D3G146-AHB1-26

EC centrifugal fan

forward-curved, dual-intake

with housing (flange), for rail applications

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Nominal data

Type	**D3G146-AHB1-26**
Motor	**M3G074-CF**

Nominal voltage	VDC	77
Nominal voltage range	VDC	56 .. 110
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	1500
Power consumption	W	130
Current draw	A	1.7
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60

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

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Technical description

Weight	4.7 kg
Size	146 mm
Motor size	74
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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
Technical features	- Output 10 VDC, max. 10 mA - Alarm relay - Run monitoring - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection - Reverse polarity protection
EMC regulations	According to EN 50121-3-2
Electrical hookup	Plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 15085-1, CPC3: 2013; EN 45545-2, HL3: 2013 + A1:2015; EN 50155: 2008; EN 61373, Cat. 1B: 2010

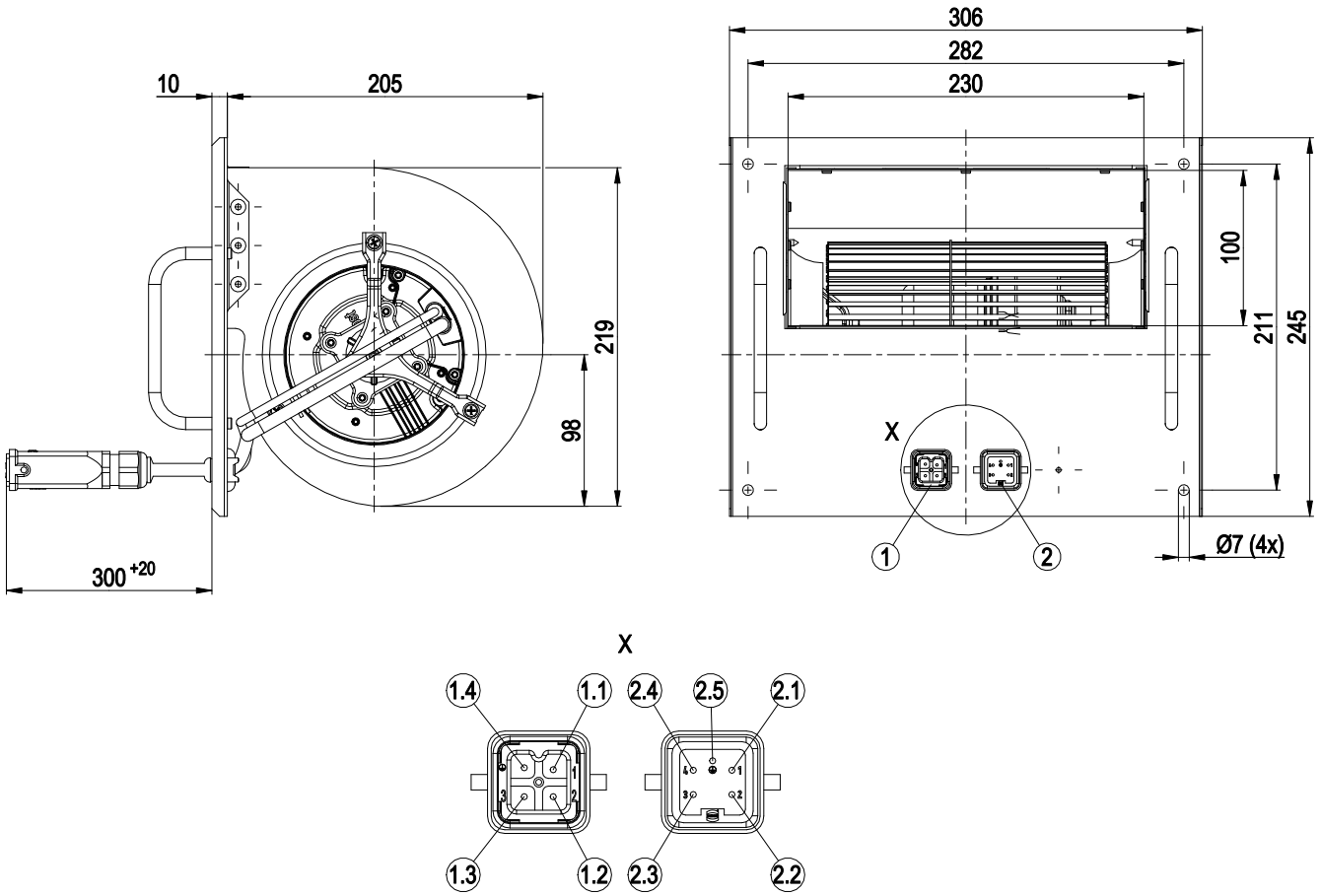
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Product drawing



