

A2D160-AA22-05

# AC axial fan

straight blades (A series)



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## Nominal data

Type	A2D160-AA22-05		
Motor	M2D068-BC		
Phase		3~	3~
Nominal voltage	VAC	400	480
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		cs	cs
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	2800	3350
Power consumption	W	40	52
Current draw	A	0.19	0.18
Min. ambient temperature	°C	-25	-25

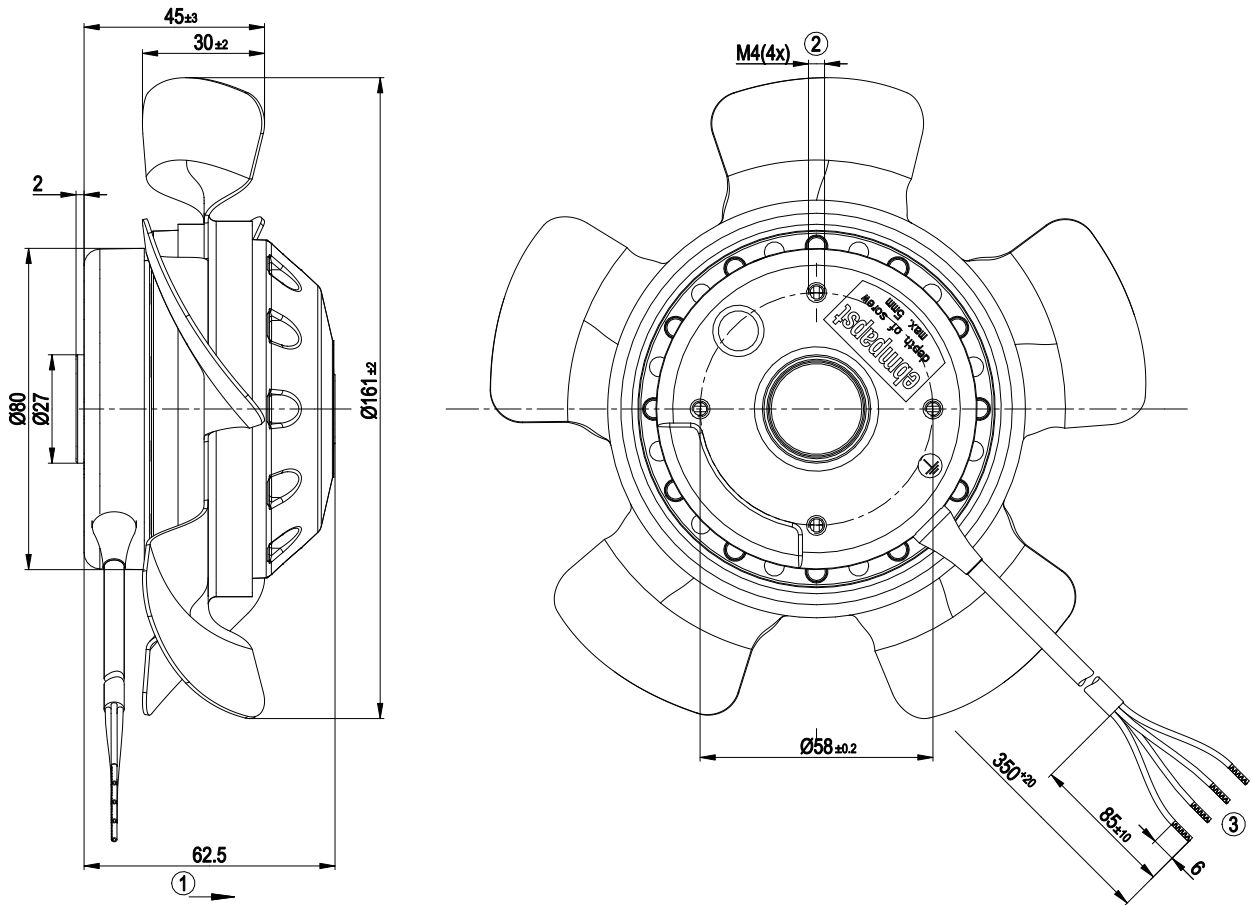
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change



## Technical description

<b>Weight</b>	1.2 kg
<b>Size</b>	160 mm
<b>Motor size</b>	68
<b>Rotor surface</b>	Painted black
<b>Blade material</b>	Sheet steel, galvanized
<b>Number of blades</b>	5
<b>Airflow direction</b>	A
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Moisture (F) / Environmental (H) protection class</b>	H1+
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensation drainage holes</b>	On rotor side
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	< 0.75 mA
<b>With cable</b>	Lateral
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1; CE; UKCA
<b>Approval</b>	CSA C22.2 No. 100; UL 1004-1; EAC

