D4D225-FH02-01

AC centrifugal fan

forward curved, dual inlet

with housing (flange)

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

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

Nominal data

Type	**D4D225-FH02-01**
Motor	**M4D094-LA**

Phase		3~	3~	3~
Nominal voltage	VAC	400	400	440
Connection		Y	Y	Y
Frequency	Hz	50	60	60
Type of data definition		fa	fa	fa
Valid for approval / standard		CE	CE	CE
Speed (rpm)	min^{-1}	1300	1350	1410
Power input	W	950	1320	1460
Current draw	A	1.82	2.4	2.4
Min. back pressure	Pa	0	0	0
Min. ambient temperature	°C	-40	-40	-40
Max. ambient temperature	°C	85	40	40
Starting current	A	4.6	4	

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}	%	39.6	35.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.4	44
05 Variable speed drive		No	

09 Power input P_e	kW	0.4
09 Air flow q_v	m^3/h	1805
09 Pressure increase p_{fs}	Pa	319
10 Speed (rpm) n	min^{-1}	1425
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

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Technical features

Mass	15.6 kg
Size	225 mm
Motor size	94
Material of impeller	Sheet steel, hot-galvanised
Housing material	Sheet steel, hot-galvanised
Motor suspension	Motor anti-vibration mounted on both sides
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP20
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H0 - dry environment
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	Continuous operation (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) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2004); CE
Approval	CCC; EAC

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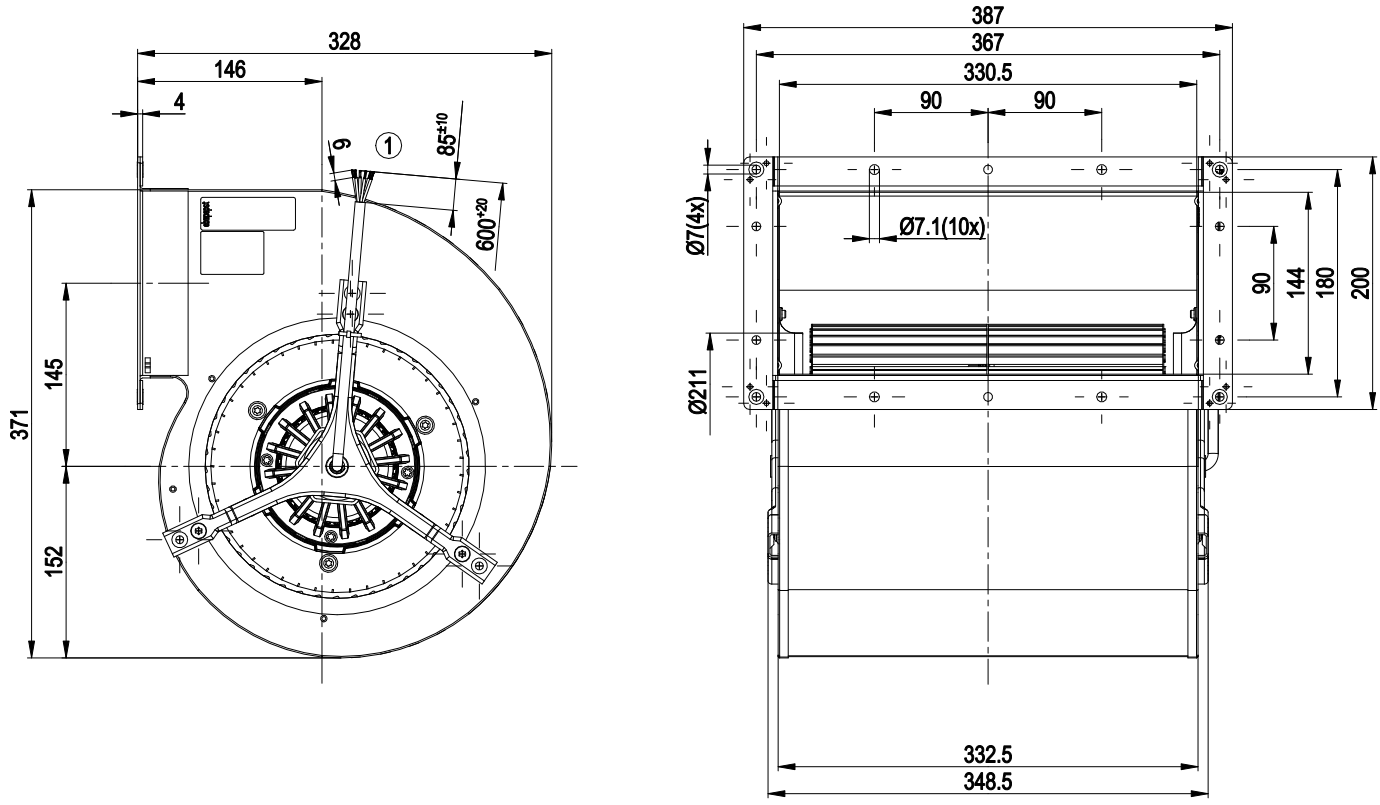
Product drawing



