

AC centrifugal fan

forward-curved, dual-intake
with housing (large flange)



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Amtsgericht (court of registration) Stuttgart · HRB 590142



Nominal data

Type	D4D180-CB01-02				
Motor	M4D068-GA				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1050	1030	1050	1030
Power consumption	W	290	360	290	360
Current draw	A	0.92	1.04	0.53	0.6
Min. back pressure	Pa	0	0	0	0
Min. back pressure	inH ₂ O	0	0	0	0
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	55	30	55	30

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

Data according to ErP Directive

		Actual	Req. 2015			
01 Overall efficiency η_e	%	37.1	37.1	09 Power consumption P_e	kW	0.13
02 Measurement category		B		09 Air flow q_v	m ³ /h	900
03 Efficiency category		Total		09 Pressure increase p_f	Pa	198
04 Efficiency grade N		49	49	10 Speed (rpm) n	min ⁻¹	1330
05 Variable speed drive		No		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = $1 + p_f / 100\,000\text{ Pa}$

LU-105049



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Technical description

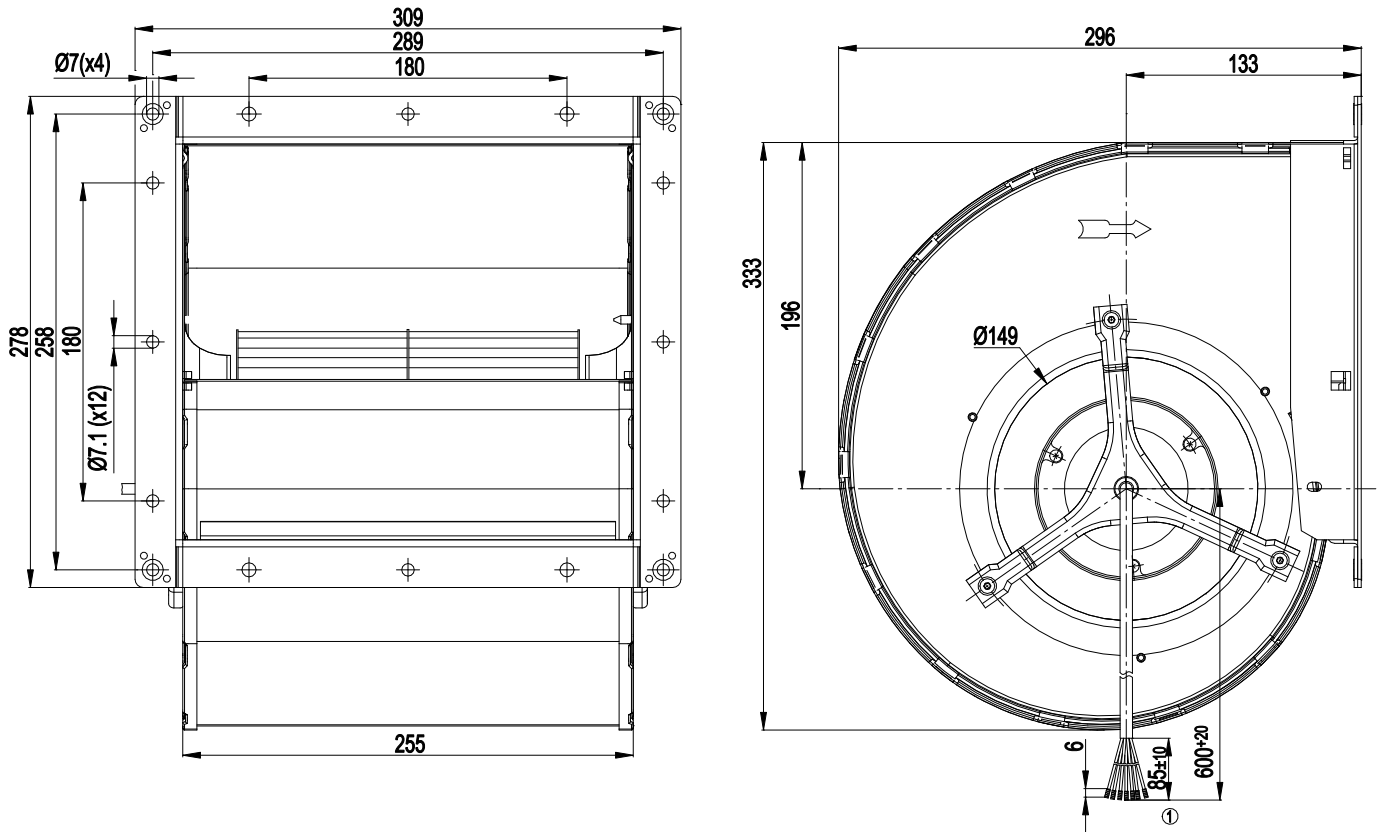
Weight	9.5 kg
Fan size	180 mm
Rotor surface	Unpainted
Impeller material	Sheet steel, hot-dip galvanized
Housing material	Sheet steel, hot-dip galvanized
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection; CE
Approval	CCC



