S3G910-CV02-09

Güntner AG & Co. KG

VT03063U.1

EC axial fan

sickled blades (S series)

with guard grille for full nozzle

ebm-papst Mulfingen GmbH & Co. KG
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S3G910-CV02-09**
Motor	**M3G150-NA**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	960
Power input	W	2370
Current draw	A	3.7
Max. back pressure	Pa	150
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	70

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	44.5	32.6	36.6
Efficiency grade N		47.9	36	40
Power input P_{ed}	kW	2.93		
Air flow q_v	m^3/h	22085		
Pressure increase p_{fs}	Pa	202		
Speed n	min^{-1}	1005		

Data definition with optimum efficiency. LU-119173
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

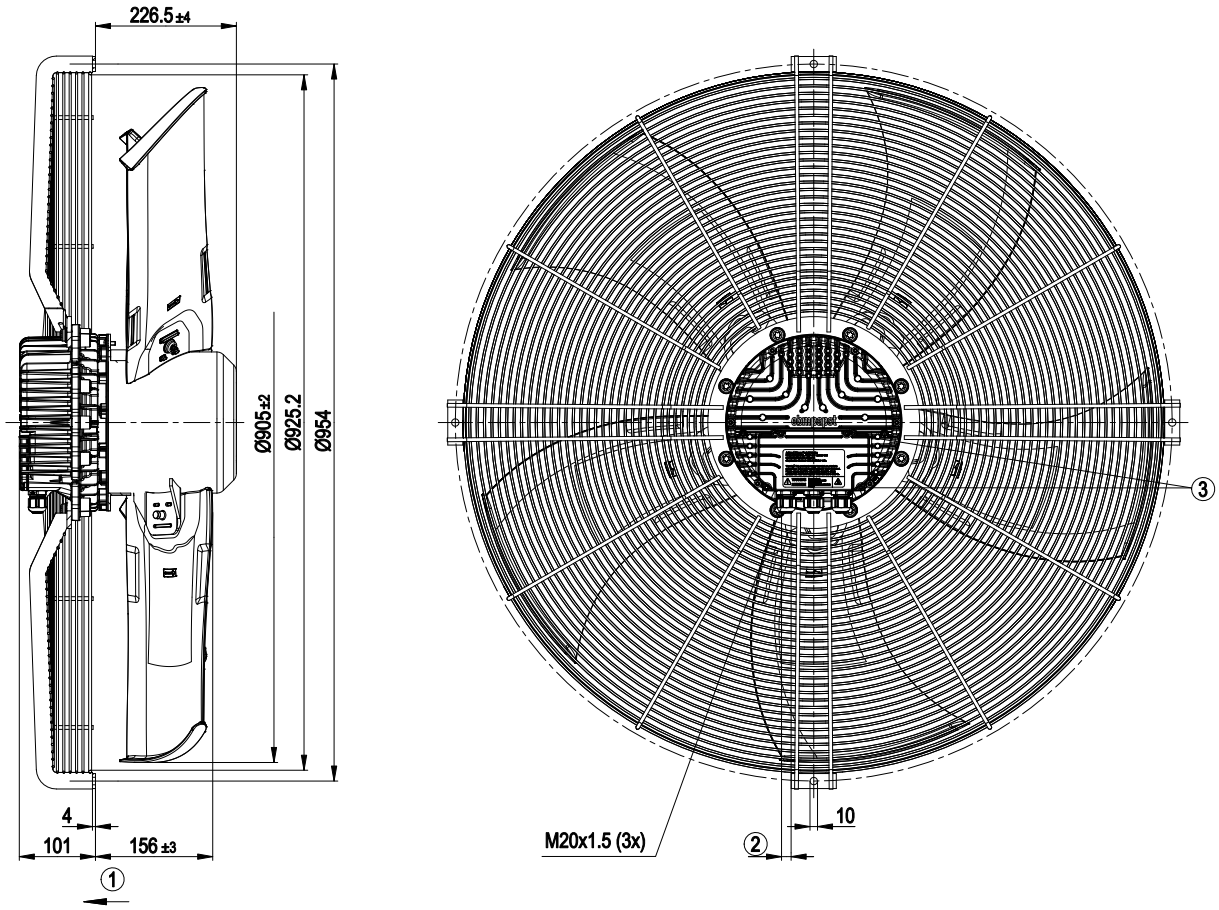
Mass	42.6 kg
Size	910 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Die-cast aluminium
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	0°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	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
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - Bus terminating resistor 120 ohms - External 24 V input (programming) - Alarm relay - Integrated PID controller - Motor current limit - PFC, passive - RS485 MODBUS RTU - 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 leads	Via 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	C22.2 Nr.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730

