D1G146-HQ03-23

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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

Nominal data

Type	**D1G146-HQ03-23**
Motor	**M1G055-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1700
Power consumption	W	204
Current draw	A	1.55
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
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

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Technical description

Weight	2.1 kg
Fan size	146 mm
Electronics housing material	PP plastic
Impeller material	PP plastic
Housing material	PP plastic
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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box; with edge connector
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	Built-in component with basic insulation, protection class results from installation according to intended use
Conformity with standards	EN 60335-1; EN 60335-2-31; CE
Approval	EAC

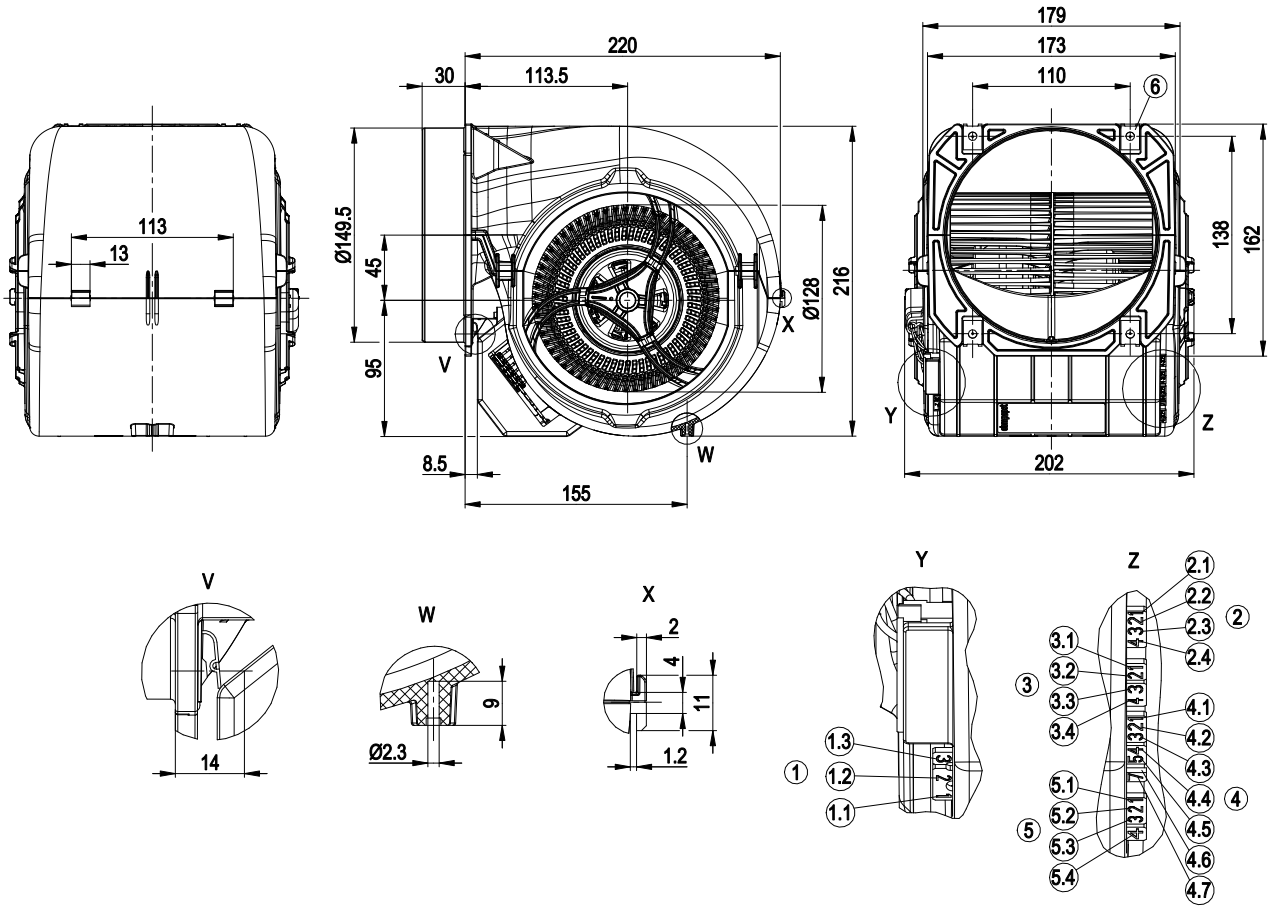
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Product drawing