1	Cable halogen-free, BETAtrans® 3 GKW flex, 3x 0.33 mm²
	Connector housing Harting HAN 3A 09200032611
1.1	0-10 V PWM (yellow)
1.2	10 VDC (red)
1.3	GND (blue)
1.4	Not used / no function
2	Cable halogen-free, BETAtrans® 3 GKW flex, 5G 1.0 mm²
	Connector housing Harting HAN 4A 09200042611
2.1	NC (white 2)
2.2	COM (white 1)
2.3	+ (red)
2.4	- (blue)
2.5	PE (green/yellow)

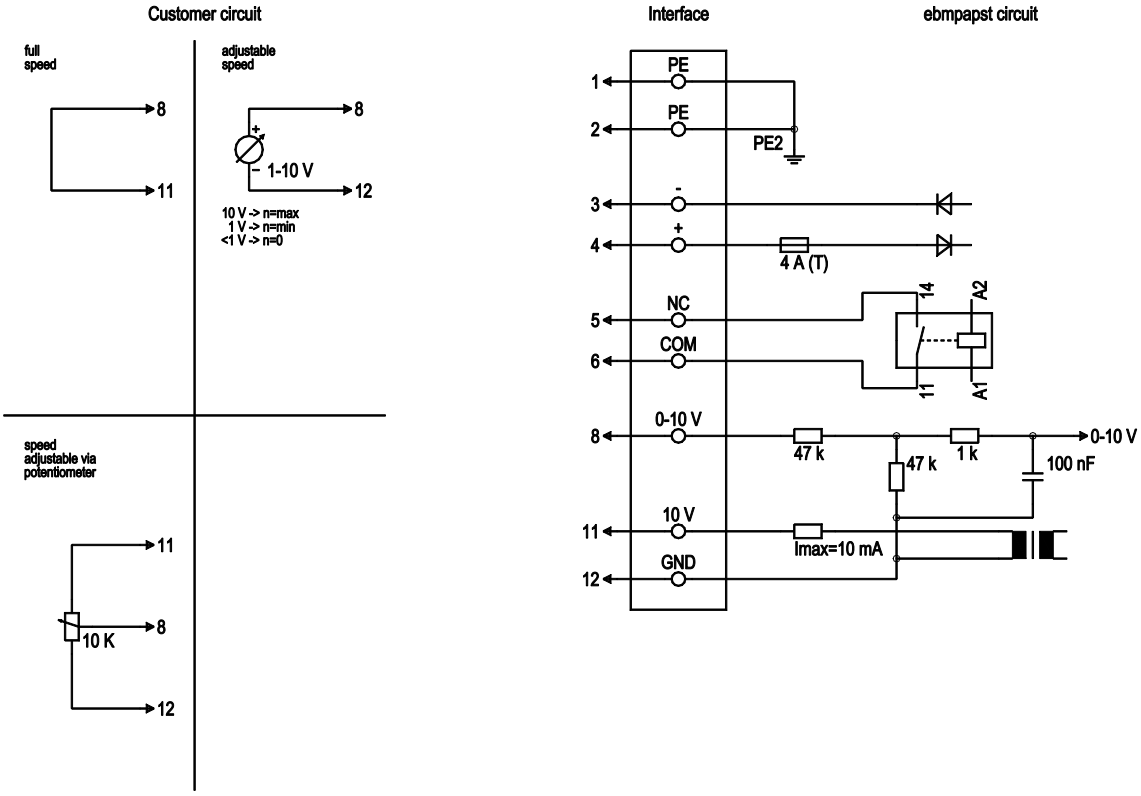
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3	-	blue	Power supply, GND
1	4	+	red	Power supply
1	5	NC	white 2	Floating status contact (0.3 A - 110 VDC, 1 A - 60 VDC, 3 A - 30 VDC), closed at n >= 100 rpm, break for failure
1	6	COM	white 1	Floating status contact, closed at n >= 100 rpm, break for failure
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ; SELV
2	11	10 VDC	red	Voltage output 10 VDC (±3%), max. 10 mA, power supply for external devices (e.g. potentiometer); SELV
2	12	GND	blue	Reference ground for control interface; SELV

