D2D146-AA28-28

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

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

Phase		3~
Nominal voltage	VAC	230
Wiring		Δ
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	2000
Power consumption	W	305
Current draw	A	0.8
Min. back pressure	Pa	200
Min. back pressure	in. wg	0.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40
Starting current	A	1.6

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

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	33.5	32.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44.7	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.17
09 Air flow q_v	m^3/h	515
09 Pressure increase p_{fs}	Pa	402
10 Speed (rpm) n	min^{-1}	2590
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-200241

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the 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 description

Weight	4.8 kg
Size	146 mm
Motor size	68
Rotor surface	Painted black
Impeller material	Sheet steel, painted black
Housing material	Sheet steel, galvanized
Guard grille material	Steel, coated with gray plastic (RAL 9006)
Motor suspension	Motor mounted with brackets on one side
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1+
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	Hybrid bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Connector with cable
Motor protection	Thermal switch auto reset, lead out, with basic insulation
With cable	Variable
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60335-1; EN 60034-1; EN 60204-1; CE; UKCA
Approval	CSA C22.2 No. 100; UL 1004-1

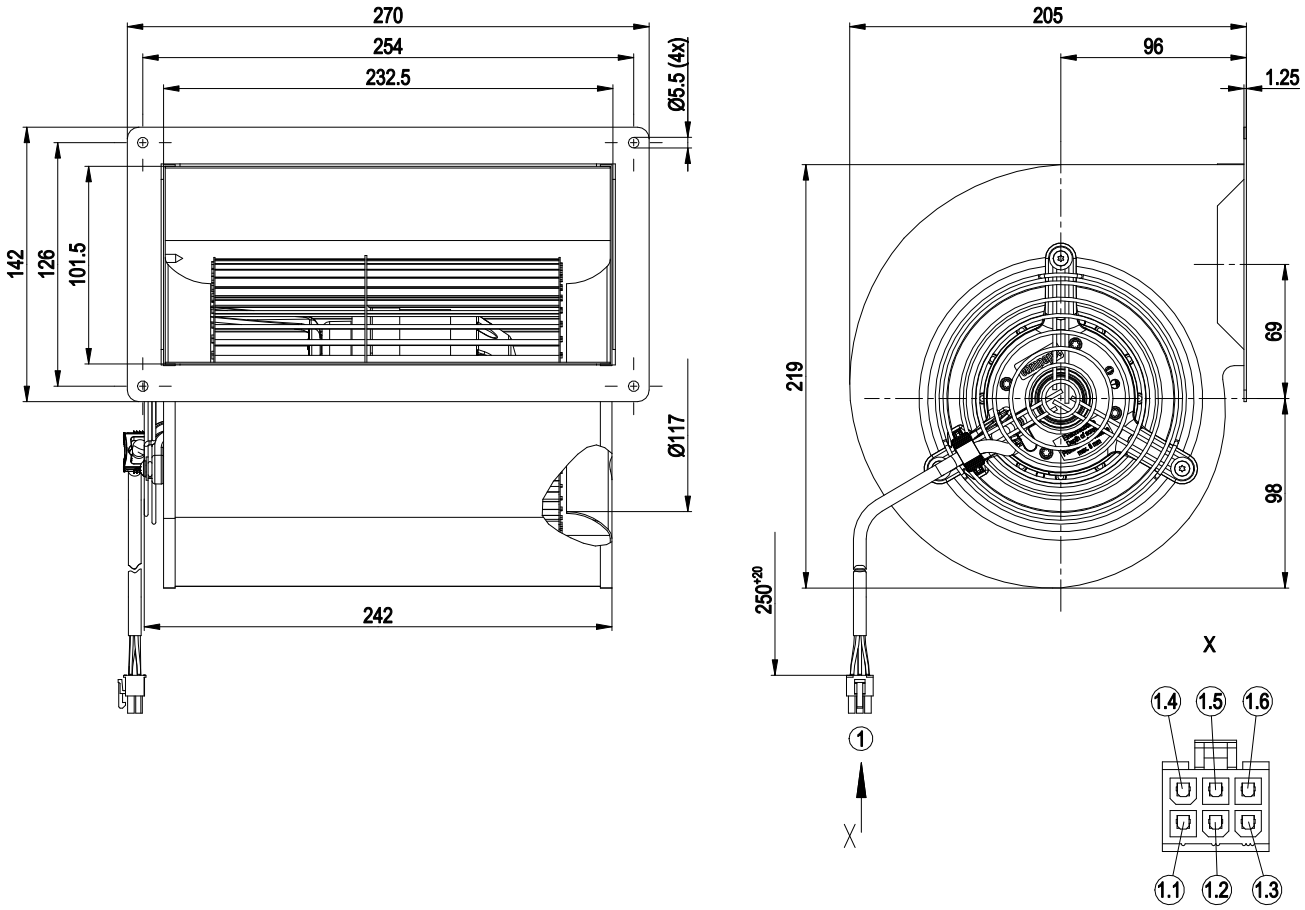
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Product drawing



