

ASIA PACIFIC SHENGRUI LIMITED

Phone +00852 56261528

info@apacfan.com

www.apacfan.com

Nominal data

Type	R4D500-RA01-06		
Motor	M4D138-HF		
Phase		3~	3~
Nominal voltage	VAC	400	400
Nominal voltage range	VAC	380 .. 415	380 .. 415
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	09 Power consumption P_e	kW	1.5
02 Measurement category		A		09 Air flow q_v	m ³ /h	6215
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	475
04 Efficiency grade N		63.3	62	10 Speed (rpm) n	min ⁻¹	1370
05 Variable speed drive		No		11 Specific ratio*		1.01

Data obtained at optimum efficiency level.

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

LU-167200

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 ebmpapst. If other air conduction geometries are used on the installation side, the ebmpapst 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).



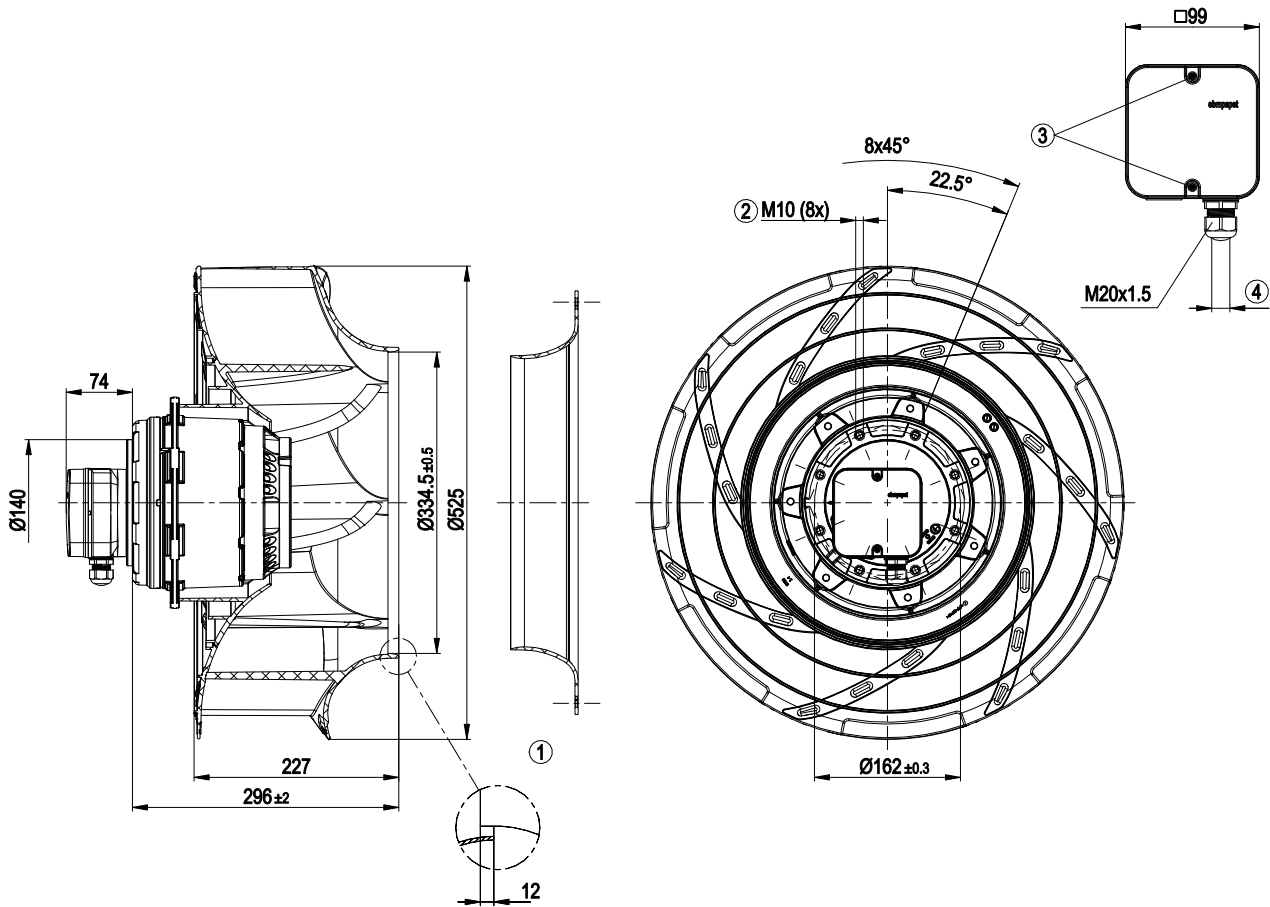
Technical description

Weight	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 assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60034-1 (2010); CE
Approval	VDE; EAC

