R3G560-AK32-11

EC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R3G560-AK32-11**
Motor	**M3G112-GA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	880
Power consumption	W	620
Current draw	A	2.7
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	61.1	49
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		74.1	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.58
09 Air flow q_v	m^3/h	5905
09 Pressure increase p_{fs}	Pa	199
10 Speed (rpm) n	min^{-1}	885
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-127199

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Technical description

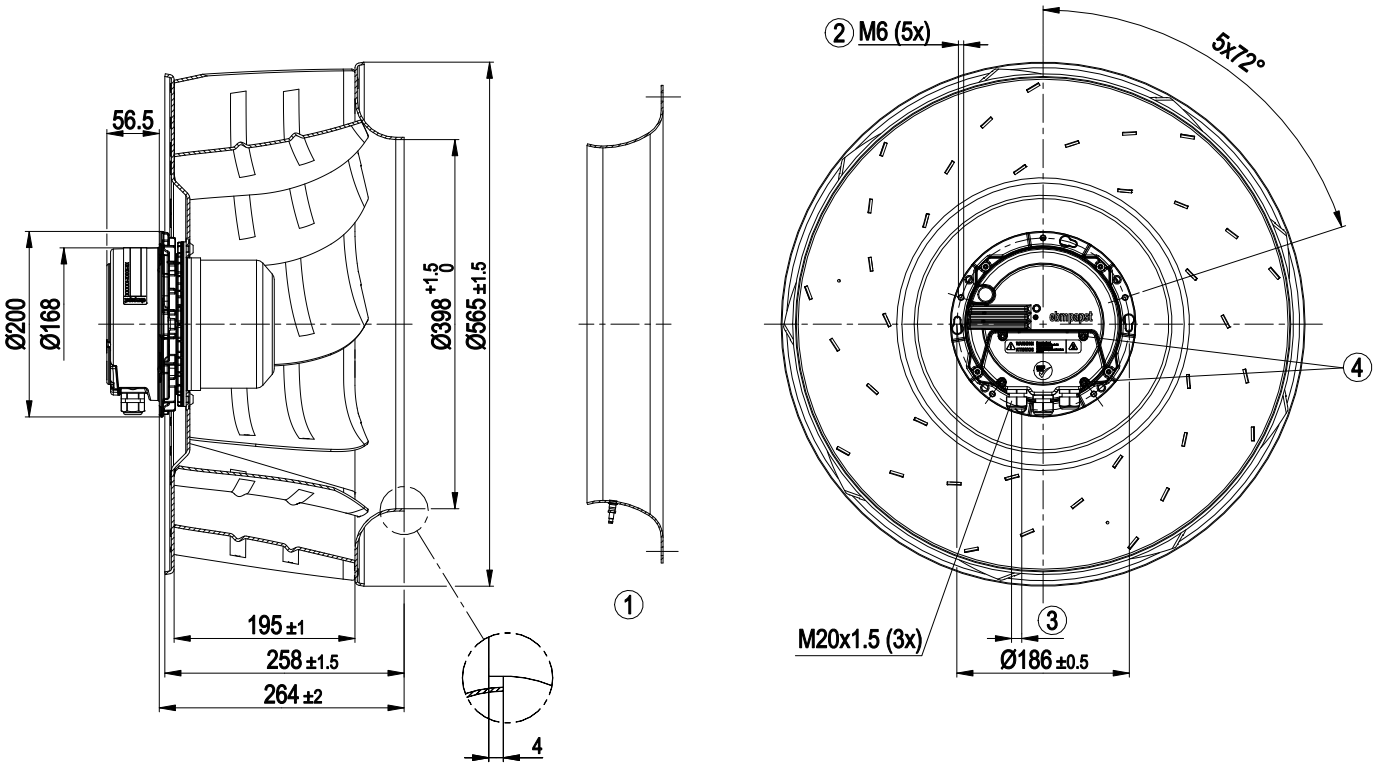
Weight	14.2 kg
Fan size	560 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	9
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F4-1
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	On rotor side
Mode	Continuous operation (S1)
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Input for sensor 0-10 V or 4-20 mA - Alarm relay - Integrated PID controller - Motor current limitation - PFC, active - RS-485 ebmBUS - Soft start - Control input 10-0 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (according to EN 61800-5-1)
Conformity with standards	CE
Approval	EAC

