

Fan housing with guard grille

ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	W4D400-ZX14-01					
Motor	M4D074-EI					
Phase		3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400	460
Wiring		Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	50	60	60
Method of obtaining data		ml	ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1340	1460	1340	1460	1540
Power consumption	W	215	315	215	315	340
Current draw	A	0.76	0.94	0.44	0.54	0.54
Max. back pressure	Pa	135	165	135	165	185
Max. back pressure	in. wg	0.54	0.66	0.54	0.66	0.74
Min. ambient temperature	°C	-25	-25	-25	-25	-25
Max. ambient temperature	°C	60	60	60	60	60
Starting current	A	2.3	2.3	1.3	1.3	1.5

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}	%	38.8	29.5	09 Power consumption P_e	kW	0.21
02 Measurement category	A			09 Air flow q_v	m³/h	2395
03 Efficiency category	Static			09 Pressure increase p_{fs}	Pa	126
04 Efficiency grade N	49.3	40		10 Speed (rpm) n	min ⁻¹	1345
05 Variable speed drive	No			11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

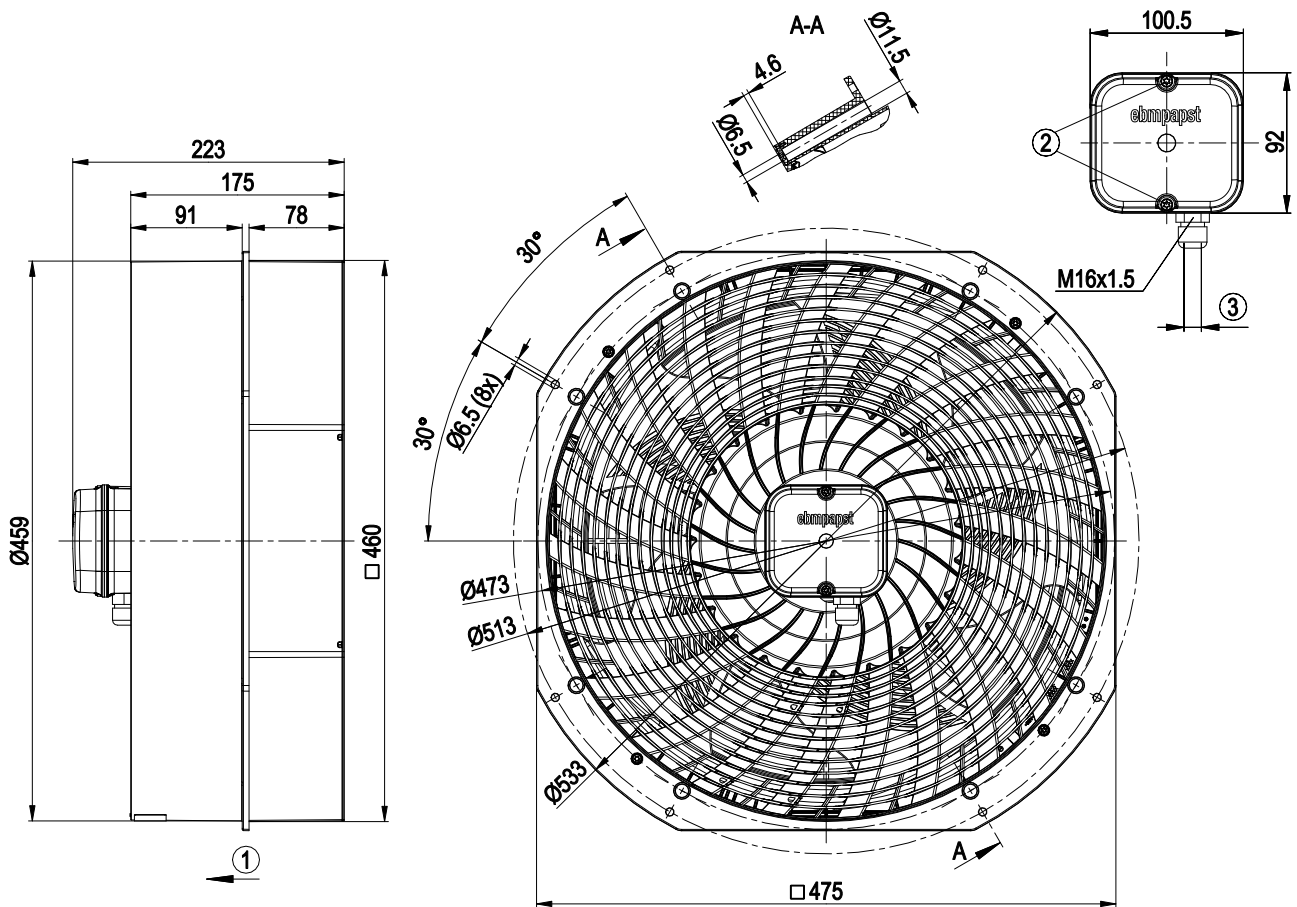
LU-212527

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).

Technical description

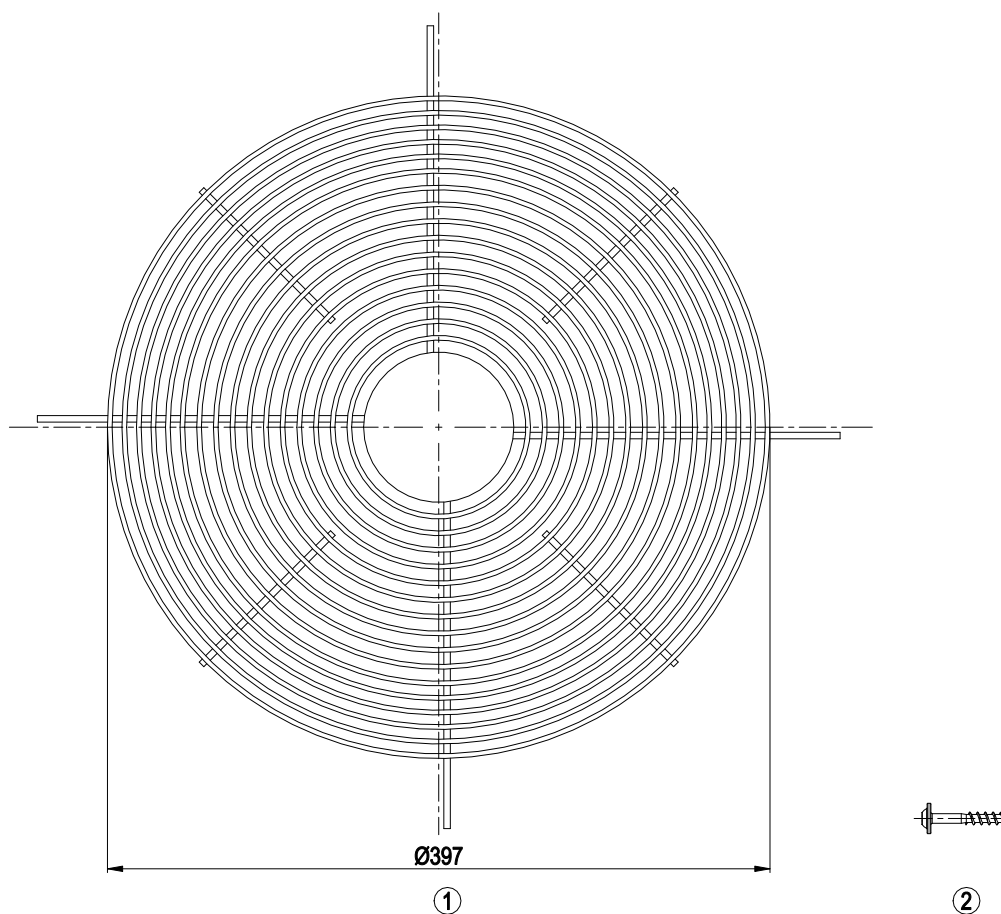
Weight	6,66
Size	400 mm
Motor size	74
Rotor surface	Painted black
Terminal box material	PP plastic
Impeller material	PP plastic, galvanized sheet-metal plate
Fan housing material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
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	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	Terminal box
Motor protection	Thermal switch auto reset, lead out, with basic insulation
With cable	Variable
Protection class assignment	I; If a protective earth is connected to the PE connection point. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE
Approval	CSA C22.2 No. 100; EAC; UL 1004-1; CCC

