

EC centrifugal module

backward curved, single inlet

with support plate

K3G500-AG06-03 ebmpapst Datasheet

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Nominal data

Type	K3G500-AG06-03	
Motor	M3G150-FF	
Phase		3~
Nominal voltage	[VAC]	400
Nominal voltage range	[VAC]	380 .. 480
Frequency	[Hz]	50/60
Type of data definition		ml
Speed	[min ⁻¹]	1700
Power input	[W]	2700
Current draw	[A]	4.3
Min. ambient temperature	[°C]	-25
Max. ambient temperature	[°C]	60

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

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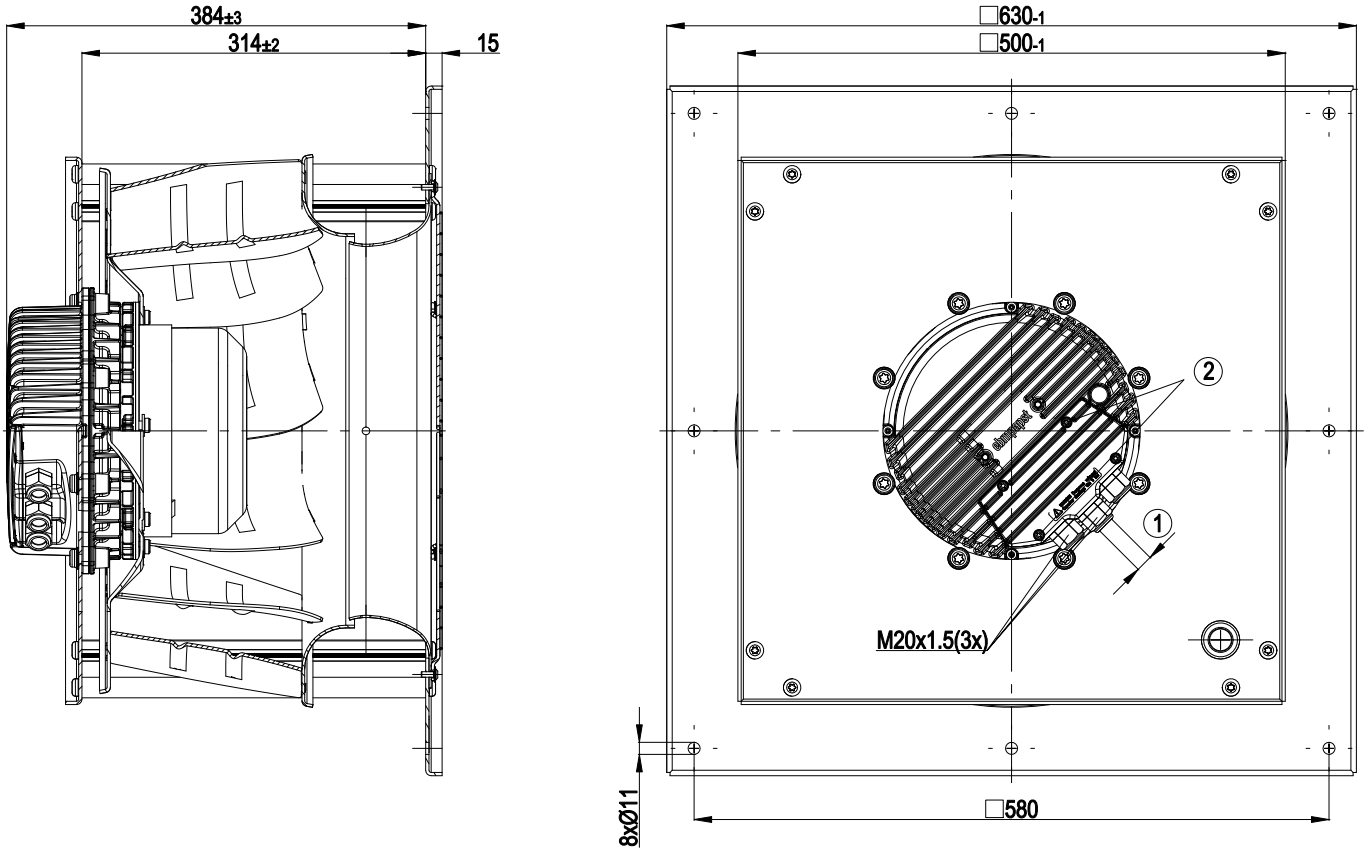
Technical features

