

AC axial fan

sickle-shaped blades (S series)

Fan housing with guard grille

W2E315-DP02-05 ebmpapst Datasheet

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Nominal data

Type	W2E315-DP02-05		
Motor	M2E074-GA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed	min ⁻¹	2800	3200
Power consumption	W	280	435
Current draw	A	1.23	1.93
Capacitor	μF	10	10
Capacitor voltage	VDB	400	400
Max. back pressure	Pa	275	130
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	55	40
Starting current	A	3.7	3.3

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	36.9	30.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		46.2	40
05 Variable speed drive		No	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_e	kW	0.34
09 Air flow q_v	m ³ /h	2655
09 Pressure increase p_{fs}	Pa	175
10 Speed n	min ⁻¹	2710
11 Specific ratio*		1.00

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

LU-39002



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Technical description

Weight	7.4 kg
Fan size	315 mm
Rotor surface	Painted black
Terminal box material	PC/ABS plastic, black
Blade material	Sheet steel, painted black
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, phosphated and coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F1-2
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Via terminal box, capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	P0/S0
Conformity with standards	EN 60335-1; CE

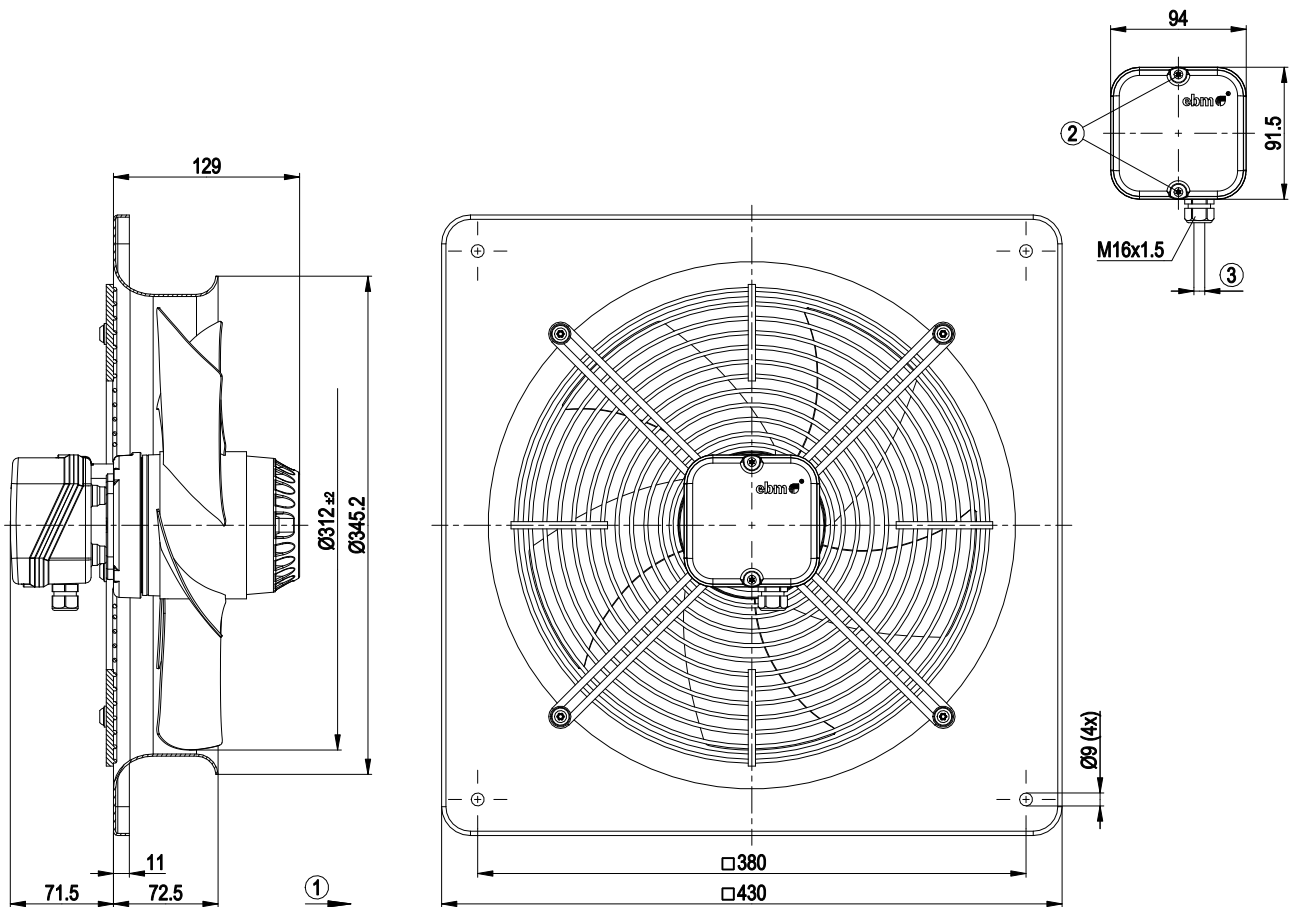


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Product drawing

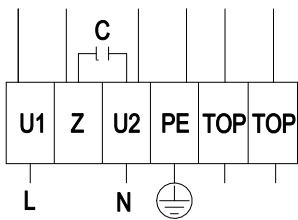


1	Direction of air flow "A"
2	Tightening torque 0.5 ± 0.1 Nm
3	Cable diameter max. 7.5 mm, tightening torque 1.3 ± 0.2 Nm