Product drawing



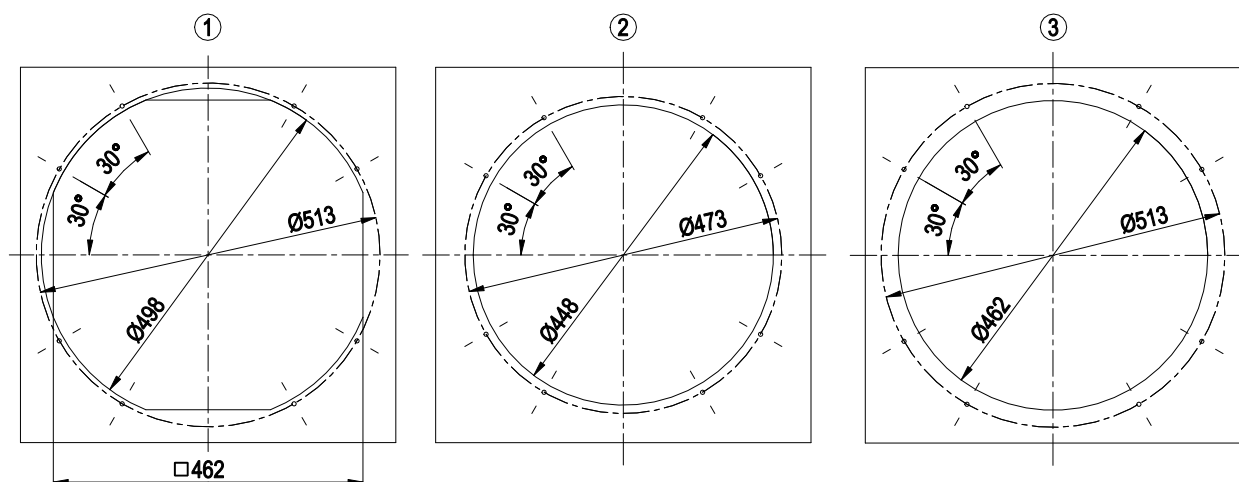
1	Airflow direction "V"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter max. 7.5 mm, tightening torque 1.3 ± 0.2 Nm
	Accessory part: Guard grill 40070-2-4039 with oval head screw 60080-7-6201 (4x), can be fitted on the intake side. Not included in scope of delivery.
	The installation of accessories may change the air performance and noise values.

Accessory part



1	Guard grill 40070-2-4039
2	Oval head screw 60080-7-6201 (4x)

Mounting dimensions



All 8 holes on the relevant pitch circle must always be used for all types of fastening.

