W3GZ50-CC13-84

EC axial fan

sickled blades (S series)

with full round nozzle

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County court Stuttgart · HRB 590142

Nominal data

Type	**W3GZ50-CC13-84**
Motor	**M3G200-QA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	200	200	200	200
Nominal voltage range	VAC	200 .. 240	200 .. 240	200 .. 240	200 .. 240
Frequency	Hz	50/60	50/60	50/60	50/60
Type of data definition		fa	ml	ml	ml
State		prelim.	prelim.	prelim.	prelim.
Speed (rpm)	min^{-1}	720	720	720	720
Power input	W	4150	4900	5300	5550
Current draw	A	12.6	15	16	17
Max. back pressure	Pa	110	110	160	190
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	60	60	50	40

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

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Technical features

Mass	144 kg
Size	1250 mm
Motor size	200
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Die-cast aluminium, coated in black
Material of wall ring	Sheet steel, galvanised and plastic-coated in white aluminium (RAL 9006)
Material of guard grille	Steel, coated in white aluminium plastic (RAL 9006)
Number of blades	5
Blade angle	0°
Direction of air flow	A
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP55
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H2+T
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 - External 24 V input (programming) - External release input - 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
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	EAC; UL 1004-7 + 60730-1; CSA C22.2 no. 77 + CAN/CSA-E60730-1

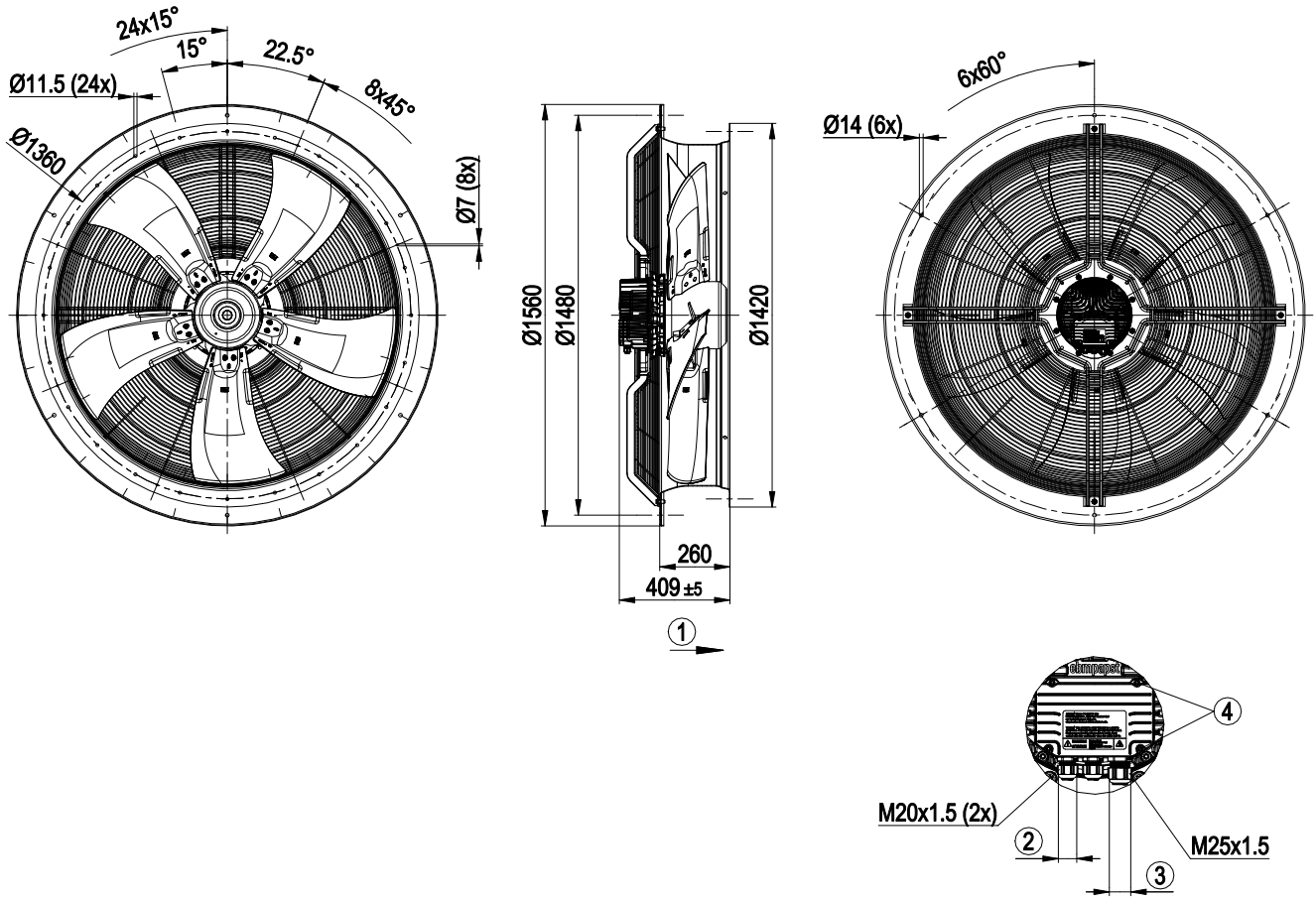
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Product drawing



