R3G560-AO38-26

Stulz

EC centrifugal fan

backward-curved, single-intake

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G560-AO38-26**
Motor	**M3G150-FF**

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}	1120
Power consumption	W	1250
Current draw	A	5.4
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}	%	67.1	52.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		76.7	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	1.23
09 Air flow q_v	m^3/h	7135
09 Pressure increase p_{fs}	Pa	387
10 Speed (rpm) n	min^{-1}	1125
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-180194

ebmpapst

R3G560-AO38-26

Stulz

EC centrifugal fan

backward-curved, single-intake

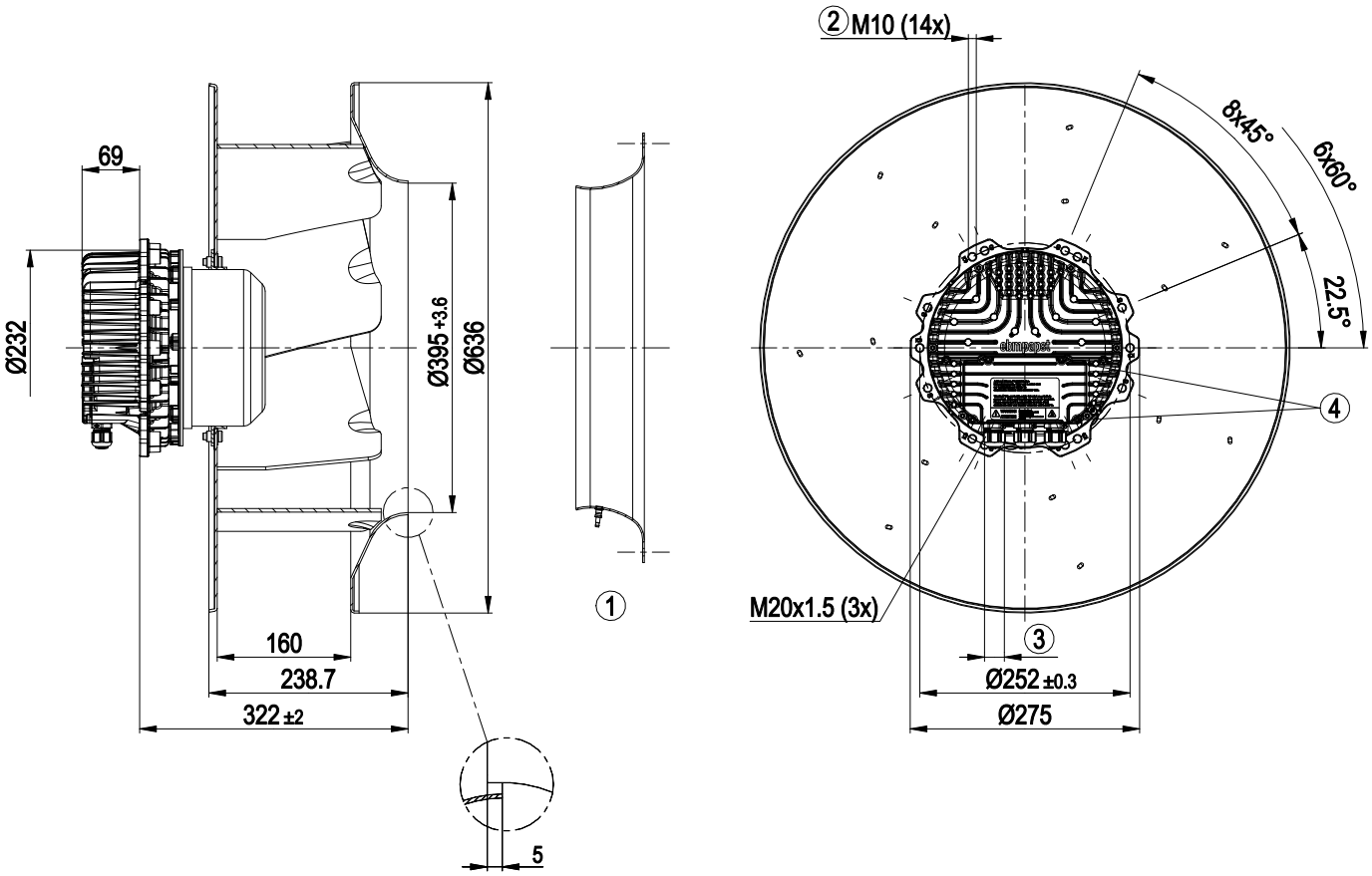
Technical description

Weight	25 kg
Size	560 mm
Motor size	150
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor mounting	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Tach output - Input for sensor 0-10 V or 4-20 mA - External 24 V input (parameter setting) - External release input - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, active - RS-485 MODBUS-RTU - Soft start - Control input 0-10 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	Terminal box
Motor protection	Reverse polarity and locked-rotor protection
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730