1	Matching card edge connector Lumberg 3575 03 K06 (not included in scope of delivery)
1.1	N (neutral conductor)
1.2	L (power supply, phase)
1.3	FE (functional earth conductor)
2	Matching card edge connector Lumberg 3510 04 K02 (not included in scope of delivery)
2.1	LED- (cathode ambient lighting) (SELV)
2.2	LED+ (anode ambient lighting; 24 VDC; max. 30 W main and ambient light combined) (SELV)
2.3	LED- (cathode main light) (SELV)
2.4	LED+ (anode main light; 24 VDC; max. 30 W main and ambient light combined) (SELV)
3	Matching card edge connector Lumberg 3510 04 K18 (not included in scope of delivery)
3.1	MFK, voltage output for window contact (SELV)
3.2	GND; safely electrically isolated (SELV)
3.3	BMK1 (wall box) (SELV)
3.4	BMK2 (wall box) (SELV)
4	Matching card edge connector Lumberg 3510 07 K15P556 (not included in scope of delivery)
4.1	5 V voltage output (SELV)
4.2	12 V voltage output (SELV)
4.3	Seuffer bus clock (SELV)
4.4	Seuffer bus data (SELV)
4.5	GND; safely electrically isolated (SELV)
4.6	not used

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4.7	FE (functional earth conductor)
5	Matching card edge connector Lumberg 3510 04 K16 (not included in scope of delivery)
5.1	5 V voltage output (SELV)
5.2	GND; safely electrically isolated (SELV)
5.3	Drawer position light switch (voltage input) (SELV)
5.4	Drawer position fan (voltage input) (SELV)
6	4x sheet metal nut for thread EN ISO 1478-ST4.8

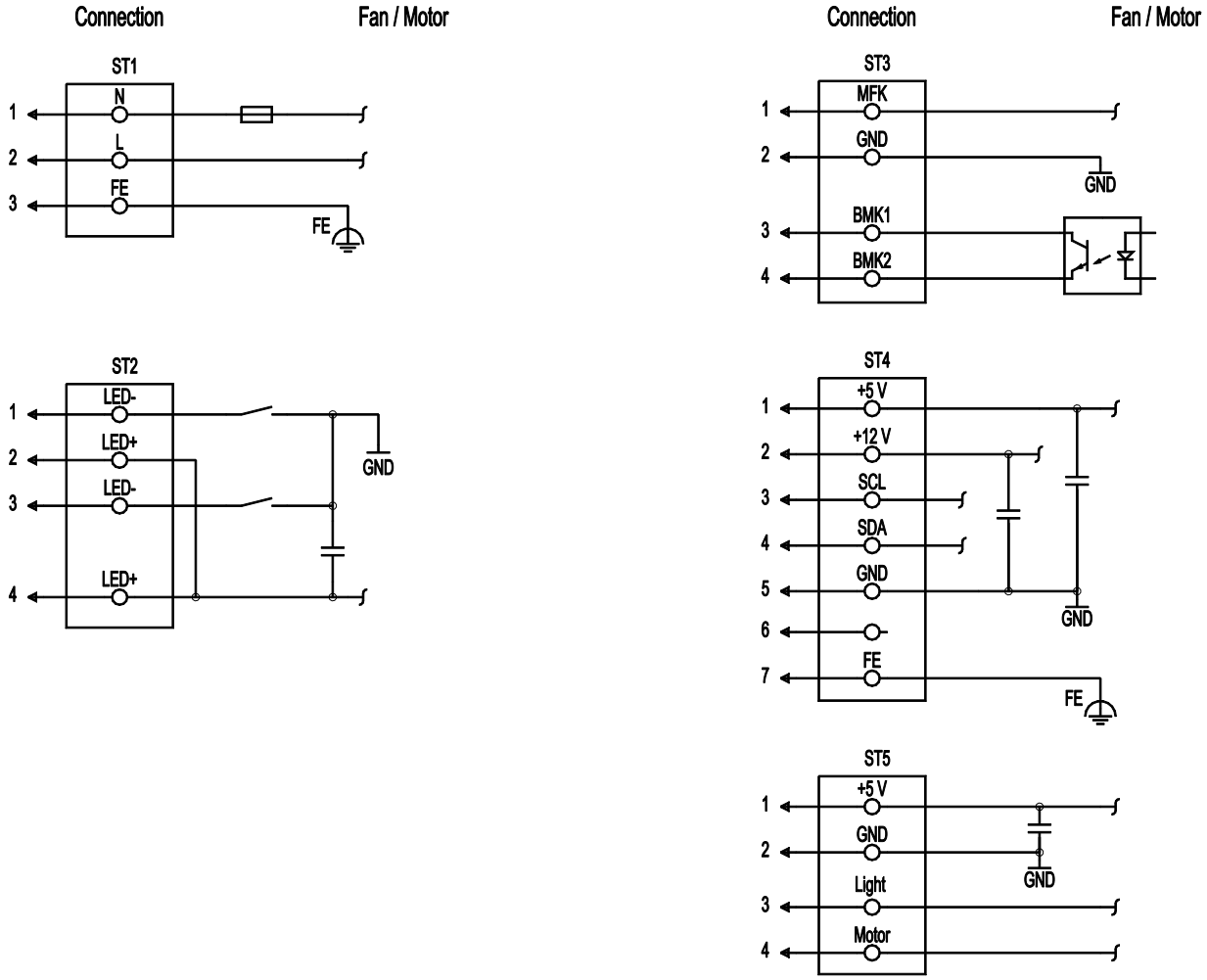
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
ST1	1	N		Power supply, neutral conductor, 230 VAC, 50-60 Hz, see nameplate for voltage range
ST1	2	L		Power supply, phase
ST1	3	FE		Functional ground conductor
ST2	1	LED -		Cathode ambient lighting; safely electrically isolated (SELV)
ST2	2	LED +		Anode ambient light; +24 V ± 10%; max. 30 W for ambient and main light combined; safely electrically isolated (SELV)
ST2	3	LED -		Cathode main light; safely electrically isolated (SELV)
ST2	4	LED +		Anode main light; +24 V ± 10%; max. 30 W for ambient and main light combined; safely electrically isolated (SELV)
ST3	1	MFK		Voltage output +5 V ± 5% (using pull-up), window contact, max. 0.75 W for all 5 V outputs combined; safely electrically isolated (SELV)
ST3	2	GND		GND; safely electrically isolated (SELV)
ST3	3	BMK1		Wall box contact; optocoupler collector; max. 12 mA/12 VDC; safely electrically isolated (SELV)
ST3	4	BMK2		Wall box contact; optocoupler emitter; max. 12 mA/12 VDC; safely electrically isolated (SELV)
ST4	1	+5 V		Voltage output +5 V ± 5%, max. 0.75 W for all 5 V outputs combined; safely electrically isolated (SELV)
ST4	2	+12 V		Voltage output +12 V ± 10%; max. 1.8 W; safely electrically isolated (SELV)