1	Connection line PVC AWG18, 6x brass lead tips crimped

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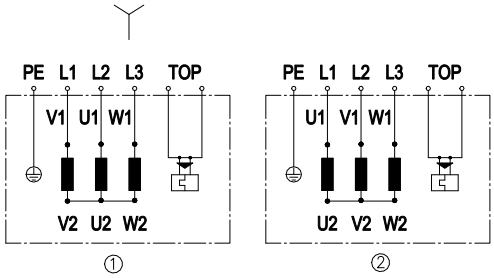
Connection screen



Change direction of rotation by reversing two phases

	Three-phase motor
Y	Star connection
1	Anti-clockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow
TOP	2x grey

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Charts: Air flow 50 Hz

ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-72882-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	400	50	1300	950	1.82	72	84	3955	0	2330	0.00
2	Y	400	50	1330	782	1.56	69	81	3415	120	2010	0.48
3	Y	400	50	1375	624	1.35	66	78	2820	220	1660	0.88
4	Y	400	50	1435	372	1.07	61	73	1600	320	945	1.28

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
q_V = Air flow · p_{fs} = Pressure increase

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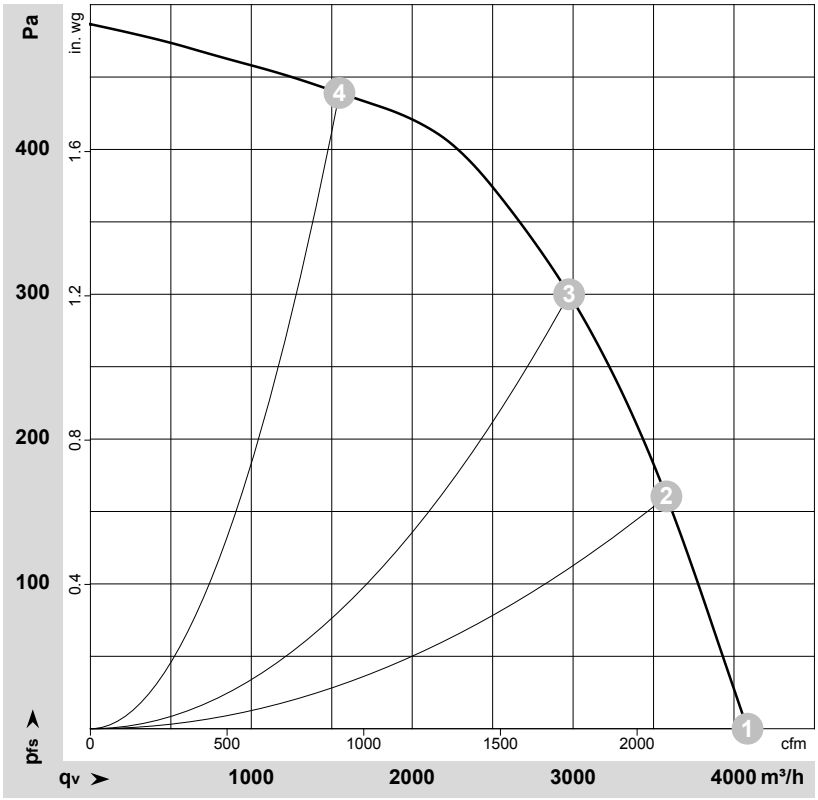
Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-72881-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	400	60	1350	1320	2.40	73	86	4085	0	2405	0.00
2	Y	400	60	1440	1097	2.00	71	83	3580	160	2105	0.64
3	Y	400	60	1540	876	1.64	69	81	2975	300	1750	1.20
4	Y	400	60	1675	501	1.07	66	78	1550	440	910	1.77

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
q_V = Air flow · p_{fs} = Pressure increase