EC centrifugal fan

backward-curved, single-intake

Product drawing

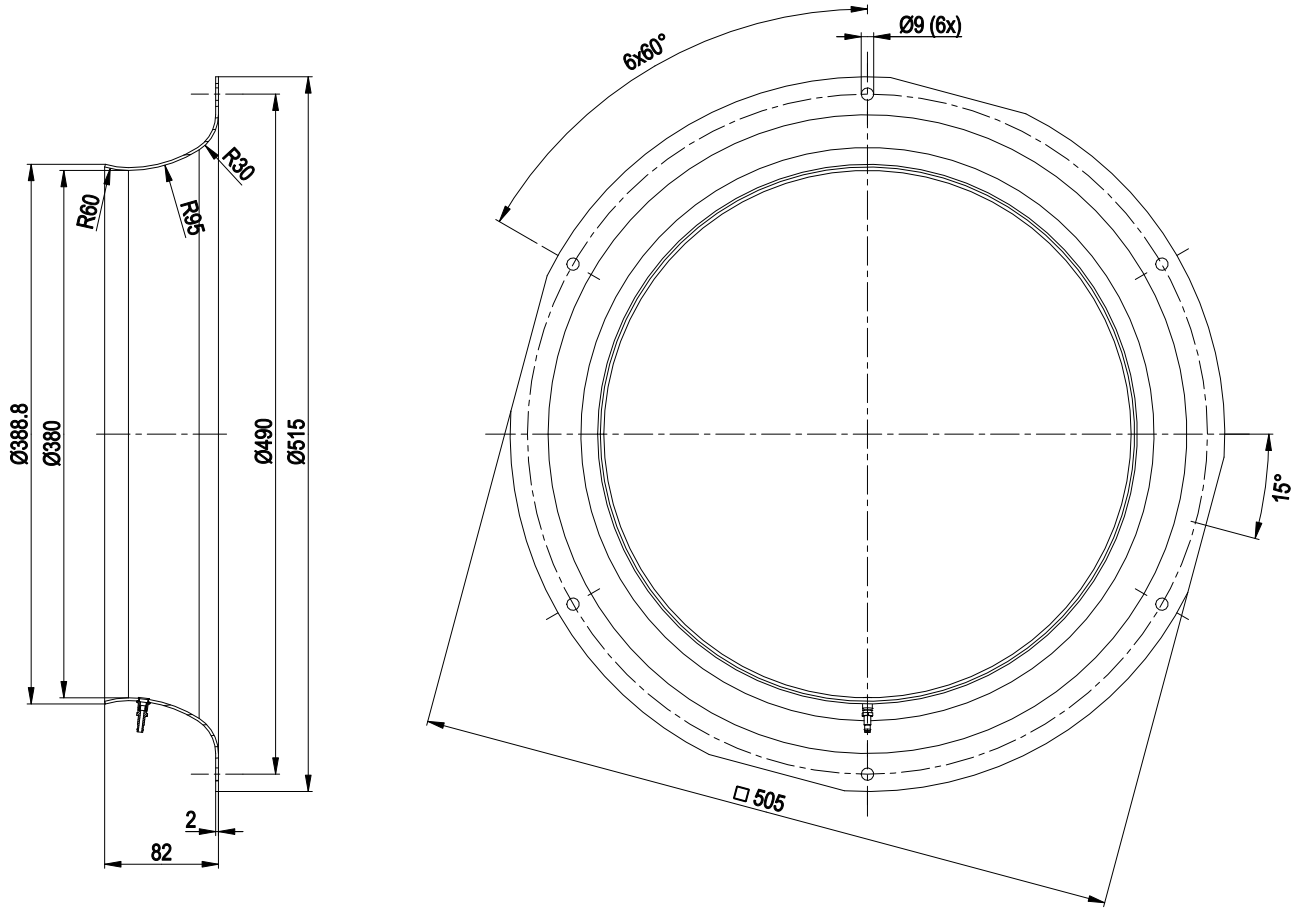


1	Accessory part: Inlet ring 64030-2-4013 with pressure tap (k-factor: 348) not included in scope of delivery
2	Max. clearance for screw 20 mm
3	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
4	Tightening torque 3.5 ± 0.5 Nm

