D2D160-CE02-09

AC centrifugal fan

forward curved, dual inlet

with housing (flange)

D2D160-CE02-09 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**D2D160-CE02-09**
Motor	**M2D074-LA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Y	Y
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	2700	2960
Power input	W	700	1055
Current draw	A	1.1	1.63
Min. back pressure	Pa	460	560
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	70	30
Starting current	A	5.34	5.54

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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	35.9	35.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	44
05 Variable speed drive		No	

09 Power input P_e	kW	0.52
09 Air flow q_v	m^3/h	1205
09 Pressure increase p_{fs}	Pa	551
10 Speed (rpm) n	min^{-1}	2795
11 Specific ratio*		1.01

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-154175

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Technical features

Mass	9.9 kg
Size	160 mm
Motor size	74
Surface of rotor	Coated in black
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP00
Insulation class	"B"
Humidity (F) / environmental protection class (H)	H0+; F2-1
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, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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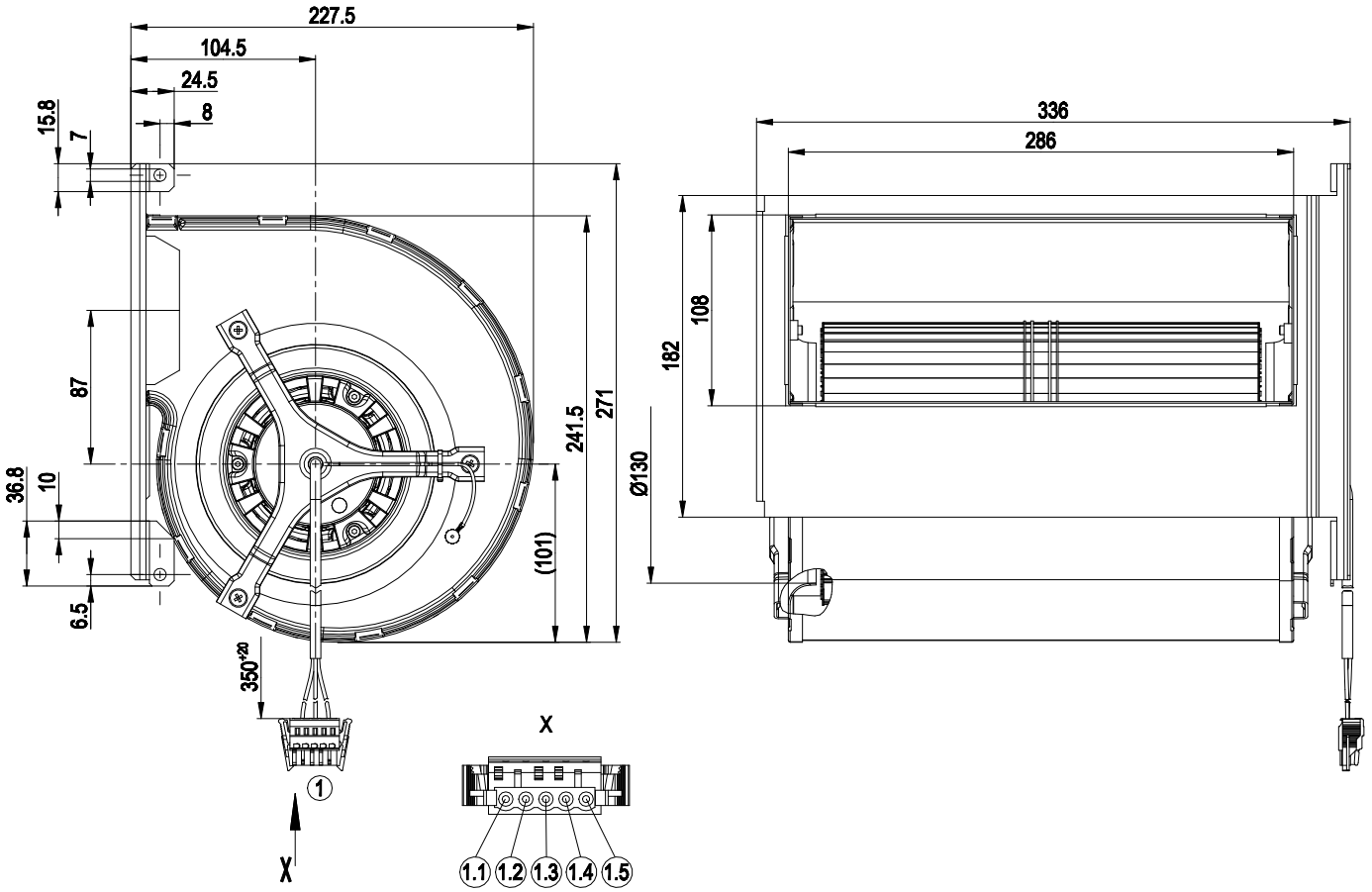
Product drawing



1	Connection line PFA AWG20, connection line 5-pole WAGO 721-105/037-000
1.1	black
1.2	not used
1.3	blue
1.4	not used
1.5	brown

