

# EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRB 590142



## Nominal data

Type	D1G146-BA15-14	
Motor	M1G074-CF	
Nominal voltage	VDC	53
Nominal voltage range	VDC	36 .. 60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min <sup>-1</sup>	2250
Power consumption	W	160
Current draw	A	3.9
Min. back pressure	Pa	300
Min. back pressure	inH <sub>2</sub> O	1.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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 $\eta_{es}$	%	47	32.5	09 Power consumption $P_e$	kW	0.15
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	555
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	401
04 Efficiency grade N		58.5	44	10 Speed (rpm) n	min <sup>-1</sup>	2525
05 Variable speed drive		Yes		11 Specific ratio <sup>*</sup>		1.00

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

<sup>\*</sup> Specific ratio =  $1 + p_{fs} / 100\,000\text{ Pa}$ 

LU-42480



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## Technical description

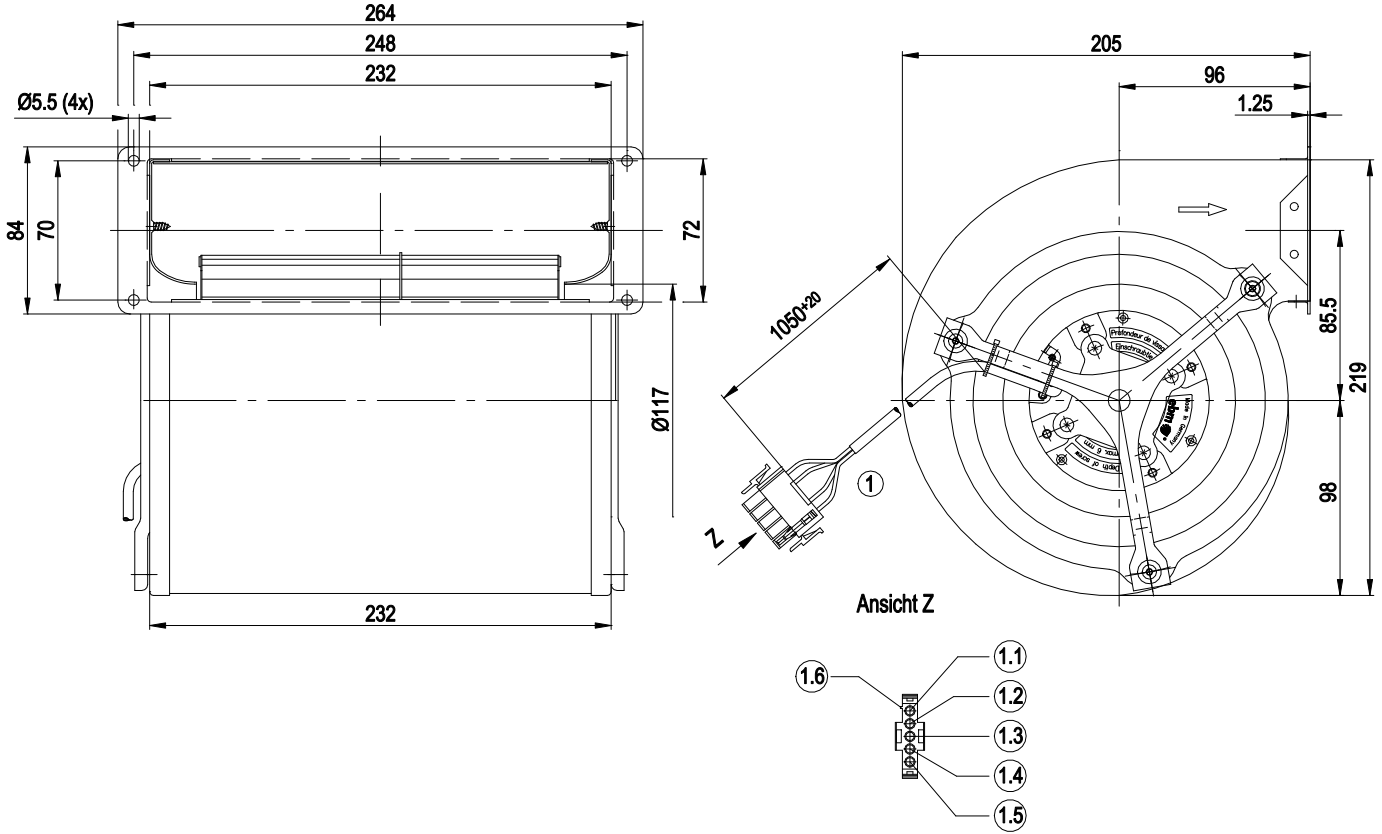
<b>Weight</b>	3.85 kg
<b>Fan size</b>	146 mm
<b>Rotor surface</b>	Painted black
<b>Impeller material</b>	Sheet steel, hot-dip galvanized
<b>Housing material</b>	Steel, phosphated and painted black
<b>Motor suspension</b>	Motor vibration-damped on both sides
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP42
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	F5
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Any
<b>Condensation drainage holes</b>	None
<b>Cooling hole/opening</b>	On rotor side
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Tach output</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> </ul>
<b>EMC immunity to interference</b>	According to EN 61000-6-2 (industrial environment)
<b>EMC interference emission</b>	According to EN 55022 (Class B)
<b>Electrical hookup</b>	With plug
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60950-1
<b>Approval</b>	CCC; CSA C22.2 No. 77; UL 1004-1



