D4E146-LV19-33

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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	**D4E146-LV19-33**
Motor	**M4E068-CF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	780	710
Power consumption	W	65	68
Current draw	A	0.29	0.3
Capacitor	µF	2	2
Capacitor voltage	VDB	400	400
Capacitor standard		P2 (CE)	P2 (CE)
Min. back pressure	Pa	0	0
Min. back pressure	inH2O	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	40
Starting current	A	0.33	0.33

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

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Technical description

Weight	2.6 kg
Fan size	146 mm
Rotor surface	Unpainted
Terminal box material	PP plastic
Impeller material	PA plastic
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Speed levels	3
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

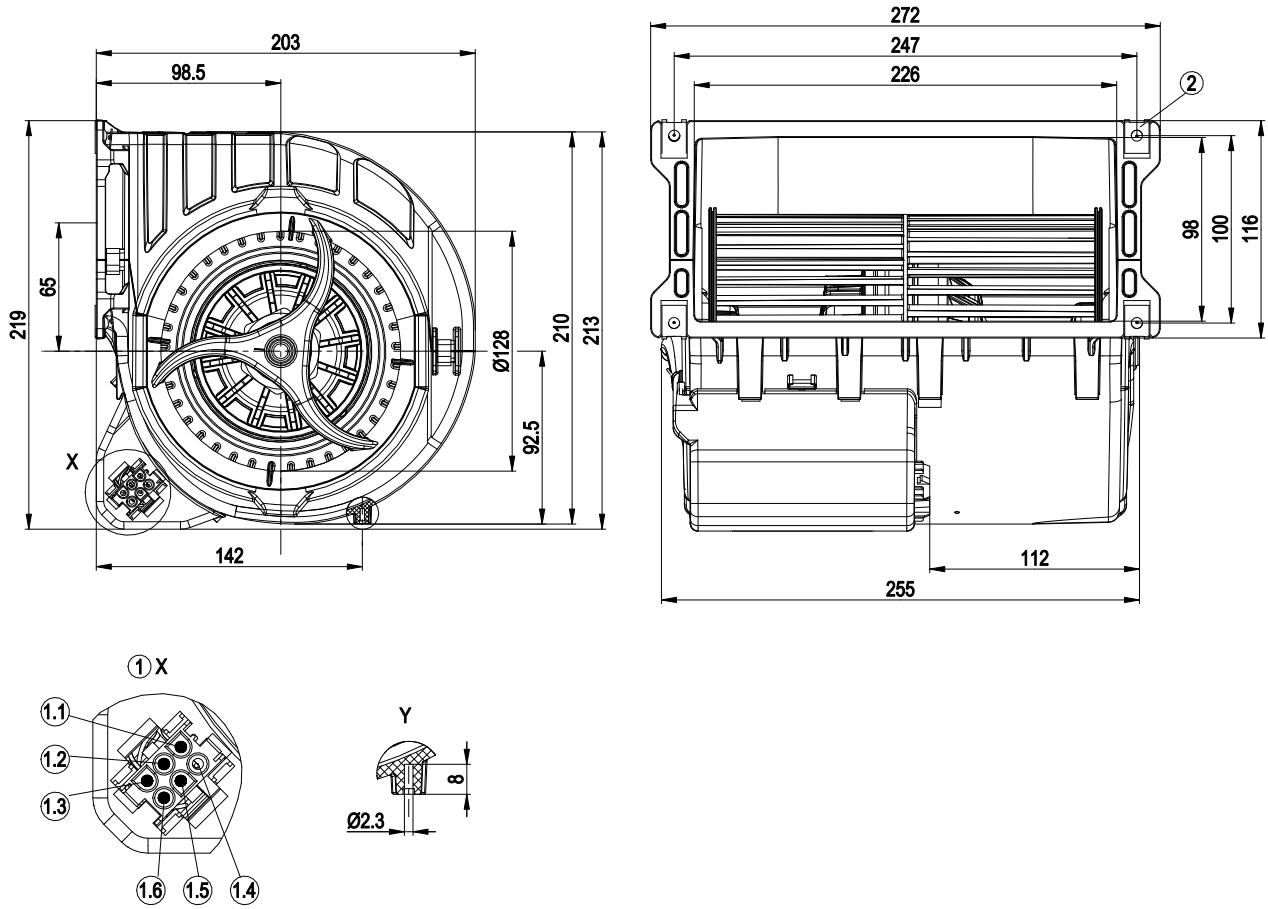
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Product drawing



