

# AC centrifugal fan

forward-curved, single-intake

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## Nominal data

Type	R2E146-AW07-05		
Motor	M2E068-CA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	1550	1750
Power consumption	W	140	155
Current draw	A	0.62	0.68
Capacitor	µF	3	3
Capacitor voltage	VDB	450	450
Capacitor standard		S0 (CE)	S0 (CE)
Min. back pressure	Pa	0	100
Min. back pressure	inH <sub>2</sub> O	0	0.4
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	45	30
Starting current	A	0.69	0.71

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



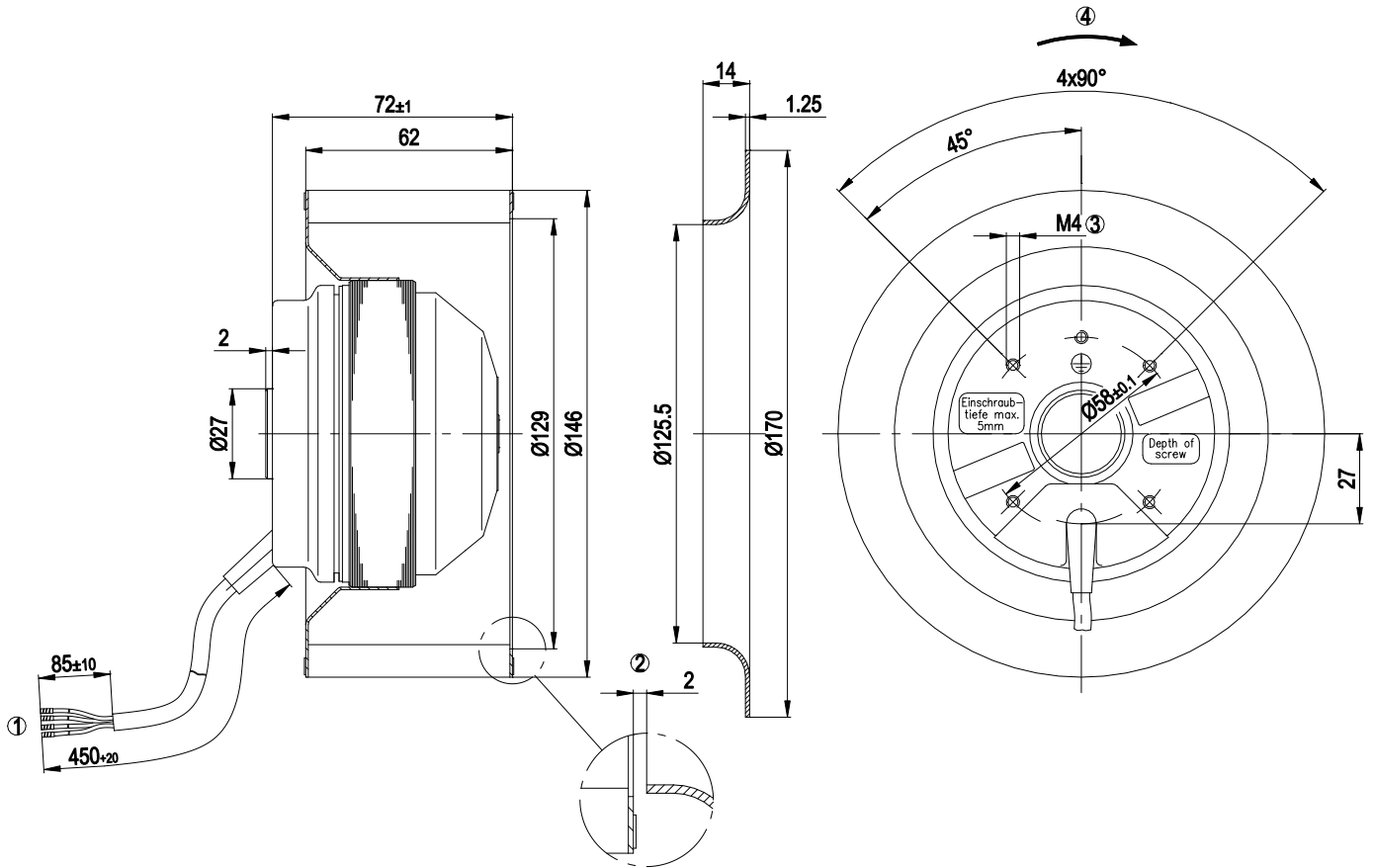
### Technical description

<b>Weight</b>	1.46 kg
<b>Fan size</b>	146 mm
<b>Rotor surface</b>	Partly cast in aluminum
<b>Impeller material</b>	Sendzimir galvanized sheet steel
<b>Direction of rotation</b>	Clockwise, 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>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>Conformity with standards</b>	EN 60335-1; CE
<b>Approval</b>	EAC

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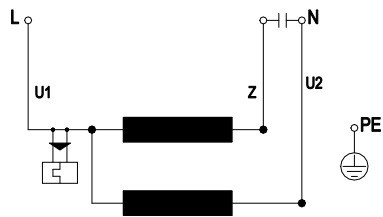
## Product drawing



