D1G160-DA15-11

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D1G160-DA15-11**	
Motor	**M1G074-CF**	
Nominal voltage	VDC	53
Nominal voltage range	VDC	42 .. 60
Method of obtaining data		fa
Speed (rpm)	min-1	1800
Power consumption	W	195
Current draw	A	5
Min. back pressure	Pa	200
Min. back pressure	inH2O	0.8
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}	%	43.6	32.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		55.5	44
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.13
09 Air flow q_v	m³/h	425
09 Pressure increase p_{fs}	Pa	450
10 Speed (rpm) n	min-1	2315
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-44473

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Technical description

Weight	4 kg
Fan size	160 mm
Rotor surface	Painted black
Impeller material	Sheet steel, hot-dip galvanized
Housing material	Sheet steel, painted black
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F5
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
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Motor current limitation - Soft start - Tach output - Control input 0-10 VDC / PWM
EMC immunity to interference	According to EN 61000-6-2
EMC interference emission	According to EN 55022 (Class B)
Electrical hookup	With plug
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Approval	CSA C22.2 No. 77; UL 1004-1

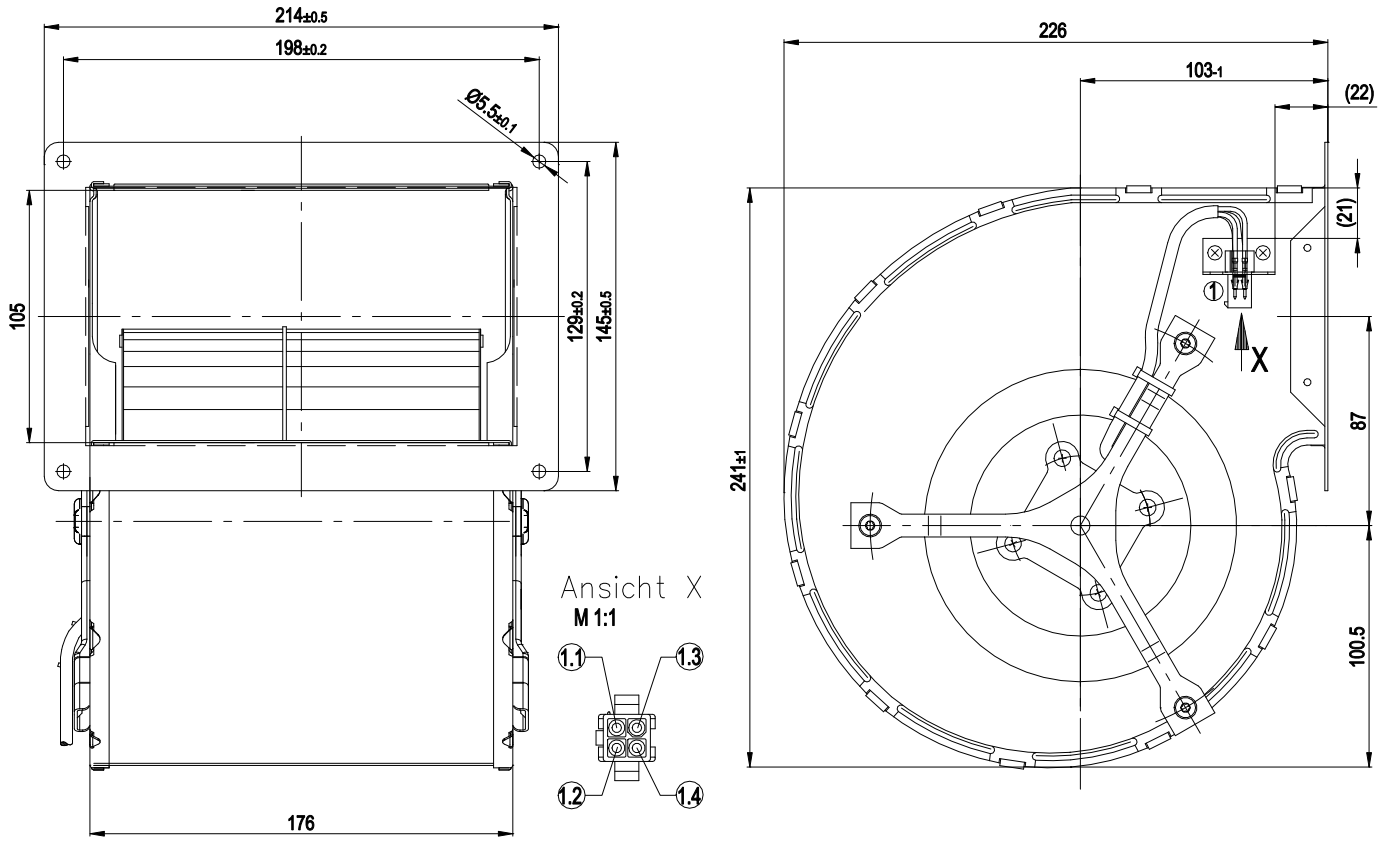
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Product drawing



