

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	R3G560-AH02-08	
Motor	M3G150-IF	
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	1510
Power input	W	3100
Current draw	A	4.9
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}	%	59.7	56.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		65.1	62
05 Variable speed drive		Yes	

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

09 Power input P_{ed}	kW	3.03
09 Air flow q_v	m ³ /h	8745
09 Pressure increase p_{fs}	Pa	709
10 Speed (rpm) n	min ⁻¹	1505
11 Specific ratio*		1.01

* Specific ratio = $1 + p_g / 100\,000\text{ Pa}$

LU-109157



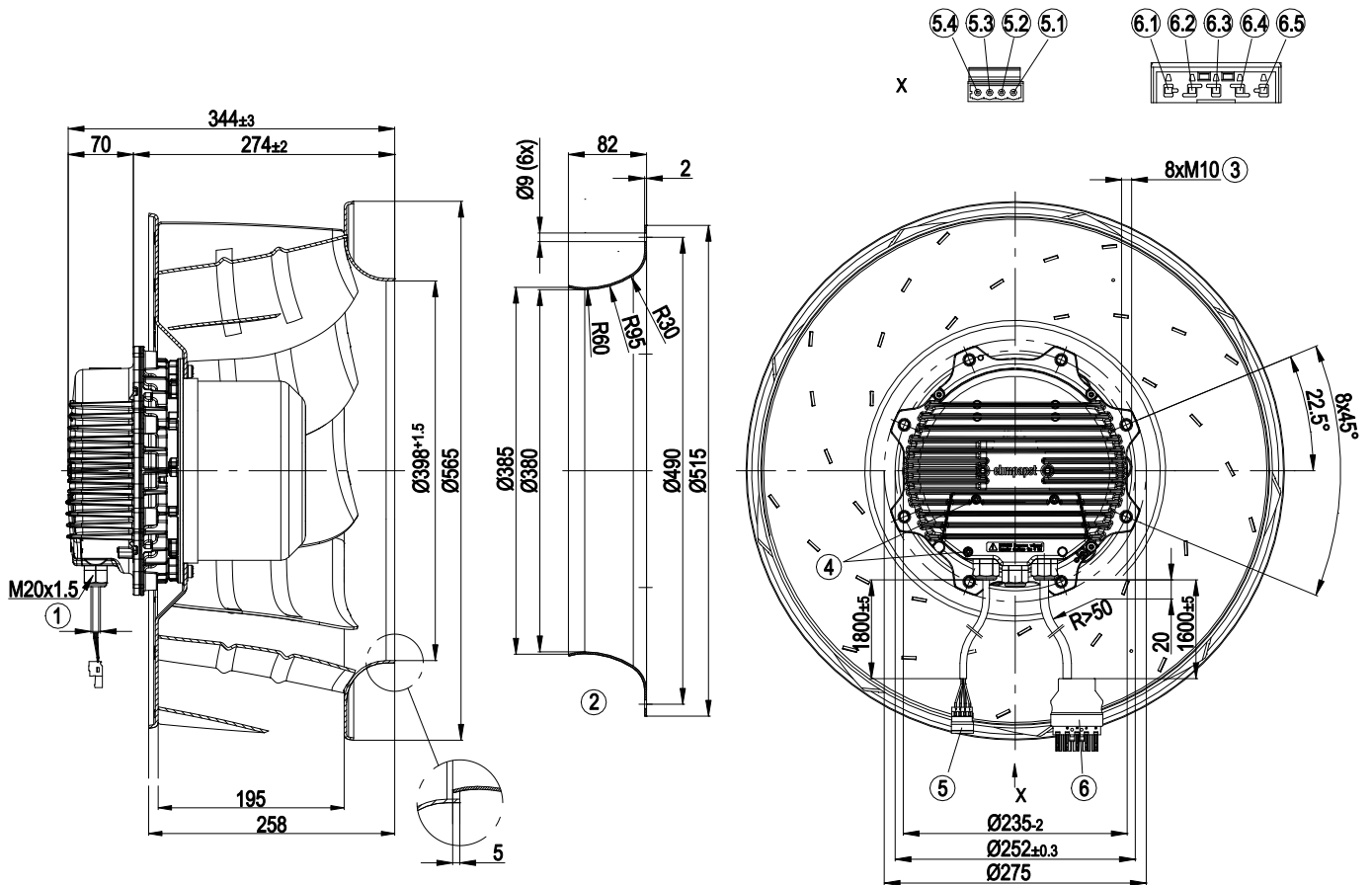
Technical features

Mass	28.7 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	IP54
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 - Run monitoring - 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
EMC interference emission	Acc. to EN 61000-6-3
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical connection	Plug
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	EAC; VDE

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Product drawing



X	View X
1	Cable diameter: min. 4 mm, max. 10 mm; tightening torque: 4±06 Nm
2	Accessory part: Inlet nozzle 63071-2-4013 not included in the standard scope of delivery, other inlet nozzles on request
3	Depth of screw max. 25 mm
4	Tightening torque, terminal box cover 2.5±0.4 Nm
5	4-pole strip, Wago no. 231-604
5.1	GND
5.2	0 - 10 V / PWM
5.3	COM
5.4	NC
6	Plug with strain relief, Wago no. 0770-001/K011-0174/0000-0300
6.1	- (Not assigned)
6.2	PE
6.3	L1
6.4	L2
6.5	L3

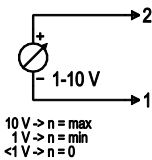
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Connection screen