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Product drawing

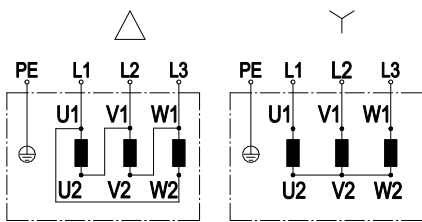


1 Cable halogen-silicone-free AWG20, 7x crimped splices

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Connection diagram



Change of rotation direction by reversing two phases

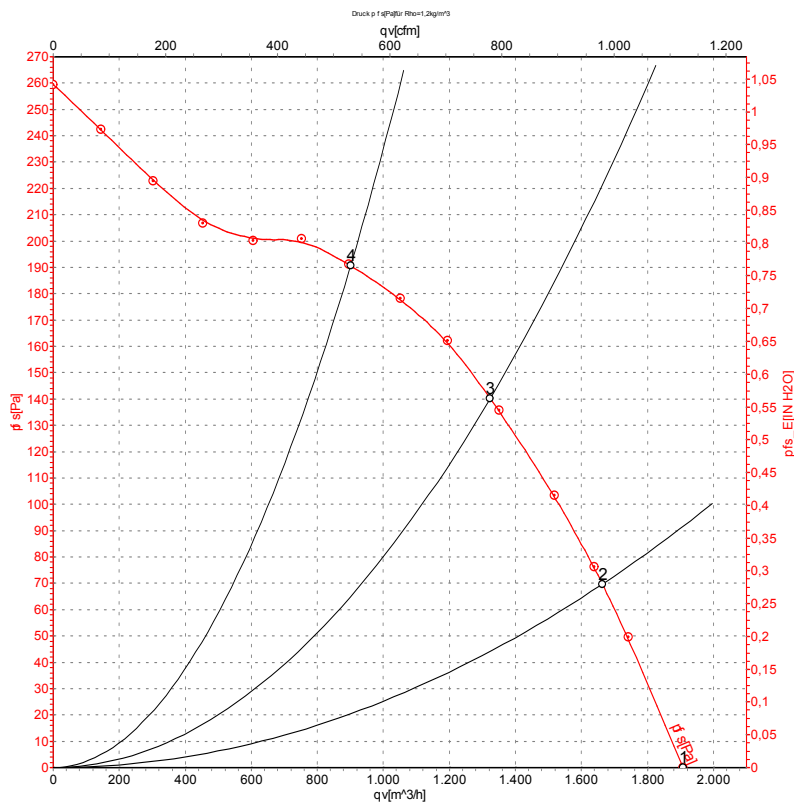
	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				



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Curves: Air performance 50 Hz



Measurement: LU-105049-1

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	qv	p _{fs}	qv	p _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa	CFM	inH ₂ O
1	Y	400	50	1050	290	0.53	1910	0	1125	0.00
2	Y	400	50	1150	238	0.47	1665	70	980	0.28
3	Y	400	50	1240	190	0.42	1325	140	780	0.56
4	Y	400	50	1330	138	0.37	900	190	530	0.76

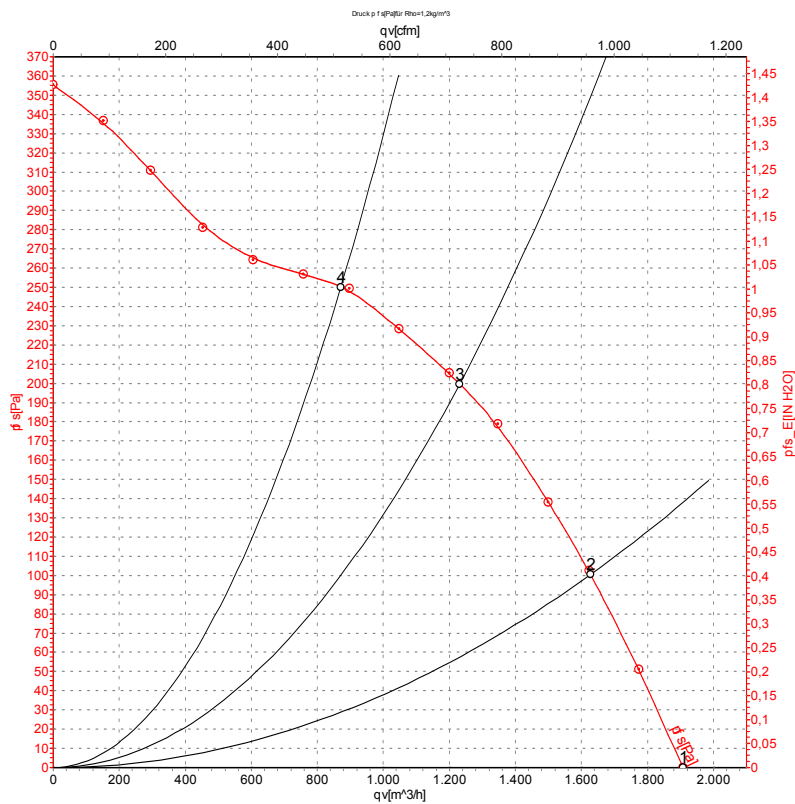
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



Measurement: LU-105050-1

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	m³/h	Pa	CFM	inH ₂ O
1	Y	400	60	1030	360	0.60	1910	0	1125	0.00
2	Y	400	60	1230	280	0.50	1625	100	960	0.40
3	Y	400	60	1390	219	0.41	1230	200	725	0.80
4	Y	400	60	1515	166	0.34	870	250	515	1.00

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