1	Coded plug system AMP Universal Mate-N-Lok; connector housing: AMP 926 682-3; 6x plug pin AMP 926 886-1
1.1	L = step 1 (min.)
1.2	L = step 2
1.3	L = step 3
1.4	not used
1.5	N
1.6	PE
2	4x sheet metal nut for thread EN ISO 1478-ST 4.8 (min. screw length 14.5 mm plus material thickness of attachment)

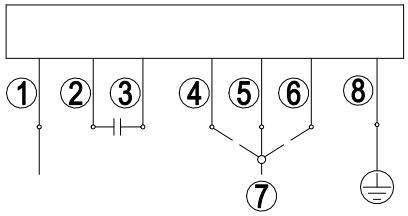
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Connection diagram



Note: High speed (step III); low speed (step I)

1	N	2	Capacitor	3	Capacitor
4	Step I	5	Step II	6	Step III
7	L	8	PE		

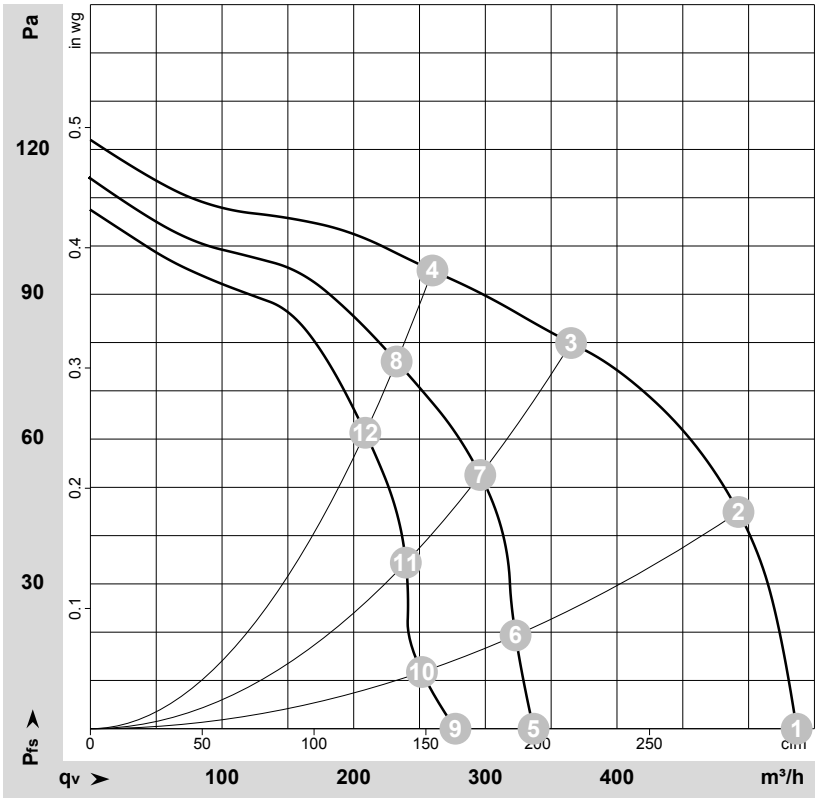
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-68469-1
Measurement: LU-68471-1
Measurement: LU-68472-1