Leakage current	<= 3,5 mA
Size	500 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Electrical leads	Via terminal box
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
Humidity class	F4-1
Insulation class	"F"
Condensate discharge holes	Rotor-side
Bearing motor	Ball bearing
Mass	39 kg
Material of distancing profiles	Aluminium
Material of inlet nozzle	Sheet steel, hot-galvanised
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Material of mounting plate	Sheet steel, hot-galvanised
Motor protection	Reverse polarity and locked-rotor protection
Product conforming to standard	CE; EN 61800-5-1
Surface of rotor	Coated in black
Number of blades	9
Type of protection	IP 54
Protection class	I
Technical features	<ul style="list-style-type: none"> - PFC, passive - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Alarm relay - Integrated PID controller - Input for sensor 0-10 V or 4-20 mA - Output for slave 0-10 V - RS485 ebmBUS - Motor current limit - Soft start - Line undervoltage / phase failure detection - Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Approval	CSA C22.2 Nr.100; GOST; UL 1004; VDE

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Product drawing



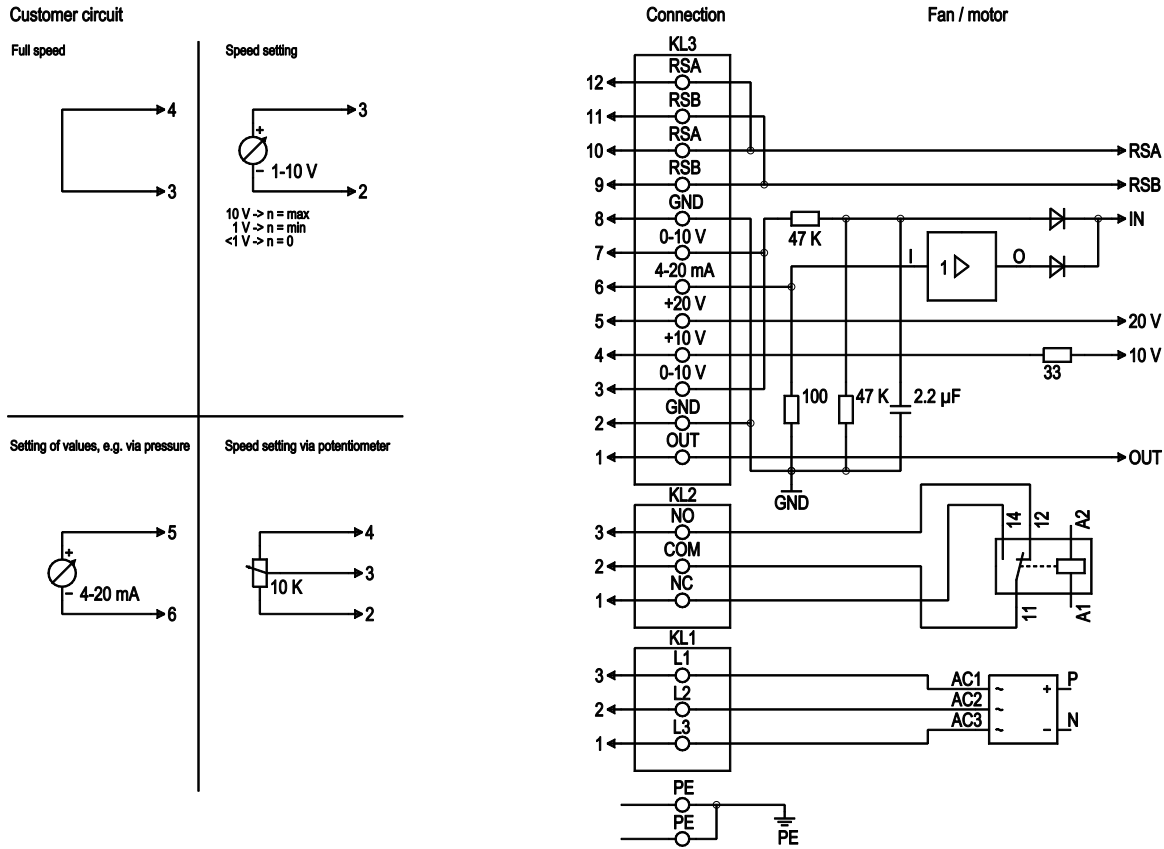
- | | |
|---|--|
| 1 | Cable diameter: min. 4 mm, max. 10 mm; tightening torque: 4 ± 0.6 Nm |
| 2 | Tightening torque 3.5 ± 0.5 Nm |

