R3G560-AG07-03

EC centrifugal fan

backward curved, single inlet

R3G560-AG07-03 ebmpapst Datasheet FansCo

sales@fansco.com

www.fansco.com

Nominal data

Type	**R3G560-AG07-03**
Motor	**M3G150-FF**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1350
Power input	W	2300
Current draw	A	3.6
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

Data in accordance with ecodesign regulation EU 327/2011

		Actual	Request 2015
01 Overall efficiency η_{es}	%	59.8	55.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		66.4	62
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	2.36
09 Air flow q_v	m^3/h	8010
09 Pressure increase p_{fs}	Pa	599
10 Speed (rpm) n	min^{-1}	1360
11 Specific ratio*		1.01

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-108580

R3G560-AG07-03 ebmpapst Datasheet FansCo sales@fansco.com www.fansco.com

EC centrifugal fan

backward curved, single inlet

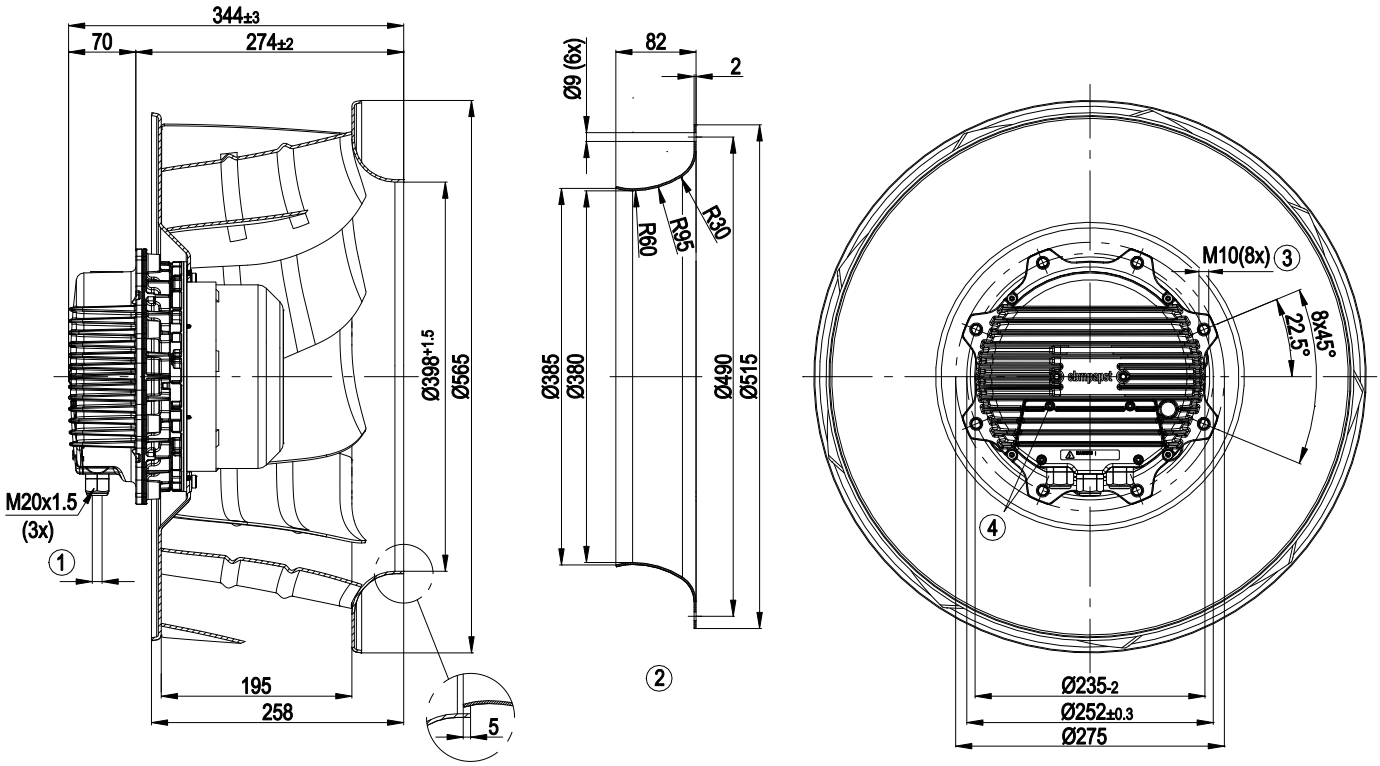
Technical features

Mass	23.5 kg
Size	560 mm
Motor size	150
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminum
Material of impeller	Aluminium sheet
Number of blades	9
Direction of rotation	Clockwise, seen on rotor
Protection rating	IP55
Insulation class	"F"
Humidity (F) / environmental protection class (H)	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	Rotor-side
Operation mode	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 limit - PFC, passive - RS485 ebmBUS - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical connection	Terminal box
Motor protection	Reverse polarity and locked-rotor protection
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	VDE; CSA C22.2 no. 77; EAC