1	Connector housing Mate-N-Lok 172159-1, plug pin 170360-1, pluggable with 172167-1
1.1	red (+)
1.2	blue (-)
1.3	white (s)
1.4	yellow (control input)

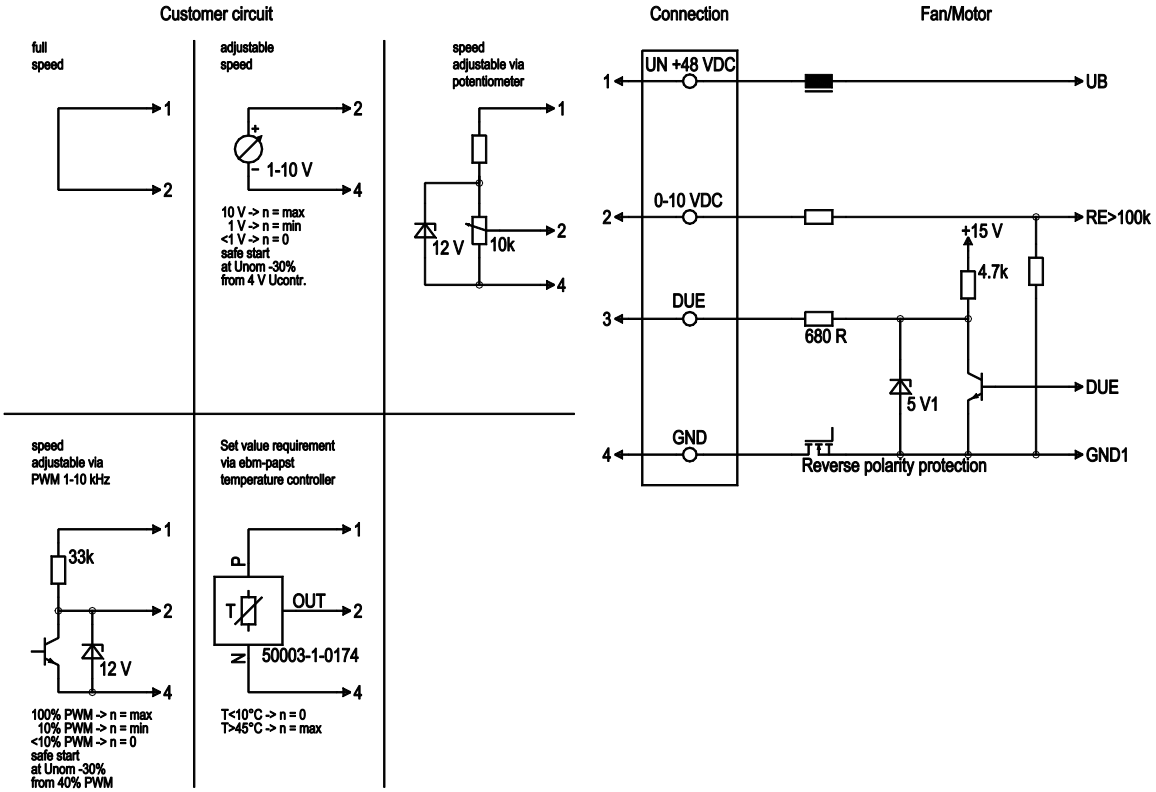
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	PWM / lin	yellow	PWM/lin., 0-10 VDC
1	3	Tach	white	Tach output, 3 pulses per revolution, Isource = 2 mA
1	4	GND	blue	Reference ground

