R6D500-AK03-01

AC centrifugal fan

backward-curved, single-intake



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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R6D500-AK03-01**
Motor	**M6D110-GF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	277	400	480
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		-	-	-	-
Speed (rpm)	min^{-1}	910	1065	910	1065
Power consumption	W	480	780	480	780
Current draw	A	1.9	2.2	1.1	1.27
Min. back pressure	Pa	0	0	0	0
Min. back pressure	inH2O	0	0	0	0
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	80	45	80	45
Starting current	A	5.7	6.4	3.3	3.7

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

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Technical description

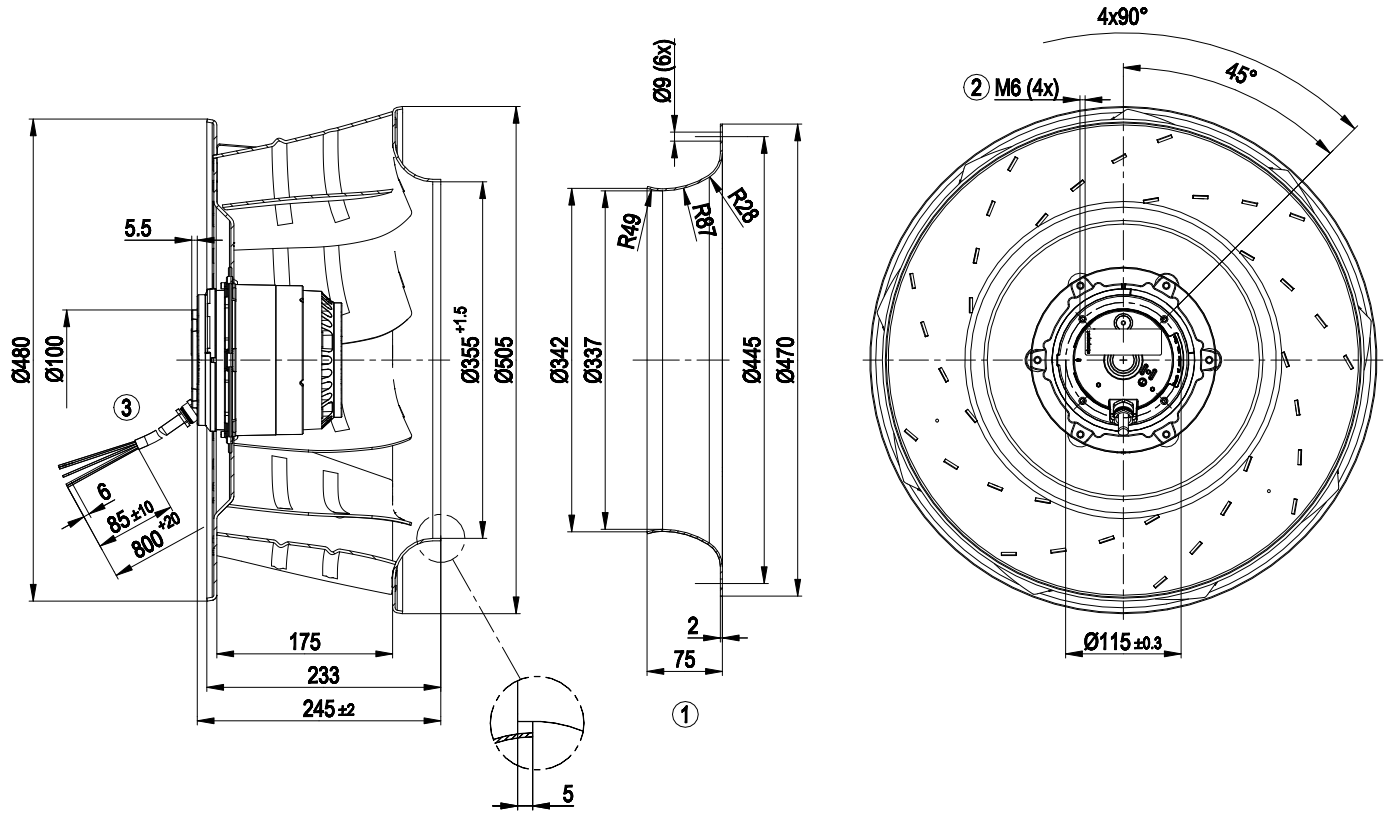
Weight	13 kg
Fan size	500 mm
Rotor surface	Cast in aluminum
Impeller material	Sheet aluminum
Number of blades	9
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (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)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1
Approval	CCC; EAC; VDE; UL 1004-1; CSA C22.2 No. 100

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Product drawing



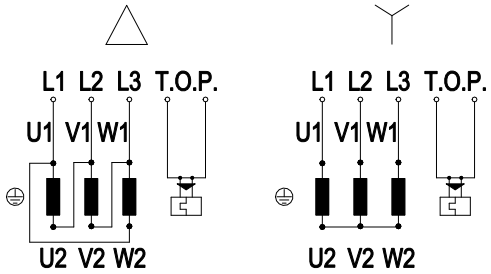
1	Accessory part: inlet ring 63072-2-4013 not included in scope of delivery.
2	Max. clearance for screw 18 mm
3	Cable silicone 9G 0.75 mm², 9x crimped splices