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Product drawing



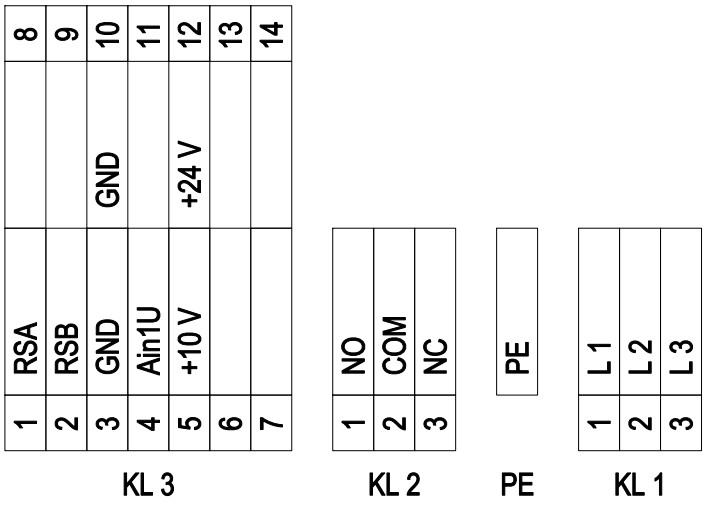
1	Direction of air flow "V"
2	Cable diameter: min. 4 mm; max. 10 mm; tightening torque: 4±0.6 Nm
3	Tightening torque 3.5±0.5 Nm

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Connection screen



No.	Conn.	Designation	Function / assignment
KL 1	1, 2, 3	L1, L2, L3	Mains connection, power supply; see technical data for nominal voltage range
PE		PE	Earth 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
KL 2	3	NC	Status relay, floating status contact, break for failure
KL 3	1	RSA	Bus connection RS-485, RSA, MODBUS RTU; SELV
KL 3	2	RSB	Bus connection RS-485, RSB, MODBUS RTU; SELV
KL 3	3	GND	Signal ground for control interface; SELV
KL 3	4	Ain1 U	Analogue input 1, set value: 0-10 V, Ri = 100 kΩ, parametrisable curve, only usable as alternative to input Ain1; SELV
KL3	5	+10 V	Fixed voltage output 10 VDC, +10 V ±3%, max. 10 mA, short-circuit-proof, power supply for external devices (e.g. potentiometer); SELV
KL3	6		not used
KL3	7		not used
KL3	8		not used
KL3	9		not used
KL 3	10	GND	Signal ground for control interface; SELV
KL 3	11		Not assigned
KL 3	12	+24 V	Setting parameter input 24 VDC, external feed +24 V DC for setting parameters
KL 3	13		not used
KL3	14		not used

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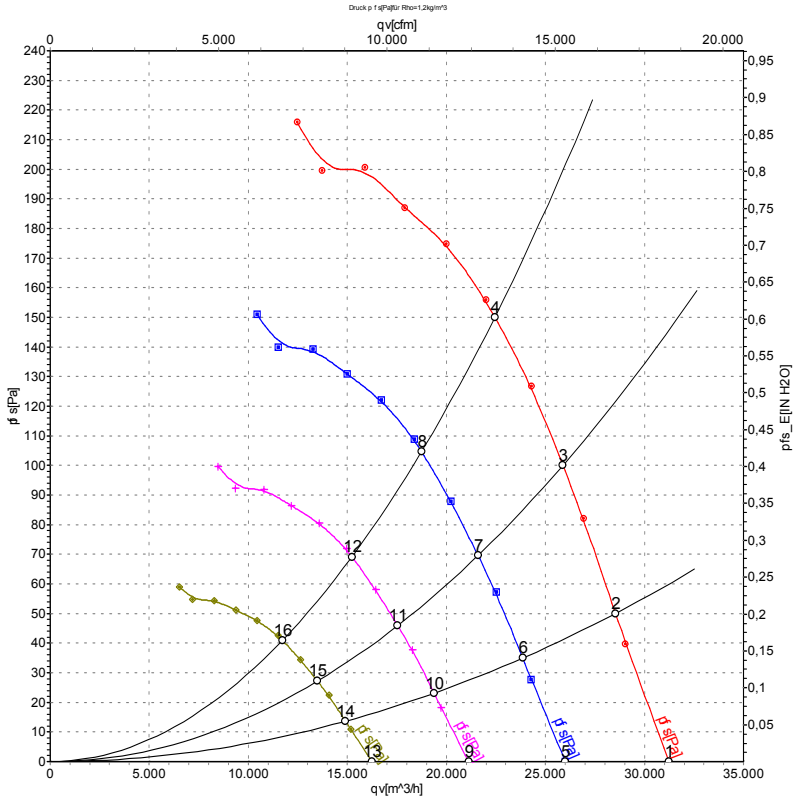
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Charts: Air flow 50 Hz



Measurement: LU-115717

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}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	400	50	960	1793	2.74	74	82	83	31230	0
2	400	50	960	1978	3.00	74	81	82	28540	50
3	400	50	960	2176	3.31	74	81	82	25880	100
4	400	50	960	2370	3.70	75	82	83	22440	150
5	400	50	800	1034	1.58	70	78	79	26000	0
6	400	50	800	1157	1.76	70	77	78	23860	35
7	400	50	800	1264	1.92	70	77	78	21590	70
8	400	50	800	1368	2.08	71	78	79	18740	105
9	400	50	650	555	0.85	66	73	74	21130	0
10	400	50	650	620	0.94	66	73	74	19380	23
11	400	50	650	678	1.03	66	73	74	17540	46
12	400	50	650	734	1.12	67	74	75	15230	69
13	400	50	500	253	0.39	60	68	69	16250	0
14	400	50	500	282	0.43	60	67	68	14910	14
15	400	50	500	309	0.47	60	67	68	13500	27
16	400	50	500	334	0.51	61	68	69	11710	41

U = Supply voltage · f = Frequency · n = Speed · 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
qv = Air flow · p_{fs} = Pressure increase

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