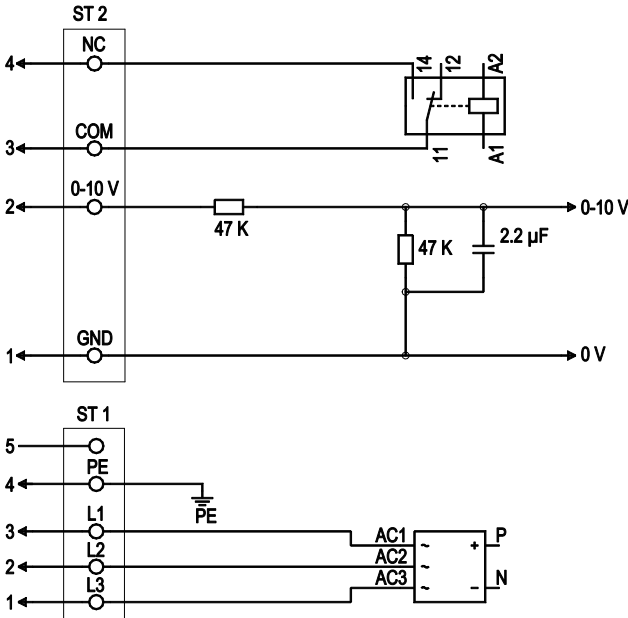
Customer circuit

Speed setting



Connection

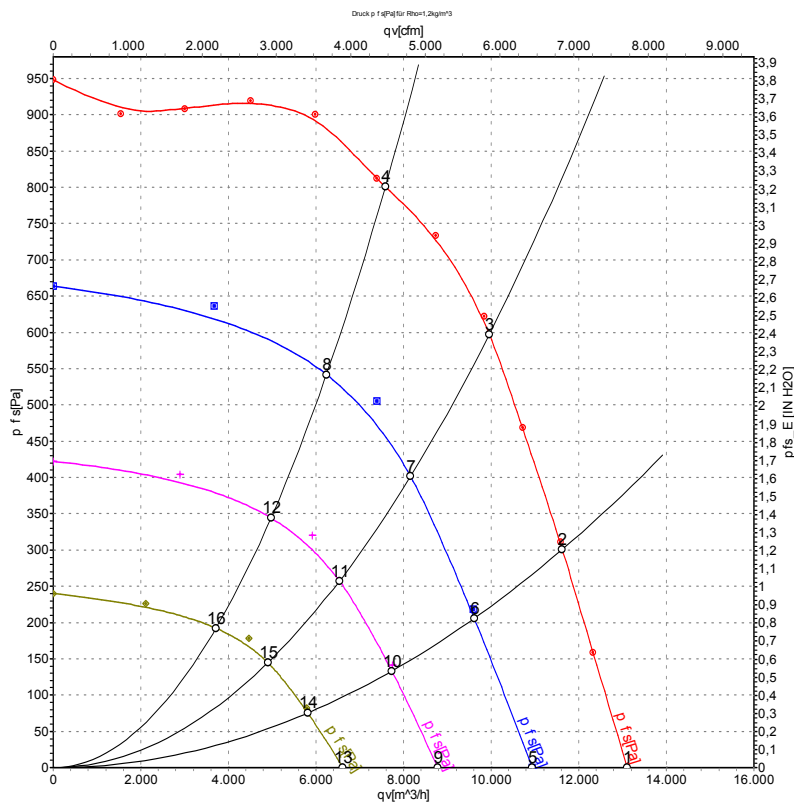
Fan / motor



No.	Conn.	Designation	Function / assignment
ST 1	1, 2, 3	L1, L2, L3	Supply voltage, 50/60 Hz
ST 1	4	PE	Protective ground connection
ST 1	5	-	not assigned
ST 2	1	GND	Reference mass for control interface
ST 2	2	0-10 V	Use control / actual value input 0-10 VDC, impedance 100 kOhm only as alternative to 4-20 mA input, SELV
ST 2	3	COM	Floating status message contact, changeover contact, common connection (2 A, max. 250 VAC, min. 10 mA, AC1)
ST 2	4	NC	Floating status message contact and run monitoring, normally closed connection or n<80 rpm



Charts: Air flow 50 Hz



Measurement: LU-109157-1
 Measurement: LU-111949-1
 Measurement: LU-111950-1
 Measurement: LU-111948-1

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

	Conn.	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	Y	400	50	1510	1965	2.99	80	86	94	13110	0	7715	0.00
2	Y	400	50	1510	2553	3.88	78	84	92	11620	300	6840	1.20
3	Y	400	50	1510	3100	4.90	76	83	90	9955	600	5860	2.41
4	Y	400	50	1510	2981	4.53	75	82	89	7585	800	4465	3.21
5	Y	400	50	1250	1082	1.65	74	81	88	10930	0	6435	0.00
6	Y	400	50	1250	1392	2.12	72	79	86	9615	216	5660	0.87
7	Y	400	50	1250	1579	2.40	71	78	84	8160	405	4805	1.63
8	Y	400	50	1250	1557	2.37	71	78	84	6240	546	3670	2.19
9	Y	400	50	1000	583	0.95	67	74	81	8775	0	5165	0.00
10	Y	400	50	1000	734	1.16	66	73	79	7735	142	4550	0.57
11	Y	400	50	1000	826	1.30	65	72	78	6535	260	3845	1.04
12	Y	400	50	1000	811	1.27	65	72	78	4970	346	2925	1.39
13	Y	400	50	750	272	0.54	60	67	73	6615	0	3895	0.00
14	Y	400	50	750	330	0.63	60	67	73	5810	80	3420	0.32
15	Y	400	50	750	368	0.69	59	66	72	4900	146	2885	0.59
16	Y	400	50	750	357	0.67	58	66	72	3715	193	2185	0.77

Conn. = Connection · 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