K1G200-AD49-04

EC diagonal module

single-intake

with support bracket



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K1G200-AD49-04**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	3650
Power consumption	W	120
Current draw	A	3.4
Max. back pressure	Pa	410
Max. back pressure	inH2O	1.65
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}	%	47.9	30.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		67.4	50
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.14
09 Air flow q_v	m^3/h	620
09 Pressure increase p_{fs}	Pa	351
10 Speed (rpm) n	min^{-1}	3645
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

LU-127277

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Technical description

Weight	1.8 kg
Fan size	200 mm
Rotor surface	Painted black
Impeller material	PA6 plastic, glass-fiber reinforced
Housing material	PA6 plastic, glass-fiber reinforced
Support bracket material	PA6 plastic, glass-fiber reinforced
Number of blades	7
Airflow direction	"V"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F4-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Conformity with standards	EN 60950-1
Approval	UL 1004-1; CSA C22.2 No. 77

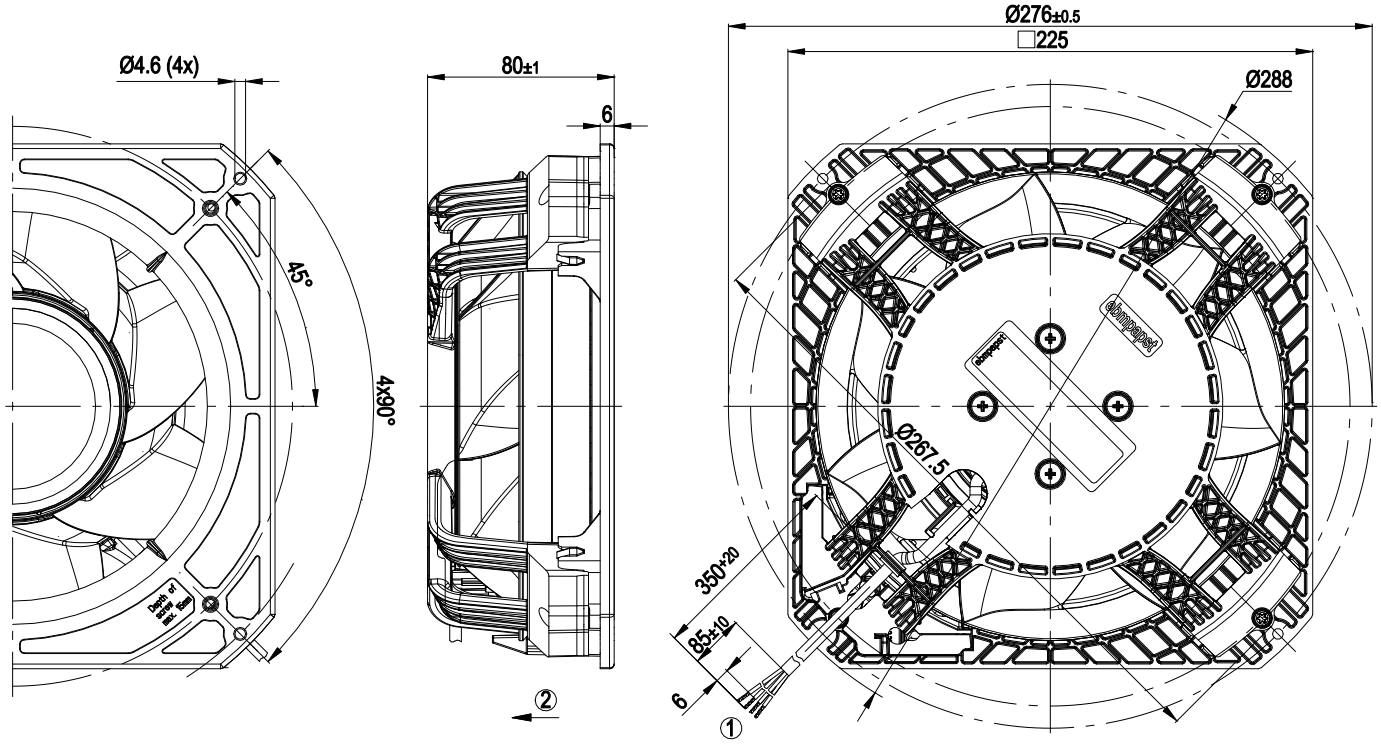
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Product drawing



