D3G318-BB35-01

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

D3G318-BB35-01 ebmpapst Datasheet
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	**D3G318-BB35-01**
Motor	**M3G112-GA**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	880
Power input	W	1000
Current draw	A	1.7
Min. back pressure	Pa	150
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	52.5	36.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		59.8	44
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.69
09 Air flow q_v	m^3/h	3505
09 Pressure increase p_{fs}	Pa	343
10 Speed (rpm) n	min^{-1}	1010
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-107484

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

Technical features

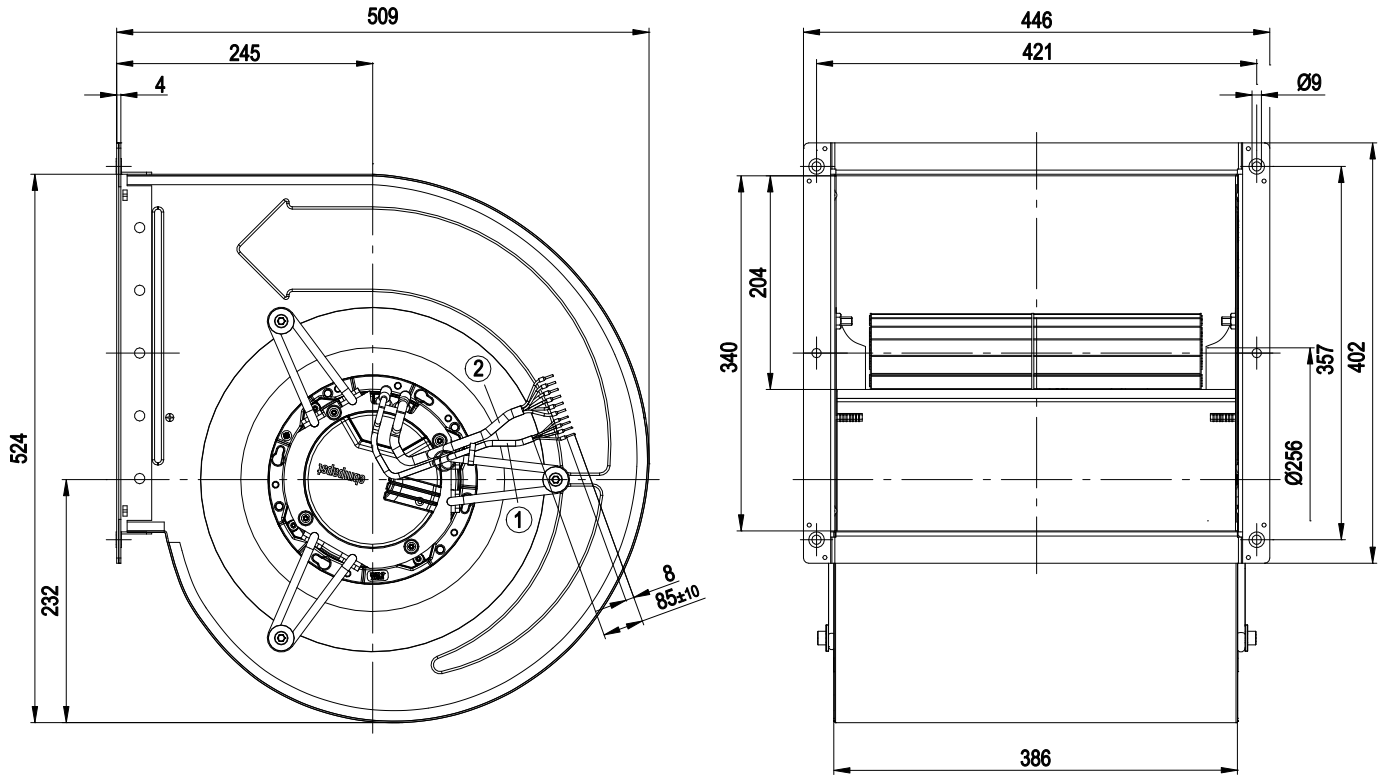
Mass	23.1 kg
Size	318 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminum
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
Motor suspension	Motor mounted with anti-vibration on both sides
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Alarm relay - Integrated PID controller - Motor current limit - PFC, passive - RS485 ebmBUS - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	EAC

