

W2E200-HH86-90

# AC axial compact fan

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



## ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

Type	W2E200-HH86-90		
Motor	M2E068-BF		
Phase		1~	1~
Nominal voltage	VAC	115	115
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	2550	2800
Power consumption	W	64	80
Current draw	A	0.58	0.70
Capacitor	µF	5	5
Capacitor voltage	VDB	220	220
Capacitor standard		S0 (CE)	S0 (CE)
Max. back pressure	Pa	80	90
Max. back pressure	inH <sub>2</sub> O	0.32	0.36
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	65
Starting current	A	0.98	0.98

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



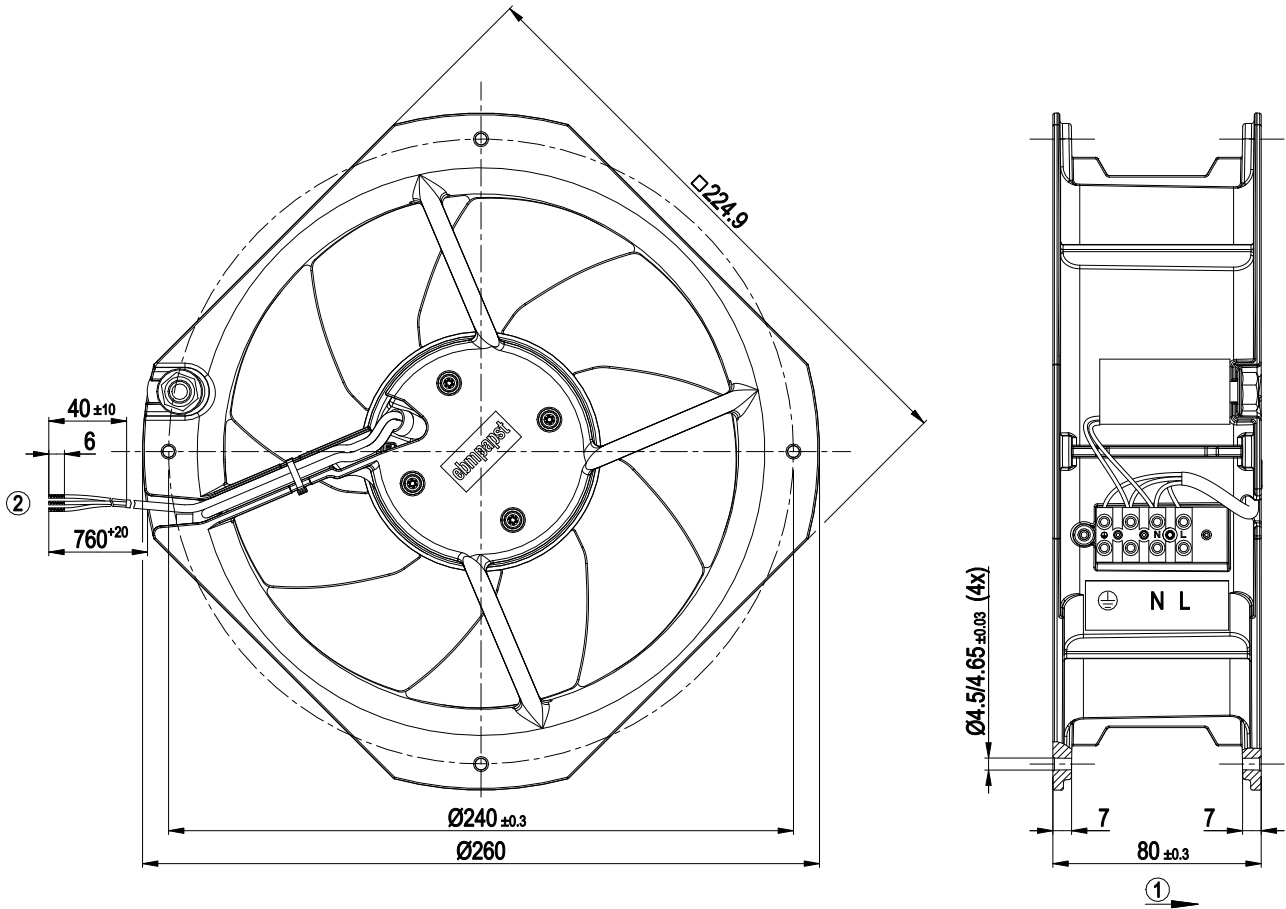
### Technical description

<b>Weight</b>	2.1 kg
<b>Fan size</b>	200 mm
<b>Rotor surface</b>	Painted black
<b>Blade material</b>	Sheet steel, painted black
<b>Fan housing material</b>	Die-cast aluminum
<b>Number of blades</b>	9
<b>Airflow direction</b>	"V"
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	H0 - dry environment
<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>	Any
<b>Condensation drainage holes</b>	None
<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>Electrical hookup</b>	Via terminal strip, capacitor connected
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Motor capacitor according to EN 60252-1 in safety protection class</b>	S0
<b>Conformity with standards</b>	CE
<b>Approval</b>	UL 507; CSA C22.2 No. 113

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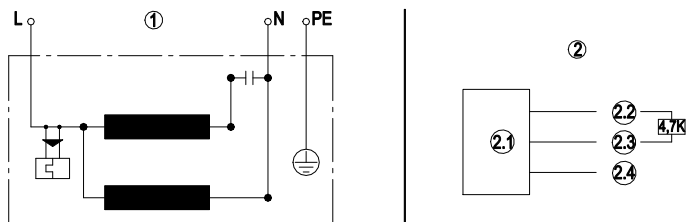
Product drawing



