K3G200-BDA2-02

EC diagonal module

single-intake

with support bracket

K3G200-BDA2-02 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G200-BDA2-02**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	5480
Power consumption	W	418
Current draw	A	8.7
Max. back pressure	Pa	800
Max. back pressure	inH2O	3.21
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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}	%	46.9	35.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		61.4	50
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.42
09 Air flow q_v	m^3/h	905
09 Pressure increase p_{fs}	Pa	711
10 Speed (rpm) n	min^{-1}	5230
11 Specific ratio*		1.01

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

LU-144424

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Technical description

Weight	2.26 kg
Fan size	200 mm
Rotor surface	Painted black
Impeller material	PA plastic
Housing material	PA plastic
Support bracket material	PA plastic
Number of blades	7
Airflow direction	"V"
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	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for electronics
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B, household environment)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Conformity with standards	EN 60335-1
Approval	EAC

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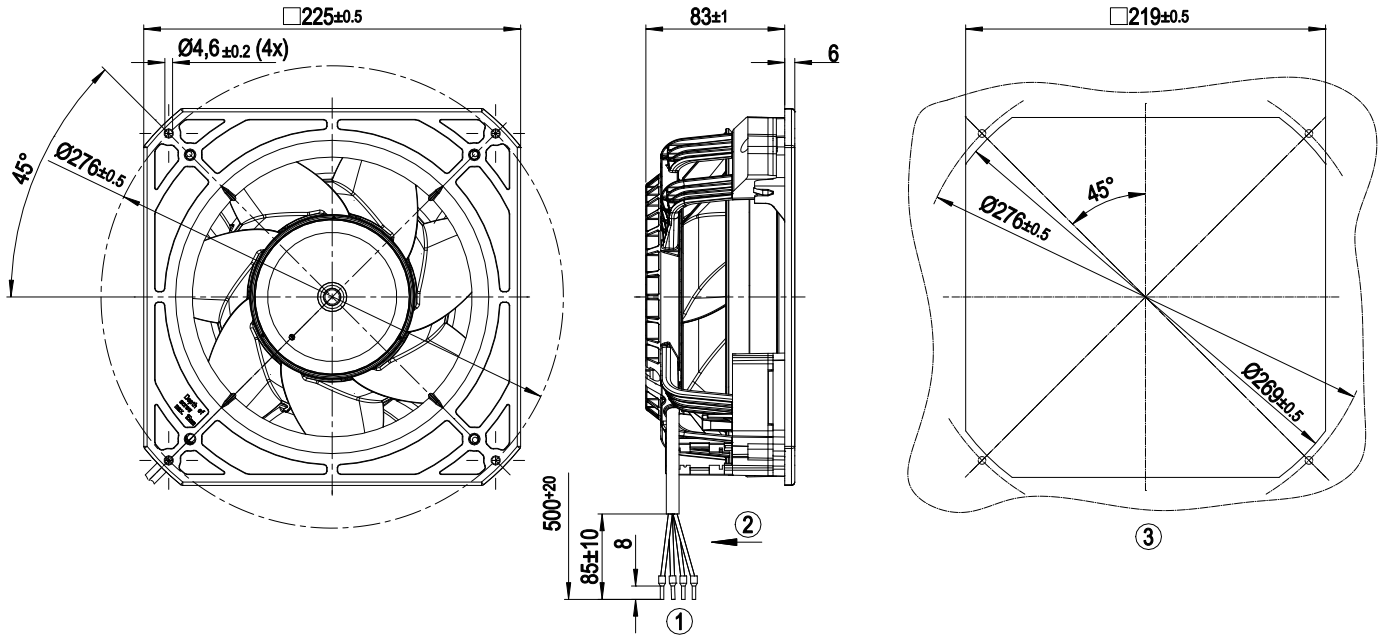
Product drawing