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

Product drawing



Cable length from electronics enclosure: 800+20 mm

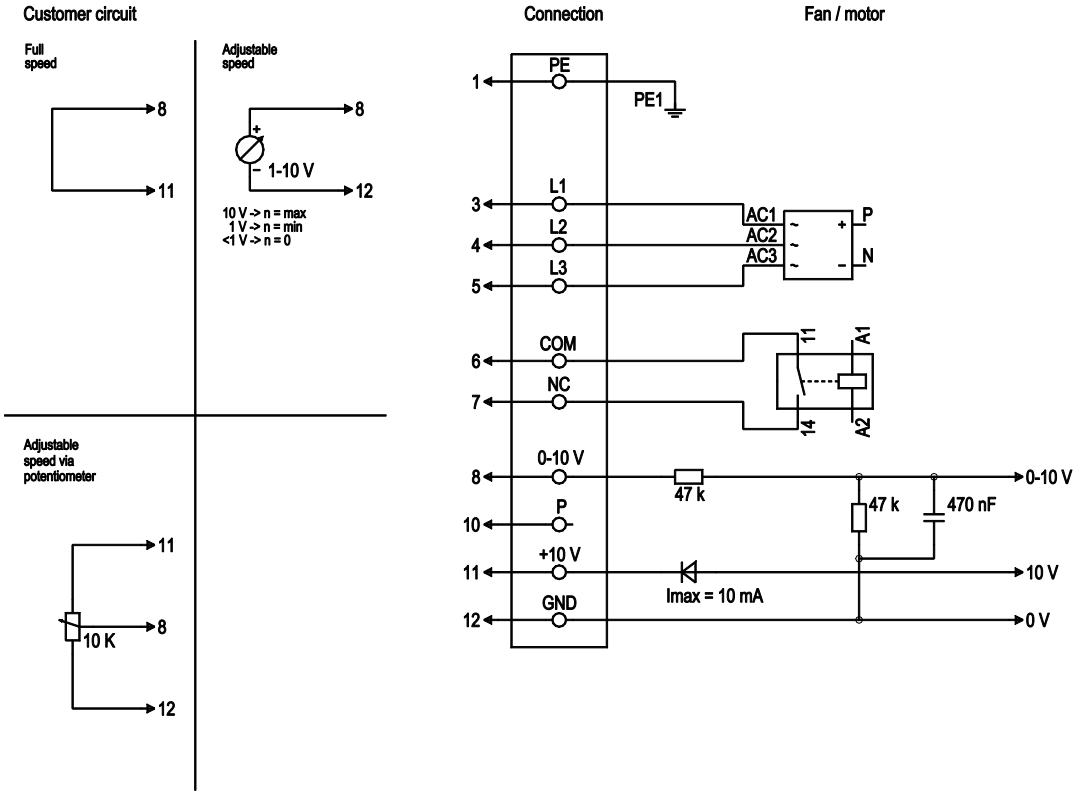
1	Connection line PVC AWG22, 4 x crimped core-end sleeve
2	Connection line PVC AWG18, 6x crimped core-end sleeves

