

W2E208-BA86-51

# AC diagonal compact fan

sickled blades (S series)



## ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen  
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen  
County court Stuttgart · HRB 590142

## Nominal data

Type	W2E208-BA86-51		
Motor	M2E068-CF		
Phase		1~	1~
Nominal voltage	VAC	115	115
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min <sup>-1</sup>	2750	3100
Power input	W	67	87
Current draw	A	0.7	0.78
Motor capacitor	µF	6	6
Capacitor voltage	VDB	220	220
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	0
Max. back pressure	Pa	135	165
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	72	72

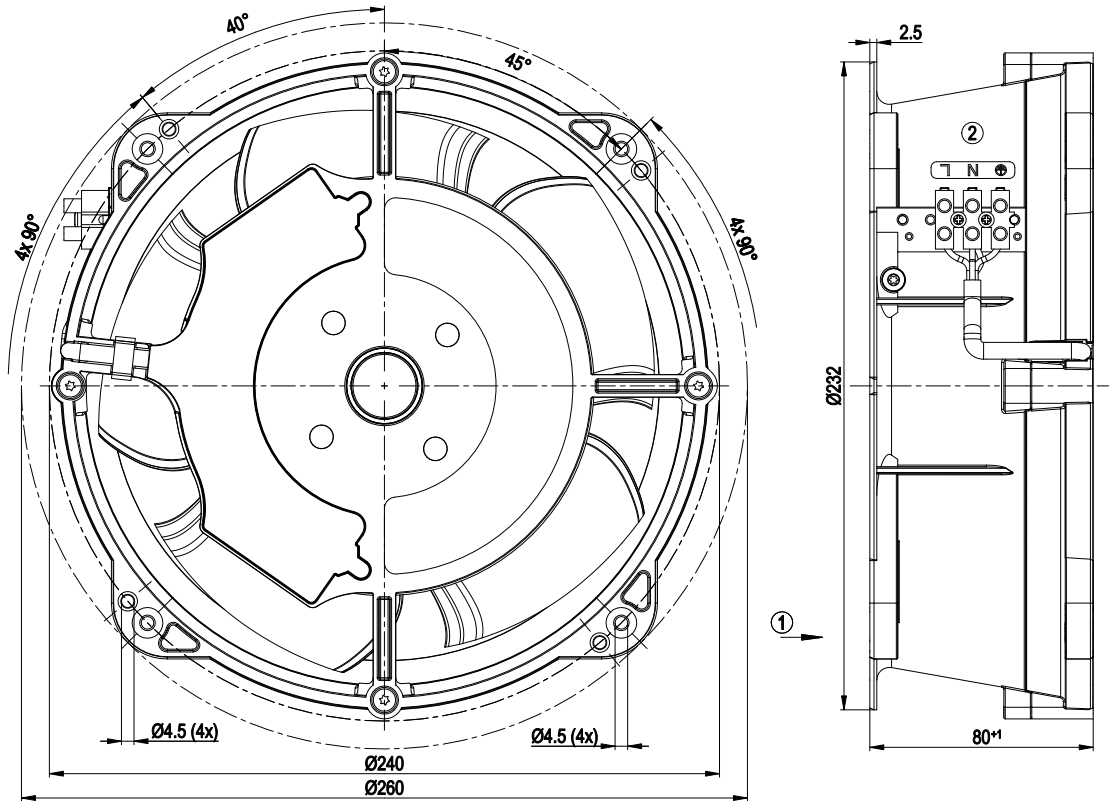
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit  
Subject to alterations



## Technical features

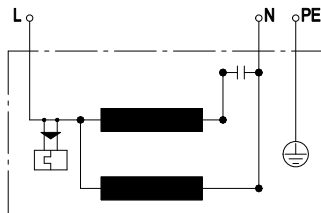
<b>Mass</b>	2.8 kg
<b>Size</b>	208 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of blades</b>	PA plastic
<b>Material of wall ring</b>	Die-cast aluminium, coated in black
<b>Number of blades</b>	5
<b>Direction of air flow</b>	"V"
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	IP 44; Depending on installation and position
<b>Insulation class</b>	"F"
<b>Humidity class</b>	F0
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Any
<b>Condensate discharge holes</b>	None
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	< 0.75 mA
<b>Electrical leads</b>	Via terminal strips, integrated capacitor connected via terminal strips
<b>Motor protection</b>	Thermal overload protector (TOP) wired internally
<b>Cable exit</b>	Lateral
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; CE
<b>Approval</b>	CSA C22.2 Nr.100; UL 1004-1

## Product drawing



- 1 Direction of air flow "V"
- 2 Connection line PFA AWG20, 3 x brass lead tips crimped