EC centrifugal fan

backward-curved, single-intake

Accessory part

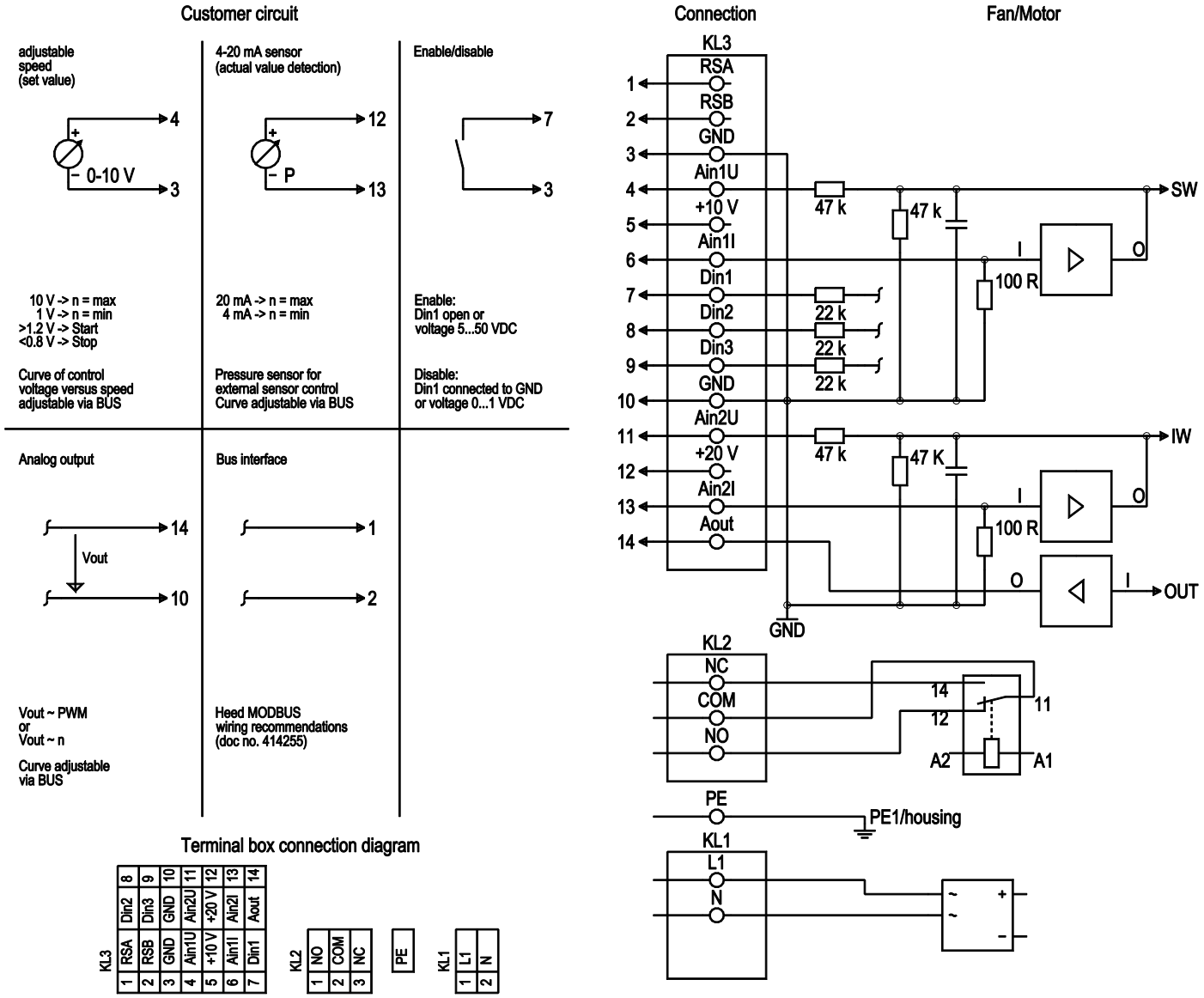


Inlet ring 64030-2-4013 with pressure tap not included in scope of delivery

EC centrifugal fan

backward-curved, single-intake

Connection diagram



No.	Conn.	Designation	Function/assignment
KL1	1	L1	Supply connection, power supply; for nominal voltage range see technical data
KL1	2	N	Supply connection, power supply; for nominal voltage range see technical data
PE		PE	Ground connection, PE connection
KL2	1	NO	Status relay, floating status contact, make for failure
KL2	2	COM	Status relay, floating status contact, changeover contact, common connection, contact rating 250 VAC/ max. 2 A (AC1)/min. 10 mA
KL2	3	NC	Status relay, floating status contact, break for failure
KL3	1	RSA	Bus connection RS485, RSA, MODBUS-RTU; SELV
KL3	2	RSB	Bus connection RS485, RSB, MODBUS-RTU; SELV
KL3	3	GND	Reference ground for control interface; SELV
KL3	4	Ain1 U	Analog input 1, set value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain1 I; SELV

No.	Conn.	Designation	Function/assignment
KL3	5	+ 10 V	Fixed voltage output 10 VDC, + 10 V +/-3%, max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometers); SELV
KL3	6	Ain1 I	Analog input 1, set value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain1 U; SELV