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Product drawing



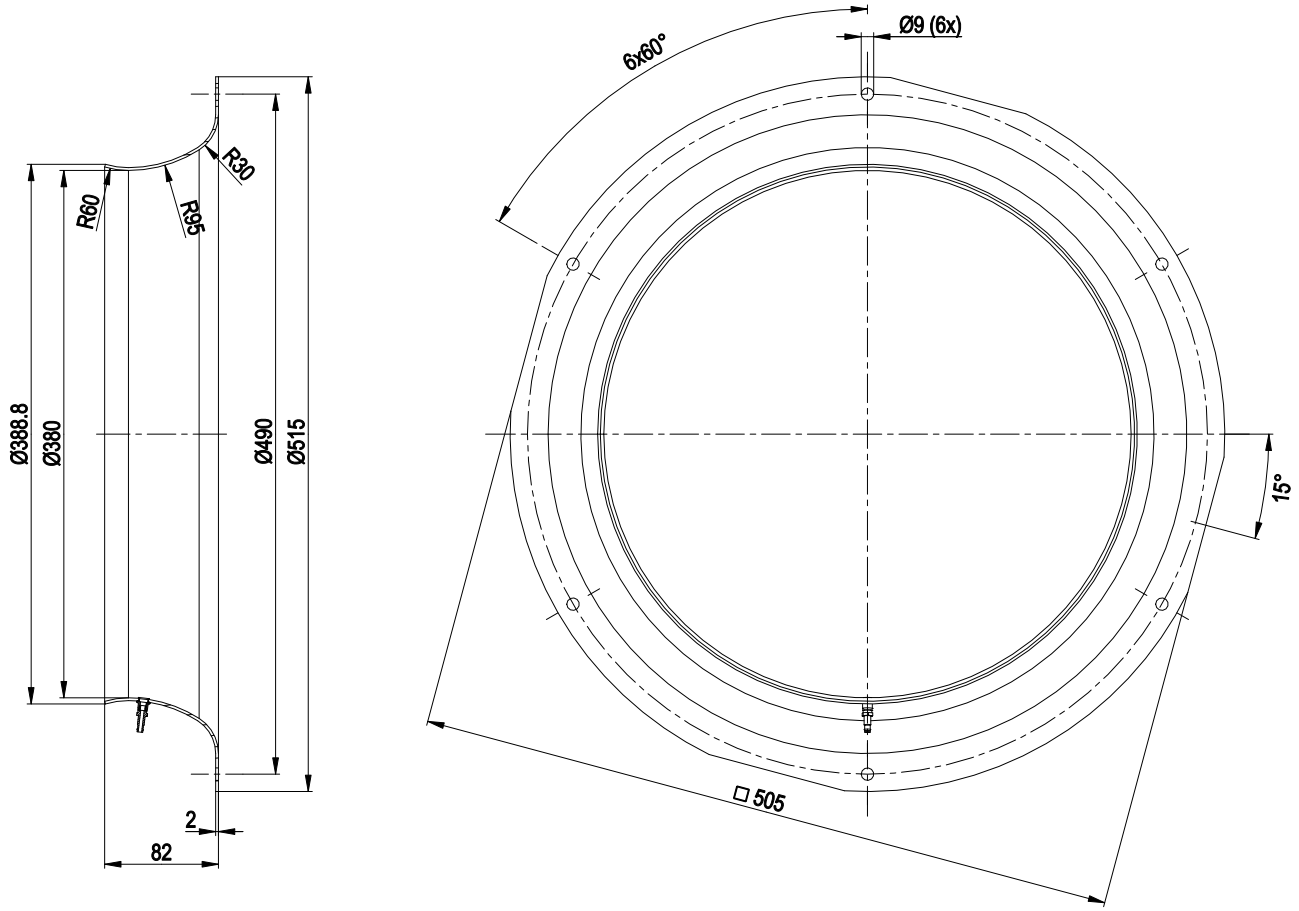
1	Accessory part: inlet ring 64030-2-4013 with pressure tap (k-factor: 348) not included in scope of delivery
2	Max. clearance for screw 16 mm
3	Cable diameter min. 4 mm, max. 10 mm; tightening torque 2.5±0.4 Nm
4	Tightening torque 3.5±0.5 Nm

