

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	D1G146-LU01-01	
Motor	M1G055-CF	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min ⁻¹	1300
Power consumption	W	100
Current draw	A	0.82
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



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Technical description

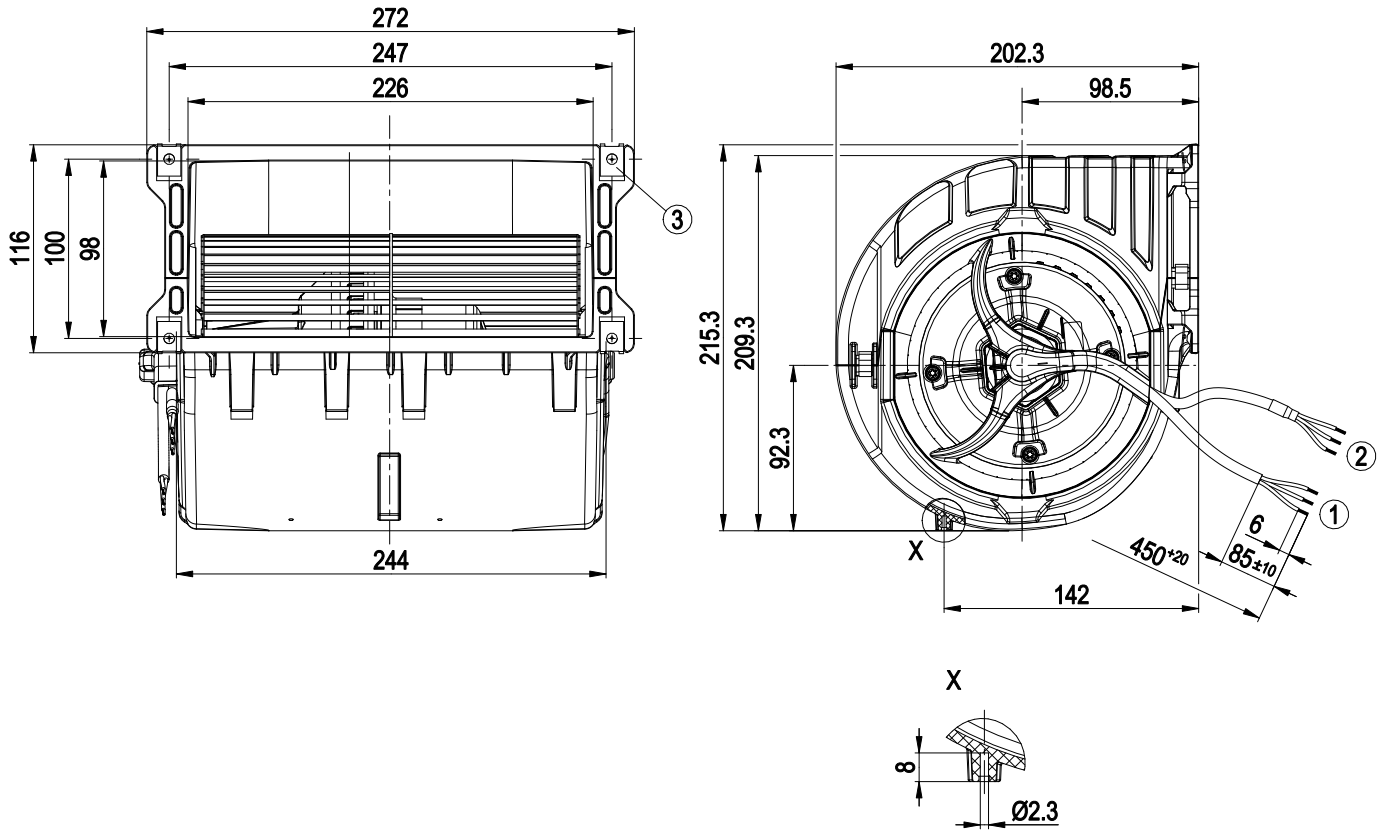
Weight	2 kg
Size	146 mm
Motor size	55
Rotor surface	Thick-film passivated
Electronics housing material	PP plastic, black
Impeller material	PP plastic
Housing material	PP plastic, black
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - PWM control input - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	Built-in component, protection class results from installation according to intended use
Conformity with standards	EN 60335-1; CE



