AC centrifugal fan

backward-curved, single-intake

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	**R4D560-AQ01-09**
Motor	**M4D138-LA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Δ	Y
Frequency	Hz	50	50
Method of obtaining data		ml	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1350	1070
Power consumption	W	2410	1640
Current draw	A	4.7	2.84
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	65
Starting current	A	19	6.5

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

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Technical description

Weight	27.1 kg
Fan size	560 mm
Rotor surface	Cast in aluminum
Impeller material	Sheet aluminum
Number of blades	9
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Ambient temperature note	Occasional start-up between -40°C and -25°C is permissible. For continuous operation at temperatures below -25°C (e.g. refrigeration applications) we recommend our fan design with special low-temperature bearings.
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)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; EN 60034
Approval	VDE; EAC

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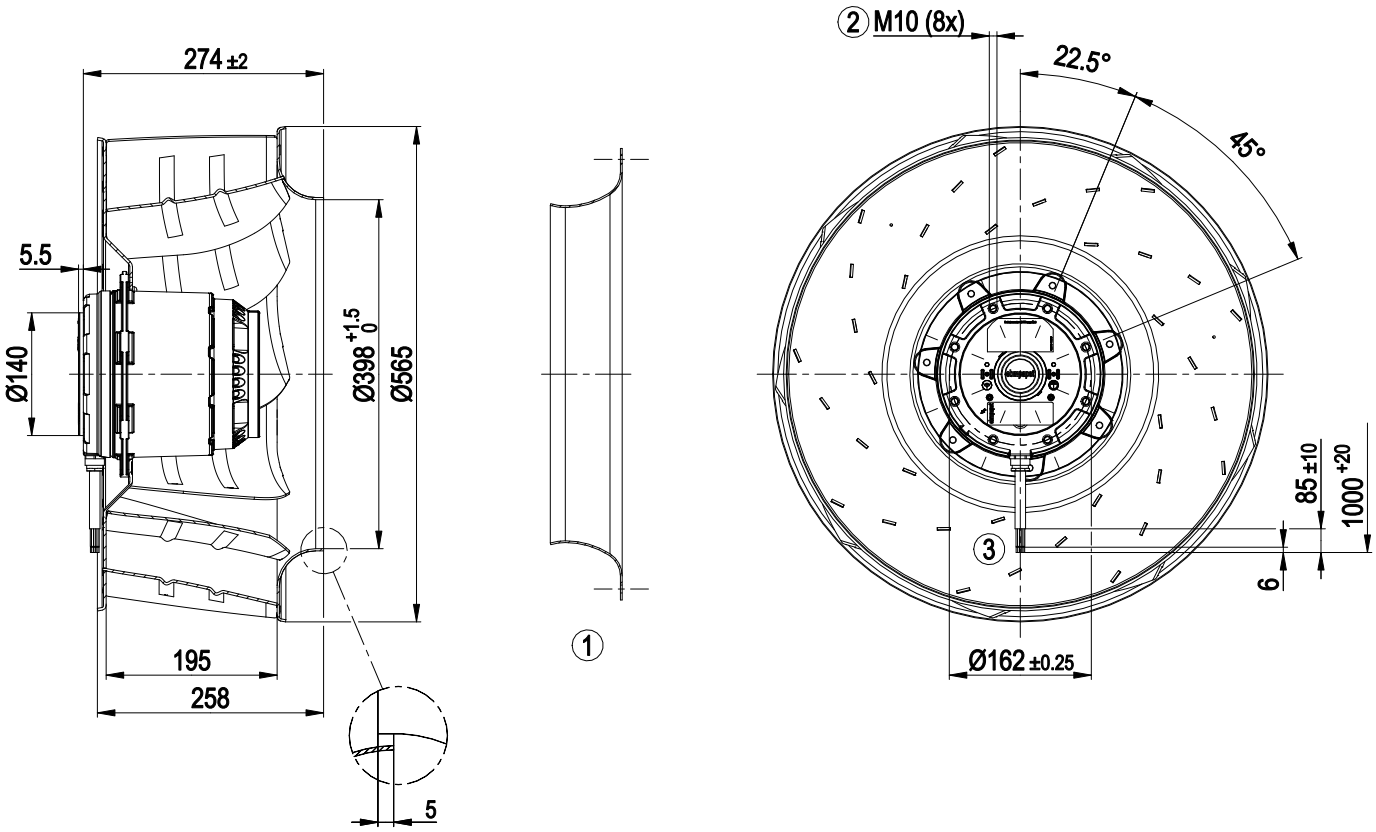
Product drawing