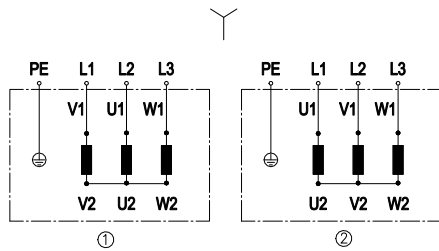
Product drawing



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



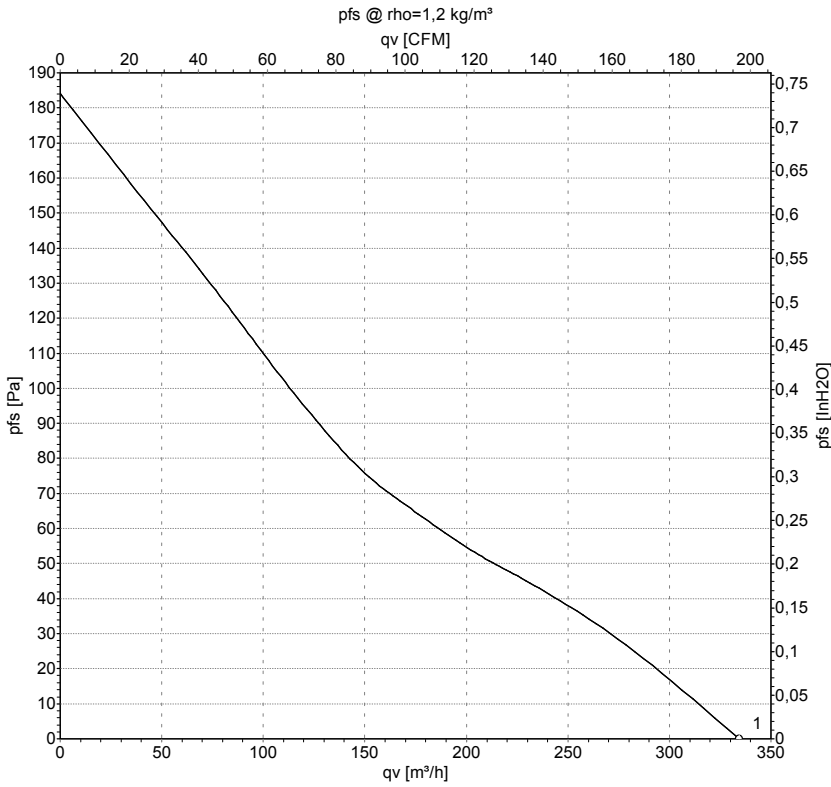
## Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow

## Curves: Air performance 50 Hz



Measurement: LU-43403-1

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.

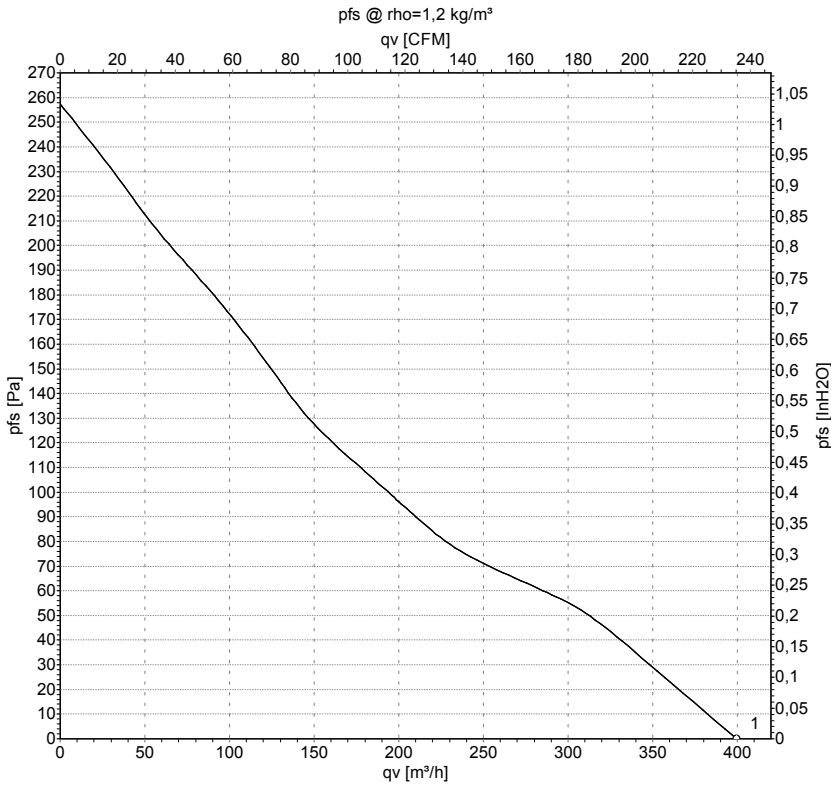
## Measured values

	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	cfm	in. wg
1	400	50	2800	40	0.14	335	195	0.00

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



## Curves: Air performance 60 Hz



Measurement: LU-43405-1

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>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	cfm	in. wg
1	480	60	3350	52	0.15	400	235	0.00

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

