

A3G800-AN36-23

EC axial fan - HyBlade®

sickled blades (S series)



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Nominal data

Type	A3G800-AN36-23	
Motor	M3G112-GA	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	600
Power input	W	440
Current draw	A	1.9
Max. back pressure	Pa	70
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

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	42.6	27.1	31.1
Efficiency grade N		51.5	36	40
Power input P_{ed}	kW	0.39		
Air flow q_v	m ³ /h	9565		
Pressure increase p_{fs}	Pa	58		
Speed n	min ⁻¹	590		

Data definition with optimum efficiency.

The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

LU-126143



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Technical features

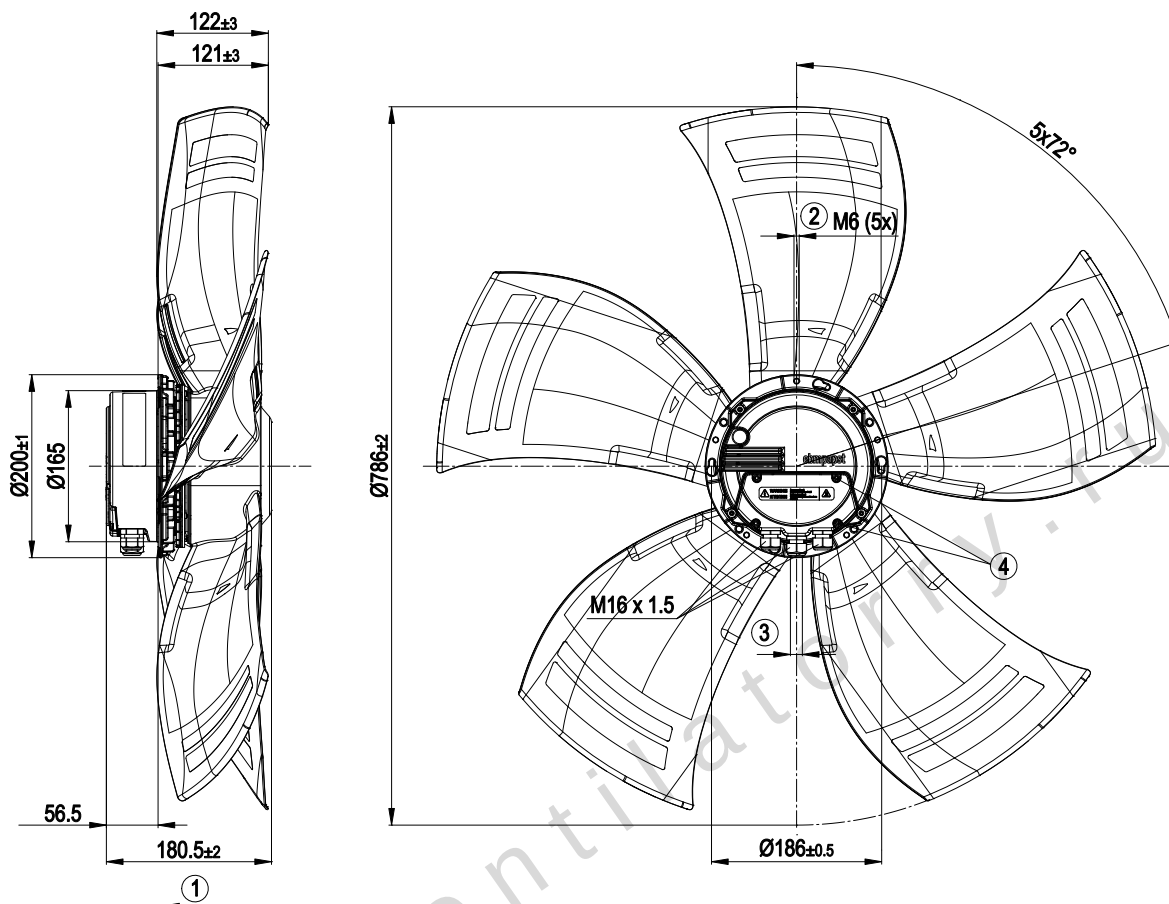
Mass	10.5 kg
Size	800 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Input for sensor 0-10 V or 4-20 mA - Alarm relay - Integrated PID controller - Motor current limit - PFC, active - 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 (industrial environment)
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
Electrical leads	Via terminal box
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

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Product drawing



1	Direction of air flow "V"
2	Depth of screw 12 - 16 mm
3	Cable diameter: min. 4 mm, max. 10 mm, tightening torque: 2.5±0.4 Nm
4	Tightening torque 3.5±0.5 Nm

