

# AC axial fan

straight blades (A series)

A2E185-AF20-09 ebmpapst Datasheet FansCo

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## Nominal data

<b>Type</b>	<b>A2E185-AF20-09</b>		
<b>Motor</b>	<b>M2E068-CA</b>		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	2500	2550
Power consumption	W	35	47
Current draw	A	0.16	0.21
Capacitor	µF	1	1
Capacitor voltage	VDB	400	400
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	90	90

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



# AC axial fan

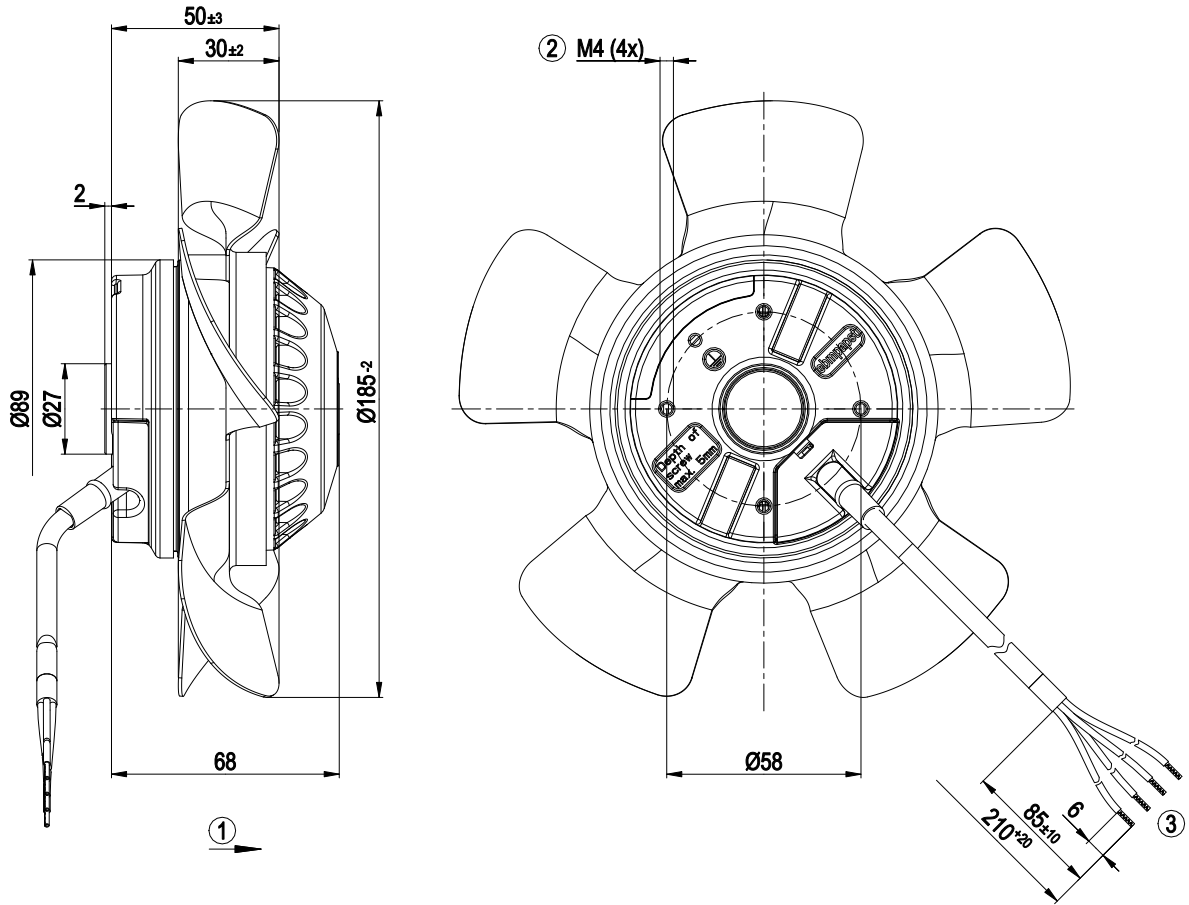
straight blades (A series)

## Technical description

Weight	1.4 kg
Size	185 mm
Motor size	68
Rotor surface	Painted black
Blade material	Sheet steel, galvanized
Number of blades	5
Airflow direction	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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 mounting	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	EAC; CSA C22.2 No. 100; UL 1004-1

