D3G146-HQ13-12

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**D3G146-HQ13-12**	
Motor	**M3G055-DF**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	2380
Power input	W	230
Current draw	A	1.8
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 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 input 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 definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-134808

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Technical features

Mass	2.4 kg
Size	146 mm
Surface of rotor	Galvanised
Material of impeller	PP plastic
Housing material	PP plastic
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"F"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Speed adjustment input (230 V) - Motor current limit - Soft start - Over-temperature protected motor
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box; With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; EN 60335-2-31; CE

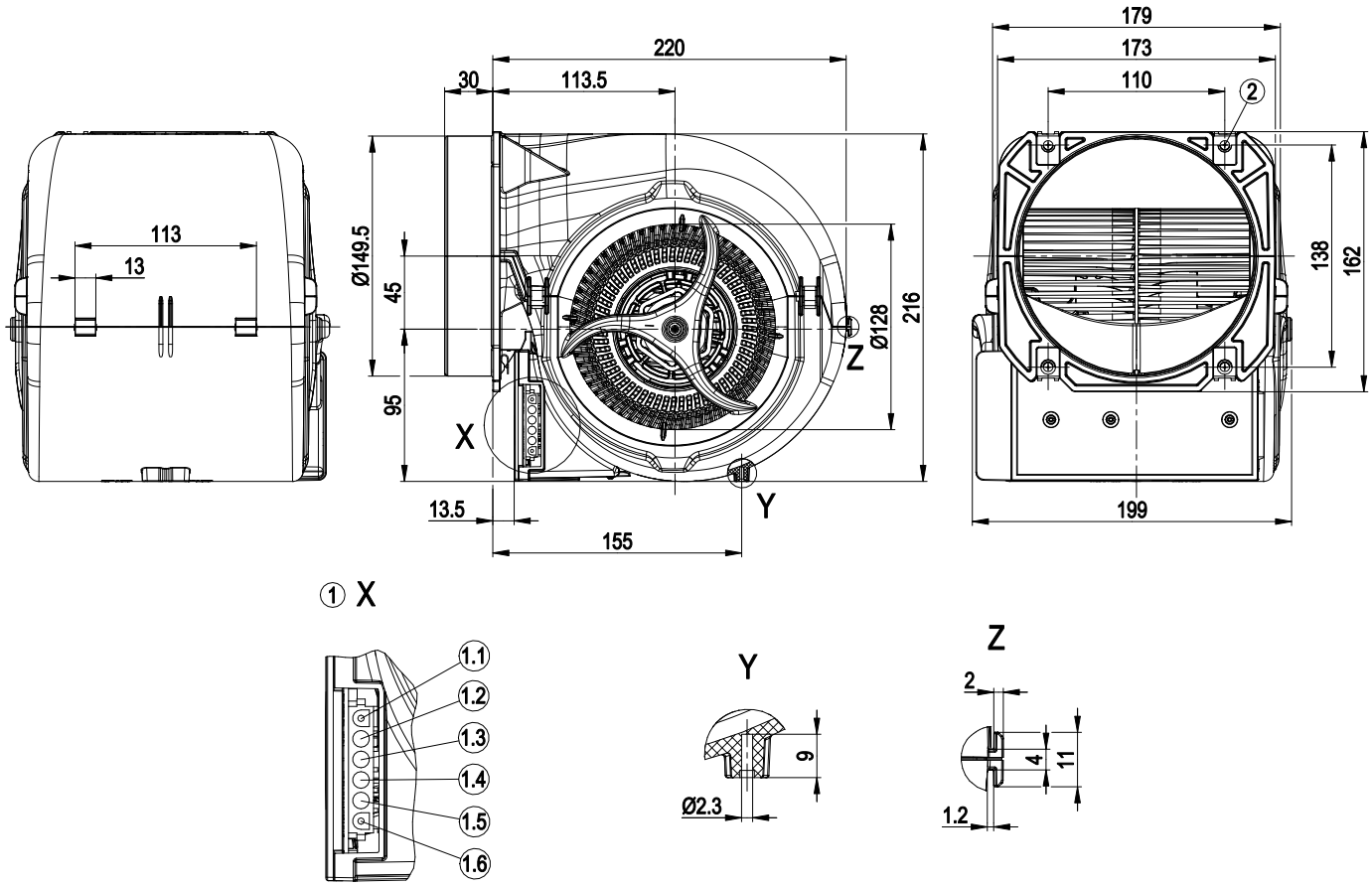
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Product drawing