1	Cable halogen-free 9x 0.75 mm², 9x crimped splices
2	Accessory part: Inlet ring 63071-2-4013 not included in scope of delivery.
3	Max. clearance for screw 18 mm

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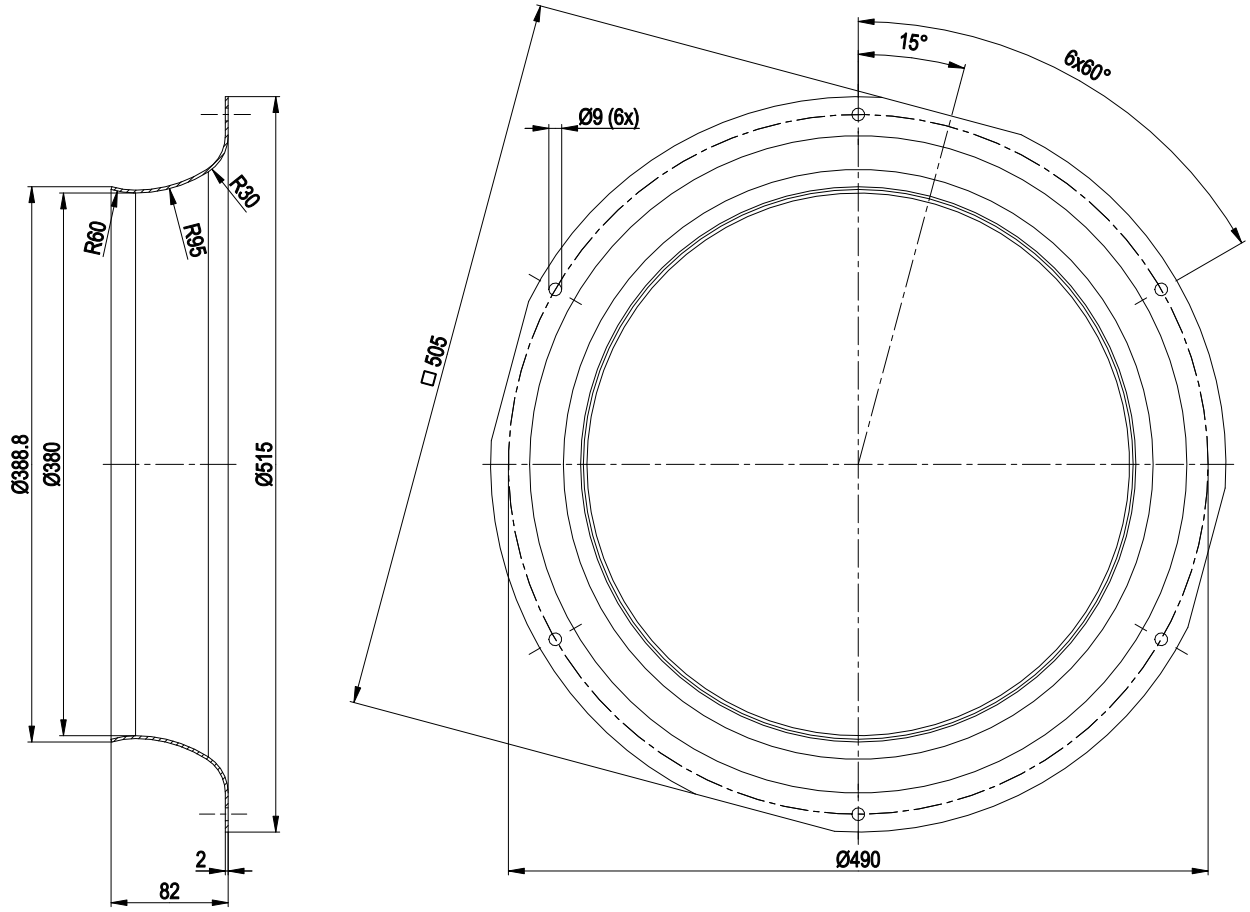
Accessory part