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Connection diagram



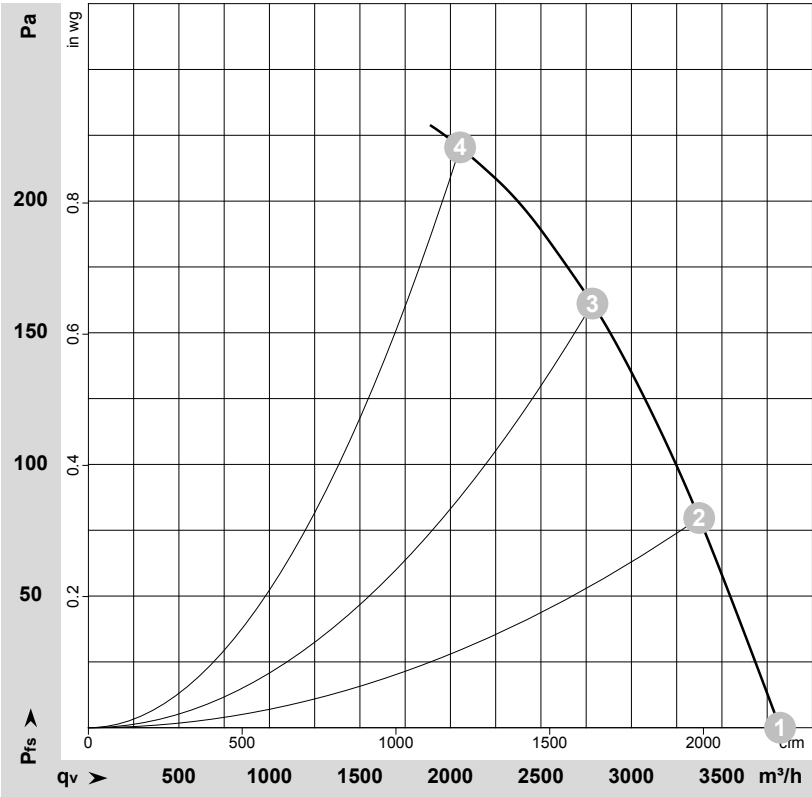
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow	TOP	gray		



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Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-39002-1

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

	U	f	n	P _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	230	50	2800	280	1.23	3820	0
2	230	50	2765	310	1.36	3375	80
3	230	50	2720	344	1.50	2785	160
4	230	50	2665	380	1.65	2055	220

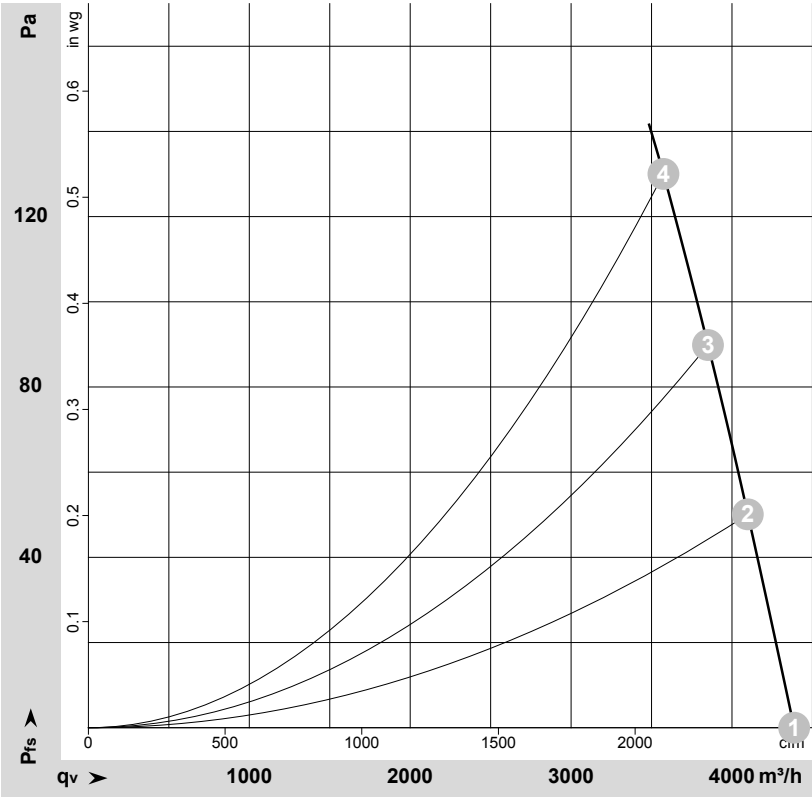
U = Power supply · f = Frequency · n = Speed · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-39003-1

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

	U	f	n	P _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	230	60	3200	435	1.93	4385	0
2	230	60	3150	453	2.01	4100	50
3	230	60	3105	472	2.07	3850	90
4	230	60	3050	488	2.14	3575	130

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



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