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

Connection screen



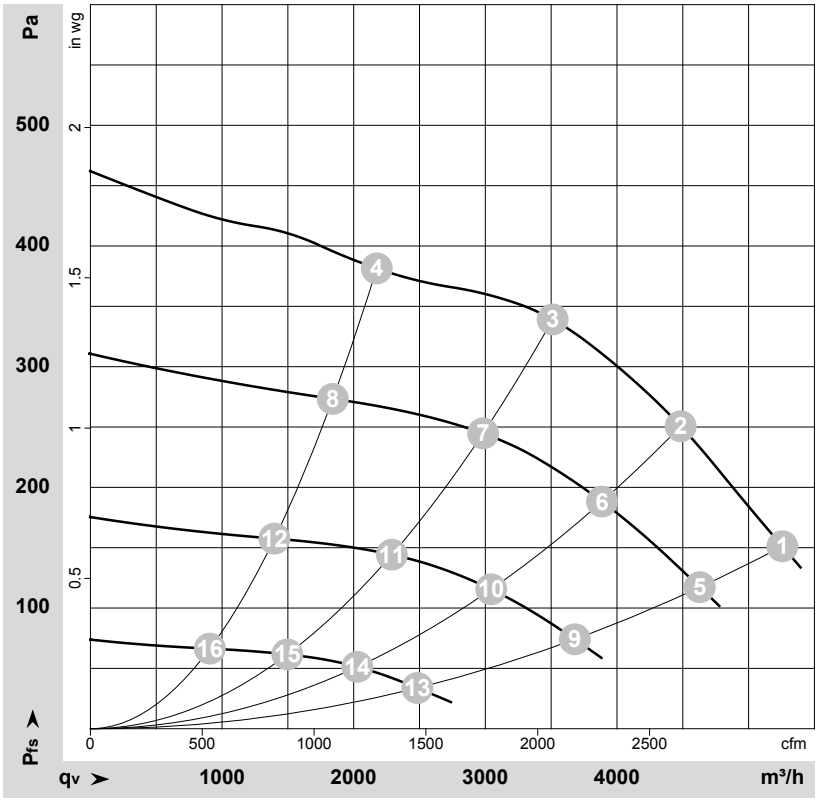
No.	Conn.	Designation	Colour	Function / assignment
1	1	PE	green/yellow	Ground wire
1	3	L1	black	Supply voltage, 50/60 Hz
1	4	L2	black	Supply voltage, 50/60 Hz
1	5	L3	black	Supply voltage, 50/60 Hz
1	6	COM	white 1	Floating status message contact, normally closed connection (2 A, max. 250 VAC, min. 10 mA, AC1)
1	7	NC	white 2	Floating status message contact, normally closed connection
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	10	P	orange	Do not use
2	11	+10 V	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)

Charts: Air flow 50 Hz



ρ = 1.183 kg/m³ ± 2 %

Measurement: LU-107484-1
Measurement: LU-107618-1
Measurement: LU-107617-1
Measurement: LU-107616-1

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_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	400	50	880	1000	1.70	72	80	83	5255	150	3095	0.60
2	400	50	945	856	1.40	69	78	80	4485	250	2640	1.00
3	400	50	1010	699	1.17	67	76	79	3510	340	2065	1.36
4	400	50	1105	520	0.95	67	75	79	2175	380	1280	1.53
5	400	50	770	639	1.09	68	76	79	4630	118	2725	0.47
6	400	50	815	532	0.97	65	73	76	3885	193	2285	0.77
7	400	50	865	426	0.81	62	71	73	2985	250	1755	1.00
8	400	50	915	300	0.59	61	70	73	1840	273	1085	1.10
9	400	50	620	325	0.64	62	71	73	3680	75	2165	0.30
10	400	50	645	264	0.54	58	67	69	3045	119	1790	0.48
11	400	50	670	203	0.43	56	64	67	2290	146	1350	0.59
12	400	50	700	143	0.32	54	62	66	1400	158	825	0.63
13	400	50	420	107	0.26	51	60	61	2485	34	1460	0.14
14	400	50	430	87	0.23	47	56	57	2030	53	1195	0.21
15	400	50	440	69	0.20	44	53	54	1495	62	880	0.25
16	400	50	455	53	0.17	42	51	53	905	66	535	0.26

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
q_V = Air flow · p_{fs} = Pressure increase