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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R4D500-RA01-06		
Motor	M4D138-HF		
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		CE	CE
Speed (rpm)	min ⁻¹	1370	1140
Power consumption	W	1500	1120
Current draw	A	2.8	1.84
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	55	55
Starting current	A	11.5	4.0

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	54.7	53.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		63.3	62
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	1.5
09 Air flow q_v	m³/h	6215
09 Pressure increase p_{fs}	Pa	475
10 Speed (rpm) n	min ⁻¹	1370
11 Specific ratio*		1.01

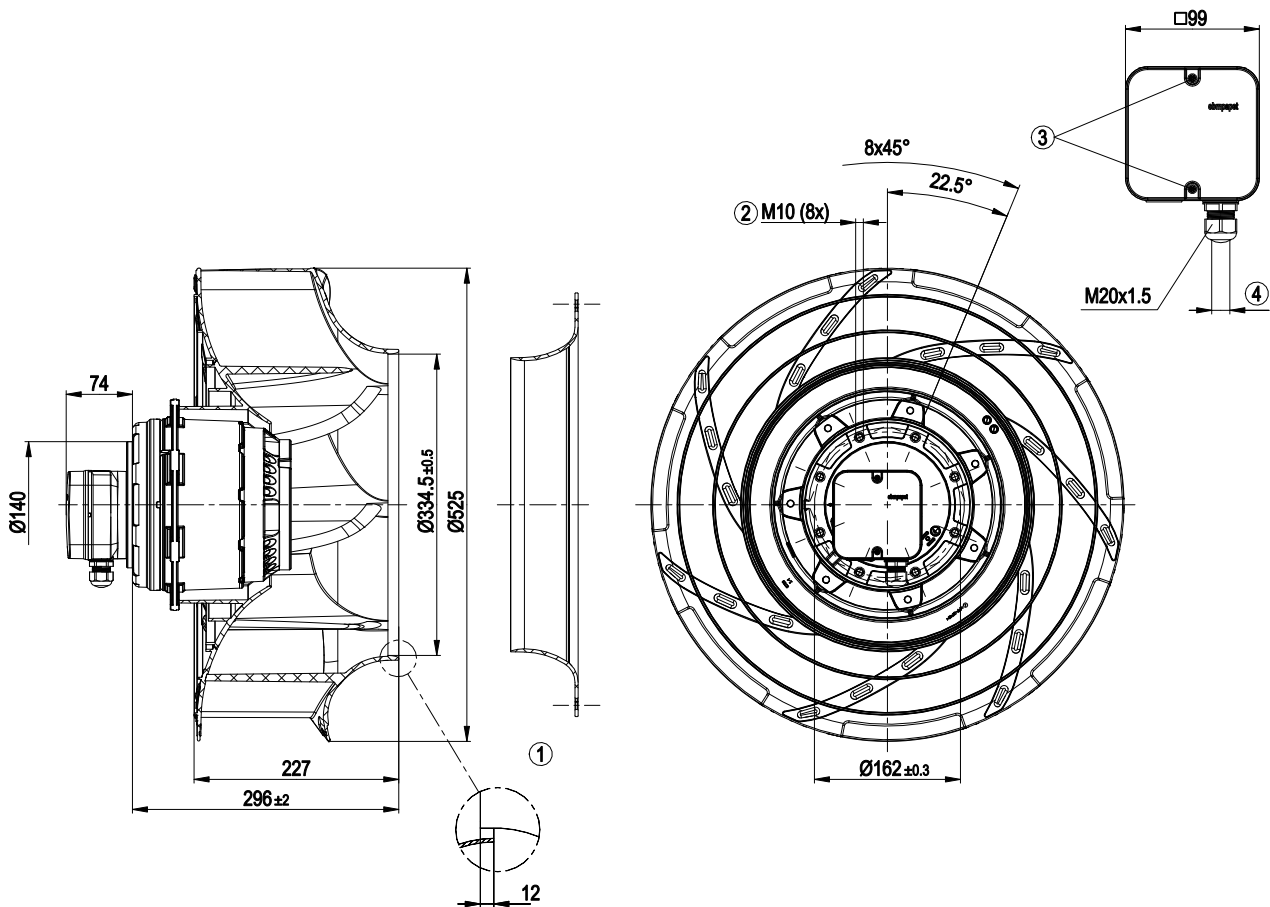
* Specific ratio = $1 + p_s / 100\,000\text{ Pa}$

