A3G400-AN04-03

EC axial fan - HyBlade

sickled blades (S series)

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Nominal data

Type	**A3G400-AN04-03**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1080
Power input	W	140
Current draw	A	1.15
Max. back pressure	Pa	75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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}	%	36.8	28.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.7	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.13
09 Air flow q_v	m^3/h	2700
09 Pressure increase p_{fs}	Pa	58
10 Speed (rpm) n	min^{-1}	1095
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-137607

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Technical features

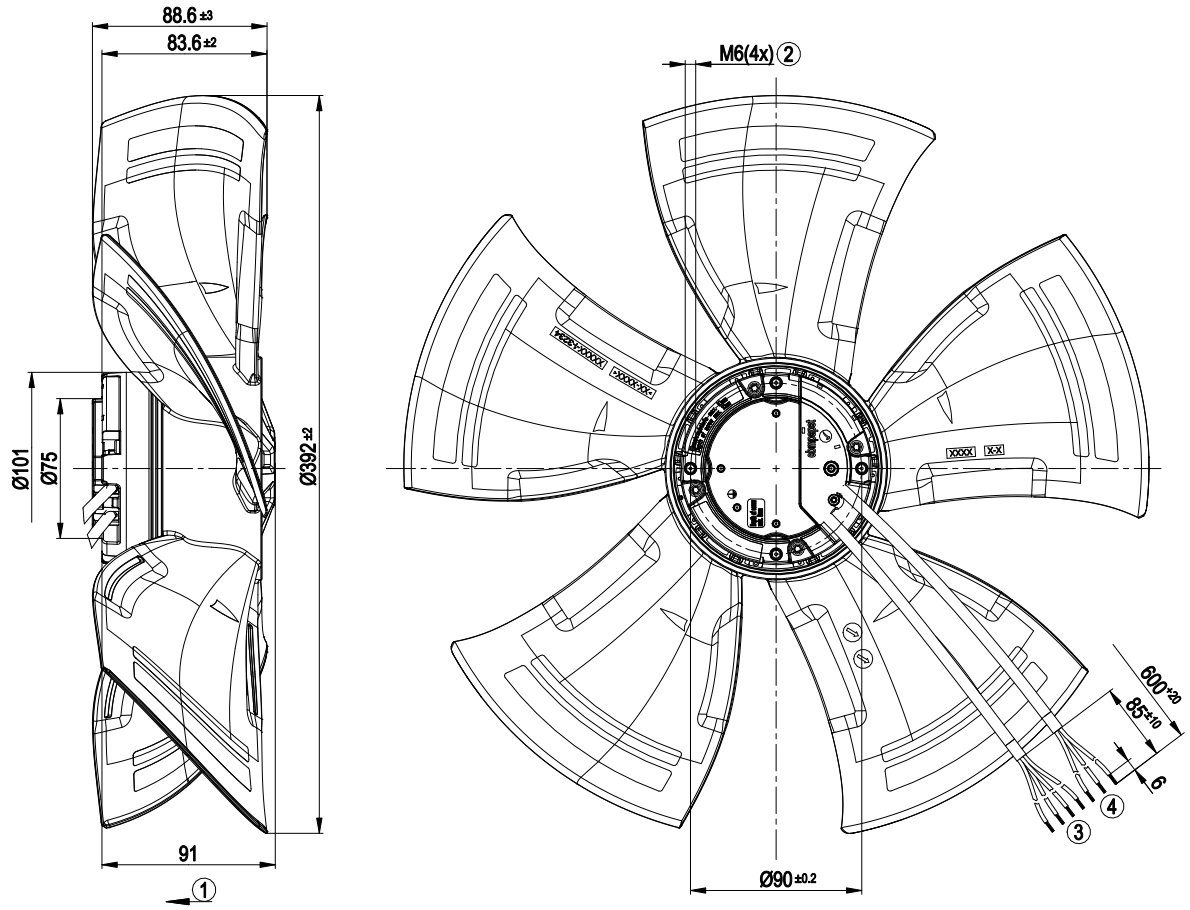
Mass	2.3 kg
Size	400 mm
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	PTC resistor
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CCC; C22.2 Nr.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730