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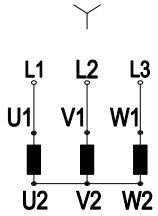
Connection screen



Note: Direction of rotation changes when two phases are reversed

Y	Star connection	L1	black	L2	blue
L3	brown				

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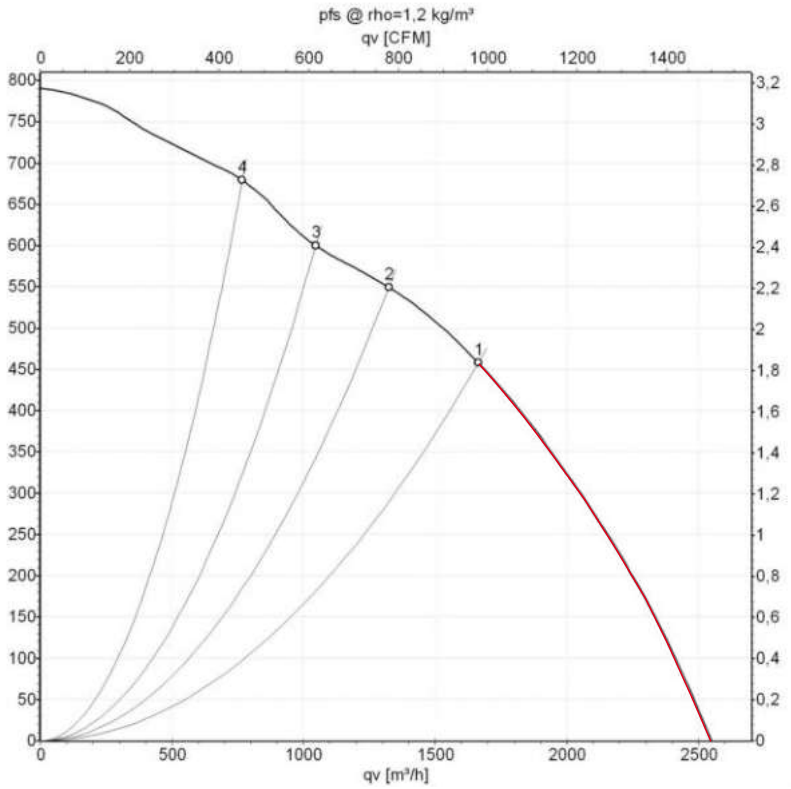
Charts: Air flow 50 Hz



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	Y	400	50	2700	700	1.10	1660	460	975	1.85
2	Y	400	50	2775	562	0.97	1320	550	775	2.21
3	Y	400	50	2815	482	0.87	1045	600	615	2.41
4	Y	400	50	2840	428	0.81	765	680	450	2.73

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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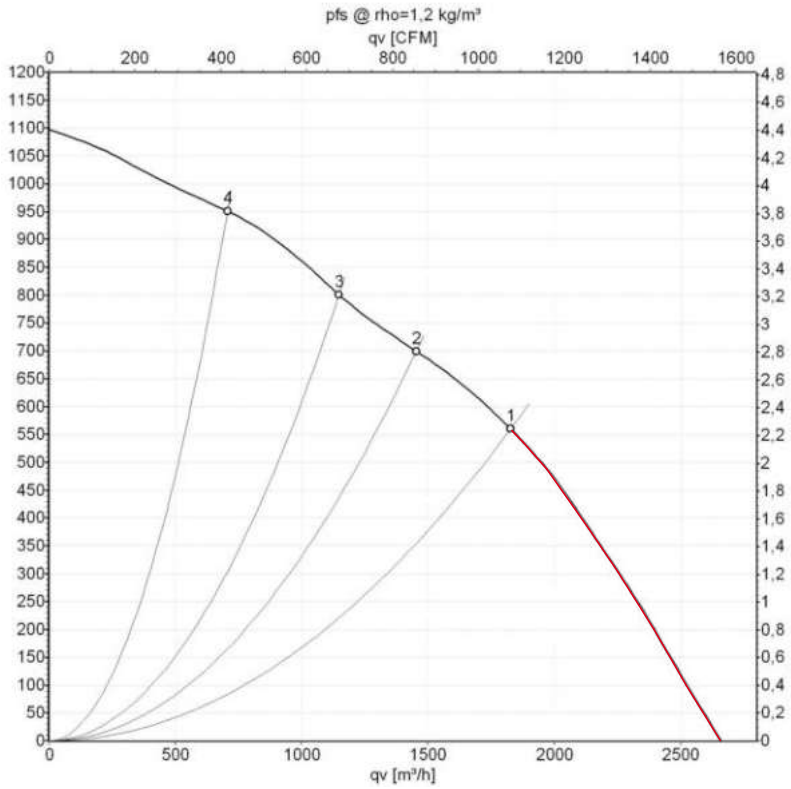
Charts: Air flow 60 Hz



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	Y	400	60	2960	1055	1.63	1830	560	1075	2.25
2	Y	400	60	3120	871	1.35	1465	700	860	2.81
3	Y	400	60	3210	737	1.16	1145	800	675	3.21
4	Y	400	60	3300	592	0.95	710	950	420	3.81

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