AC centrifugal fan - RadiCal

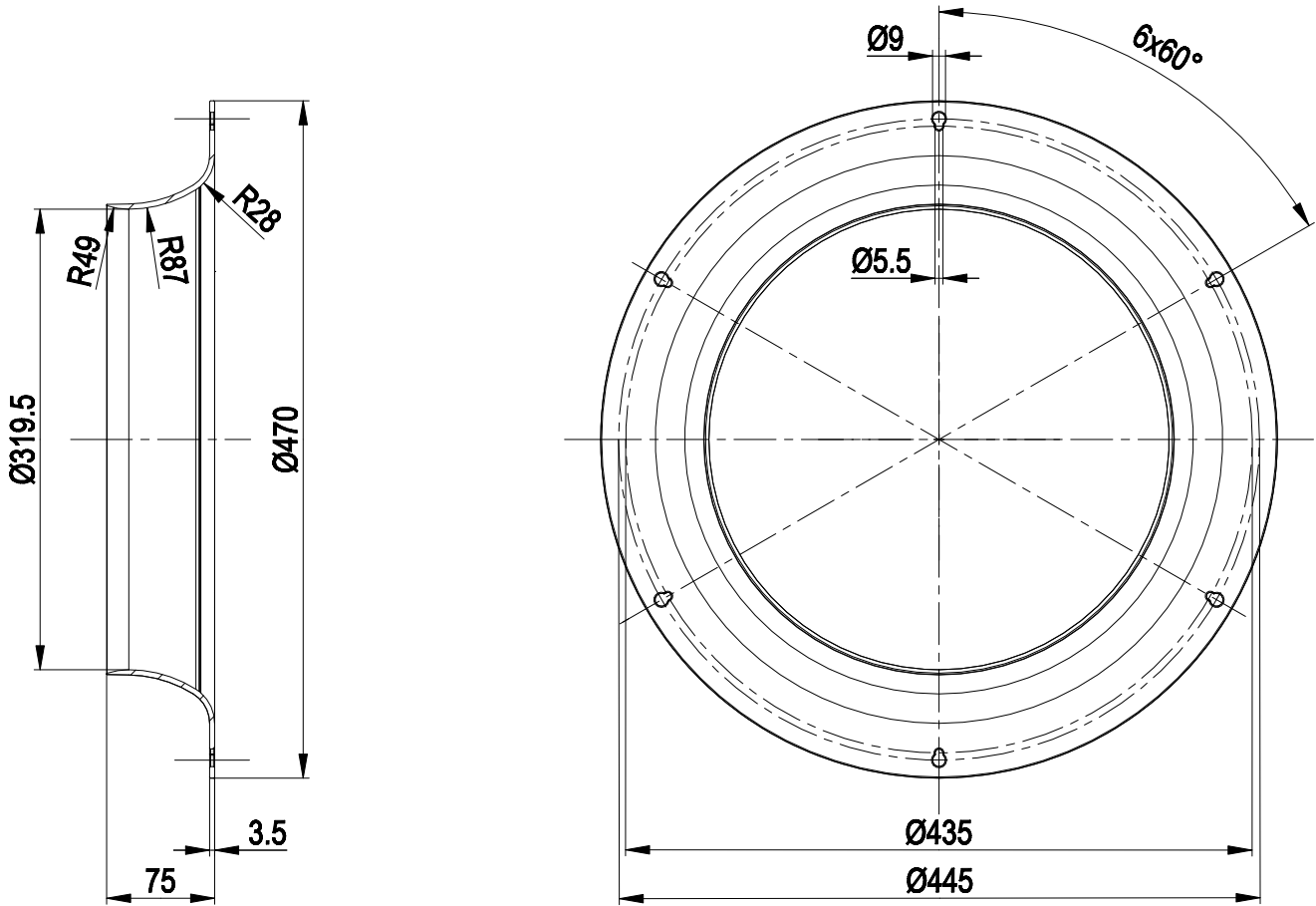
backward-curved, single-intake

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

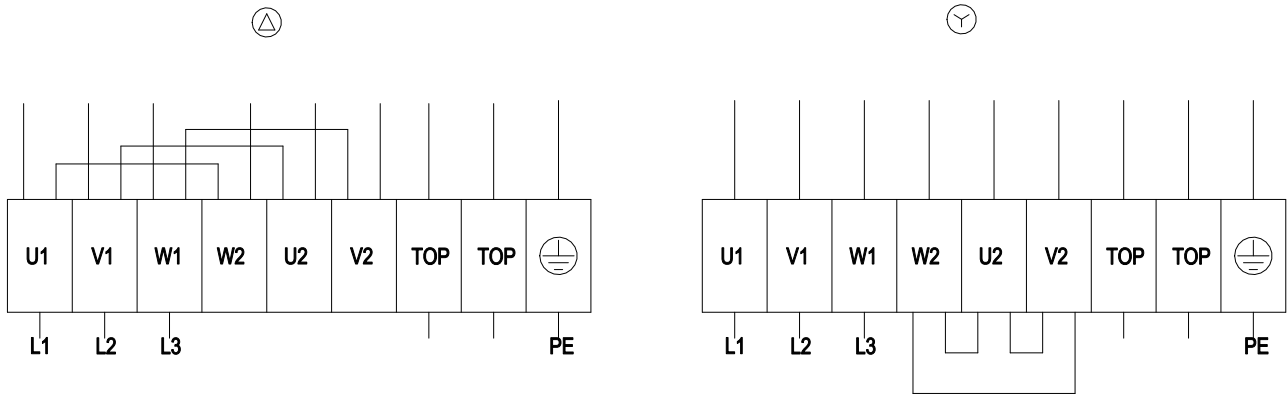