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Product drawing



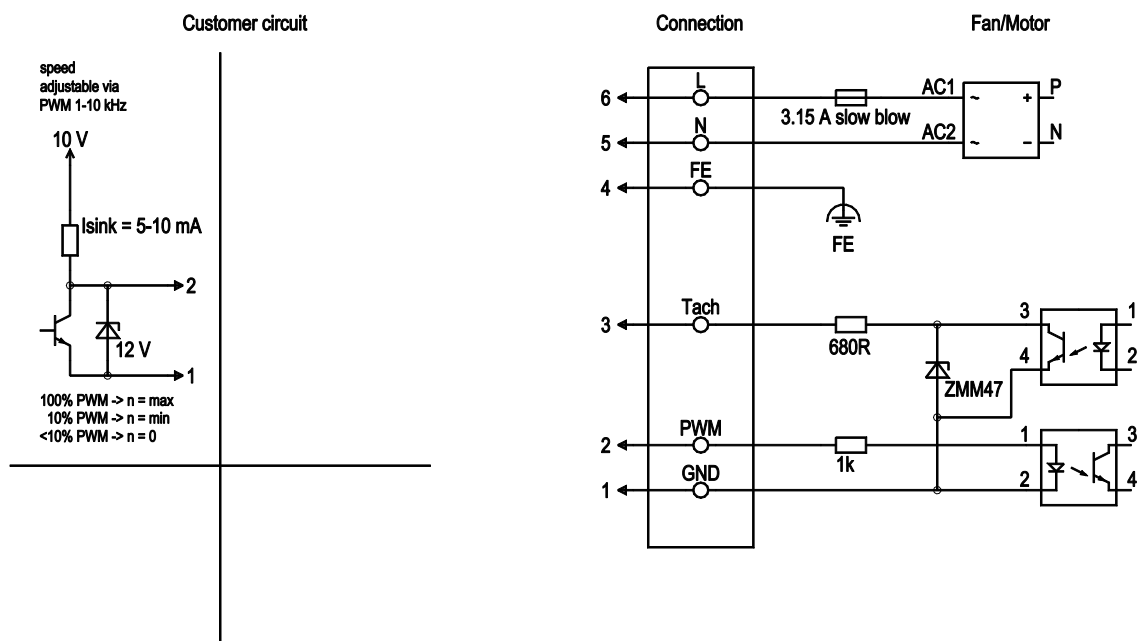
1	Cable PVC AWG20
	3x splice
2	Cable PVC AWG20
	3x splice
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	6	L	black	Power supply, phase, see nameplate for voltage range
	5	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	4	FE	green/yellow	Functional ground conductor
	3	Tacho	white	Tach output: open collector, 1 pulse per revolution, $I_{\text{sink max}} = 10 \text{ mA}$, SELV
	2	PWM	yellow	Control input PWM, impedance 1 k Ω ; SELV
	1	GND	blue	Reference ground for control interface, SELV

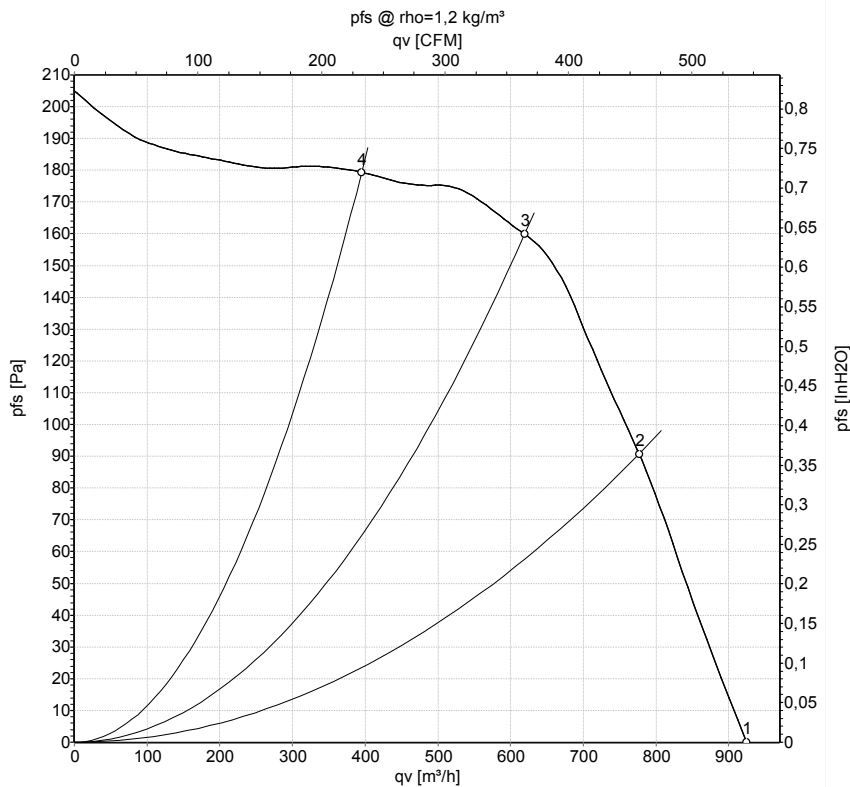


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Curves: Air performance 50 Hz



Measurement: LU-162537-1

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	f	n	P _{ed}	I	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m³/h	Pa	cfm	in. wg
1	230	50	1300	100	0.82	56	66	925	0	545	0.00
2	230	50	1545	100	0.82	56	66	775	90	455	0.36
3	230	50	1780	97	0.77	55	66	620	160	365	0.64
4	230	50	1790	59	0.50	54	64	395	180	230	0.72

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