1	Direction of air flow "A"
2	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4±0.6 Nm
3	Cable diameter min. 9 mm, max. 16 mm, tightening torque 6±0.9 Nm
4	Tightening torque 3.5±0.5 Nm

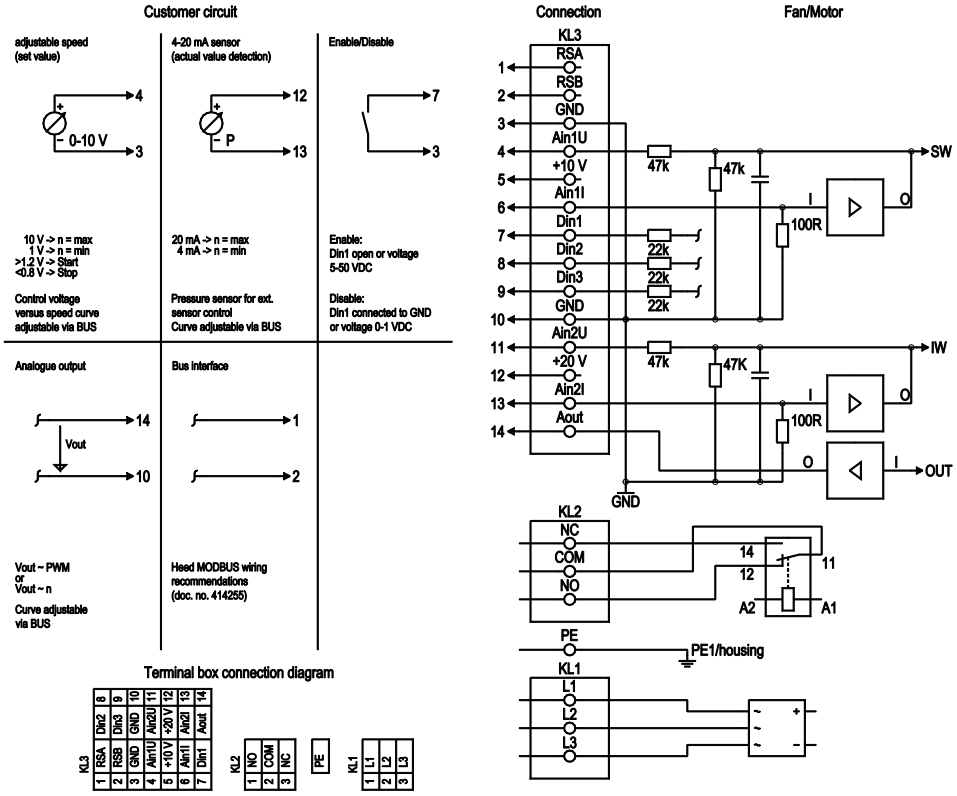
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Connection screen



No.	Conn.	Designation	Function / assignment
KL 1	1	L1	Mains connection, power supply, phase, see type plate for voltage range
KL 1	2	L2	Mains connection, power supply, phase, see type plate for voltage range
KL 1	3	L3	Mains connection, power supply, phase, see type plate for voltage range
PE		PE	Earth connection, PE connection
KL 2	1	NO	Status relay, floating status contact, make for failure
KL 2	2	COM	Status relay, floating status contact, changeover contact, common connection, contact rating, max. 250 VAC/2 A (AC1)/min. 10 mA
KL 2	3	NC	Status relay, floating status contact, break for failure
KL 3	1	RSA	Bus connection RS485, RSA, MODBUS RTU; SELV
KL 3	2	RSB	Bus connection RS485, RSB, MODBUS RTU; SELV
KL 3	3 / 10	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 for use as alternative to input Ain1; SELV
KL 3	5	+ 10 V	Fixed voltage output 10 VDC, +10 V +/-3 %, max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer); SELV
KL 3	6	Ain1 I	Analogue input 1, set value: 4-20 mA; Ri = 100 Ω, parametrisable curve, only for use as alternative to input Ain1 U; SELV
KL 3	7	Din1	Digital input 1: Enabling of electronics, Enabling: Pin open or applied voltage 5-50 VDC Disabling: Bridge to GND or applied voltage <1 VDC Reset function: Triggers software reset after a level change to <1 VDC; SELV
KL 3	8	Din2	Digital input 2: Parameter set 1/2 switching, depending on EEPROM setting, the valid/used parameter set can be selected via the bus or via the 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

