WZD990-CD01-83

AC axial fan

sickled blades (S series)

with full round nozzle

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.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	**WZD990-CD01-83**
Motor	**MZD138-LA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	460	400
Power input	W	490	290
Current draw	A	1.75	0.67
Max. back pressure	Pa	45	29
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	70	70
Starting current	A	4.0	1.34

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	58 kg
Size	990 mm
Surface of rotor	Coated in black
Material of terminal box	Die-cast aluminium, coated in black
Material of blades	Aluminium sheet insert (coated in black), sprayed with PP plastic
Material of wall ring	Sheet steel, pre-galvanised and coated in grey-white plastic (RAL 9002)
Material of guard grille	Steel, coated in grey-white plastic (RAL 9002)
Number of blades	5
Blade angle	0°
Direction of air flow	"A"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F4-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensate discharge holes	On the stator side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; EN 60034; CE
Approval	EAC

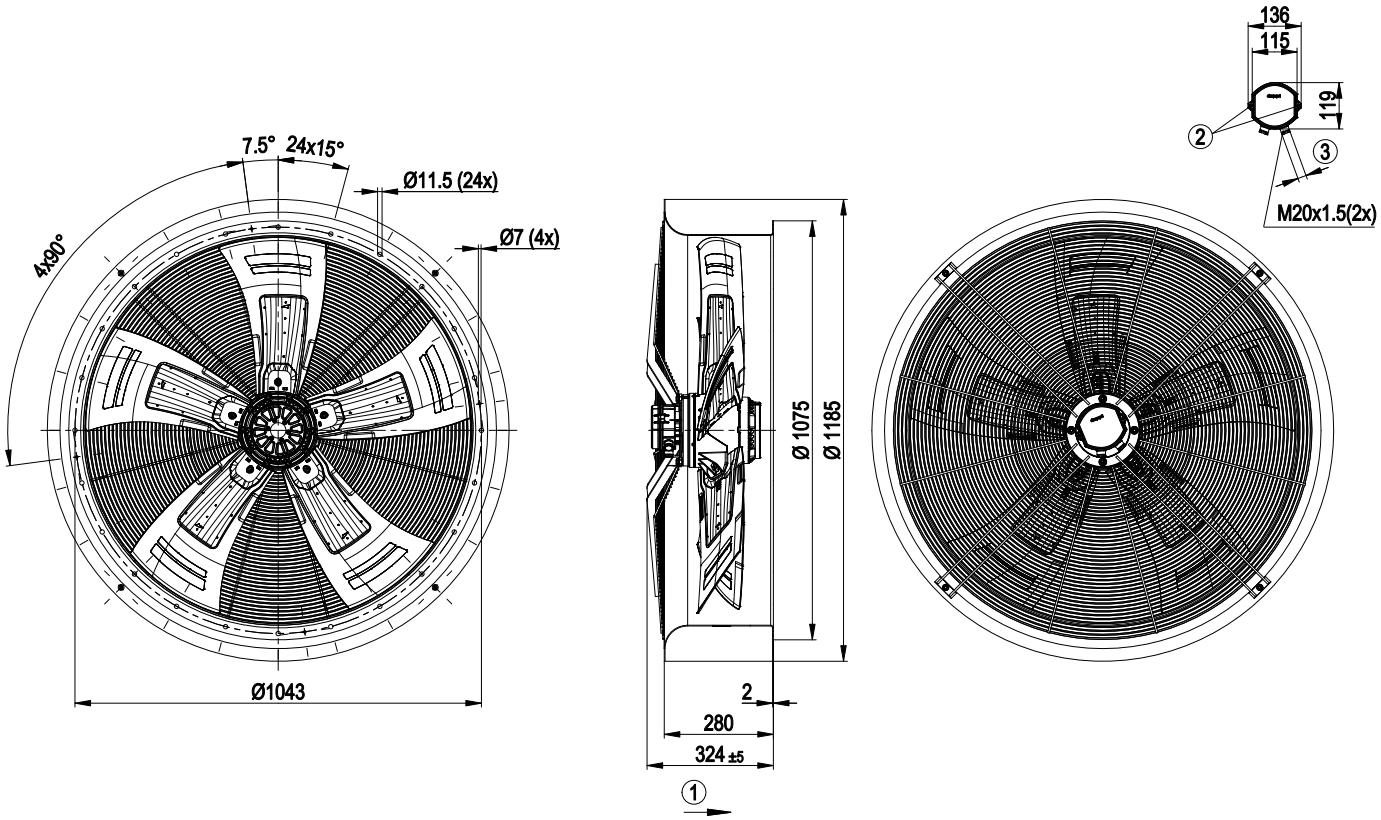
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Product drawing