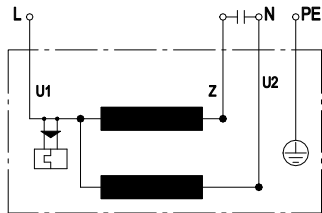


## Product drawing



1	Direction of air flow "A"
2	Max. clearance for screw 5 mm
3	Cable PVC AWG20, 4x crimped splices

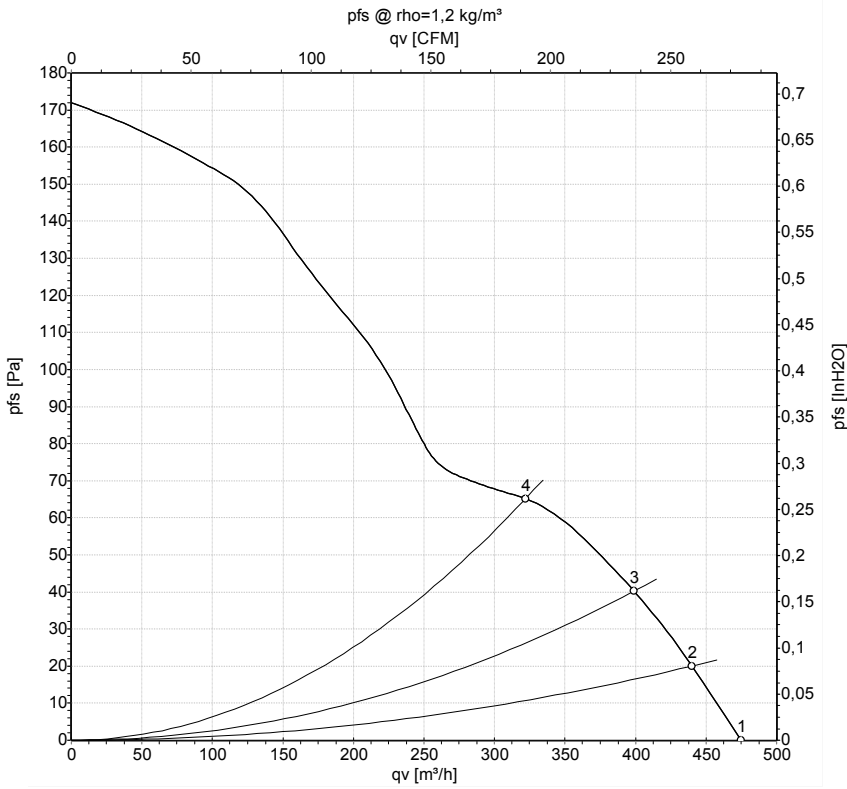
## Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				



## Curves: Air performance 50 Hz



Measurement: LU-20579-1

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.

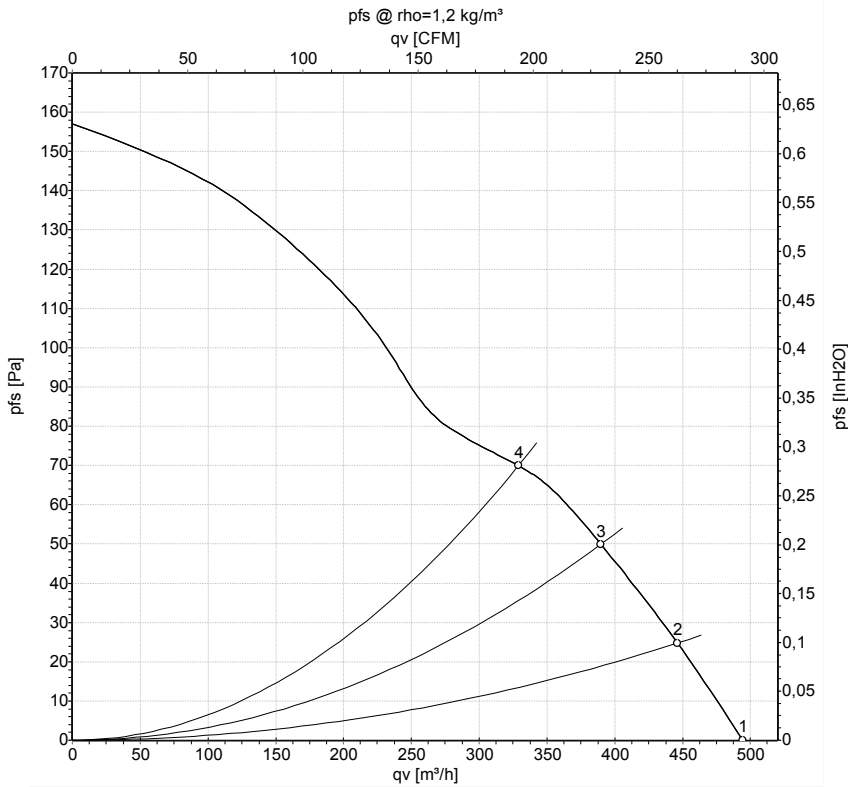
## Measured values

	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	50	2500	35	0.16	475	0	280	0.00
2	230	50	2465	35	0.15	440	20	260	0.08
3	230	50	2445	36	0.15	400	40	235	0.16
4	230	50	2445	36	0.15	320	65	190	0.26

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



## Curves: Air performance 60 Hz



Measurement: LU-20580-1

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 <sub>e</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	60	2550	47	0.21	495	0	290	0.00
2	230	60	2535	47	0.21	445	25	265	0.10
3	230	60	2505	47	0.21	390	50	230	0.20
4	230	60	2515	47	0.21	330	70	195	0.28

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase