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## Product drawing



1	Sheathed cable PVC 4X UL/CSA (AWG20) with 4x socket AMP no. 926884-1
1.1	+ (red)
1.2	- (blue)
1.3	not used
1.4	s (white)
1.5	Control input (yellow)
1.6	Polarizing rib

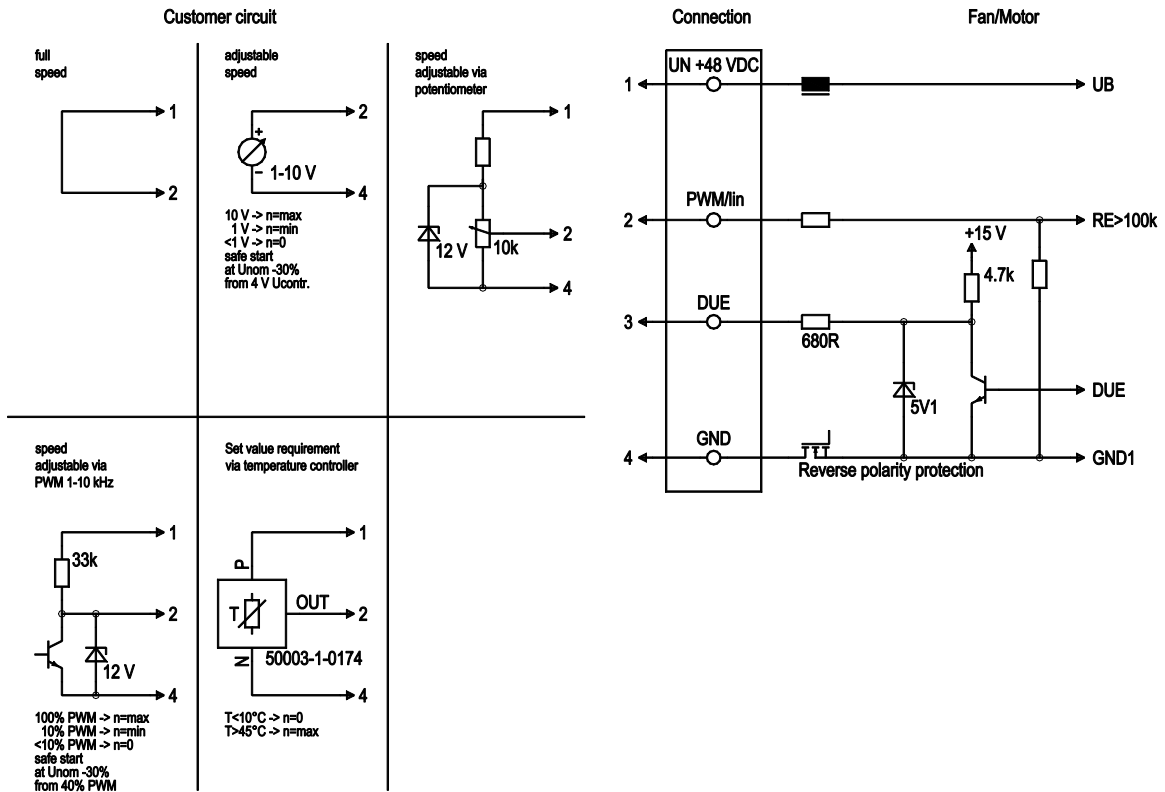


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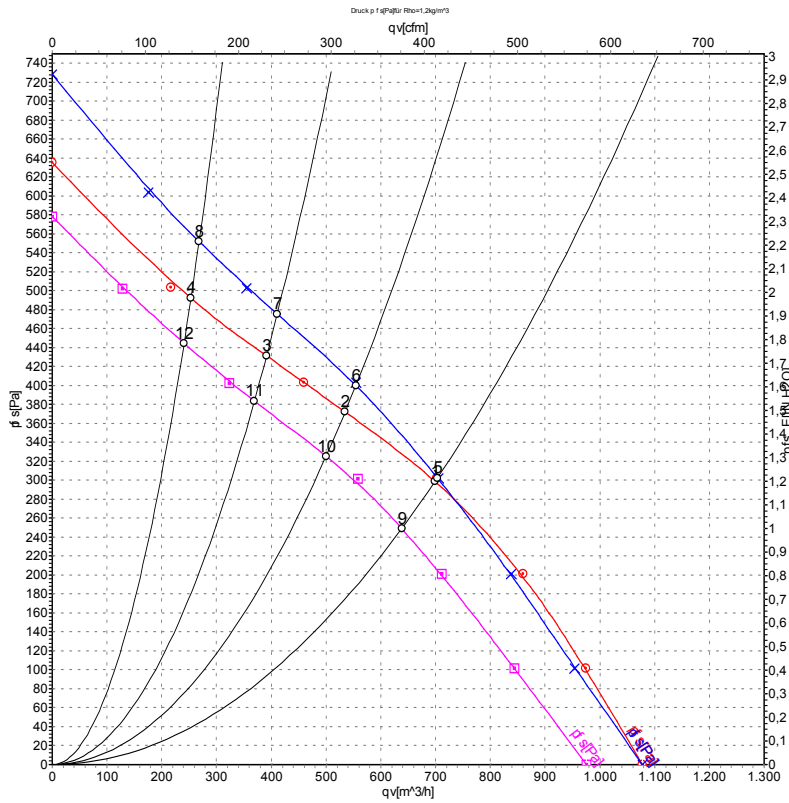
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## Connection diagram



## Curves: Air performance



Measurement: LU-42481-1  
 Measurement: LU-42480-1  
 Measurement: LU-42482-1

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 <sub>ed</sub>	I	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	60	2250	160	3.90	700	300	410	1.20
2	60	2465	141	3.27	535	372	315	1.49
3	60	2640	124	2.83	390	431	230	1.73
4	60	2810	108	2.43	255	488	150	1.96
5	53	2250	160	3.90	705	300	415	1.20
6	53	2525	150	3.52	555	400	325	1.61
7	53	2755	140	3.21	410	475	240	1.91
8	53	2975	128	2.90	270	550	160	2.21
9	42	2065	119	3.40	640	249	375	1.00
10	42	2285	112	3.14	500	327	295	1.31
11	42	2495	103	2.89	370	383	215	1.54
12	42	2660	94	2.63	240	445	140	1.79

U = Power supply · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

