S4D200-BI16-01

AC axial fan

sickle-shaped blades (S series), single-intake

with guard grille for full nozzle

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Nominal data

Type	**S4D200-BI16-01**
Motor	**M4D068-BF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		fa	fa	fa	fa
Valid for approval/standard		-	-	-	-
Speed (rpm)	min^{-1}	1440	1680	1440	1680
Power consumption	W	23	22	23	22
Current draw	A	0.12	0.1	0.07	0.06
Max. back pressure	Pa	60	75	60	75
Max. back pressure	inH2O	0.24	0.3	0.24	0.3
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	65	85	65	85
Starting current	A	0.13	0.13	0.13	0.13

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	1.5 kg
Fan size	200 mm
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	9
Airflow direction	"A"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0+
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)	< 0.75 mA
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection
Approval	EAC

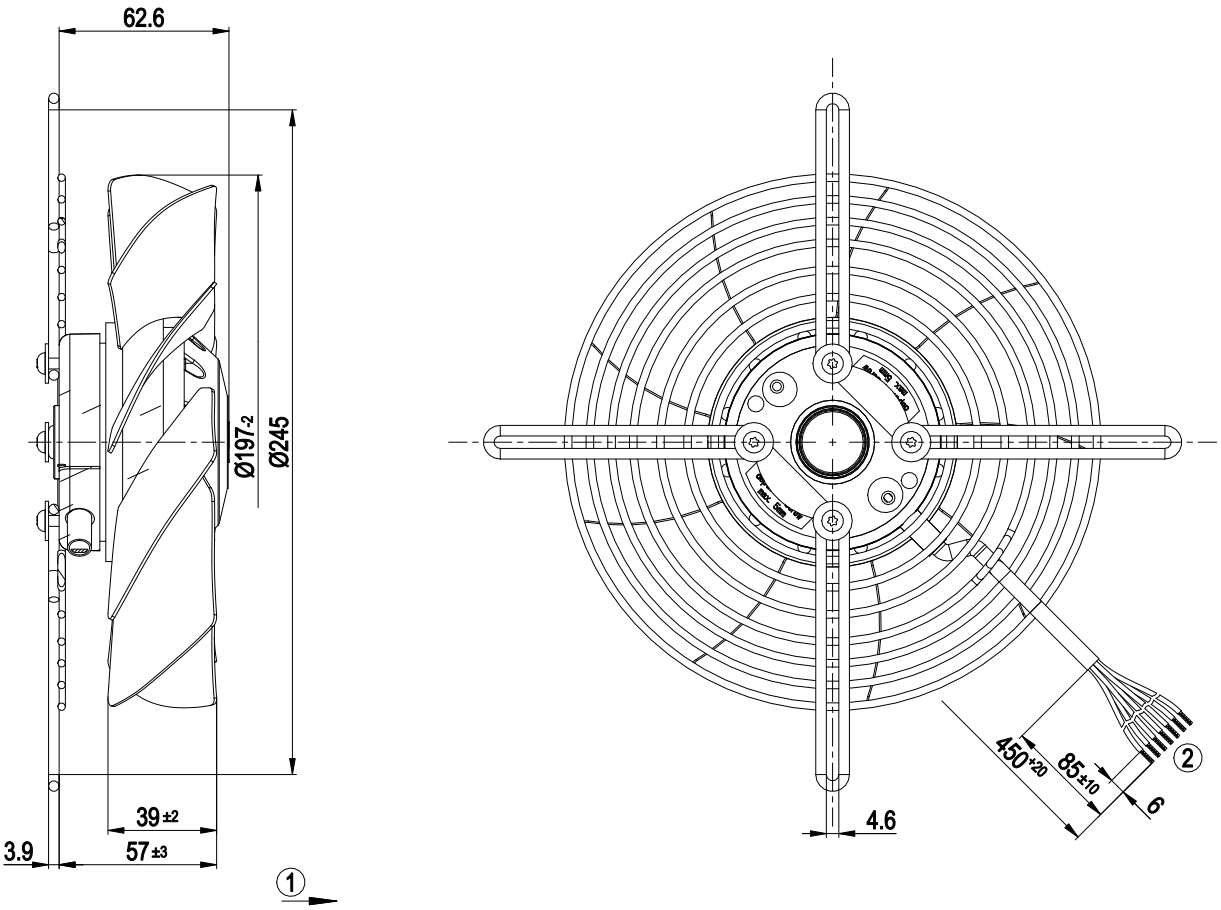
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Product drawing



1	Direction of air flow "A"
2	Cable PVC 7G 0.5 mm², 7x crimped splices

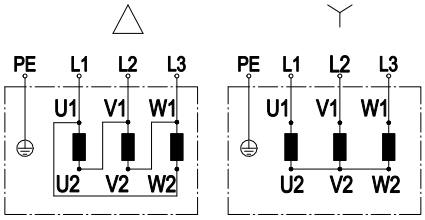
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Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				