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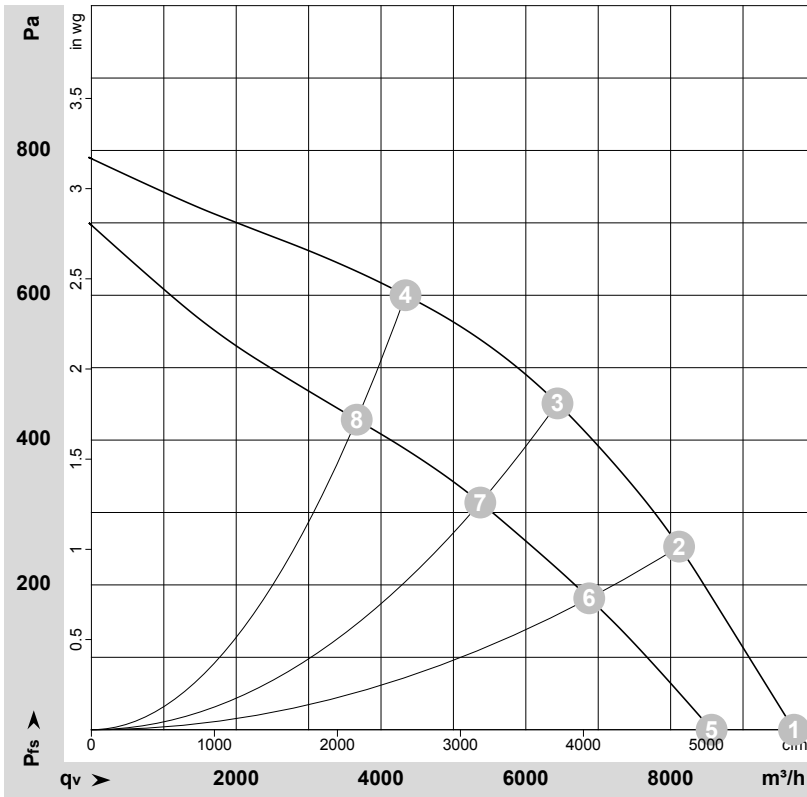
backward-curved, single-intake

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 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