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Accessory part



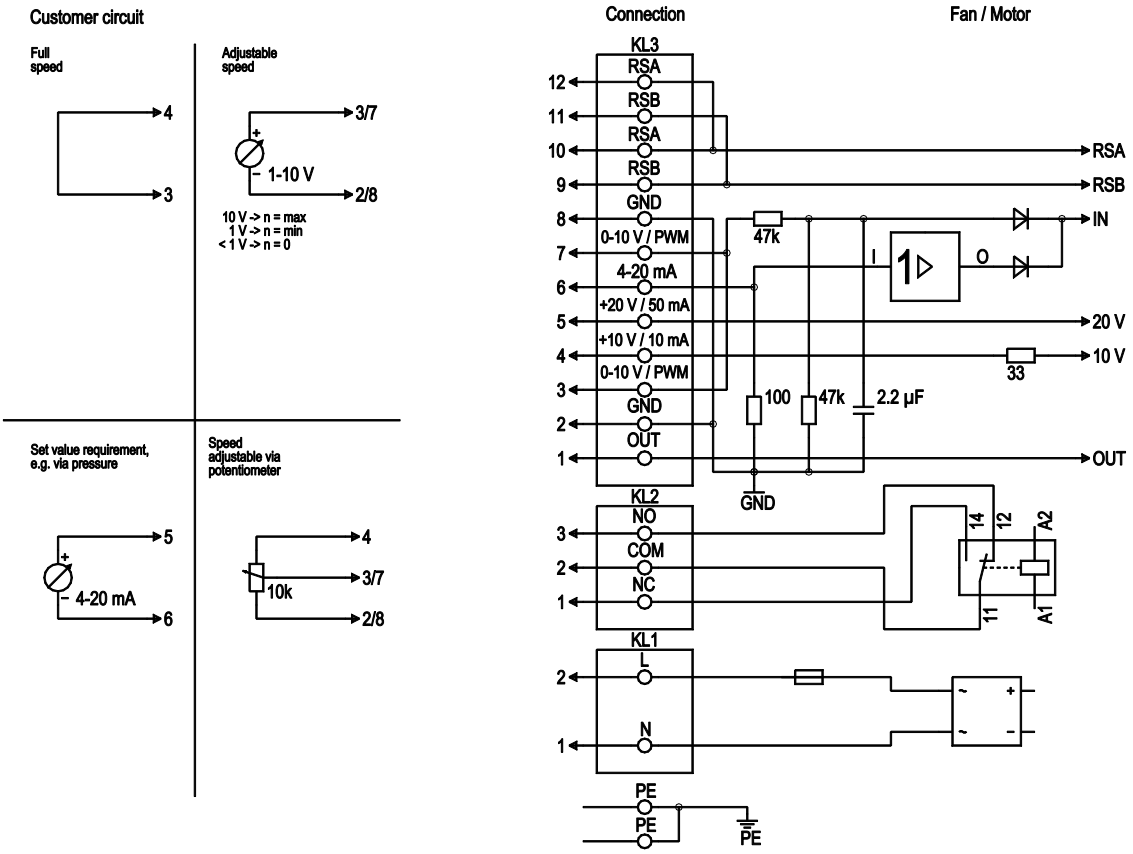
Inlet ring 64030-2-4013 with pressure tap not included in scope of delivery