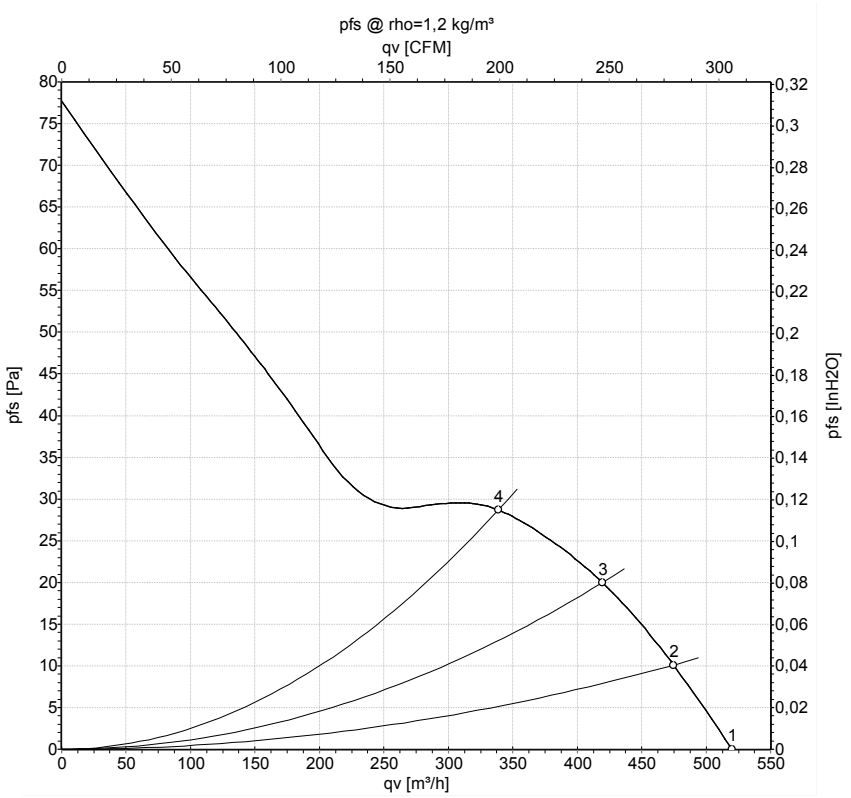
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Curves: Air performance 50 Hz



Measurement: LU-57551-1

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

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	400	50	1440	23	0.07	520	0	305	0.00
2	400	50	1435	23	0.07	475	10	280	0.04
3	400	50	1425	24	0.07	420	20	245	0.08
4	400	50	1420	24	0.07	340	29	200	0.12

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

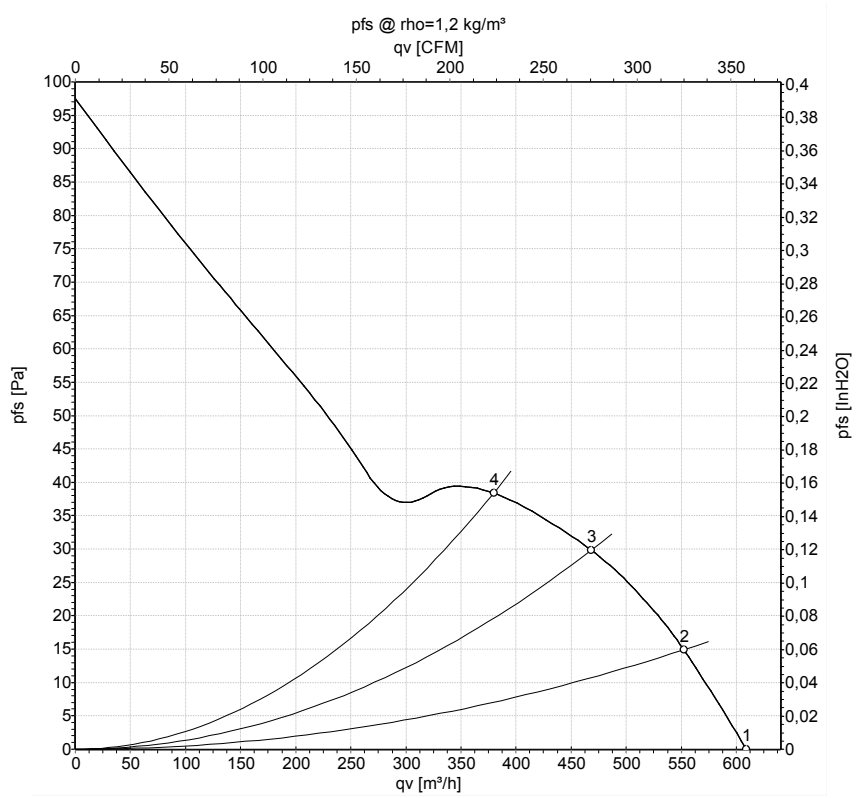
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Curves: Air performance 60 Hz



Measurement: LU-57552-1

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

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	400	60	1680	22	0.06	610	0	360	0.00
2	400	60	1665	22	0.06	550	15	325	0.06
3	400	60	1640	23	0.06	470	30	275	0.12
4	400	60	1635	24	0.06	380	39	225	0.16

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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