1	Cable AWG20, 4x crimped splices
2	Direction of air flow "V"

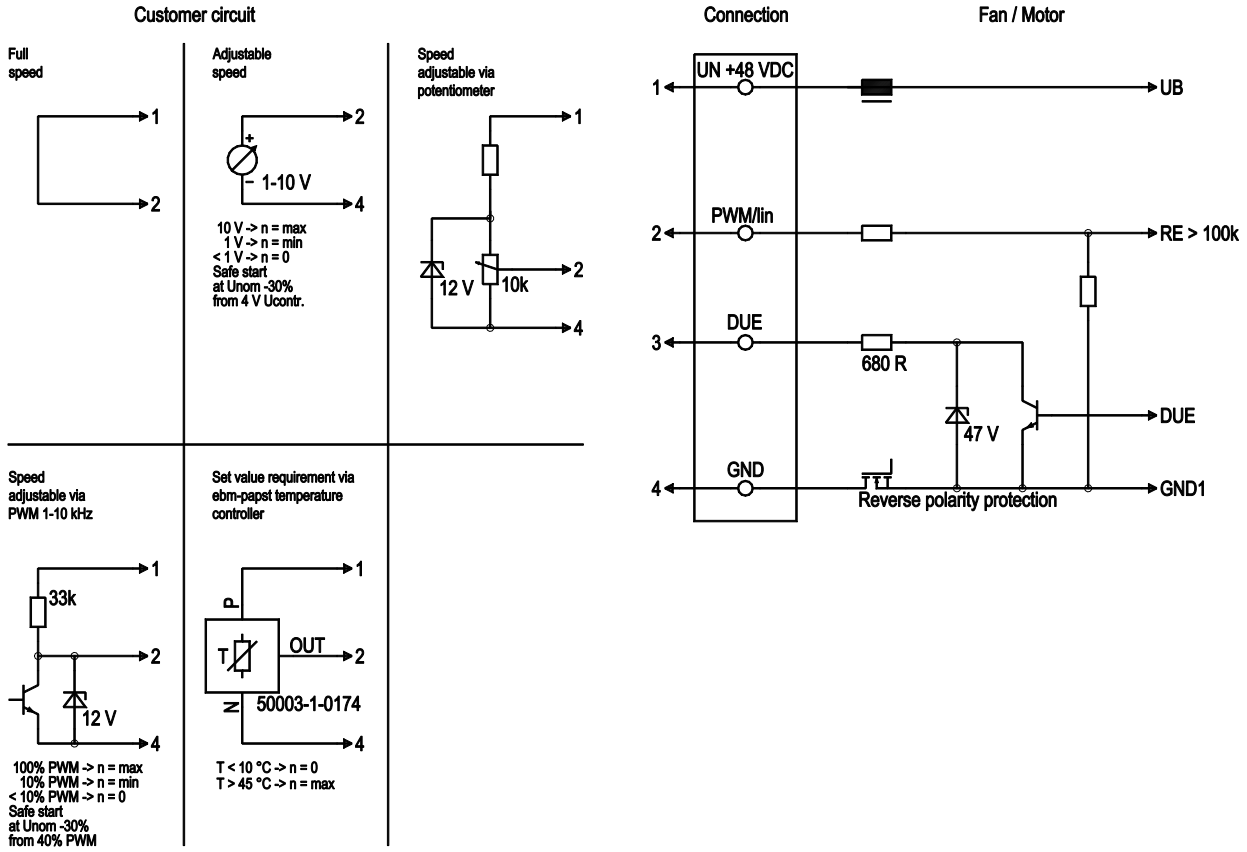
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Connection diagram



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

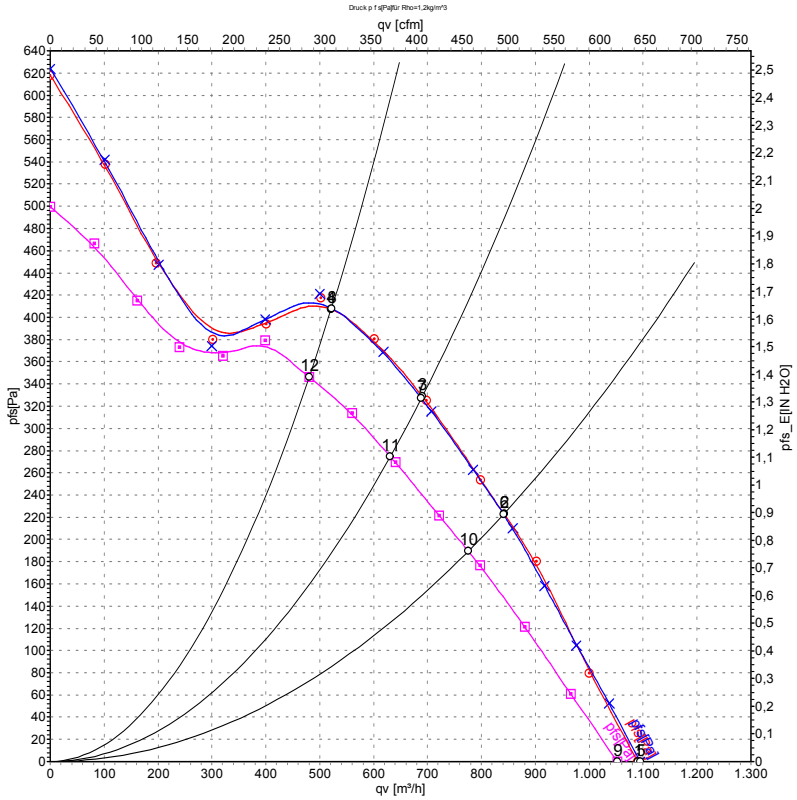
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Curves: Air performance



Measurement: LU-127279-1
Measurement: LU-127277-1
Measurement: LU-127281-1

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	3650	120	3.56	70	78	1090	0	640	0.00
2	57	3645	148	4.07	68	76	840	223	495	0.90
3	57	3630	150	4.12	68	76	690	330	405	1.32
4	57	3645	146	4.04	69	77	520	410	305	1.65
5	48	3650	120	3.40	70	77	1095	0	645	0.00
6	48	3645	141	3.90	67	75	840	223	495	0.90
7	48	3640	145	3.99	68	76	690	327	405	1.31
8	48	3645	141	3.88	73	80	520	410	305	1.65
9	36	3520	107	3.41	68	76	1050	0	620	0.00
10	36	3345	109	3.55	65	73	775	190	455	0.76
11	36	3325	110	3.56	66	74	630	275	370	1.10
12	36	3350	109	3.54	67	75	480	346	285	1.39

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

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