KL3	7	Din1	Digital input 1: enable electronics, enable: pin open or applied voltage 5-50 VDC disable: bridge to GND or applied voltage < 1 VDC reset function: triggers software reset after a level change to < 1 VDC; SELV
KL3	8	Din2	Digital input 2: Switching parameter sets 1/2, according to EEPROM setting, the valid or used parameter set can be selected via bus or via digital input DIN2. Parameter set 1: pin open or applied voltage 5-50 VDC Parameter set 2: bridge to GND or applied voltage < 1 VDC; SELV
KL3	9	Din3	Digital input 3: according to EEPROM setting, the integrated controller's direction of action can be selected via bus or digital input Din3; normal: pin open or applied voltage 5-50 VDC inverse: bridge to GND or applied voltage < 1 VDC; SELV
KL3	10	GND	Reference ground for control interface, SELV
KL3	11	Ain2 U	Analog input 2, measured value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain2 I; SELV
KL3	12	+ 20 V	Fixed voltage output 20 VDC, + 20 V +25/-10%, max. 50 mA, short-circuit-proof, power supply for ext. devices (e.g. sensors); SELV Alternatively: +24 VDC input for parameterization without line voltage
KL3	13	Ain2 I	Analog input 2, measured value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain2 U; SELV
KL3	14	Aout	Analog output 0-10 VDC, max. 5 mA, output of current motor modulation level / motor speed adjustable curve; SELV

