EC axial compact fan

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

Nominal data

Type	**W1G180-AB57-29**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	14 .. 28
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3170
Power consumption	W	35
Current draw	A	1.6
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

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Technical description

Weight	1.74 kg
Fan size	180 mm
Rotor surface	Galvanized
Impeller material	Glass-fiber reinforced PA plastic
Fan housing material	Die-cast aluminum, painted black
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, 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
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - PWM control input
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	CSA C22.2 No. 77; UL 1004-1

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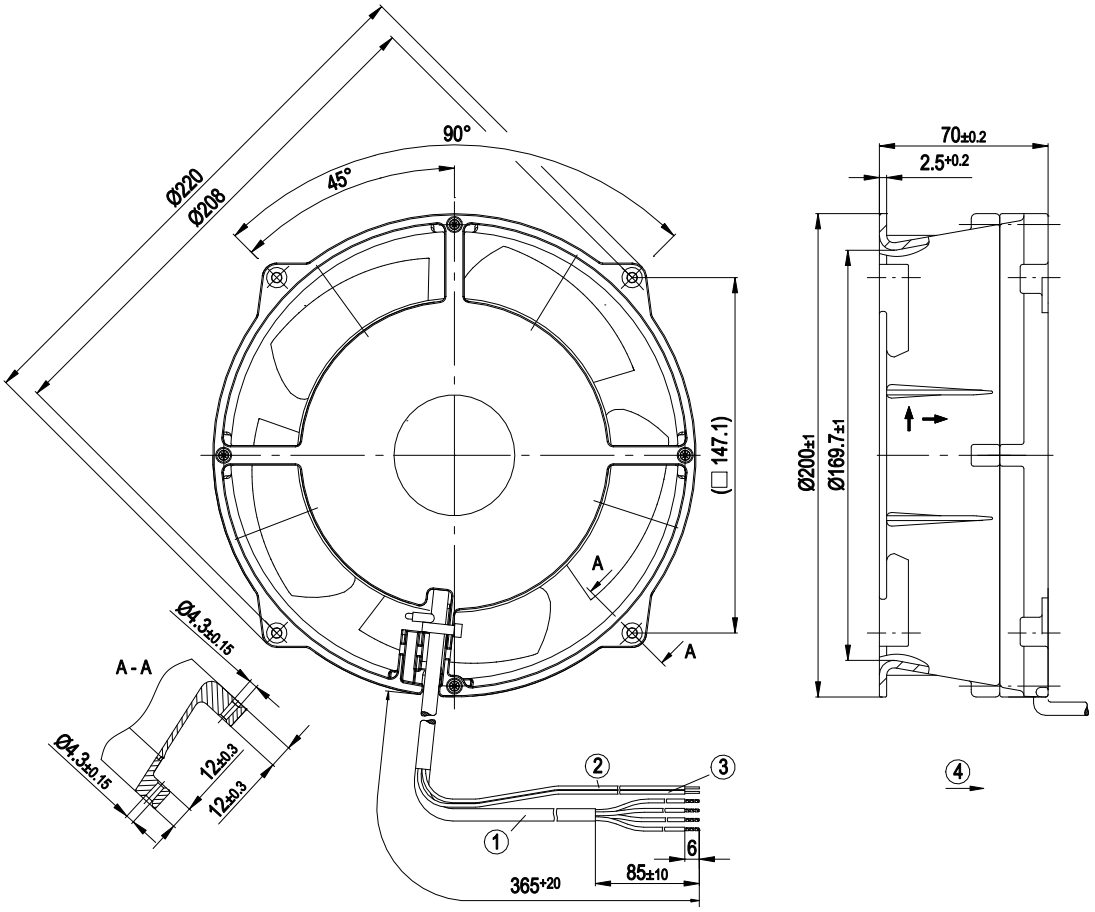
Product drawing