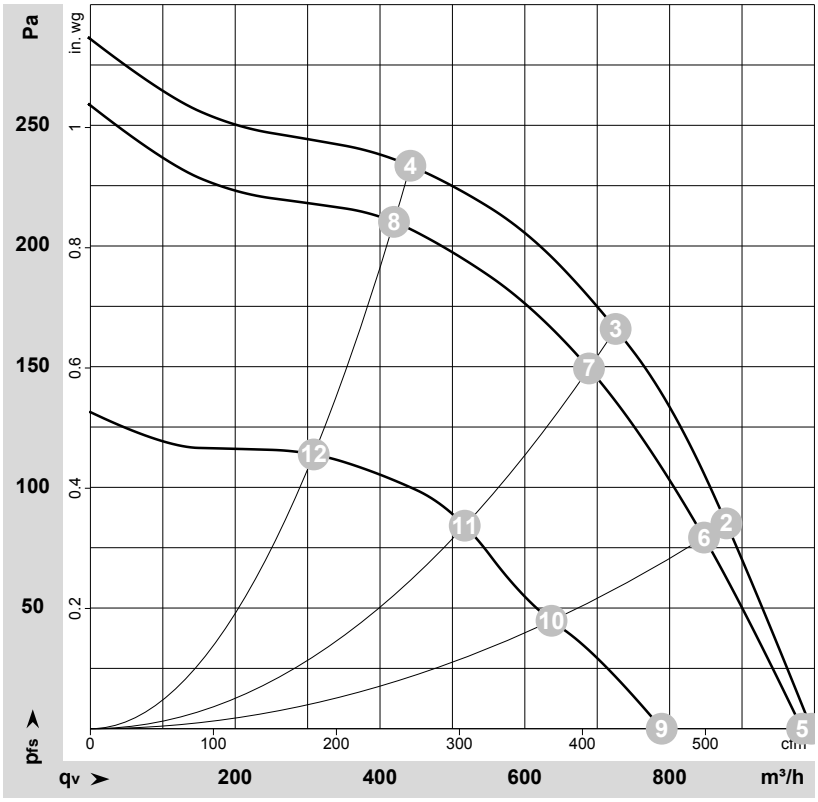
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-194360-1
Measurement: LU-194252-1
Measurement: LU-194362-1

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	n	P_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	110	1540	132	1.20			995	0	585	0.00
2	110	1725	131	1.19			880	86	515	0.35
3	110	1850	117	1.06			725	166	425	0.67
4	110	2015	82	0.75			440	233	260	0.94
5	77	1500	130	1.70	61	73	985	0	580	0.00
6	77	1665	118	1.53	60	71	850	80	500	0.32
7	77	1765	101	1.31	59	70	690	150	405	0.60
8	77	1910	70	0.91	59	69	420	210	245	0.84
9	56	1230	66	1.17			790	0	465	0.00
10	56	1295	53	0.95			635	44	375	0.18
11	56	1350	44	0.79			515	86	305	0.35
12	56	1430	30	0.53			310	114	180	0.46

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side · q_V = Air flow
p_{fs} = Pressure increase

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