K3G400-AH05-68

EC centrifugal module

backward-curved, single-intake

with support plate

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Nominal data

Type	**K3G400-AH05-68**
Motor	**M3G084-DF**

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}	1700
Power consumption	W	360
Current draw	A	1.6
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	59.3	46.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		74.6	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.35
09 Air flow q_v	m^3/h	1800
09 Pressure increase p_{fs}	Pa	372
10 Speed (rpm) n	min^{-1}	1715
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

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Technical description

Weight	8.8 kg
Fan size	400 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Support plate material	Sheet aluminum
Spacer material	Aluminum
Inlet nozzle material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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 top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Alarm relay - Motor current limitation - PFC, active - 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
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1

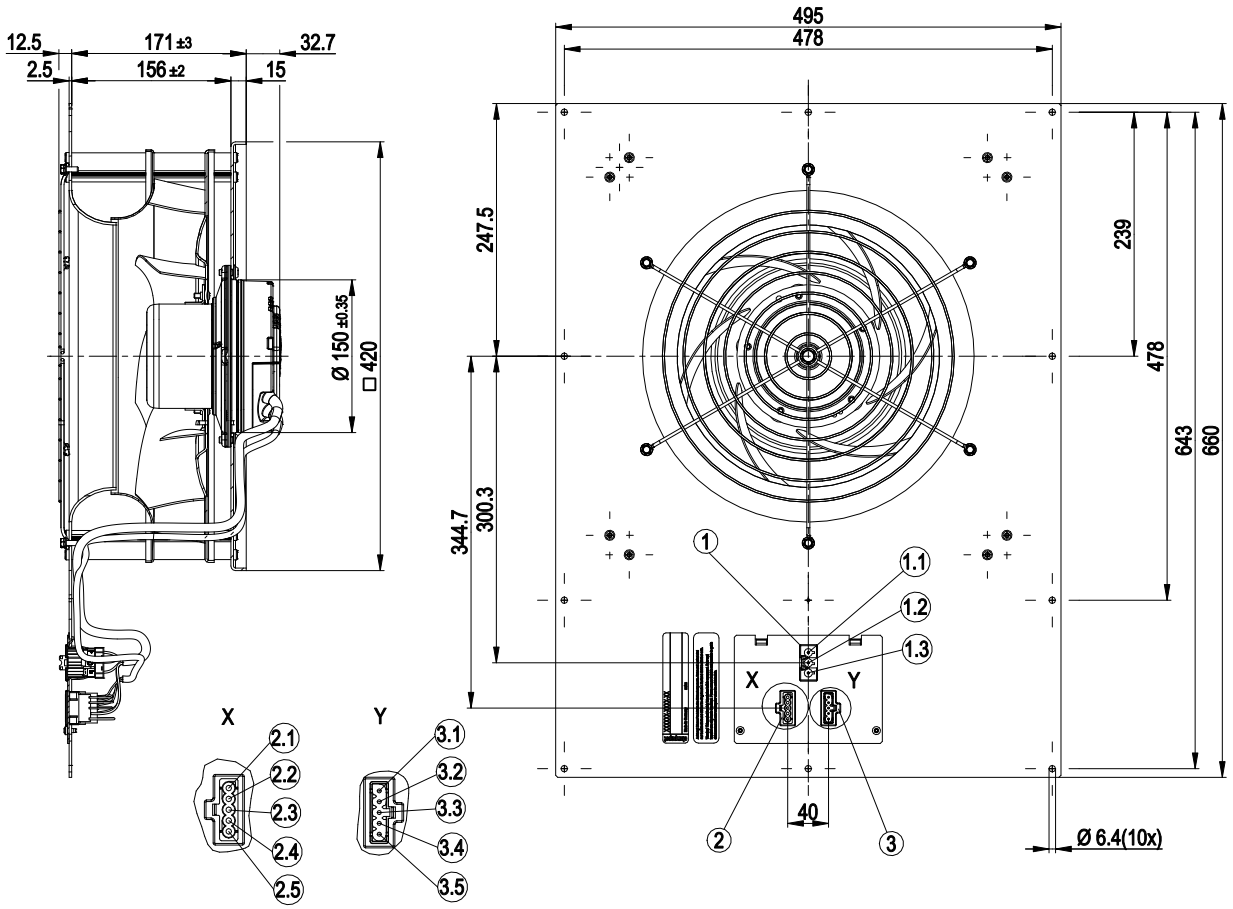
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Product drawing



