

# AC centrifugal fan

forward curved, dual inlet

with housing (flange)

D2E133-DM47-90 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Muldingen  
County court Stuttgart · HRA 590344General partner Elektrobau Muldingen GmbH · Headquarters Muldingen  
County court Stuttgart · HRB 590142

## Nominal data

<b>Type</b>	<b>D2E133-DM47-90</b>		
<b>Motor</b>	<b>M2E068-DF</b>		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		-	-
Speed (rpm)	min <sup>-1</sup>	1650	2200
Power input	W	175	185
Current draw	A	0.78	0.82
Motor capacitor	µF	3	3
Capacitor voltage	VDB	450	450
Min. back pressure	Pa	100	250
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	60

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

# AC centrifugal fan

forward curved, dual inlet  
with housing (flange)

## Technical features

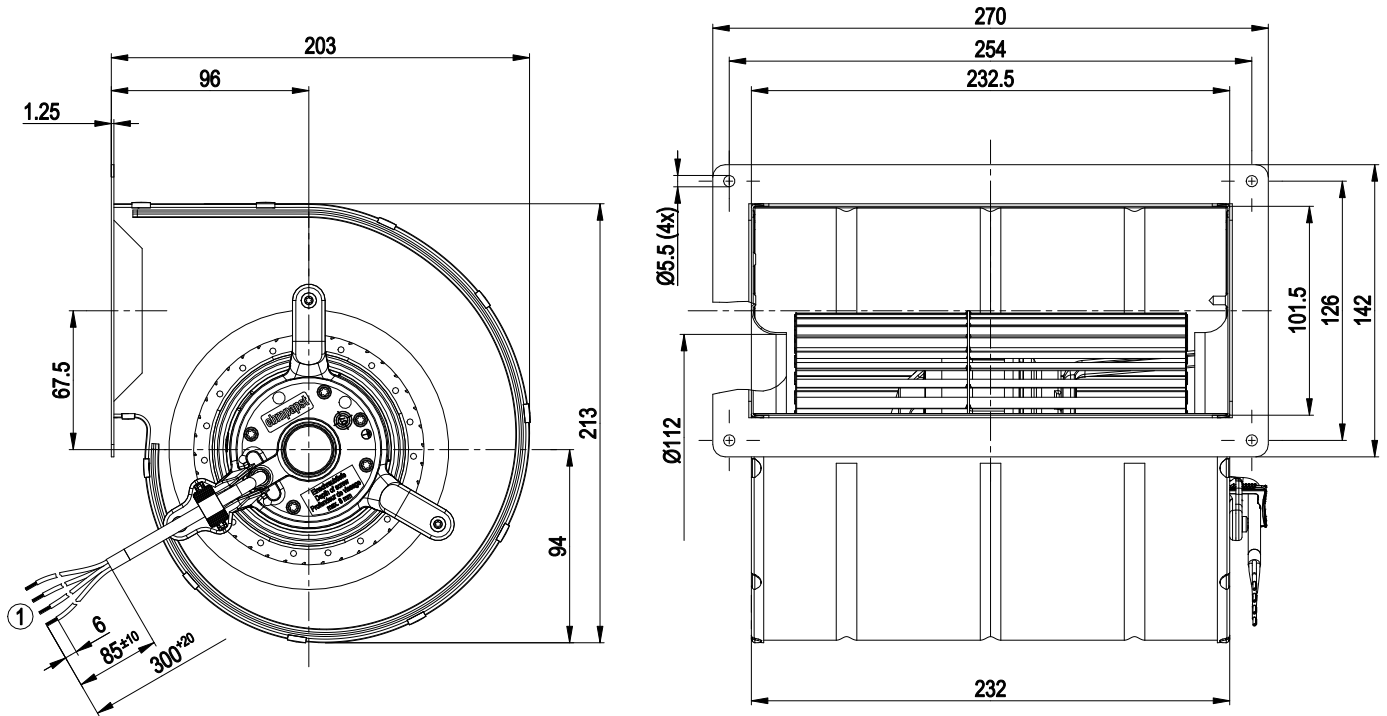
<b>Mass</b>	4.3 kg
<b>Size</b>	133 mm
<b>Surface of rotor</b>	Uncoated
<b>Material of impeller</b>	Sheet steel, galvanised
<b>Housing material</b>	Sheet steel, galvanised
<b>Motor suspension</b>	Motor mounted via brackets on one side
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 44; Depending on installation and position
<b>Insulation class</b>	"F"
<b>Humidity (F)/environmental protection class (H)</b>	H0 - dry environment
<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>Motor protection</b>	Thermal overload protector (TOP) wired internally
<b>Cable exit</b>	Axial
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1



# AC centrifugal fan

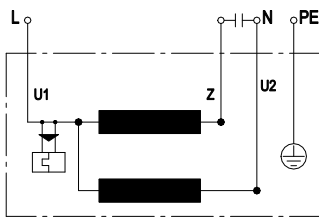
forward curved, dual inlet  
with housing (flange)

