D3G146-HQ13-11

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

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D3G146-HQ13-11**
Motor	**M3G055-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2380
Power consumption	W	230
Current draw	A	1.8
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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	47.9	32.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		59.4	44
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.15
09 Air flow q_v	m^3/h	505
09 Pressure increase p_{fs}	Pa	453
10 Speed (rpm) n	min^{-1}	2715
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-134808

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Technical description

Weight	2.46 kg
Fan size	146 mm
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	Motor IP54, electronics IP20
Insulation class	"F"
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	- Speed setting input (230 V) - Motor current limitation - Soft start - Thermal overload protection for motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box; With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

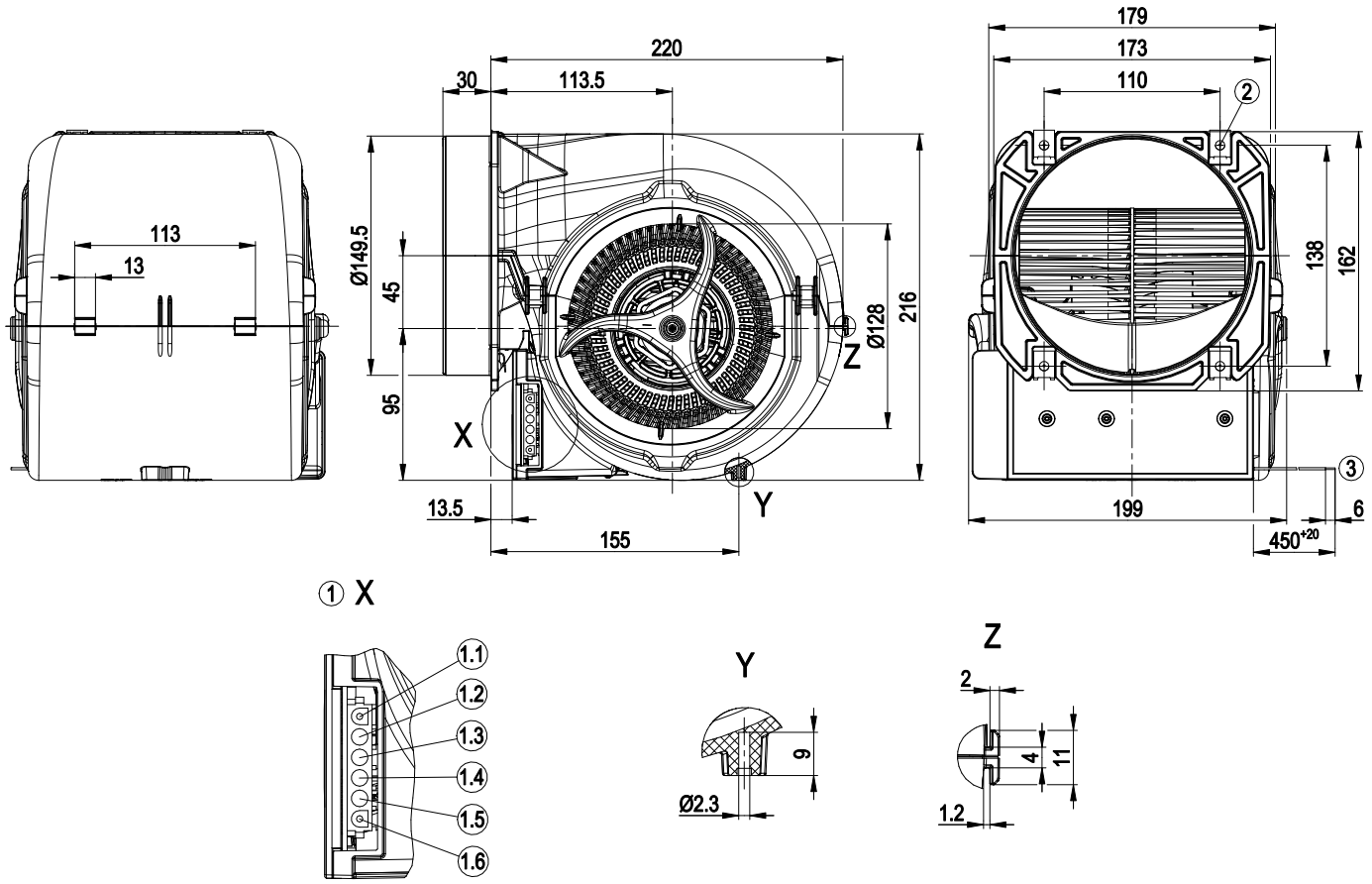
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Product drawing