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Connection screen



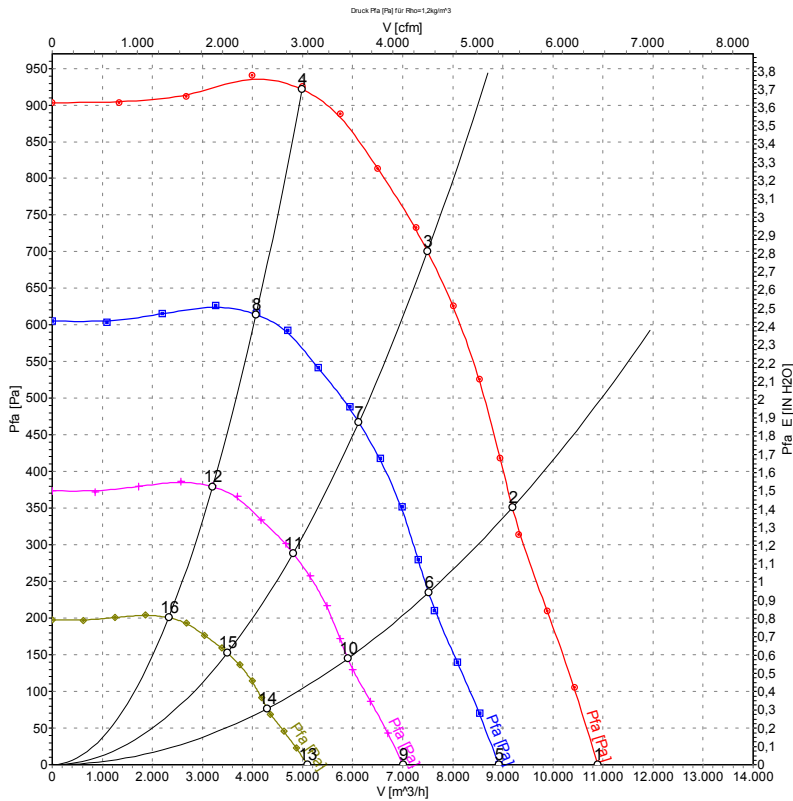
No.	Pin	Signal	Function / assignment
PE		PE	Protective earth connection
KL1	1, 2, 3	L1, L2, L3	Supply voltage, 50/60 Hz
KL2	1	NC	Floating status message contact, normally closed connection
KL2	2	COM	Floating status message contact, changeover contact, common connection (2 A, max. 250 VAC, min. 10 mA, AC1)
KL2	3	NO	Floating status message contact, normally open connection
KL3	1	OUT	Analog output, 0-10 VDC, max. 3 mA, SELV, output of the current level control coefficient: 1 V equates to 10 % level control coefficient. 10 V equate to 100 % level control coefficient.
KL3	2, 8	GND	Reference mass for control interface, SELV
KL3	3, 7	0-10 V	Use control / actual value input 0-10 VDC, impedance 100 kΩ only as alternative to 4-20 mA input, SELV
KL3	4	+10 V	Voltage output 10 VDC (+/-3 %), max. 10 mA, supply voltage for ext. devices (e.g. potentiometers), SELV
KL3	5	+20 V	Voltage output 20 VDC (+25 %/-10 %), max. 50 mA, supply voltage for ext. devices (e.g. sensors), SELV
KL3	6	4-20 mA	Use control / actual value input 4-20 mA, impedance 100 Ω, only as alternative to 0-10 V input, SELV
KL3	9, 11	RSB	RS485 interface for ebmBus, RSB, SELV
KL3	10, 12	RSA	RS485 interface for ebmBus, RSA, SELV

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Charts: Air flow 50 Hz



Measured values

	U	f	n	P ₁	I	LpA _{ss}	LpA _{ds}	LwA _{ss}	LwA _{ds}	Ṡ	p _{fa}
	[V]	[Hz]	[min ⁻¹]	[W]	[A]	[dB(A)]	[dB(A)]	[dB(A)]	[dB(A)]	[m³/h]	[Pa]
1	400	50	1700	1904	2.90	84	81	91	96	10900	0
2	400	50	1700	2307	3.49	80	77	87	93	9190	350
3	400	50	1700	2610	3.96	76	75	83	90	7495	700
4	400	50	1700	2401	3.64	76	75	83	90	4990	925
5	400	50	1400	1045	1.59	80	76	87	92	8925	0
6	400	50	1400	1262	1.91	76	73	82	88	7515	234
7	400	50	1400	1422	2.16	72	70	78	85	6120	468
8	400	50	1400	1306	1.98	72	71	78	85	4075	616
9	400	50	1100	507	0.77	75	71	81	86	7010	0
10	400	50	1100	612	0.93	70	68	77	83	5905	145
11	400	50	1100	690	1.05	66	65	73	80	4810	289
12	400	50	1100	634	0.96	66	65	73	80	3200	380
13	400	50	800	195	0.30	68	64	75	79	5100	0
14	400	50	800	236	0.36	63	61	70	76	4295	77
15	400	50	800	265	0.40	59	58	66	73	3500	153
16	400	50	800	244	0.37	60	58	66	73	2325	201