1	Connector housing 3-pole GST18/3 Wieland 92.032.9058.1
1.1	N
1.2	PE
1.3	L
2	Connector housing socket part 5-pole GST15i5 Wieland 91.951.9353.0
2.1	+10 V
2.2	0-10 V
2.3	GND
2.4	NC (S1)
2.5	COM` (S2)
3	Connector housing plug part 5-pole GST15i5 Wieland 91.952.9353.0
3.1	+10 V
3.2	0-10 V
3.3	GND
3.4	NC` (S1)
3.5	COM` (S2)

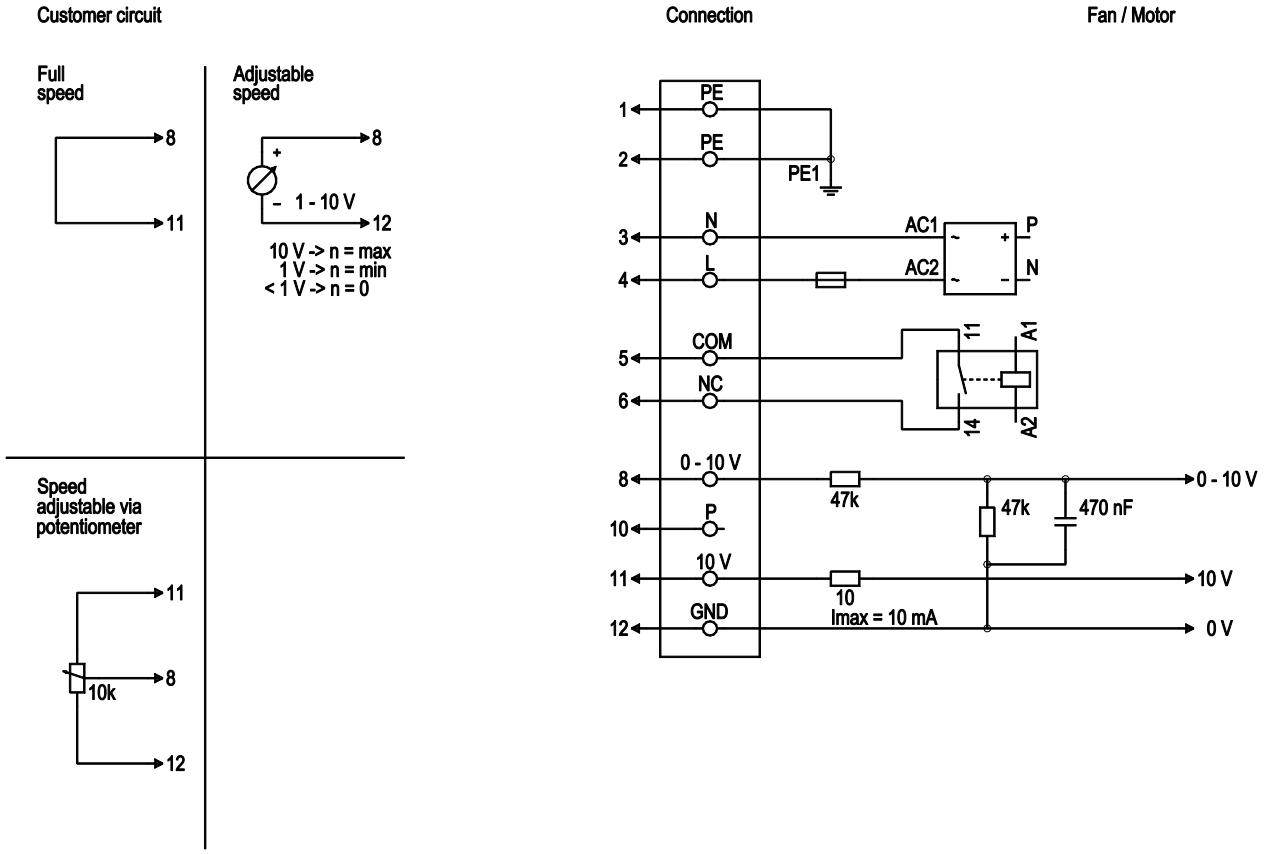
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, see nameplate for voltage range, 50/60 Hz
1	4	L	black	Power supply, phase, see nameplate for voltage range, 50/60 Hz
1	5	COM	white 1	Floating status contact, break for failure (2 A, max. 250 VAC, min. 10 mA)
1	6	NC	white 2	Floating status contact, break for failure
2	8	0 -10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kOhm, SELV
2	10	P	orange	not used
2	11	10 VDC	red	Voltage output 10 VDC (±3%), max. 10 mA, power supply for external devices (e.g. potentiometers), SELV
2	12	GND	blue	Reference ground for control interface, SELV