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No.	Conn.	Designation	Color	Function/assignment
ST4	3	SCL		Seuffer bus clock; safely electrically isolated (SELV)
ST4	4	SDA		Seuffer bus data; safely electrically isolated (SELV)
ST4	5	GND		GND; safely electrically isolated (SELV)
ST4	6	-		not used
ST4	7	FE		Protective earth (function)
ST5	1	+5 V		Voltage output +5 V ± 5%, max. 0.75 W for all 5 V outputs combined; safely electrically isolated (SELV)
ST5	2	GND		GND; safely electrically isolated (SELV)
ST5	3	Licht		Voltage input for light; safely electrically isolated (SELV), max. 5.5 V
ST5	4	Motor		Voltage input for motor; safely electrically isolated (SELV), max. 5.5 V
				Note: SELV always becomes PELV in the case of external connection of ST4-7 (FE) to ST4-5 (GND)!

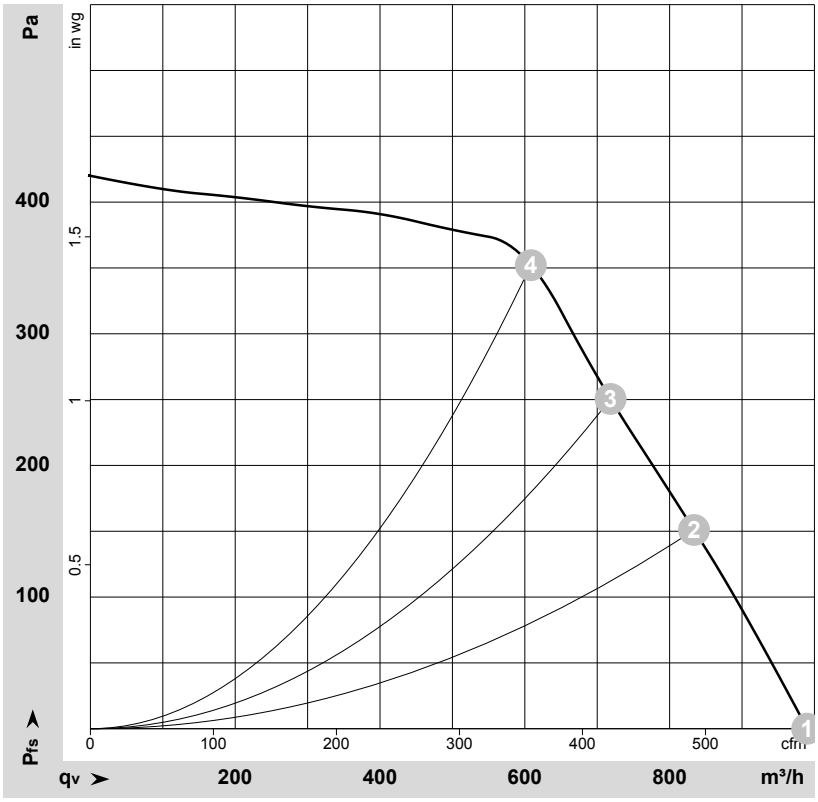
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-172957-1

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

	Stage	U	f	n	P_{ed}	I	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	4	230	50	1700	170	1.30	990	0	585	0.00
2	4	230	50	1995	170	1.30	835	150	490	0.60
3	4	230	50	2250	170	1.30	720	250	425	1.00
4	4	230	50	2555	170	1.30	610	360	360	1.45

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

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