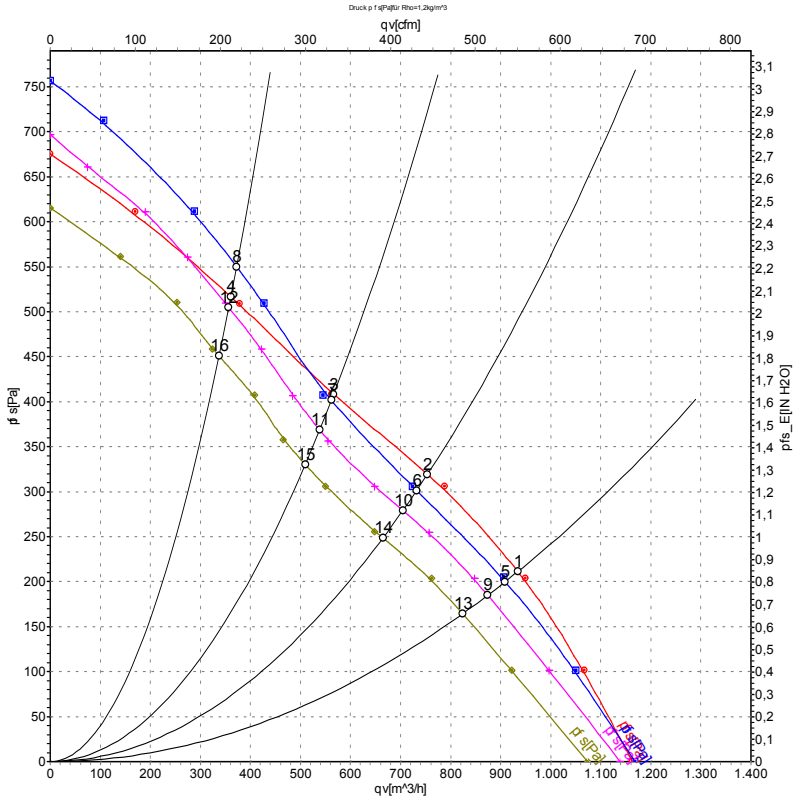
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Curves: Air performance



Measurement: LU-44475-1
Measurement: LU-44474-1
Measurement: LU-44473-1
Measurement: LU-44476-1

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	60	1840	216	5.12	935	214	550	0.86
2	60	2065	197	4.74	755	321	445	1.29
3	60	2250	172	4.07	565	406	335	1.63
4	60	2440	146	3.40	360	518	210	2.08
5	53	1800	195	5.00	910	200	535	0.80
6	53	2020	177	4.49	730	300	430	1.20
7	53	2225	166	4.08	560	400	330	1.61
8	53	2510	155	3.66	370	550	220	2.21
9	48	1725	169	4.74	875	186	515	0.75
10	48	1935	155	4.20	705	279	415	1.12
11	48	2145	145	3.81	540	368	315	1.48
12	48	2410	136	3.46	355	505	210	2.03
13	42	1635	141	4.31	825	164	485	0.66
14	42	1830	130	3.85	665	248	390	1.00
15	42	2035	122	3.52	510	330	300	1.32
16	42	2290	115	3.22	335	450	200	1.81

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

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