G3G250-MW72-05

EC centrifugal fan

backward-curved, single-intake

with housing (flange), Gas blower for condensing boilers



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Nominal data

Type	**G3G250-MW72-05**
Motor	**M3G112-EA**

Phase		3~
Nominal voltage	VAC	200
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	6000
Power consumption	W	2200
Current draw	A	6.9
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50
Min. temp. of flow medium	°C	-25
Max. temp. of flow medium	°C	+50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	23.5 kg
Fan size	250 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Housing material	Die-cast aluminum
Spacer material	Aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Tach output - Alarm relay - Motor current limitation - PFC, passive - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - 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	Via terminal box
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1
Approval	EAC; UL 1004-7 + 60730
Comment	Complete unit must be tested for required approvals.

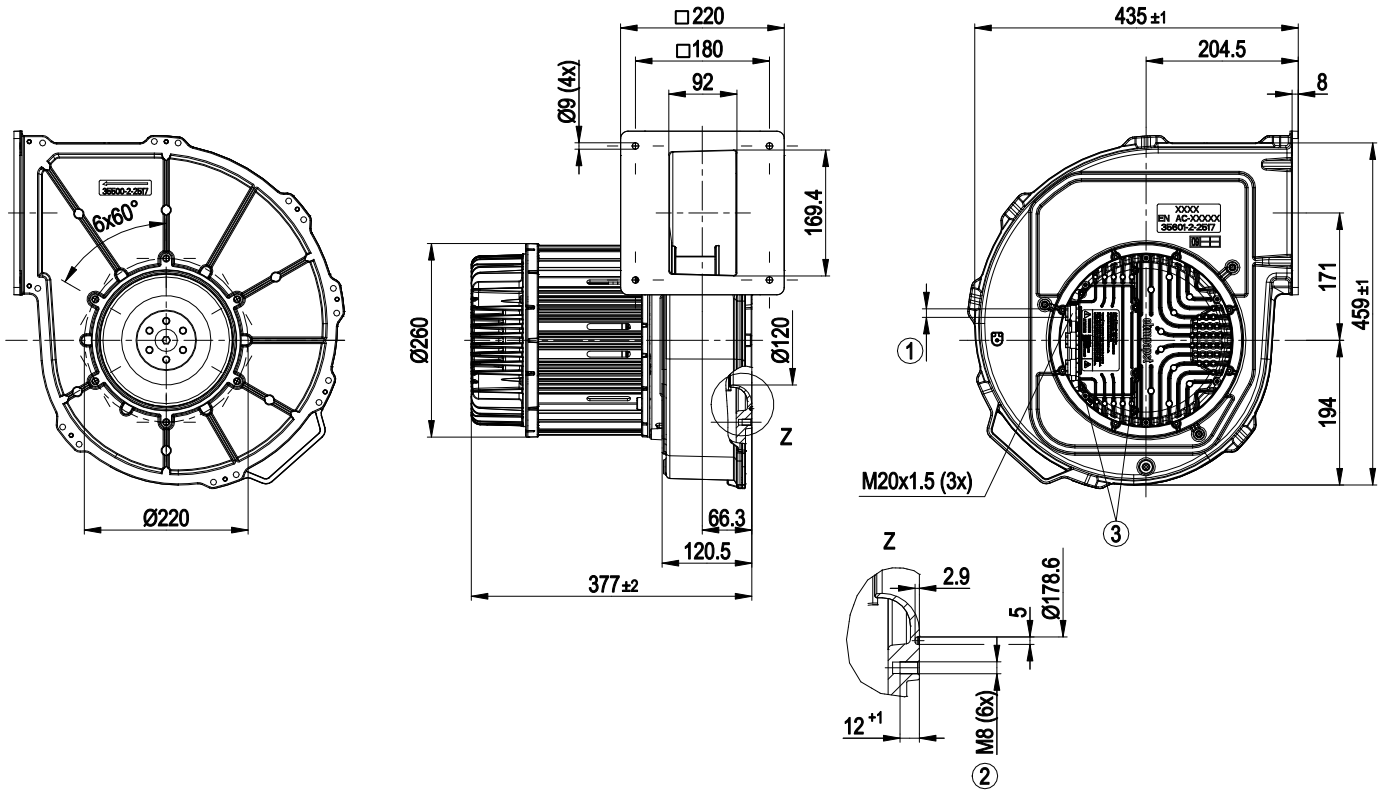
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Product drawing