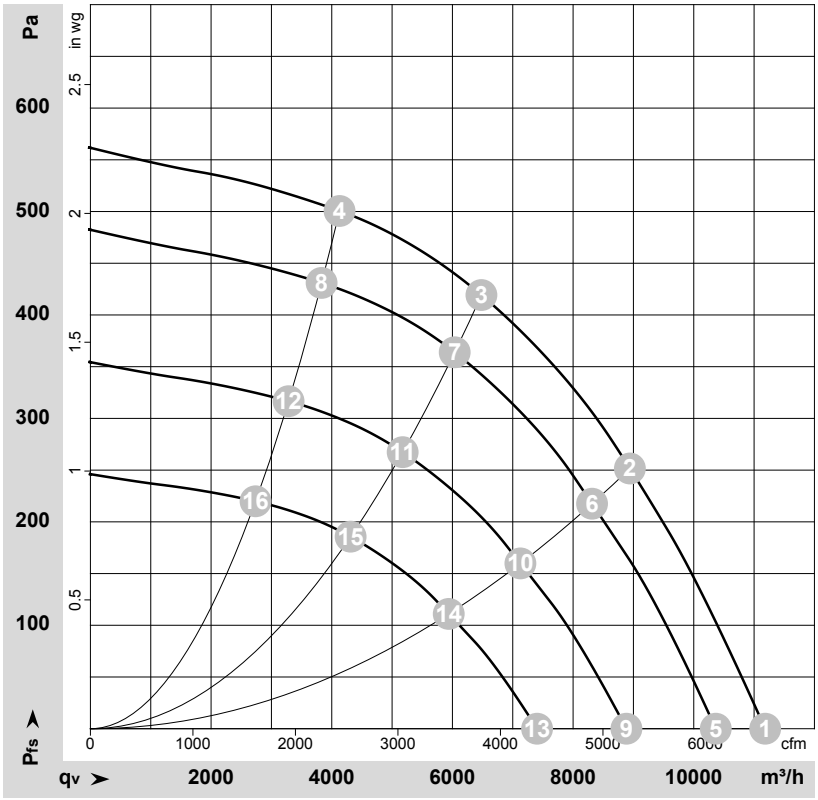
R3G560-AO38-26

Stulz

EC centrifugal fan

backward-curved, single-intake

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-180194-1

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	1120	818	3.56	76	85	88	11185	0	6585	0.00
2	230	50	1120	1101	4.80	67	75	80	8940	250	5265	1.00
3	230	50	1120	1250	5.40	64	71	78	6480	420	3815	1.69
4	230	50	1120	1131	4.93	67	75	81	4130	500	2430	2.01
5	230	50	1050	651	2.84	74	83	86	10365	0	6100	0.00
6	230	50	1050	884	3.85	65	73	78	8315	218	4895	0.88
7	230	50	1050	996	4.34	62	70	76	6040	364	3555	1.46
8	230	50	1050	904	3.94	65	73	79	3830	431	2255	1.73
9	230	50	900	410	1.79	70	79	82	8885	0	5230	0.00
10	230	50	900	557	2.42	61	69	74	7125	160	4195	0.64
11	230	50	900	628	2.73	58	66	72	5175	267	3045	1.07
12	230	50	900	569	2.48	62	70	75	3285	317	1935	1.27
13	230	50	750	237	1.03	66	74	78	7405	0	4355	0.00
14	230	50	750	322	1.40	57	65	70	5940	111	3495	0.45
15	230	50	750	363	1.58	53	61	67	4315	186	2540	0.75
16	230	50	750	329	1.43	57	65	70	2735	220	1610	0.88

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