EC centrifugal fan

backward curved, single inlet

Product drawing

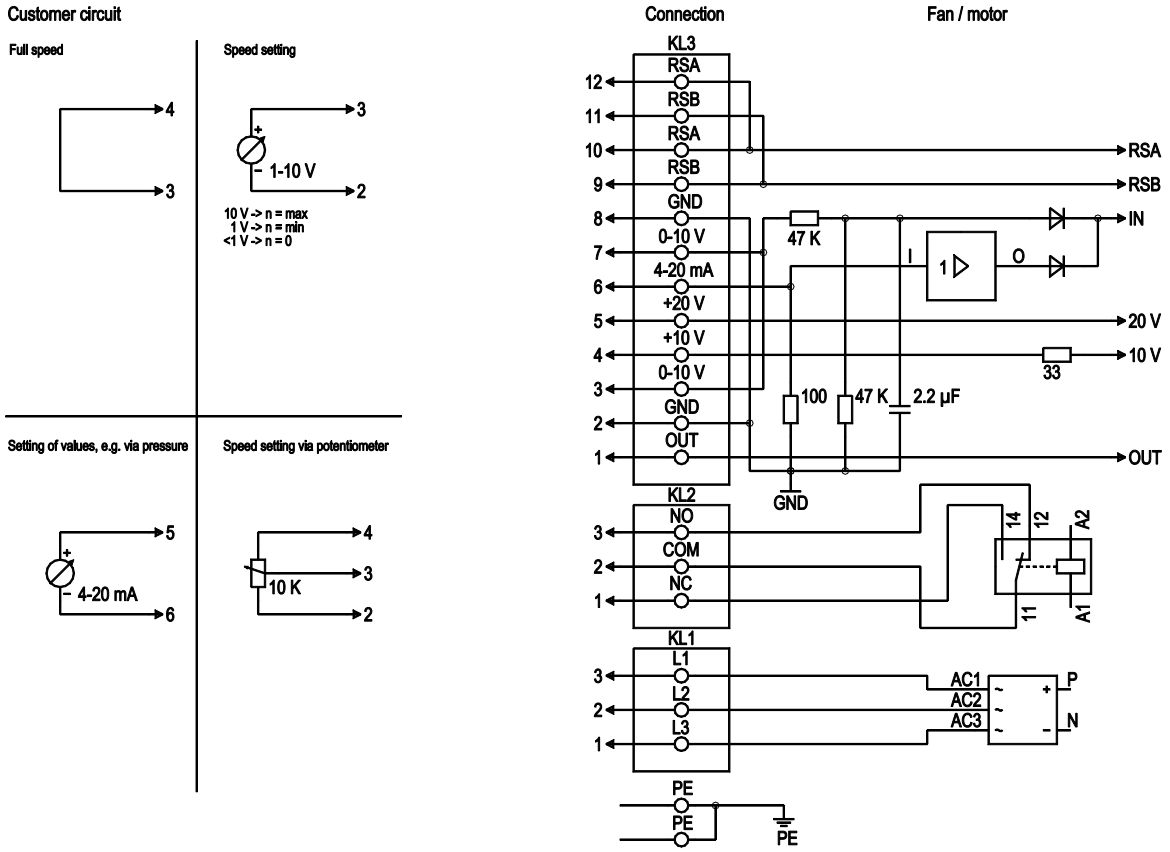


1	Cable diameter: min. 4 mm, max. 10 mm; tightening torque: 4±0.6 Nm
2	Accessory part: Inlet nozzle 63071-2-4013 not included in delivery, other inlet nozzles on request
3	Depth of screw max. 25 mm
4	Tightening torque, terminal box cover 3.5±0.5 Nm