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Connection diagram



Note: Change of rotation direction by reversing two phases

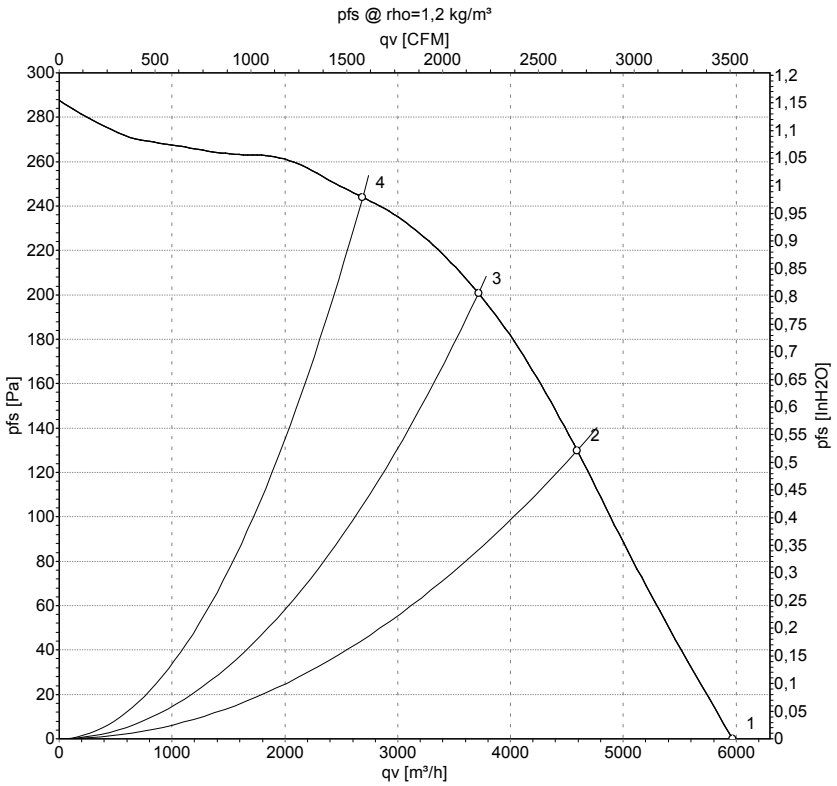
Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	gray

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Curves: Air performance 50 Hz



Measurement: LU-101694-1

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}	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	Y	400	50	935	373	0.92	69	75	5965	0	3510	0.00
2	Y	400	50	915	447	0.99	60	68	4590	130	2700	0.52
3	Y	400	50	910	480	1.10	58	65	3715	200	2185	0.80
4	Y	400	50	915	436	0.96	58	66	2690	245	1585	0.98

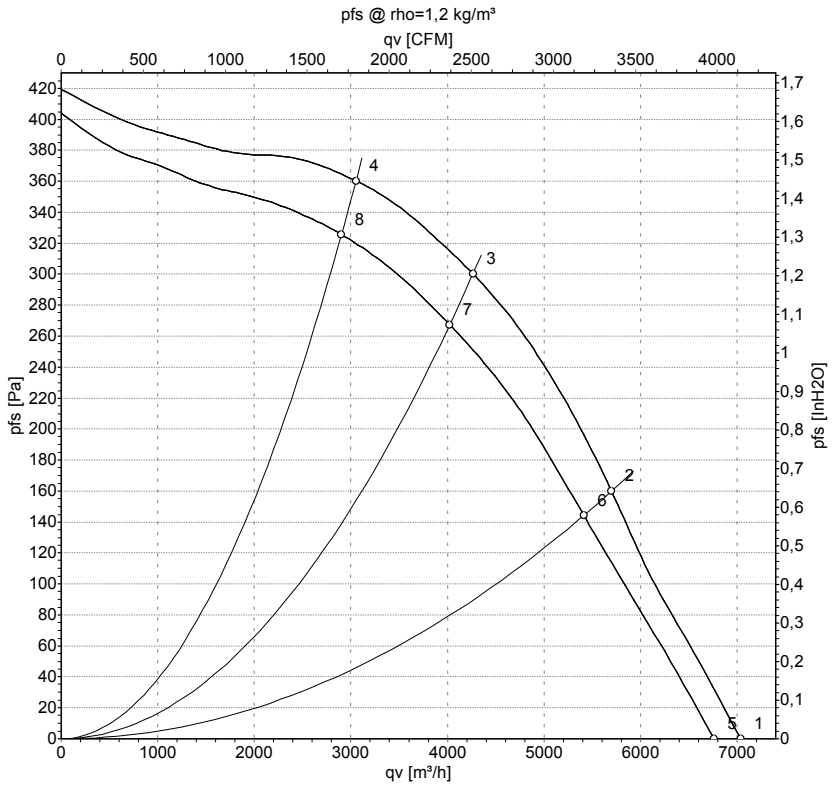
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
qv = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz Y



Measurement: LU-72700-1
Measurement: LU-72705-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Y	480	60	1105	588	1.08	7035	0	4140	0.00
2	Y	480	60	1080	710	1.20	5700	160	3355	0.64
3	Y	480	60	1065	780	1.27	4265	300	2510	1.20
4	Y	480	60	1080	701	1.19	3055	360	1800	1.45
5	Y	400	60	1065	540	1.05	6760	0	3980	0.00
6	Y	400	60	1025	648	1.20	5415	144	3185	0.58
7	Y	400	60	1000	700	1.28	4025	268	2370	1.08
8	Y	400	60	1025	644	1.19	2905	326	1710	1.31

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