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Terminal connections

KL3										KL2			KL1							
RS A	RS B	RS A	RS B	GND	0-10 V PWM	4-20 mA	+20 V	+10 V	0-10 V PWM	GND	OUT	NO	COM	NC		L		N		PE

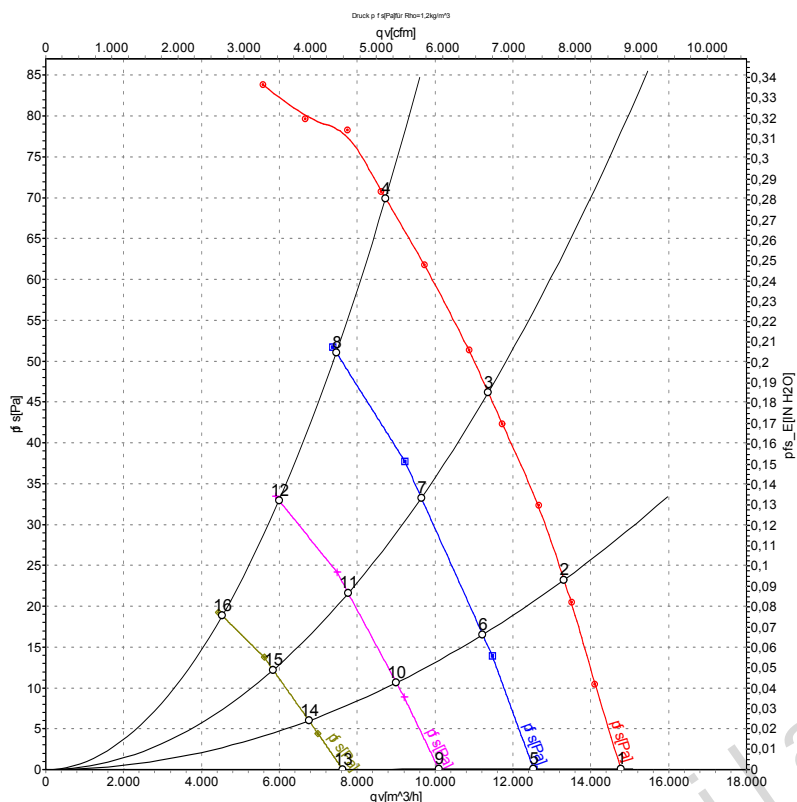
No.	Conn.	Designation	Function / assignment
PE		PE	Protective earth
KL1		N	Mains 50/60 Hz, neutral
KL1		L	Mains 50/60 Hz, phase
KL2		COM	Alarm relay, COMMON (2A, 250 VAC, AC1)
KL2		NC	Alarm relay, normally closed connection
KL2		NO	Alarm relay, close with error
KL3		+10 V	Supply for external potentiometer, 10 VDC (+10%) @ 10 mA
KL3		+20 V	Supply for external sensor, 20 VDC (±20%) @ 50 mA
KL3		0-10 V/PWM	Control / Actual sensor value input
KL3		0-10 V/PWM	Control / Actual sensor value input (impedance 100 kΩ)
KL3		4-20 mA	Control / Actual sensor value input
KL3		GND	GND
KL3		GND	GND
KL3		OUT	Master output 0-10 V max. 3 mA
KL3		RSA	RS485 interface for ebmBUS; RS A
KL3		RSA	RS485 interface for ebmBUS; RS A
KL3		RSB	RS485 interface for ebmBUS; RS B
KL3		RSB	RS485 interface for ebmBUS; RS B

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Charts: Air flow 50 Hz



Measurement: LU-119388
 Measurement: LU-120591
 Measurement: LU-120592
 Measurement: LU-120593

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}	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m³/h	Pa
1	230	50	600	288	1.27	57	64	63	14770	0
2	230	50	600	342	1.50	55	61	61	13310	23
3	230	50	600	382	1.68	53	59	59	11370	46
4	230	50	600	440	1.90	56	64	64	8730	70
5	230	50	500	171	0.77	53	60	59	12530	0
6	230	50	500	200	0.90	52	58	57	11230	16
7	230	50	500	228	1.01	49	56	55	9645	33
8	230	50	500	257	1.14	52	60	59	7460	51
9	230	50	400	95	0.47	49	55	54	10100	0
10	230	50	400	109	0.53	47	53	53	9005	11
11	230	50	400	123	0.58	44	51	51	7770	22
12	230	50	400	137	0.64	46	53	54	5990	33
13	230	50	300	48	0.30	41	48	49	7625	0
14	230	50	300	53	0.32	39	47	48	6760	6
15	230	50	300	60	0.34	39	45	47	5840	12
16	230	50	300	67	0.36	38	46	47	4530	19

U = Supply voltage · f = Frequency · n = Speed · 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
 qv = Air flow · p_{fs} = Pressure increase