1	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
2	Clearance for screw 10-12 mm, tightening torque 20 ± 3 Nm
3	Tightening torque 3.5 ± 0.3 Nm

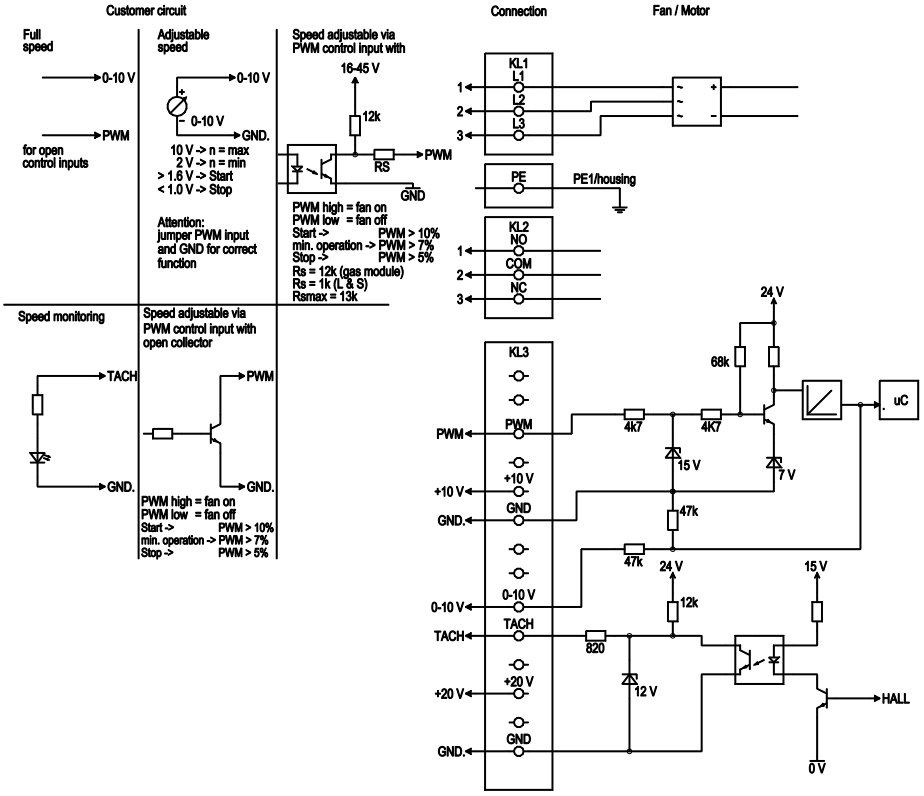
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Connection diagram



No.	Conn.	Designation	Function/assignment
1	1,2,3	L1,L2,L3	Power supply 3-phase, 50/60 Hz
		PE	Protective earth
2	1	NO	Alarm relay, make for failure
2	2	COM	Alarm relay, common connection (2 A, 250 VAC, AC1)
2	3	NC	Alarm relay, break for failure
3	PWM	PWM	Set value requirement via PWM, 16-45 V high level, 1-10 kHz, only usable as alternative to 0-10 V input
3	GND	GND	Reference ground for control interface
3	GND	GND	Reference ground for control interface
3	0 - 10 V	0 - 10 V	Analog set value input, 0-10 V (impedance 100 kΩ), only usable as alternative to connection PWM: for correct function bridge PWM input to GND.
3	+ 20 V	+ 20 V	Supply for external sensor, 20 VDC (±20%) max. 50 mA
3	+ 10 V	+ 10 V	Supply for external potentiometer, 10 VDC (±10%) max. 10 mA
3	Tach	Tach	Tach output; 12 VDC (±10%), max. 10 mA, impedance 1 kΩ; 4 pulses per revolution