1	Cable AWG 20, 4x crimped splices
2	Wire AWG 22 white
3	Wire AWG 22 white
4	Airflow direction "V"

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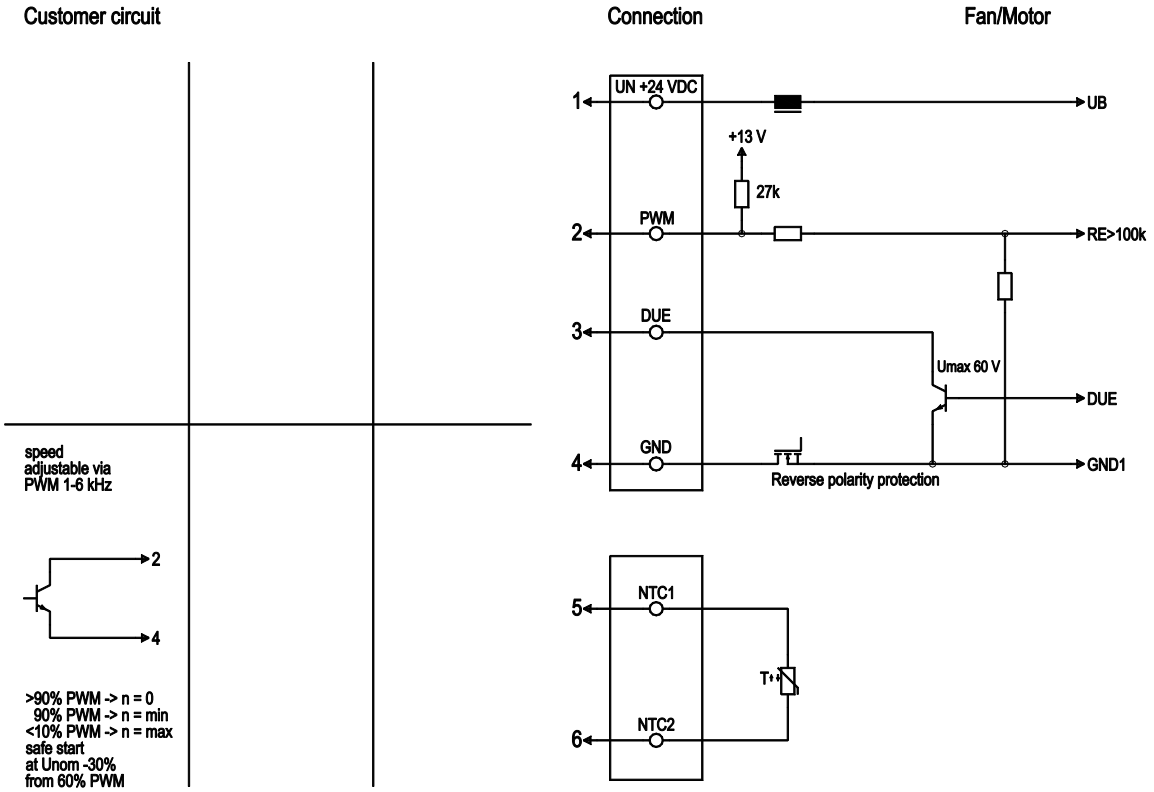
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	UN +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5%
1	2	PWM	black	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max. 25 mA
1	4	GND	blue	Reference ground
2	5	NTC1	white	NTC not connected to electronics
3	6	NTC2	white	NTC not connected to electronics

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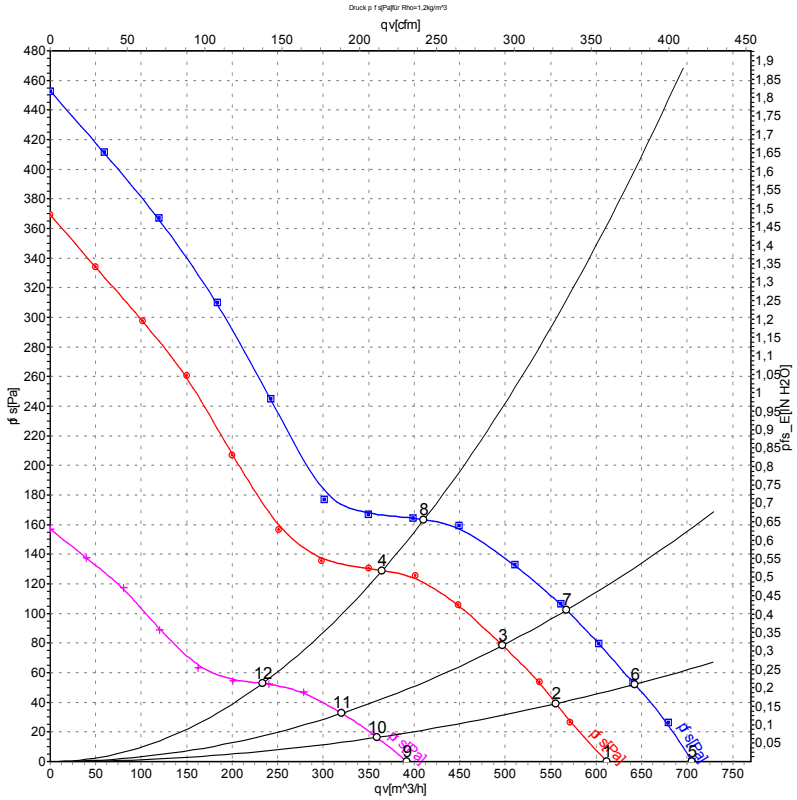
Curves: Air performance



Measurement: LU-106403-1
Measurement: LU-106408-1
Measurement: LU-106410-1

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	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	24	3170	35	1.60	610	0	360	0.00
2	24	3120	37	1.72	555	40	325	0.16
3	24	3080	39	1.81	495	80	295	0.32
4	24	3090	39	1.80	365	130	215	0.52
5	28	3600	48	1.89	705	0	415	0.00
6	28	3530	51	2.03	640	52	380	0.21
7	28	3465	54	2.15	565	103	335	0.41
8	28	3475	54	2.13	410	163	240	0.65
9	14	2050	11	0.91	390	0	230	0.00
10	14	2025	12	0.95	360	17	210	0.07
11	14	2005	12	1.01	320	33	190	0.13
12	14	2000	12	1.01	235	53	135	0.21

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