1	Cable PVC AWG16, 4x crimped ferrules
2	Direction of air flow "V"
3	Mounting dimensions

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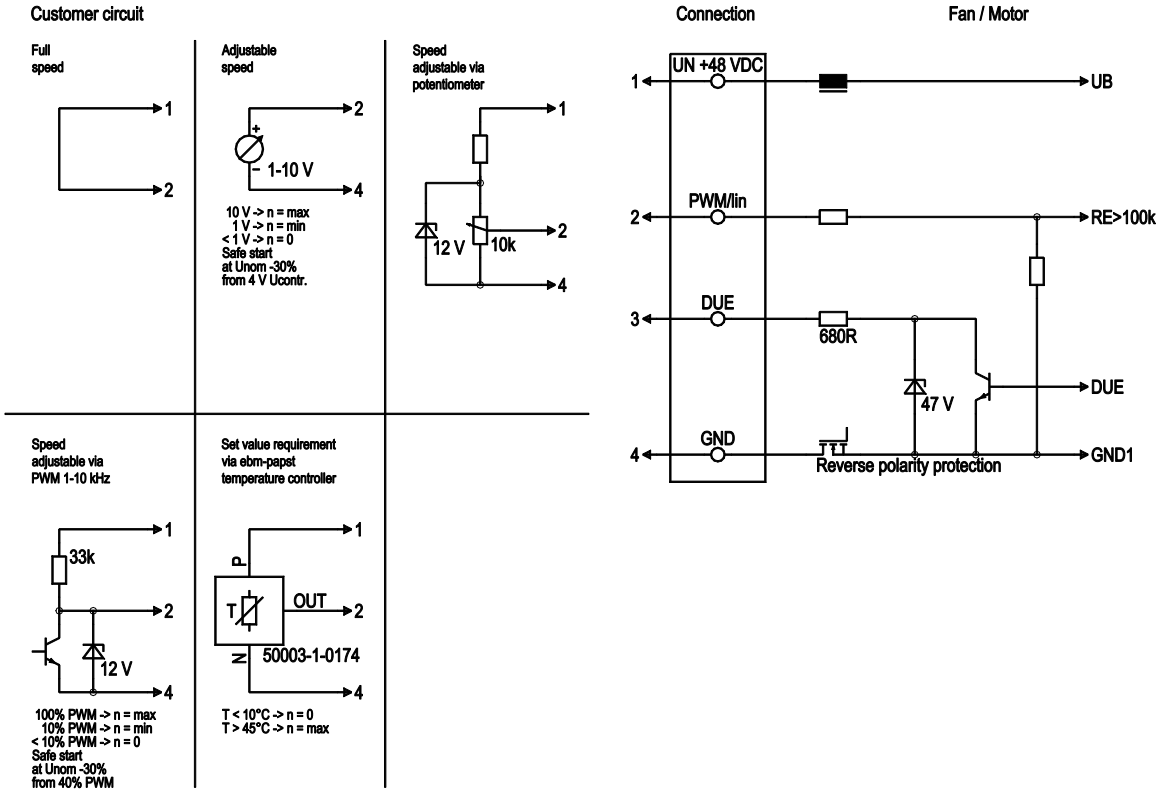
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
	2	0-10 VDC	yellow	Control input Re > 100 K
	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
	4	GND	blue	Reference ground

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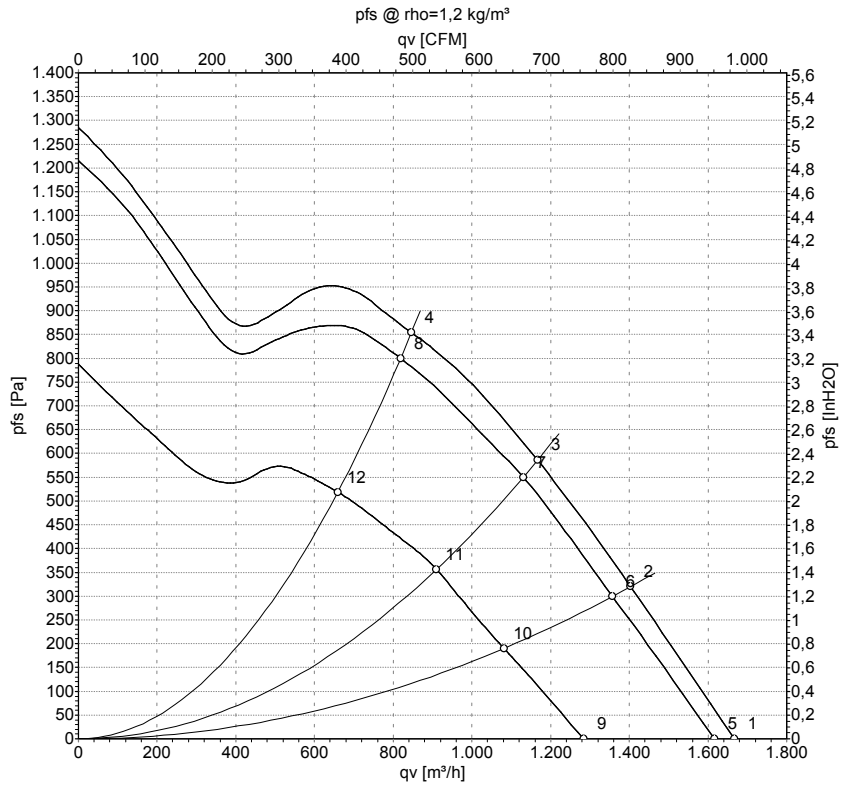
Curves: Air performance



Measurement: LU-144428-1
Measurement: LU-144424-1
Measurement: LU-144432-1

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	n	P_{ed}	I	LpA_{in}	LwA_{in}	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	57	5510	420	7.31			1665	0	980	0.00
2	57	5440	443	7.78			1405	320	825	1.28
3	57	5390	464	8.14			1165	589	685	2.36
4	57	5405	462	8.09			845	854	500	3.43
5	48	5480	418	8.70	78	86	1615	0	950	0.00
6	48	5265	404	8.71	76	84	1355	300	800	1.20
7	48	5230	423	8.81	75	83	1130	550	665	2.21
8	48	5240	421	8.76	76	84	820	800	480	3.21
9	36	4270	199	5.52			1285	0	755	0.00
10	36	4220	212	5.90			1080	190	635	0.76
11	36	4185	222	6.18			910	359	535	1.44
12	36	4195	221	6.13			660	519	390	2.08

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