## Product drawing



1 Connection line silicone 4G 0.5 mm<sup>2</sup>, 4x lead tips crimped

## Connection screen



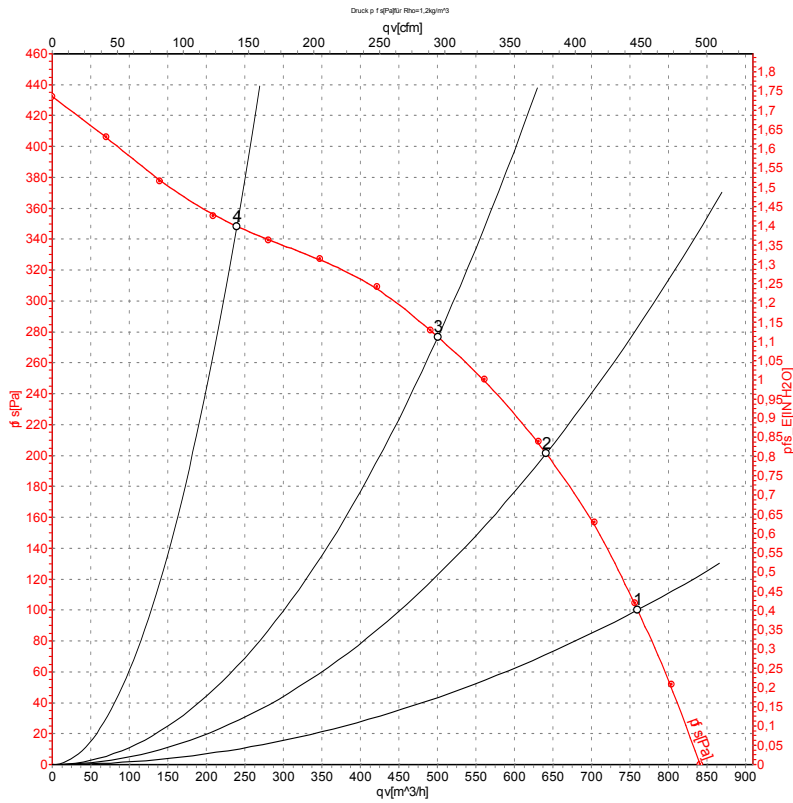
U1	blue	Z	brown	U2	black
PE	green/yellow				



# AC centrifugal fan

forward curved, dual inlet  
with housing (flange)

## Charts: Air flow 50 Hz



Measurement: LU-105266-1

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>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH2O
1	230	50	1650	175	0.78	760	100	445	0.40
2	230	50	1990	162	0.70	640	200	375	0.80
3	230	50	2275	146	0.63	500	275	295	1.10
4	230	50	2530	125	0.54	240	350	140	1.41

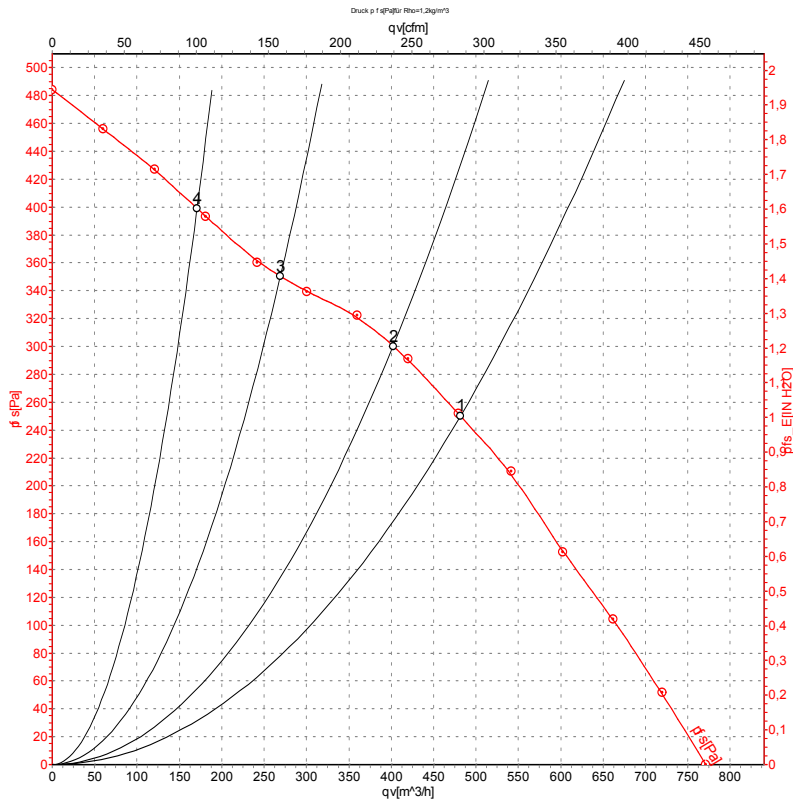
U = Supply voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase



# AC centrifugal fan

forward curved, dual inlet  
with housing (flange)

## Charts: Air flow 60 Hz



Measurement: LU-105267-1

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	qv	p <sub>fs</sub>	qv	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	2200	185	0.82	480	250	285	1.00
2	230	60	2360	181	0.78	400	300	235	1.20
3	230	60	2555	175	0.76	270	350	160	1.41
4	230	60	2685	171	0.74	170	400	100	1.61

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