EC centrifugal fan

backward curved, single inlet

Connection screen

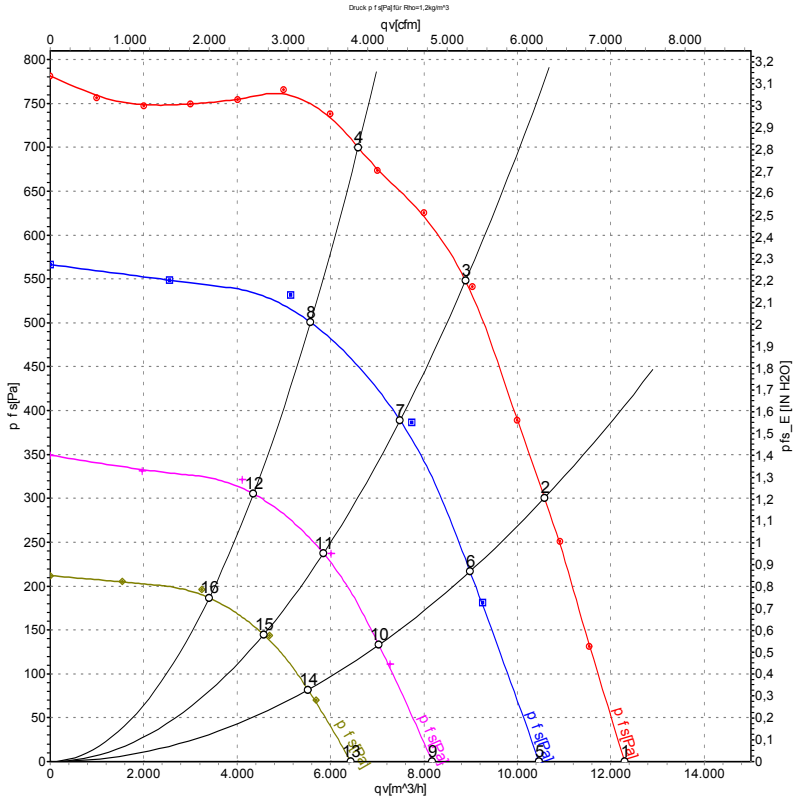


No.	Conn.	Designation	Function / assignment
PE		PE	Protective earth connection
KL1	1, 2, 3	L1, L2, L3	Supply voltage, 50/60 Hz
KL2	1	NC	Floating status message contact, normally closed connection
KL2	2	COM	Floating status message contact, changeover contact, common connection (2 A, max. 250 VAC, min. 10 mA, AC1)
KL2	3	NO	Floating status message contact, normally open connection
KL3	1	OUT	Analog output, 0-10 VDC, max. 3 mA, SELV, output of the current level control coefficient: 1 V equates to 10 % level control coefficient. 10 V equate to 100 % level control coefficient.
KL3	2, 8	GND	Reference mass for control interface, SELV
KL3	3, 7	0-10 V	Use control / actual 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, supply voltage for ext. devices (e.g. potentiometers), SELV
KL3	5	+20 V	Voltage output 20 VDC (+25 %/-10 %), max. 50 mA, supply voltage for ext. devices (e.g. sensors), SELV
KL3	6	4-20 mA	Use control / actual 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

EC centrifugal fan

backward curved, single inlet

Charts: Air flow 50 Hz



Measurement: LU-108580-1
Measurement: LU-111962-1
Measurement: LU-111961-1
Measurement: LU-111960-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

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	400	50	1350	1429	2.18	76	83	90	12300	0	7240	0.00
2	400	50	1350	1983	3.03	74	81	88	10580	300	6225	1.20
3	400	50	1350	2300	3.60	73	80	86	8890	550	5235	2.21
4	400	50	1350	2225	3.39	73	80	86	6590	700	3880	2.81
5	400	50	1150	842	1.32	72	79	85	10470	0	6160	0.00
6	400	50	1150	1141	1.77	70	76	83	8985	218	5290	0.88
7	400	50	1150	1320	2.03	68	75	81	7490	401	4410	1.61
8	400	50	1150	1246	1.92	69	75	81	5575	508	3280	2.04
9	400	50	900	420	0.74	65	72	78	8180	0	4815	0.00
10	400	50	900	555	0.92	64	71	76	7035	134	4140	0.54
11	400	50	900	642	1.04	63	70	75	5850	244	3445	0.98
12	400	50	900	606	0.99	62	69	75	4350	311	2560	1.25
13	400	50	700	213	0.43	60	68	73	6435	0	3785	0.00
14	400	50	700	269	0.52	59	67	72	5520	83	3250	0.33
15	400	50	700	304	0.58	58	67	73	4570	148	2690	0.59
16	400	50	700	288	0.55	55	63	69	3400	190	2000	0.76

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