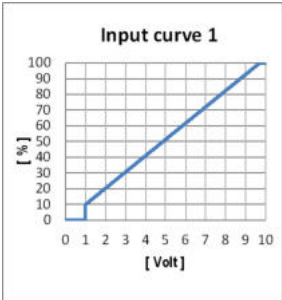
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Accessory part



Inlet ring 09569-2-4013

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

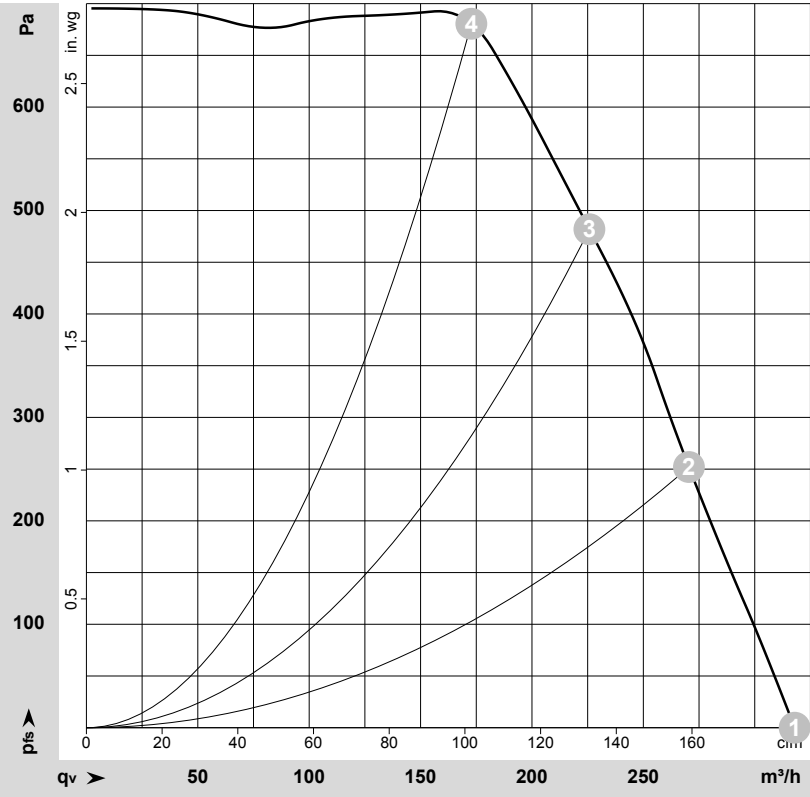
Terminal/plug assignment

		electrical specification		configurable IO mode	
IO1	source: set value		○		
	switch: parameter set: #1 / #2		○		
	switch: direction of rotation: cw / ccw		○		
	switch: enable/disable input		○		
	configurable function		○		
IO2	signal: tach out			○	
	signal: diagnostics out				○
	signal: alarm out				○
	signal: run monitoring				○
	signal: status				○
Vout	signal: configurable function				○
	signal: tach out			○	
	signal: diagnostics out				○
	signal: alarm out				○
	signal: run monitoring				○
IO1	active: parameterizable voltage x-30 VDC				
	not active: pin open or parameterizable voltage <x VDC, SELV				
	RI = 100 kΩ, characteristic curve parameterizable, f _{PWM} = 1k..10 kHz, SELV				
	U _{max} =50 VDC, I _{max} =10 mA, SELV				
	U _{max} =50 VDC, I _{max} =10 mA, SELV				
IO2	Tach out (open collector)				
	Diagnostics out (open collector)				
	Alarm out (open collector)				
	Open collector				
	Voltage output				
		electrical specification		configurable IO mode	
		active: parameterizable voltage x-30 VDC		Din1 (high active): digital input	
		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			
		U _{max} =50 VDC, I _{max} =10 mA, SELV			
		U _{max} =50 VDC, I _{max} =10 mA, SELV			
		U _{max} =50 VDC, I _{max} =10 mA, SELV			
		U _{max} =50 VDC, I _{max} =10 mA, SELV			
		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-213897-1
Date: 2021-05-21
Nozzle: 40003-2-2517

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	3000	85	0.70	66	73	320	0	185	0.00
2	1~	230	50	3375	85	0.70	65	72	270	250	160	1.00
3	1~	230	50	3830	85	0.70	65	72	225	480	135	1.93
4	1~	230	50	4350	85	0.70	66	73	175	690	100	2.77

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