D2D146-AA28-28

AC centrifugal fan

forward curved, dual inlet

with housing (flange)

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Nominal data

Type	**D2D146-AA28-28**
Motor	**M2D068-EC**

Phase		3~
Nominal voltage	VAC	230
Connection		Δ
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed (rpm)	min^{-1}	2050
Power input	W	345
Current draw	A	0.88
Min. back pressure	Pa	200
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40
Starting current	A	1

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

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	33.1	33
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44.1	44
05 Variable speed drive		No	

09 Power input P_e	kW	0.18
09 Air flow q_v	m^3/h	550
09 Pressure increase p_{fs}	Pa	394
10 Speed (rpm) n	min^{-1}	2595
11 Specific ratio*		1.00

Data definition with optimum efficiency.

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

LU-199619

The indicated efficiency values for obtaining conformity with the Ecodesign Directive EU 327/2011 were achieved with defined air conduction components (e.g. inlet nozzles).
The dimensions are to be requested from ebm-papst. If other air guide geometries are used on the installation side, the ebm-papst evaluation loses its validity/conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2(2a) (motors completely integrated into a product).

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Technical features

Mass	4.8 kg
Size	146 mm
Motor size	68
Surface of rotor	Coated in black
Material of impeller	Sheet steel, coated in black
Housing material	Sheet steel, galvanised
Material of guard grille	Steel, coated in grey plastic (RAL 9006)
Motor suspension	Motor mounted via brackets on one side
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP44; Depending on installation and position
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H1+
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensation drainage holes	None
Operation mode	S1
Motor bearing	Hybrid bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical connection	Connector with connection line
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1
Standard conformity	UKCA
Product conforming to standard	CE
Approval	UL 1004-1; CSA C22.2 no. 100

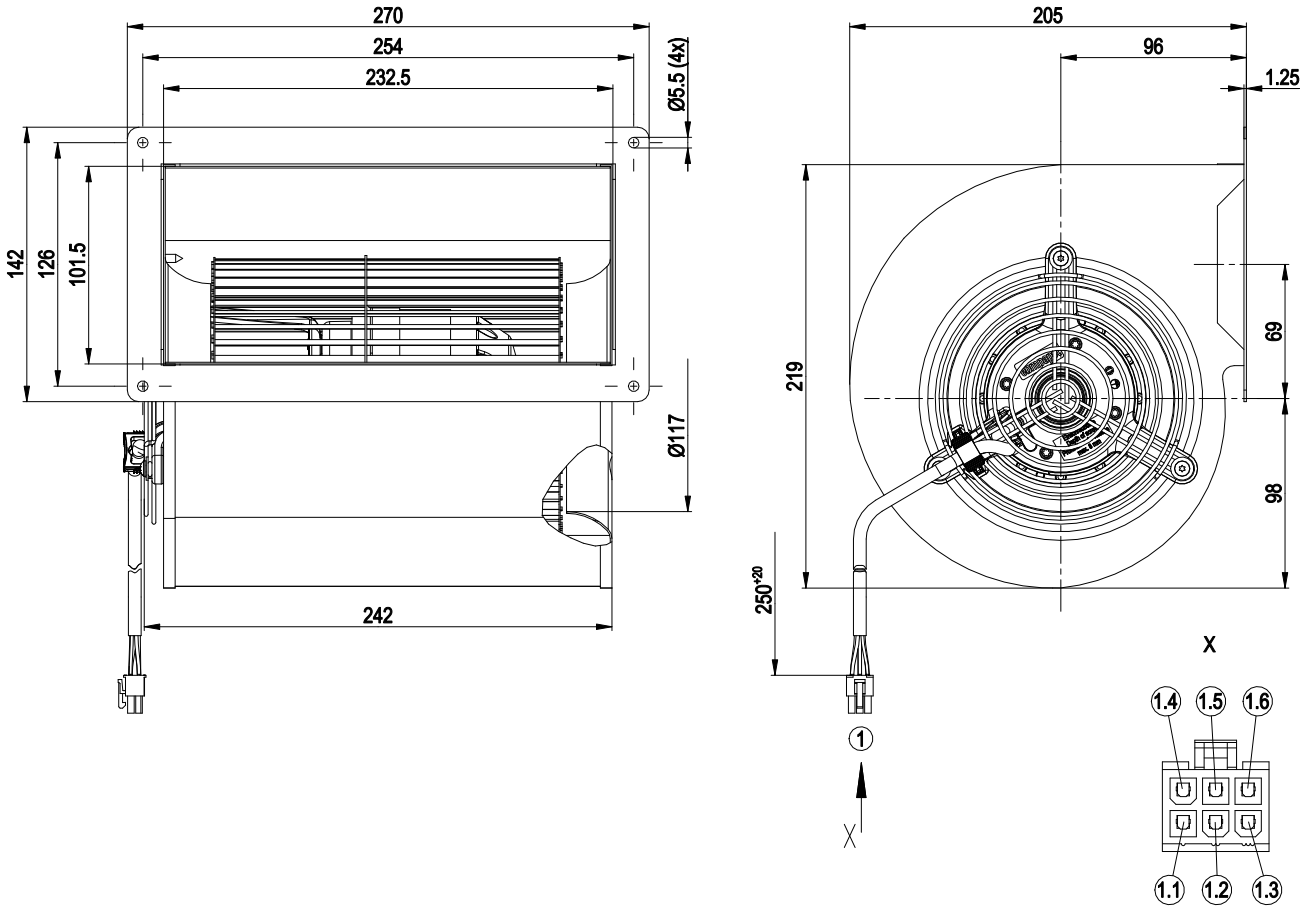
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Product drawing