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

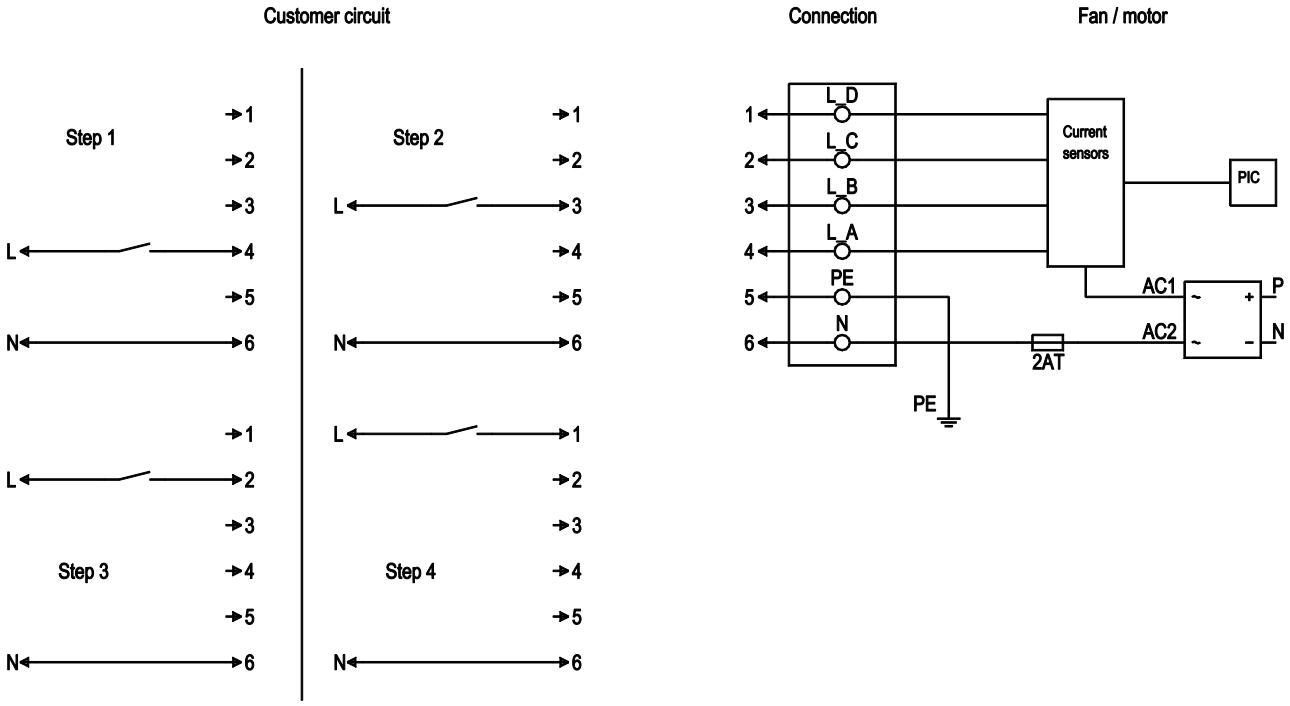
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	1	L_D	black	Step 4 - strongest step (230 VAC, 50-60 Hz, for voltage range refer to rating plate)
	2	L_C	grey	Step 3 (230 VAC, 50-60 Hz, for voltage range refer to rating plate)
	3	L_B	red	Step 2 (230 VAC, 50-60 Hz, for voltage range refer to rating plate)
	4	L_A	white	Step 1 - weakest step (230 VAC, 50-60 Hz, for voltage range refer to rating plate)
	5	PE	green/yellow	Protective earth
	6	N	blue	Neutral conductor

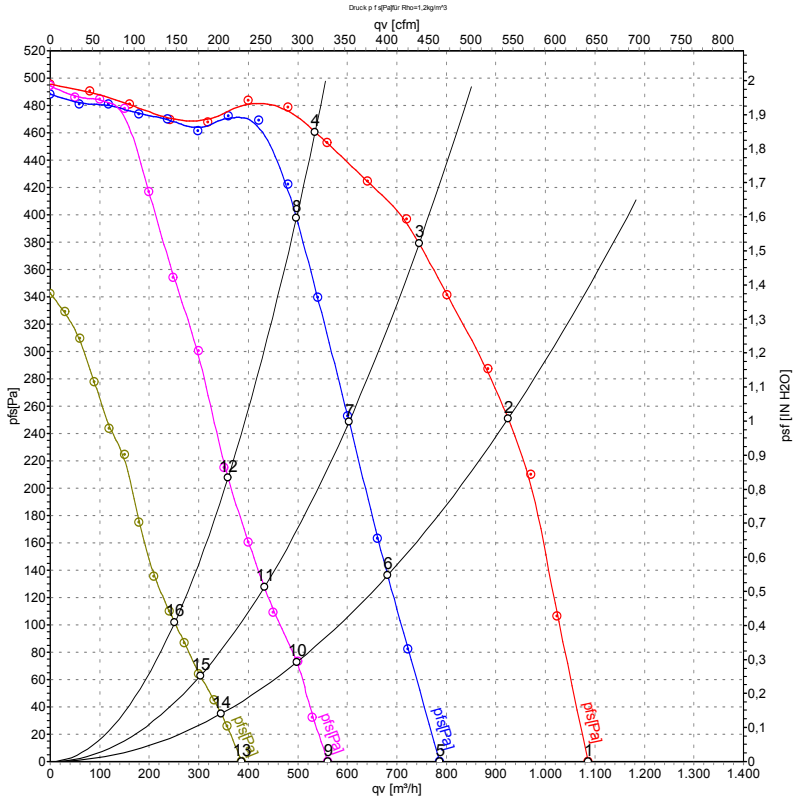
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Charts: Air flow 50 Hz



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

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

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 = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
p_{fs} = Pressure increase

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