1	Pin socket AMP Universal Mate-N-Lok 1586936-1
1.1	L = step 4 (max.)
1.2	L = step 3
1.3	L = step 2
1.4	L = step 1 (min.)
1.5	PE
1.6	N
2	4 x sheet metal nut for thread EN ISO 1478-ST4.8 (screw length at least 14.5 mm plus thickness of mounting material)
3	Ground conductor PFA AWG20, 1x crimped splice

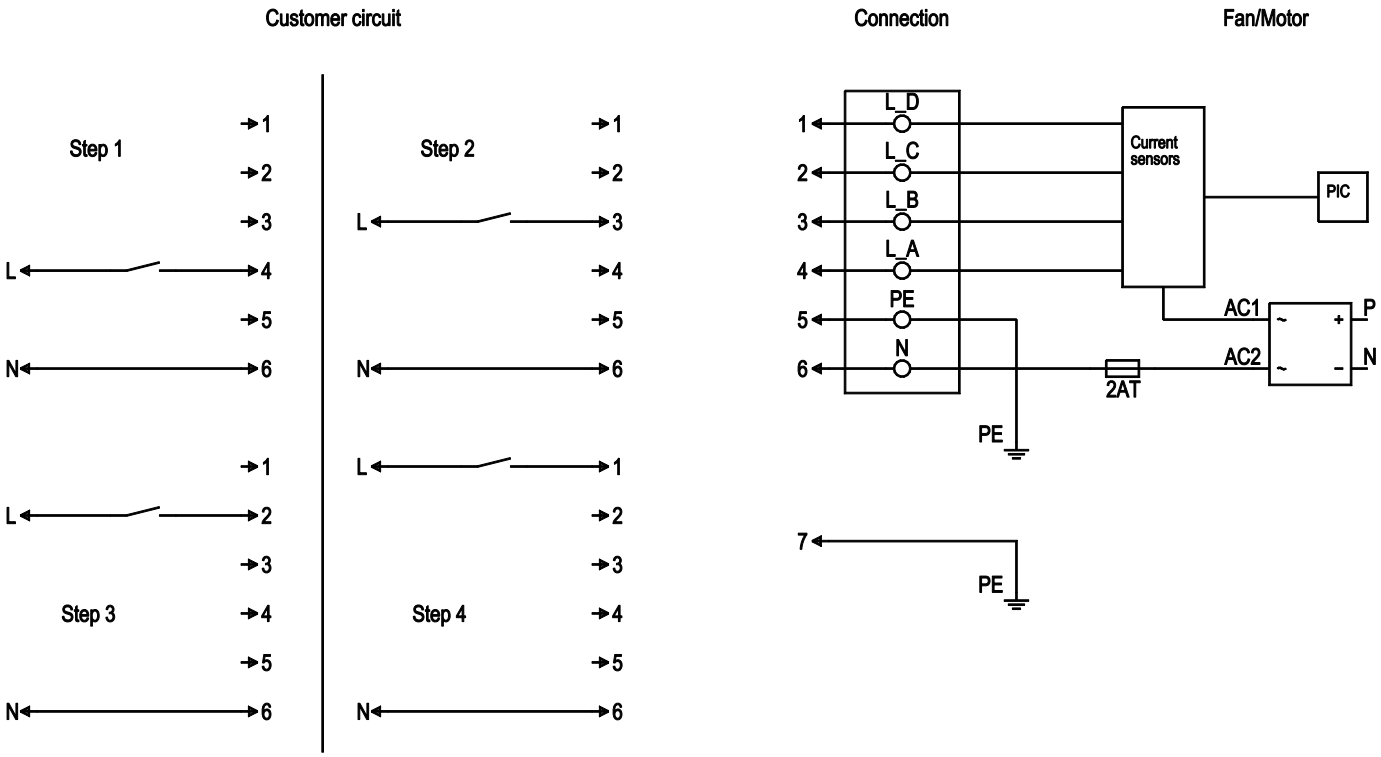
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	L_D	black	Step 4 - highest step (230 VAC, 50-60 Hz, see nameplate for voltage range)
	2	L_C	gray	Step 3 (230 VAC, 50-60 Hz, see nameplate for voltage range)
	3	L_B	red	Step 2 (230 VAC, 50-60 Hz, see nameplate for voltage range)
	4	L_A	white	Step 1 - lowest step (230 VAC, 50-60 Hz, see nameplate for voltage range)
	5	PE	green/yellow	Protective earth
	6	N	blue	Neutral conductor
	7	PE	green/yellow	Protective earth