LU-167200

Technical description

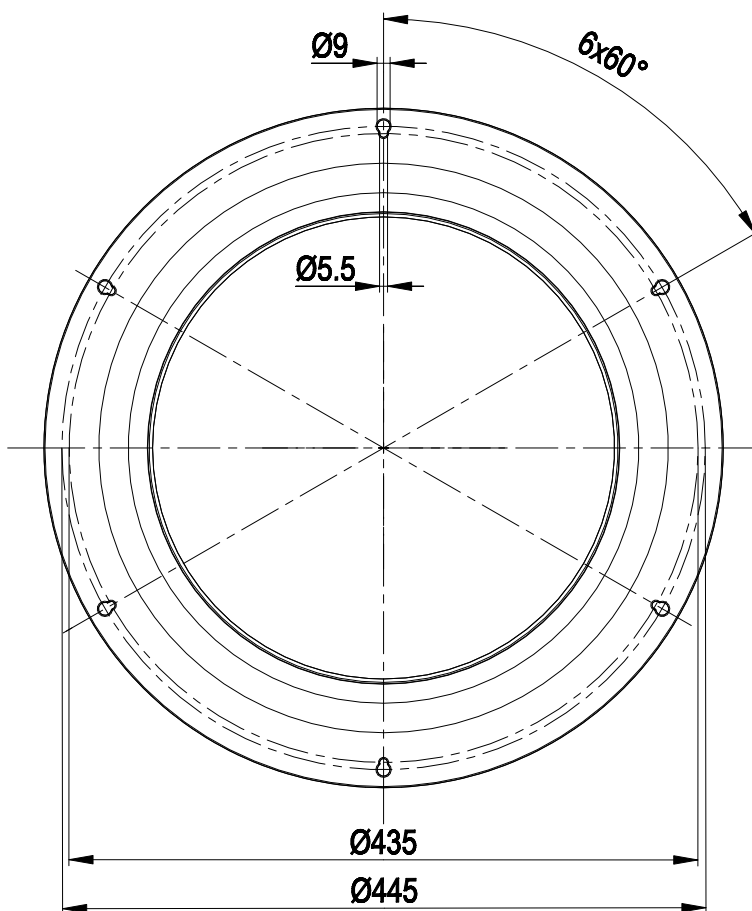
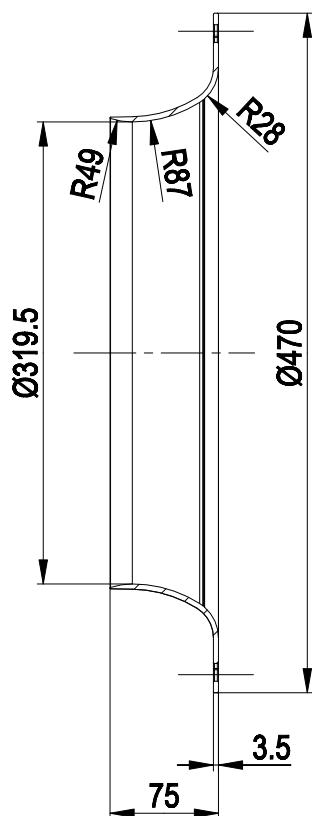
Weight	21 kg
Size	500 mm
Motor size	138
Rotor surface	Cast in aluminum
Impeller material	PP plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a 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	On rotor and stator sides
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE
Approval	EAC; VDE

Product drawing



1	Accessory part: inlet ring 50901-2-2943 not included in scope of delivery
2	Max. clearance for screw 18 mm
3	Tightening torque 1.5 ± 0.2 Nm
4	Cable diameter min. 7 mm, max. 14 mm, tightening torque 2 ± 0.3 Nm

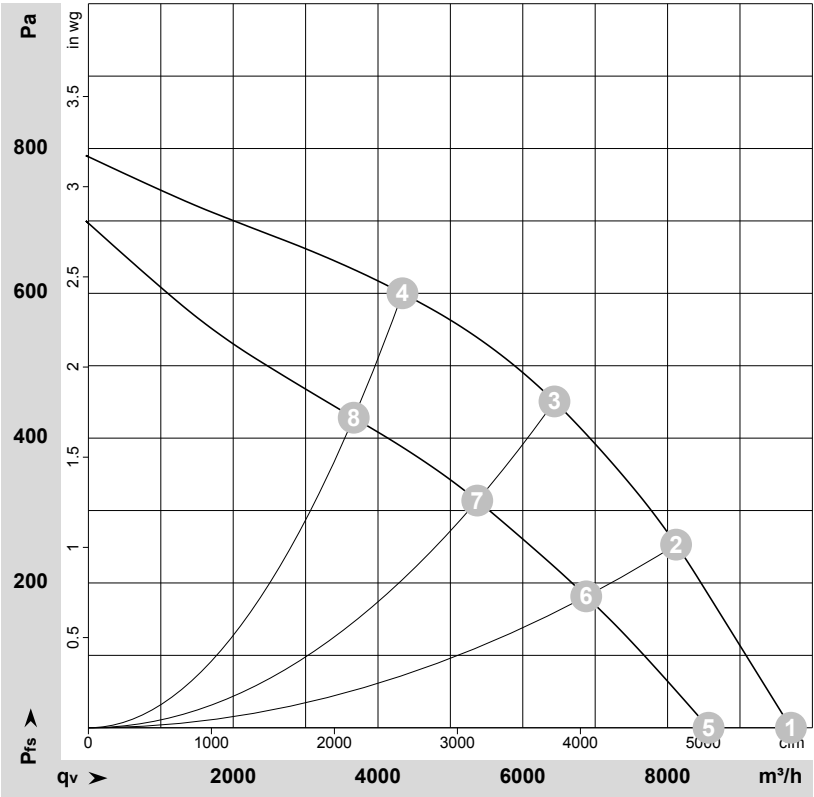
Accessory part



1 Accessory part: inlet ring 50901-2-2943

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 50 Hz



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

Measurement: LU-167200-1
Measurement: LU-167220-1

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}	LwA _{out}	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	Δ	400	50	1410	1131	2.27	73	80	87	9705	0	5710	0.00
2	Δ	400	50	1380	1407	2.60	69	77	83	8115	250	4775	1.00
3	Δ	400	50	1370	1500	2.80	65	72	78	6440	450	3790	1.81
4	Δ	400	50	1380	1412	2.59	64	72	77	4340	600	2555	2.41
5	Y	400	50	1245	901	1.50	70	77	84	8565	0	5040	0.00
6	Y	400	50	1170	1068	1.77	65	73	79	6875	182	4045	0.73
7	Y	400	50	1140	1120	1.84	61	68	74	5370	314	3160	1.26
8	Y	400	50	1160	1061	1.76	60	67	72	3665	428	2155	1.72

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