- 1 Airflow direction "V"
- 2 Cable Raychem Spec. 44, AWG24, 3x crimped splices



## Connection diagram



1	Fan connection diagram
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L	blue
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N	black
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PE	green/yellow
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2	Hall IC circuit
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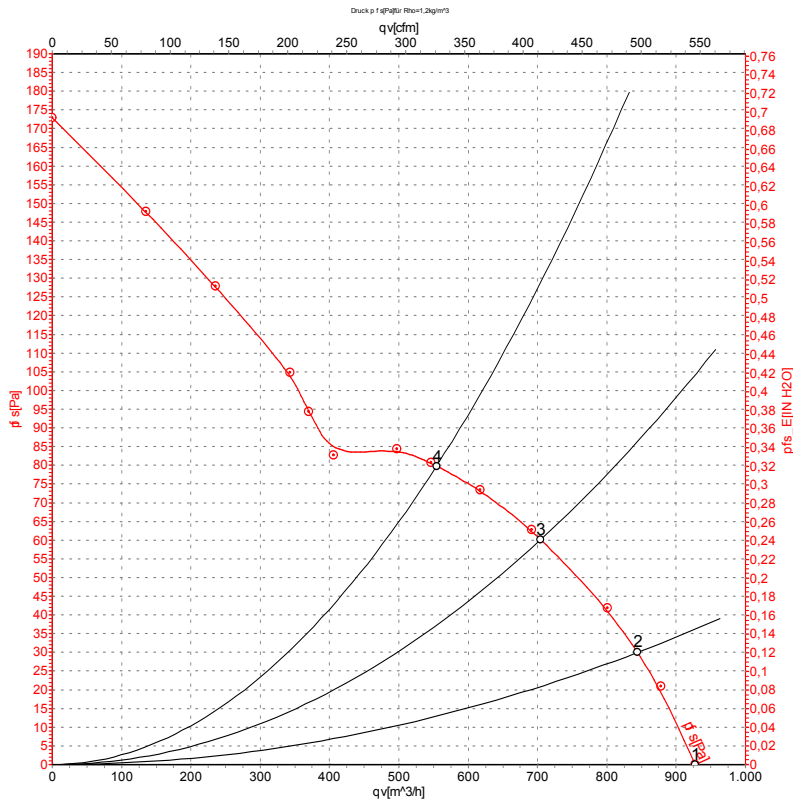
2.1	Hall IC
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2.2	red (+5 V)
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2.3	white (out)
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2.4	black (0 V)
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## Curves: Air performance 50 Hz



Measurement: LU-57317-1

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.

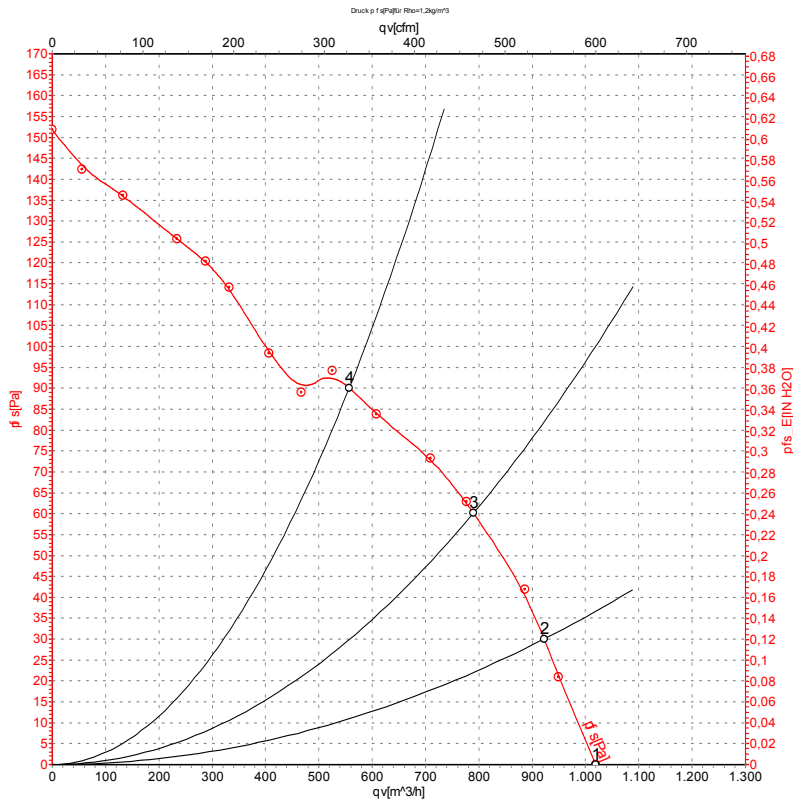
## Measured values

	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	inH <sub>2</sub> O
1	115	50	2550	64	0.58	925	0	545	0.00
2	115	50	2520	64	0.59	845	30	495	0.12
3	115	50	2450	67	0.61	705	60	415	0.24
4	115	50	2400	70	0.63	555	80	325	0.32

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-57315-1

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	inH2O
1	115	60	2800	80	0.70	1020	0	600	0.00
2	115	60	2715	81	0.70	920	30	545	0.12
3	115	60	2620	85	0.73	790	60	465	0.24
4	115	60	2500	87	0.76	555	90	330	0.36

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