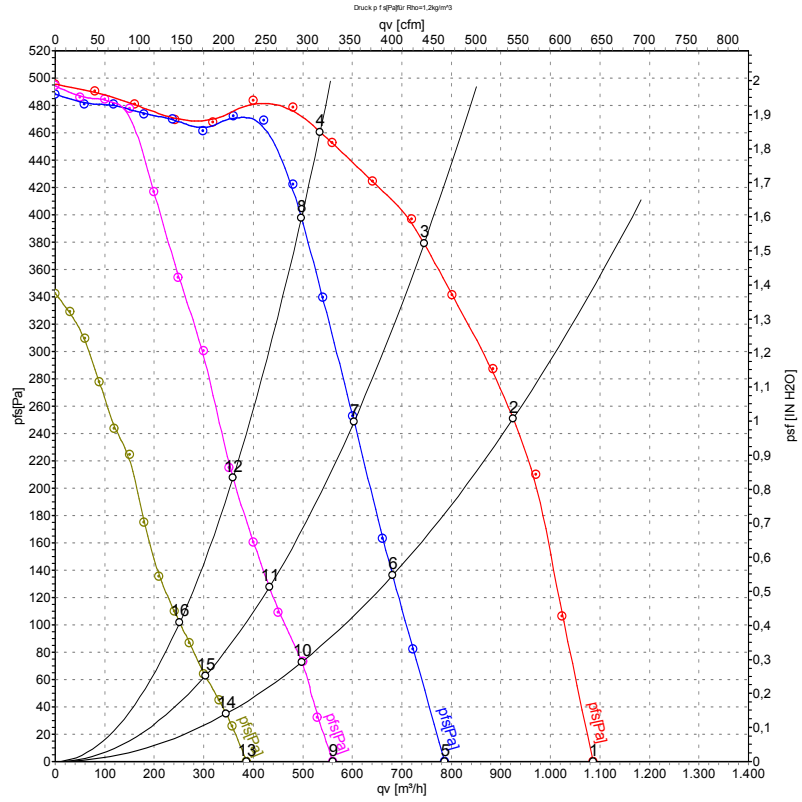
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Curves: Air performance 50 Hz



Measurement: LU-138137-1
Measurement: LU-138138-1
Measurement: LU-138140-1
Measurement: LU-138141-1

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}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	1800	193	1.35	62	74	1085	0	640	0.00
2	230	50	2380	230	1.80	62	73	925	250	545	1.00
3	230	50	2515	196	1.42	61	72	745	380	440	1.53
4	230	50	2690	159	1.15	61	72	535	460	315	1.85
5	230	50	1320	72	0.59	55	66	785	0	465	0.00
6	230	50	1725	90	0.73	54	65	680	136	400	0.55
7	230	50	2050	106	0.85	55	66	605	249	355	1.00
8	230	50	2510	129	1.03	59	70	495	399	295	1.60
9	230	50	960	28	0.28	47	58	560	0	330	0.00
10	230	50	1285	39	0.35	47	58	500	75	295	0.30
11	230	50	1500	43	0.38	47	59	430	128	255	0.51
12	230	50	1835	52	0.45	51	62	360	206	210	0.83
13	230	50	675	12	0.13	38	49	385	0	225	0.00
14	230	50	890	15	0.16	38	49	345	35	205	0.14
15	230	50	1055	17	0.18	39	50	305	62	180	0.25
16	230	50	1305	21	0.21	43	54	250	102	150	0.41

U = Power supply · 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
qv = Air flow · p_{fs} = Pressure increase

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