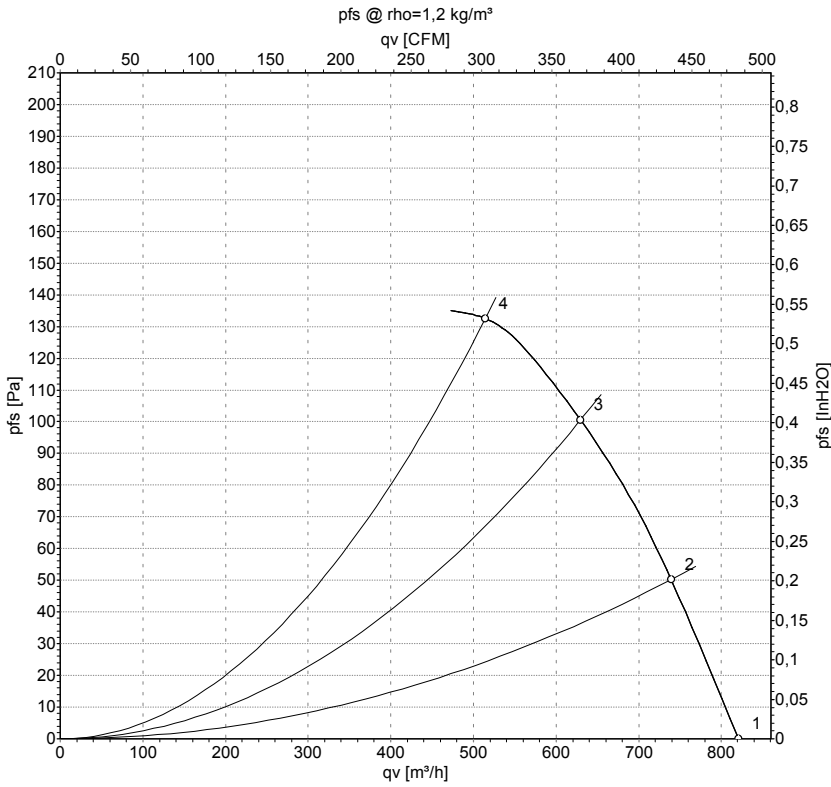
## Connection screen



L	blue	N	black	PE	green/yellow
---	------	---	-------	----	--------------



## Charts: Air flow 50 Hz



Measurement: LU-45967

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

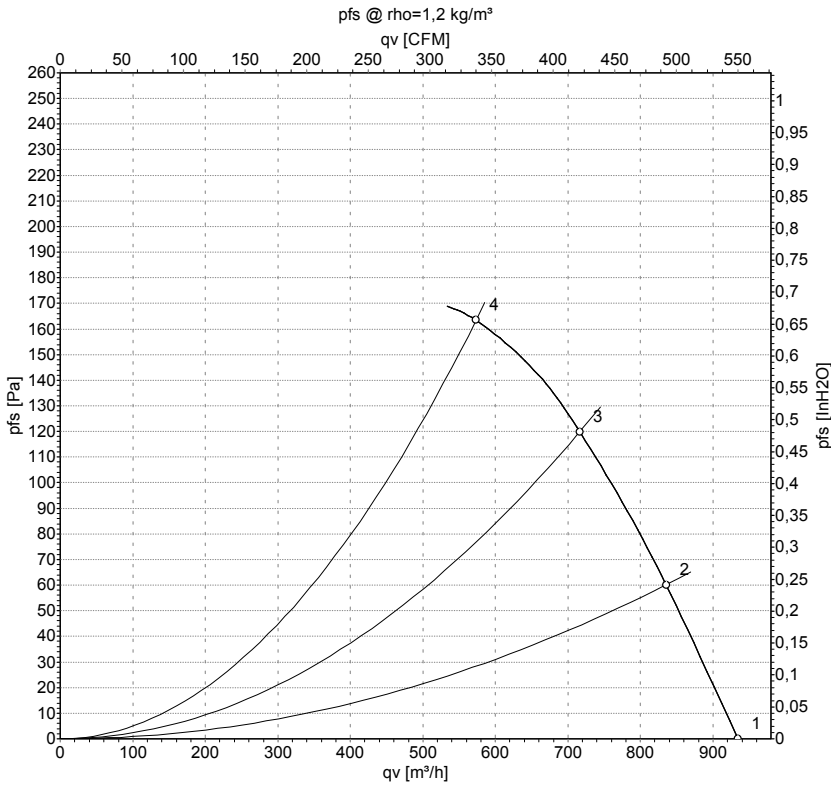
## Measured values

	U	f	n	P <sub>e</sub>	I	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	115	50	2750	67	0.70	820	0
2	115	50	2705	72	0.73	740	50
3	115	50	2675	76	0.75	630	100
4	115	50	2675	76	0.75	515	135

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase



## Charts: Air flow 60 Hz



Measurement: LU-45968

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	115	60	3100	87	0.78	935	0
2	115	60	3040	92	0.81	835	60
3	115	60	2970	99	0.87	715	120
4	115	60	2965	98	0.87	575	165

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