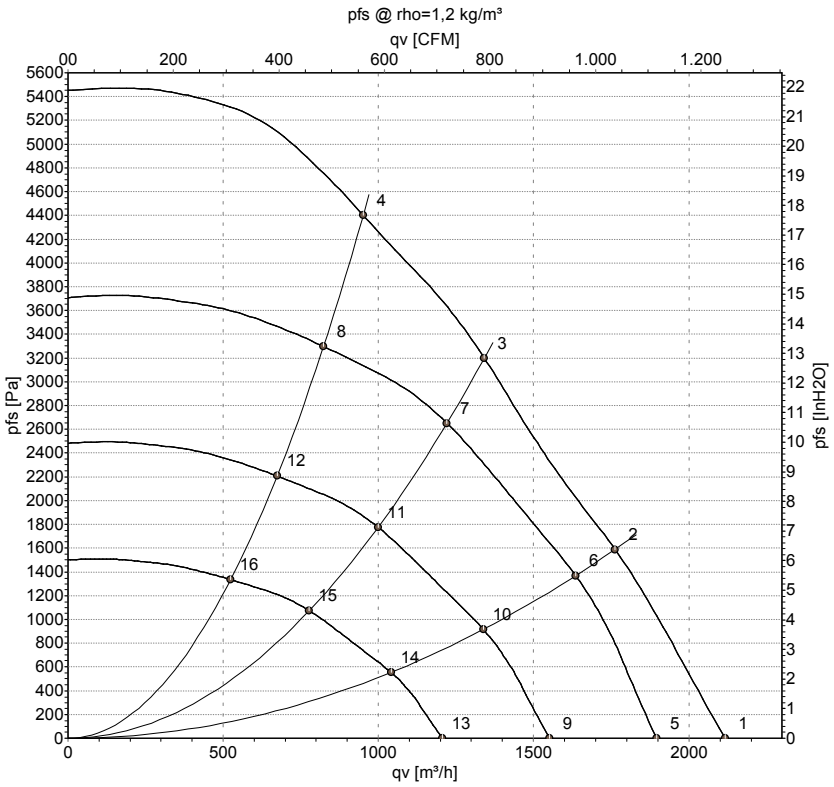
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Curves: Air performance 50 Hz



Measurement: LU-136735-1

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	LwA_{in}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa	CFM	inH2O
1	200	50	6140	2145	6.47	99	2115	0	1245	0.00
2	200	50	6000	2200	6.90	95	1760	1600	1035	6.42
3	200	50	6040	2172	6.61	93	1340	3200	790	12.85
4	200	50	6355	2039	6.18	92	950	4400	560	17.66
5	200	50	5500	1541	4.65		1895	0	1115	0.00
6	200	50	5500	1799	5.45		1635	1383	960	5.55
7	200	50	5500	1640	4.99		1220	2658	720	10.67
8	200	50	5500	1324	4.01		825	3296	485	13.23
9	200	50	4500	844	2.54		1550	0	915	0.00
10	200	50	4500	985	2.99		1340	926	790	3.72
11	200	50	4500	898	2.73		1000	1780	590	7.15
12	200	50	4500	725	2.20		675	2207	395	8.86
13	200	50	3500	397	1.20		1205	0	710	0.00
14	200	50	3500	464	1.41		1040	560	615	2.25
15	200	50	3500	423	1.29		775	1077	455	4.32
16	200	50	3500	341	1.03		525	1335	310	5.36

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LwA_{in} = Sound power level intake side · qv = Air flow · p_{fs} = Pressure increase

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