1	Direction of air flow "A"
2	Tightening torque 2.5±0.4 Nm
3	Cable diameter: min. 10 mm, max. 12 mm, tightening torque: 4±0.4 Nm

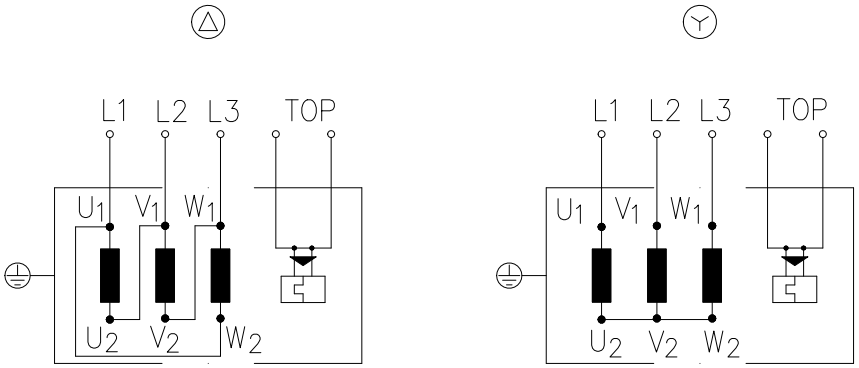
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Connection screen



Changing the direction of rotation by reversing the two phases

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

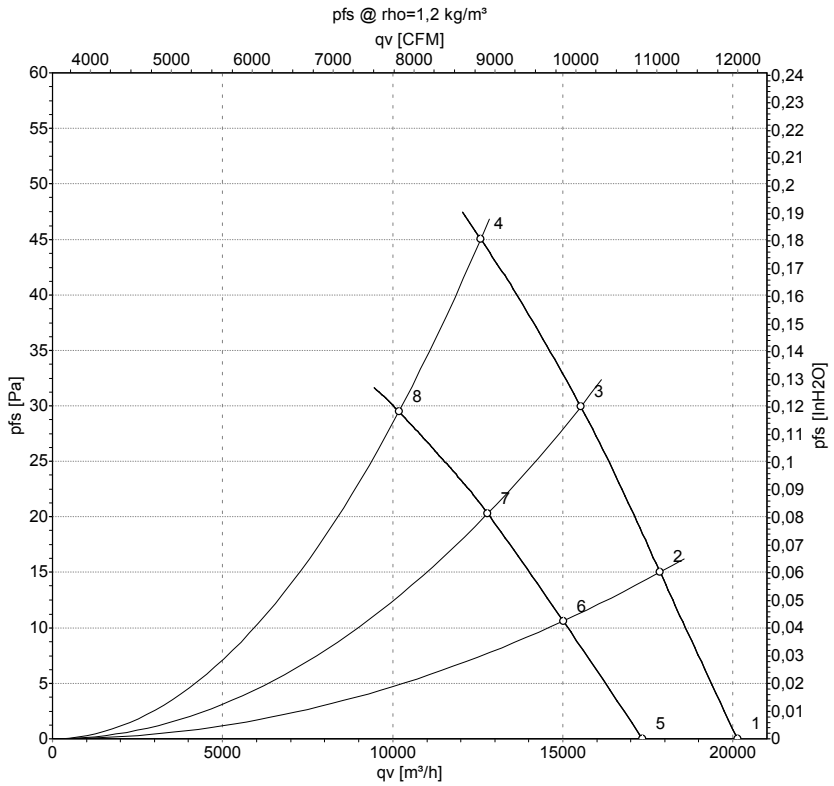
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Charts: Air flow 50 Hz



Measurement: LU-150478
Measurement: LU-151937

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}	LwA_{out}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	460	490	1.75	57	64	64	20135	0
2	Δ	400	50	455	537	1.76	55	63	62	17860	15
3	Δ	400	50	450	574	1.77	54	61	61	15530	30
4	Δ	400	50	440	620	1.80	55	62	62	12585	45
5	Y	400	50	400	290	0.67	54	61	60	17345	0
6	Y	400	50	385	317	0.69	51	58	58	15010	11
7	Y	400	50	370	341	0.73	49	56	56	12790	21
8	Y	400	50	360	360	0.76	49	56	56	10180	29

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

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