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Product drawing



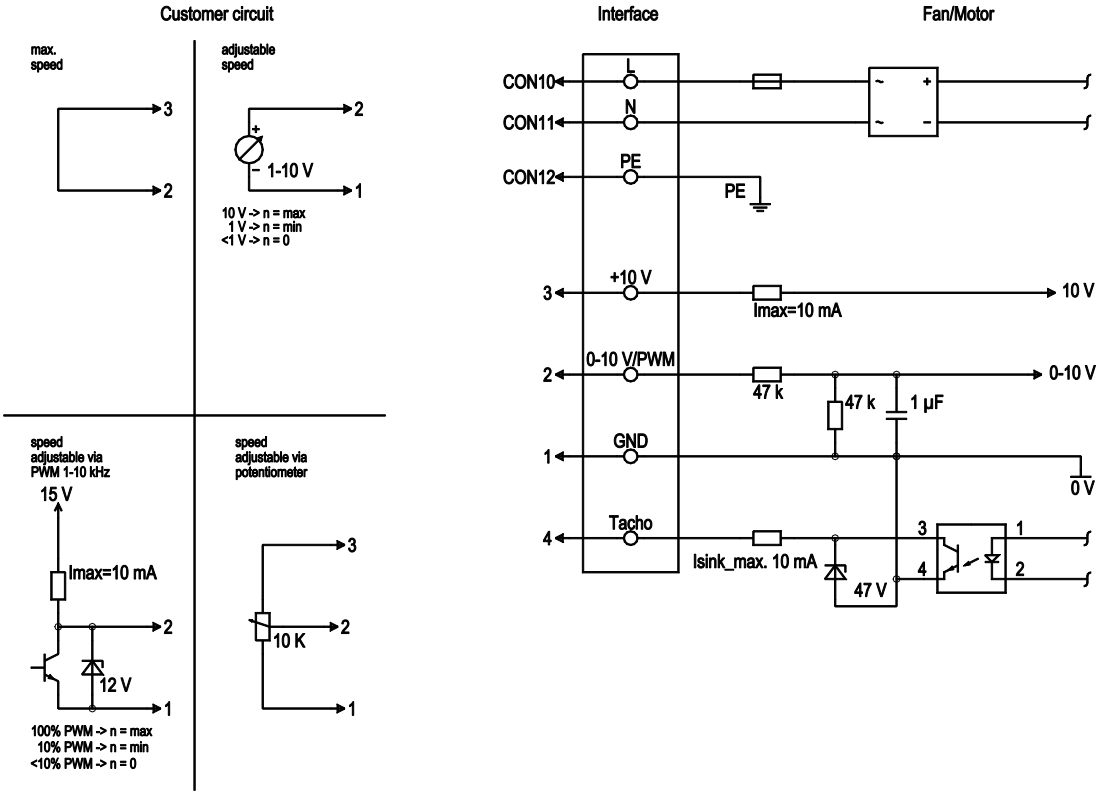
1	Direction of air flow "V"
2	Depth of screw max. 10 mm
3	Connection line PVC 3G AWG20, 3x brass lead tips crimped
4	Connection line PVC 4X AWG22, 4x brass lead tips crimped

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Connection screen



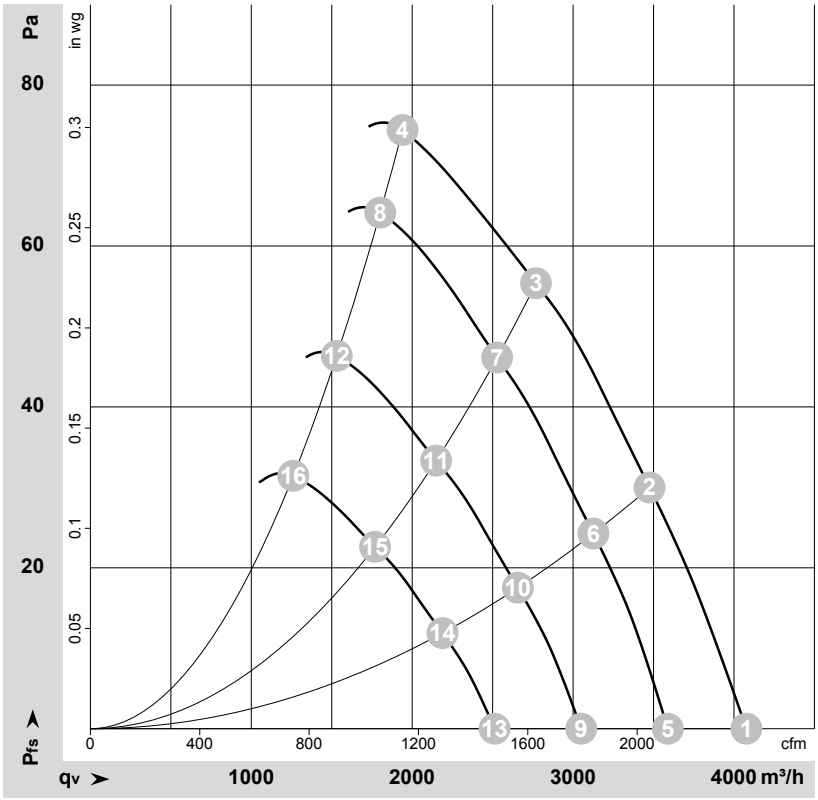
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-137607-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	1135	116	0.97	62	69	4075	0	2400	0.00
2	230	50	1110	127	1.05	59	66	3475	30	2045	0.12
3	230	50	1095	133	1.09	55	63	2770	55	1630	0.22
4	230	50	1080	140	1.15	61	69	1940	75	1140	0.30
5	230	50	1000	79	0.66	59	66	3590	0	2110	0.00
6	230	50	1000	92	0.76	57	63	3125	24	1840	0.10
7	230	50	1000	101	0.83	53	60	2530	46	1490	0.18
8	230	50	1000	110	0.91	59	67	1800	64	1060	0.26
9	230	50	850	49	0.40	55	62	3050	0	1795	0.00
10	230	50	850	57	0.47	53	59	2655	18	1565	0.07
11	230	50	850	62	0.51	49	56	2150	33	1265	0.13
12	230	50	850	68	0.56	55	63	1530	46	900	0.18
13	230	50	700	27	0.23	50	57	2510	0	1480	0.00
14	230	50	700	32	0.26	48	55	2190	12	1290	0.05
15	230	50	700	35	0.28	44	51	1770	23	1040	0.09
16	230	50	700	38	0.31	50	58	1260	31	740	0.12

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 · q_V = Air flow
p_{fs} = Pressure increase

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