1 intake-side mounting on flange

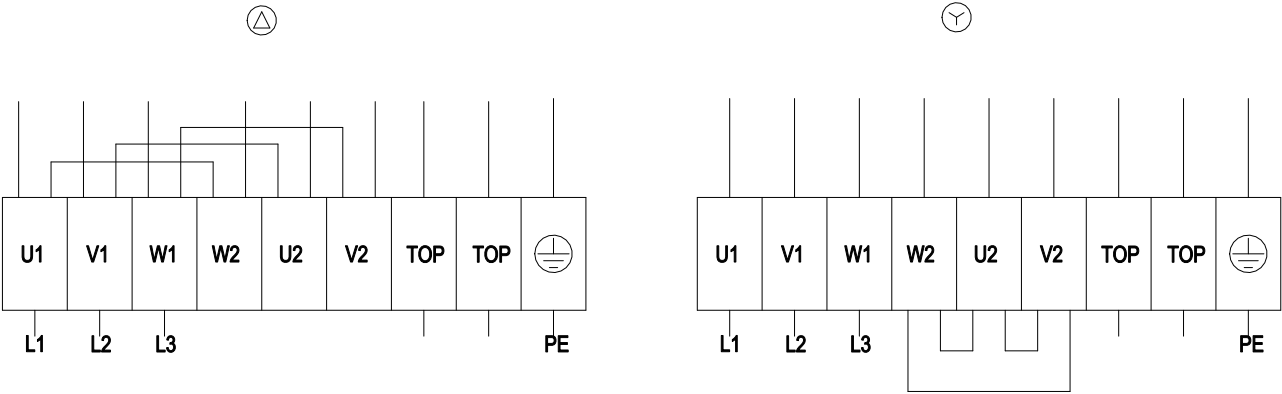
2 intake-side mounting on suction nozzle

The Ø6.5 mm holes must be pierced from the underside with a mandrel or similar tool.

We recommend using M6 cheese-head screws with hexagon socket (DIN 912/DIN EN ISO 4762) for fastening.

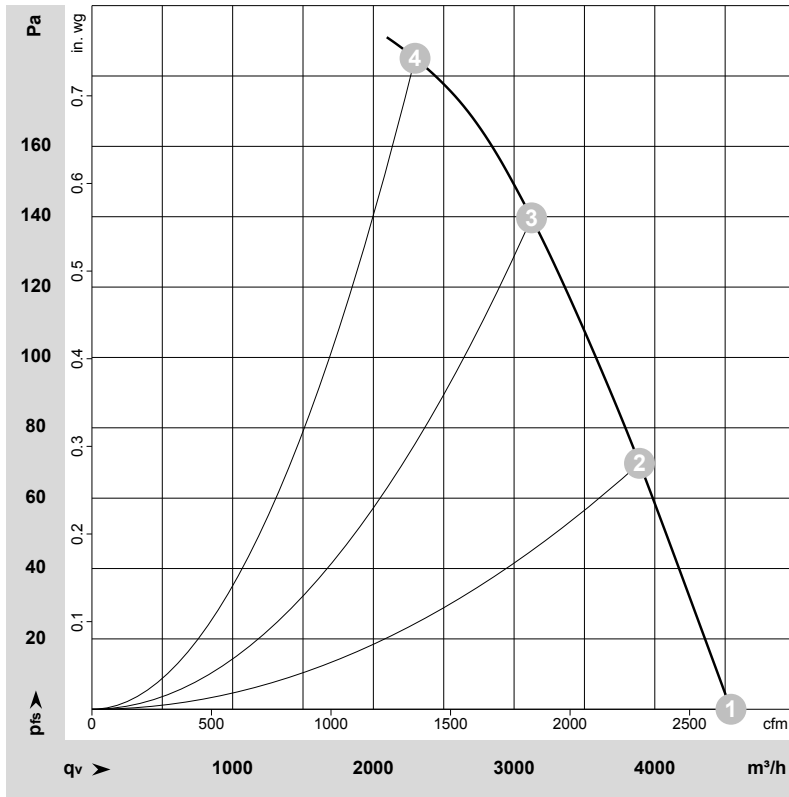
3 outlet-side mounting on flange

Connection diagram



Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

Curves: Air performance 60 Hz


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

Measurement: LU-212678-1
Date: 2021-03-24

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	LpA _{in}	LwA _{in}	LwA _{out}	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m³/h	Pa	cfm	in. wg
1	Y	460	60	1595	291	0.47	67	73	74	4540	0	2675	0.00
2	Y	460	60	1565	317	0.50	64	70	72	3890	70	2290	0.28
3	Y	460	60	1550	333	0.51	63	69	71	3125	140	1840	0.56
4	Y	460	60	1540	340	0.54	64	71	73	2295	185	1350	0.74

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_v = Air flow · p_{fs} = Pressure increase