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Connection diagram



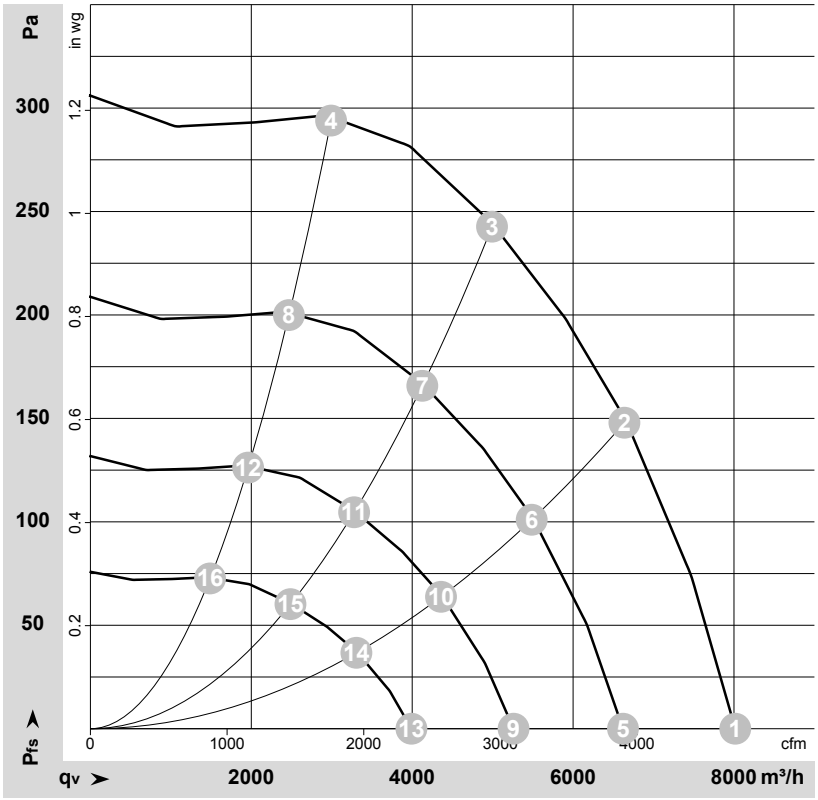
No.	Conn.	Designation	Function/assignment
PE		PE	Protective earth terminal
KL1	1, 2	N, L	Power supply 50/60 Hz
KL2	1	NC	Floating status contact, break for failure
KL2	2	COM	Floating status contact, changeover contact, common connection (2 A, max. 250 VAC, min. 10 mA, AC1)
KL2	3	NO	Floating status contact, make for failure
KL3	1	OUT	Analog output, 0-10 VDC, max. 3 mA, SELV, output of current motor modulation level: 1 V corresponds to 10% modulation level. 10 V corresponds to 100% modulation level.
KL3	2, 8	GND	Reference ground for control interface, SELV
KL3	3, 7	0-10 V	Use control / current sensor value input 0-10 VDC, impedance 100 kΩ only as alternative to 4-20 mA input, SELV
KL3	4	+10 V	Voltage output 10 VDC (±3 %), max. 10 mA, power supply for external devices (e.g. potentiometer), SELV
KL3	5	+20 V	Voltage output 20 VDC (+25% / -10%), max. 50 mA, power supply for external devices (e.g. sensors); SELV
KL3	6	4-20 mA	Use control / current sensor value input 4-20 mA, impedance 100 Ω only as alternative to 0-10 V input, SELV
KL3	9, 11	RSB	RS485 interface for ebmBUS, RSB, SELV
KL3	10, 12	RSA	RS485 interface for ebmBUS, RSA, SELV

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-127199-1

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

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	880	382	1.67	67	75	79	8000	0	4710	0.00
2	230	50	880	573	2.50	62	69	74	6640	150	3910	0.60
3	230	50	880	620	2.70	59.6	67	73	5000	245	2945	0.98
4	230	50	880	537	2.34	62	70	75	3000	290	1765	1.16
5	230	50	730	215	0.94	63	70	74	6620	0	3895	0.00
6	230	50	730	323	1.41	57	64	70	5485	103	3230	0.41
7	230	50	730	352	1.53	55	63	68	4125	167	2430	0.67
8	230	50	730	301	1.31	57	65	70	2465	201	1450	0.81
9	230	50	580	108	0.47	57	64	68	5260	0	3095	0.00
10	230	50	580	162	0.71	51	58	64	4360	65	2565	0.26
11	230	50	580	176	0.77	49	57	62	3280	105	1930	0.42
12	230	50	580	151	0.66	51	59	64	1960	127	1155	0.51
13	230	50	440	47	0.21	50	57	61	3990	0	2350	0.00
14	230	50	440	71	0.31	44	51	57	3305	37	1945	0.15
15	230	50	440	77	0.34	42	50	55	2485	61	1465	0.24
16	230	50	440	66	0.29	44	52	58	1485	73	875	0.29

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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