1	Cable PVC, 4x crimped splices
2	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery.
3	Max. clearance for screw 5 mm
4	Direction of rotation clockwise, viewed toward rotor

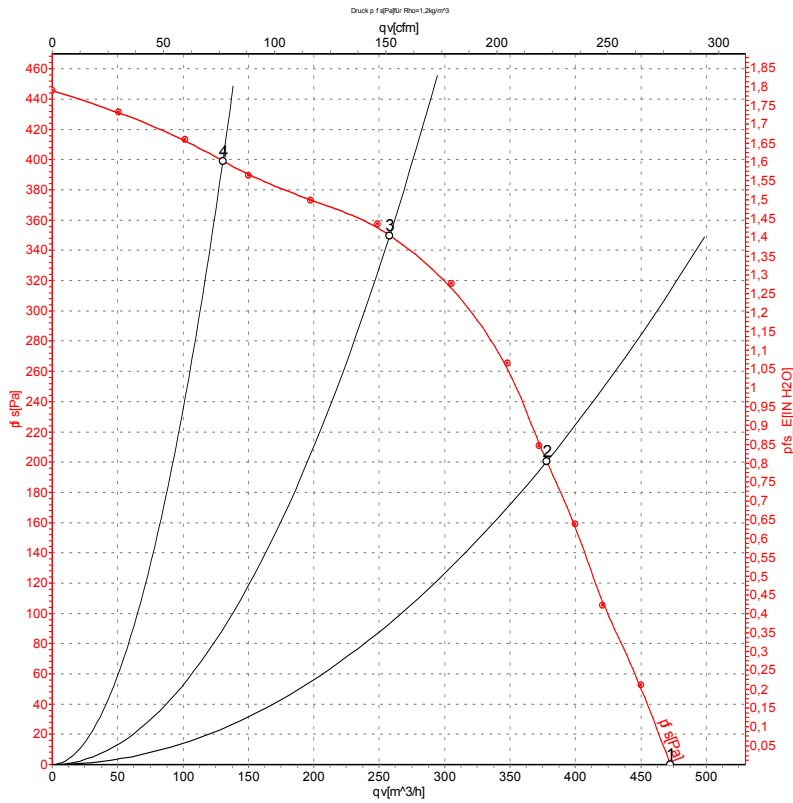


## Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				

## Curves: Air performance 50 Hz



Measurement: LU-105087-1

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.

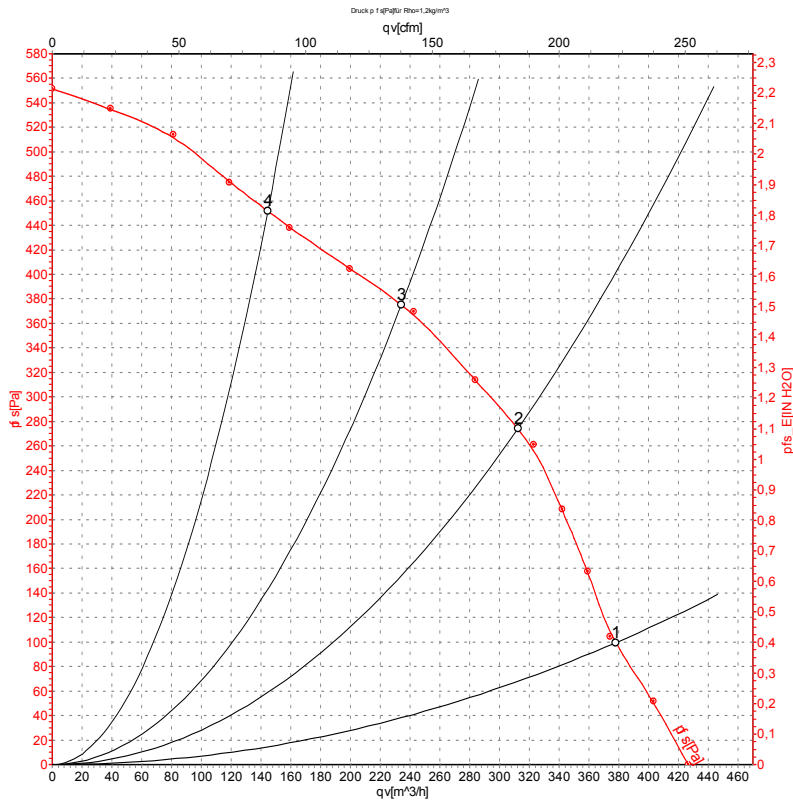
## Measured values

	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	230	50	1550	140	0.62	475	0	280	0.00
2	230	50	2035	122	0.53	380	200	220	0.80
3	230	50	2395	104	0.45	260	350	150	1.41
4	230	50	2605	91	0.40	130	400	75	1.61

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-105090-1

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	230	60	1750	155	0.68	380	100	225	0.40
2	230	60	2145	144	0.62	310	275	185	1.10
3	230	60	2500	137	0.59	235	375	140	1.51
4	230	60	2775	130	0.57	145	450	85	1.81

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