-	inlet ring 63071-2-4013 not included in scope of delivery

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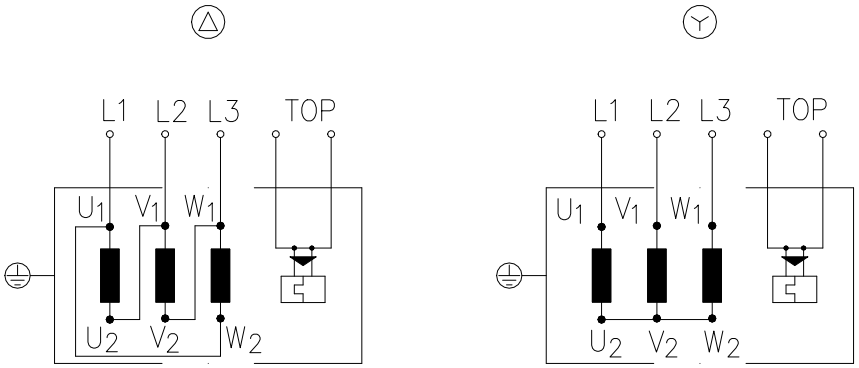
Connection diagram



Change of rotation direction by reversing two phases

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				

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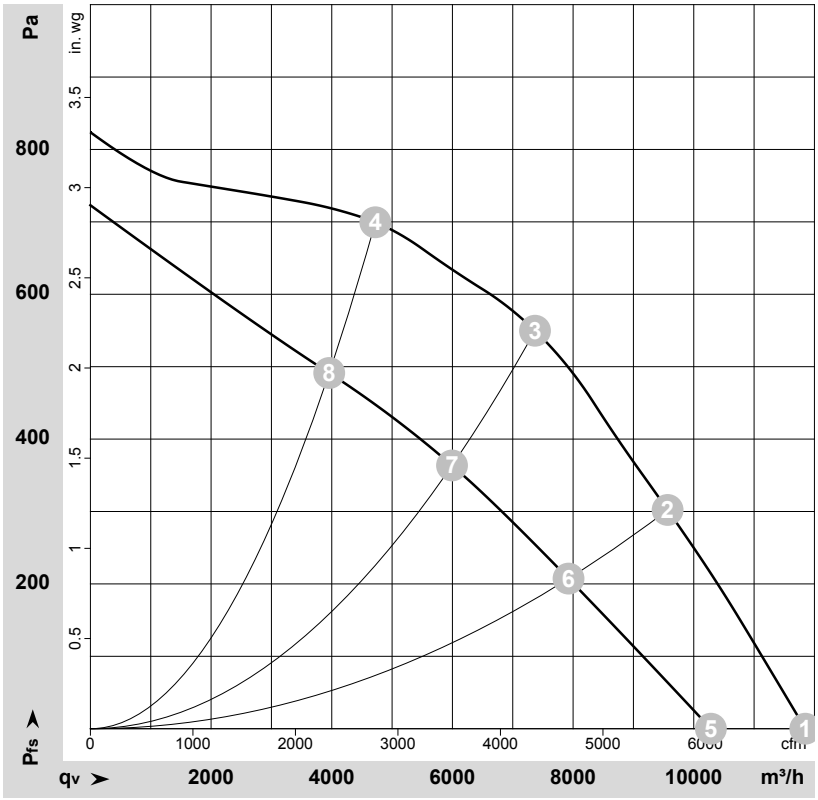
Curves: Air performance 50 Hz



ρ = 1.182 kg/m³ ± 2 %

Measurement: LU-102189-1
Measurement: LU-123360-1

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	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	Δ	400	50	1400	1796	3.74	78	86	11850	0	6975	0.00
2	Δ	400	50	1360	2245	4.28	75	82	9565	300	5630	1.20
3	Δ	400	50	1350	2410	4.70	72	80	7370	550	4335	2.21
4	Δ	400	50	1365	2158	4.16	73	81	4720	700	2780	2.81
5	Y	400	50	1195	1334	2.27	74	81	10285	0	6055	0.00
6	Y	400	50	1115	1536	2.63	69	77	7925	211	4665	0.85
7	Y	400	50	1070	1640	2.84	67	75	5995	364	3525	1.46
8	Y	400	50	1140	1488	2.56	69	77	3960	491	2330	1.97

Wired = Wiring · U = Power supply · 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
q_V = Air flow · p_{fs} = Pressure increase