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

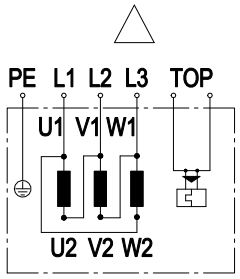
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Connection diagram



Note: Change of rotation direction by reversing two phases

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

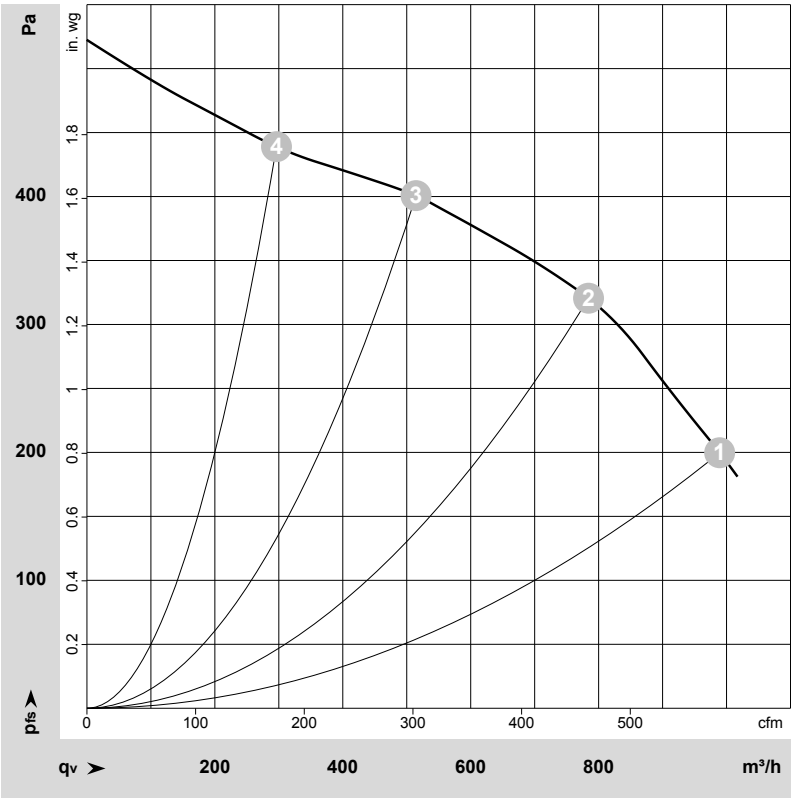
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-200241-1

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

	Wired	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	2000	305	0.80	990	200	580	0.80
2	Δ	230	50	2335	243	0.67	785	320	460	1.28
3	Δ	230	50	2590	171	0.50	515	400	305	1.61
4	Δ	230	50	2695	130	0.41	295	440	175	1.77

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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