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No.	Conn.	Designation	Function / assignment
KL 3	9	Din3	Digital input 3: Controller function of integrated controller; depending on EEPROM setting, normal / inverse can be selected for the controller function of the integrated controller via the bus or the digital input Normal: Pin open or applied voltage 5-50 VDC Inverse: bridge to GND or applied voltage <1 VDC; SELV
KL 3	11	Ain2 U	Analogue input 2, actual value: 0-10 V, Ri = 100 kΩ, parametrisable curve, only usable as alternative to input Ain2; SELV
KL 3	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 parametrisation without mains power
KL 3	13	Ain2 I	Analogue input 2, actual value: 4-20 mA, Ri = 100 Ω, parametrisable curve, only for use as alternative to input Ain2 U; SELV
KL 3	14	Aout	Analogue output 0-10 V, max. 5 mA, output of current motor level control coefficient; parametrisable curve; SELV

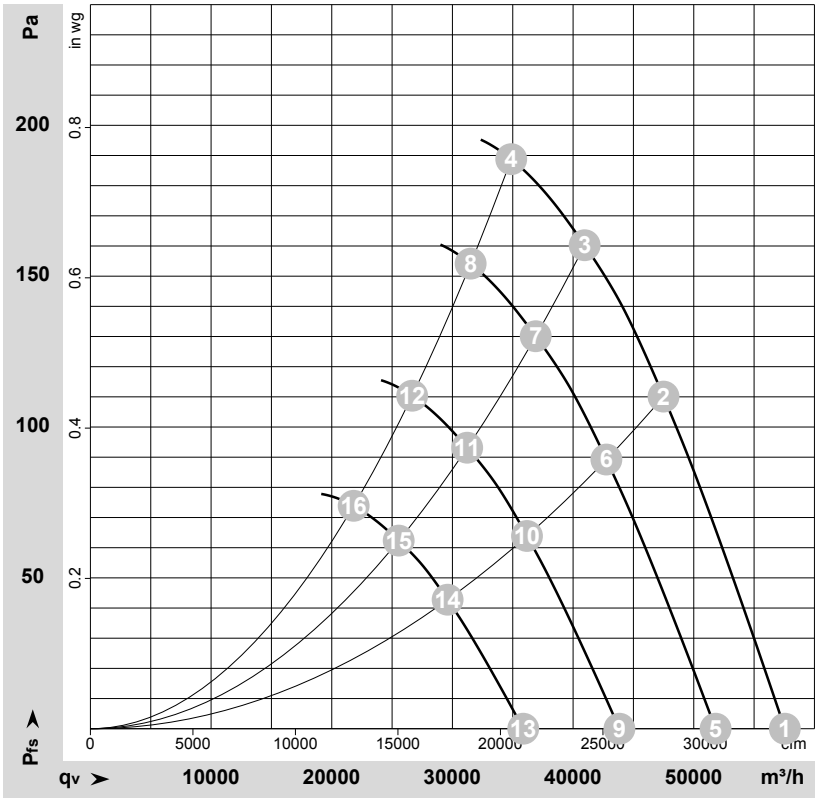
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-181916-1

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	200	50	720	4150	12.60	83	93	90	57550	0	33870	0.00
2	200	50	720	4900	15.00	80	89	88	47495	110	27955	0.44
3	200	50	720	5300	16.00	80	89	88	40960	160	24110	0.64
4	200	50	720	5550	17.00	82	91	91	34875	190	20525	0.76
5	200	50	650	3035	9.19	80	91	88	51810	0	30495	0.00
6	200	50	650	3582	10.90	77	87	85	42760	89	25165	0.36
7	200	50	650	3868	11.80	77	87	86	36905	130	21720	0.52
8	200	50	650	4076	12.46	80	88	89	31515	155	18550	0.62
9	200	50	550	1839	5.57	76	86	83	43840	0	25805	0.00
10	200	50	550	2170	6.61	73	83	81	36180	64	21295	0.26
11	200	50	550	2343	7.15	73	82	82	31225	93	18380	0.37
12	200	50	550	2470	7.55	75	84	84	26665	111	15695	0.45
13	200	50	450	1007	3.05	71	81	78	35870	0	21110	0.00
14	200	50	450	1189	3.62	68	78	76	29605	43	17425	0.17
15	200	50	450	1284	3.91	68	77	77	25550	62	15035	0.25
16	200	50	450	1353	4.13	70	79	79	21815	74	12840	0.30

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

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