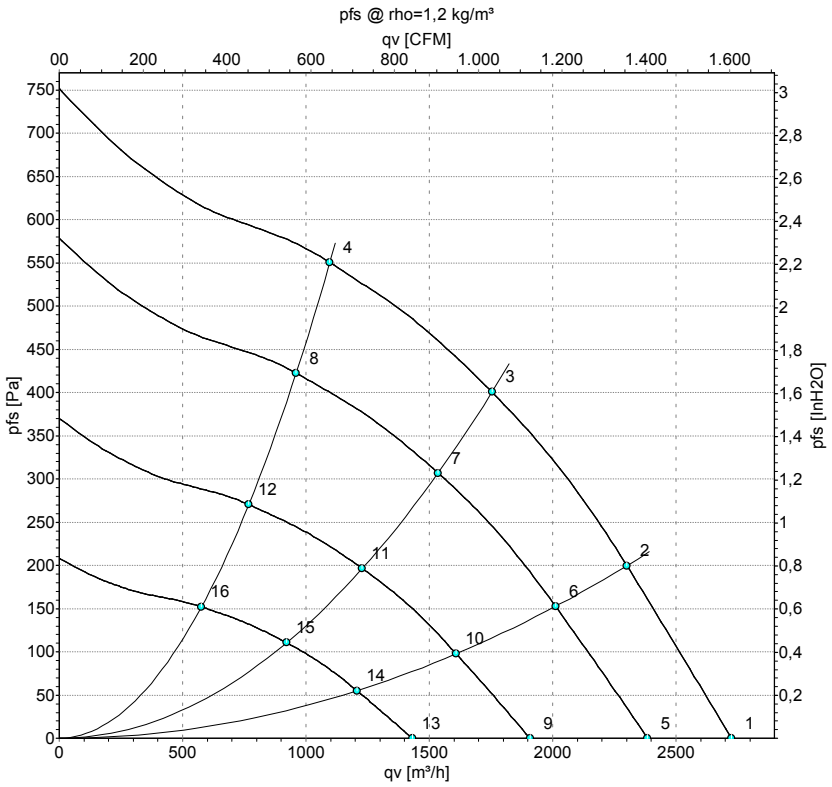
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Curves: Air performance 50 Hz



Measurement: LU-158693-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	1700	263	1.15	2725	0	1605	0.00
2	230	50	1700	320	1.40	2300	200	1355	0.80
3	230	50	1700	360	1.60	1755	400	1035	1.61
4	230	50	1700	338	1.48	1095	550	645	2.21
5	230	50	1500	176	0.77	2385	0	1405	0.00
6	230	50	1500	214	0.93	2015	153	1185	0.61
7	230	50	1500	236	1.04	1535	307	905	1.23
8	230	50	1500	227	0.99	960	422	565	1.69
9	230	50	1200	90	0.39	1910	0	1125	0.00
10	230	50	1200	110	0.48	1610	98	950	0.39
11	230	50	1200	121	0.53	1230	197	725	0.79
12	230	50	1200	116	0.51	770	270	455	1.08
13	230	50	900	38	0.17	1430	0	845	0.00
14	230	50	900	46	0.20	1210	55	710	0.22
15	230	50	900	51	0.23	920	111	545	0.45
16	230	50	900	49	0.21	575	152	340	0.61

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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