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

	Stage	U	f	n	P_e	I	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	5	230	50	780	65	0.29	535	0	315	0.00
2	5	230	50	1080	58	0.25	490	45	290	0.18
3	5	230	50	1285	48	0.21	365	80	215	0.32
4	5	230	50	1345	43	0.19	260	95	155	0.38
5	4	230	50	495	54	0.24	335	0	200	0.00
6	4	230	50	690	52	0.23	325	17	190	0.07
7	4	230	50	1045	45	0.21	295	53	175	0.21
8	4	230	50	1215	39	0.18	235	76	135	0.31
9	3	230	50	390	50	0.22	275	0	165	0.00
10	3	230	50	560	48	0.22	250	10	150	0.04
11	3	230	50	865	45	0.21	240	35	140	0.14
12	3	230	50	1085	39	0.19	210	62	125	0.25

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

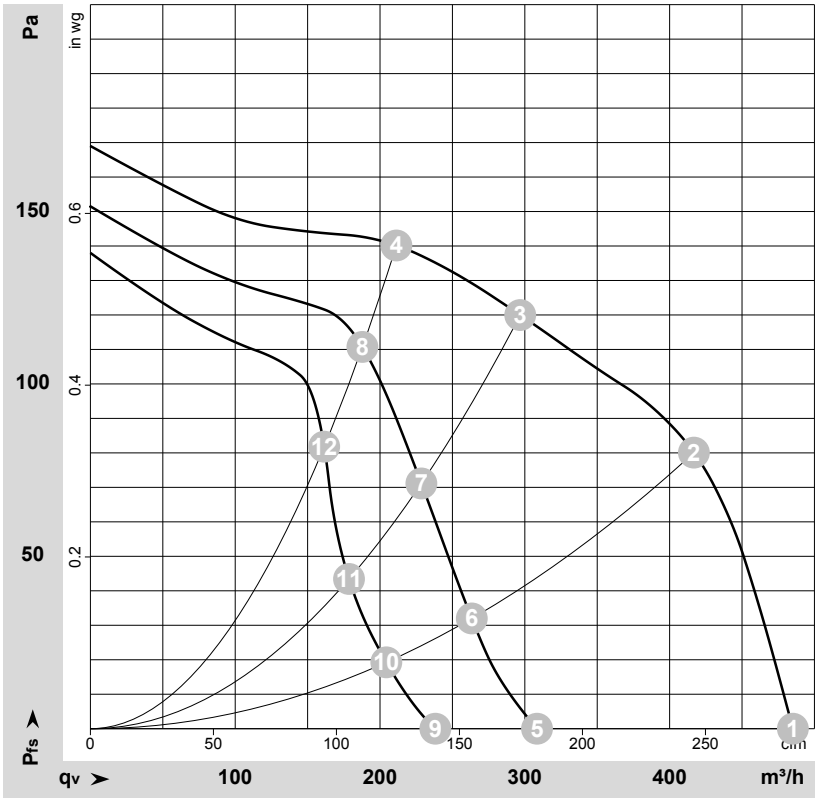
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-68484-1
Measurement: LU-68487-1
Measurement: LU-68490-1

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

	Stage	U	f	n	P_e	I	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	5	230	60	710	68	0.30	485	0	285	0.00
2	5	230	60	1300	61	0.28	415	80	245	0.32
3	5	230	60	1520	53	0.25	295	120	175	0.48
4	5	230	60	1620	47	0.23	210	140	125	0.56
5	4	230	60	465	52	0.24	310	0	180	0.00
6	4	230	60	830	50	0.24	265	31	155	0.12
7	4	230	60	1175	46	0.23	230	71	135	0.29
8	4	230	60	1440	39	0.21	190	111	110	0.45
9	3	230	60	380	47	0.22	240	0	140	0.00
10	3	230	60	620	46	0.22	205	19	120	0.08
11	3	230	60	875	44	0.22	180	40	105	0.16
12	3	230	60	1250	38	0.20	160	84	95	0.34

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com