1	Connection line PFA AWG20 (green/yellow AWG18), connector housing 6-pole Molex 46992-0610, 6x female connector Molex 39-00-0059
1.1	PE (green/yellow)
1.2	grey (TOP)
1.3	grey (TOP)
1.4	black
1.5	blue
1.6	brown

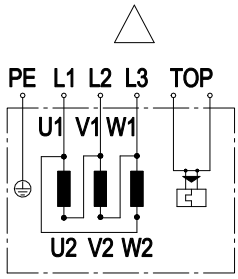
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Connection screen



Note: Change direction of rotation by reversing two phases

Δ	Delta connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	TOP	2x grey	PE	green/yellow

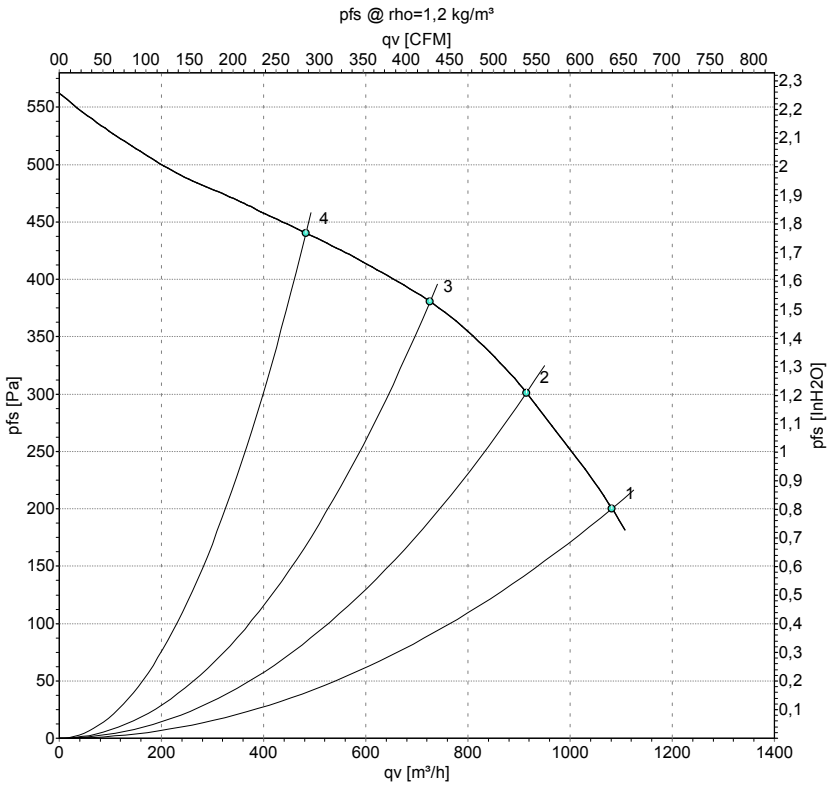
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Charts: Air flow 50 Hz



Measurement: LU-56685-1

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

	Conn.	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Δ	230	50	2050	345	0.88	1080	200	635	0.80
2	Δ	230	50	2225	294	0.81	915	300	540	1.20
3	Δ	230	50	2430	235	0.66	725	380	425	1.53
4	Δ	400	50	2620	172	0.52	485	440	285	1.77

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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