W3G630-GQ37-23

EC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

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Nominal data

Type	**W3G630-GQ37-23**
Motor	**M3G112-GA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1000
Power consumption	W	720
Current draw	A	3.2
Max. back pressure	Pa	140
Max. back pressure	in. wg	0.56
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	44.1	32.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.4	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.69
09 Air flow q_v	m^3/h	8080
09 Pressure increase p_{fs}	Pa	124
10 Speed (rpm) n	min^{-1}	1005
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

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Technical description

Weight	25 kg
Size	630 mm
Motor size	112
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Fan housing material	Sheet steel, pre-galvanized and coated with black plastic
Guard grille material	Steel, phosphated and coated with black plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
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 limitation - PFC, active - RS-485 ebmBUS - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	EAC

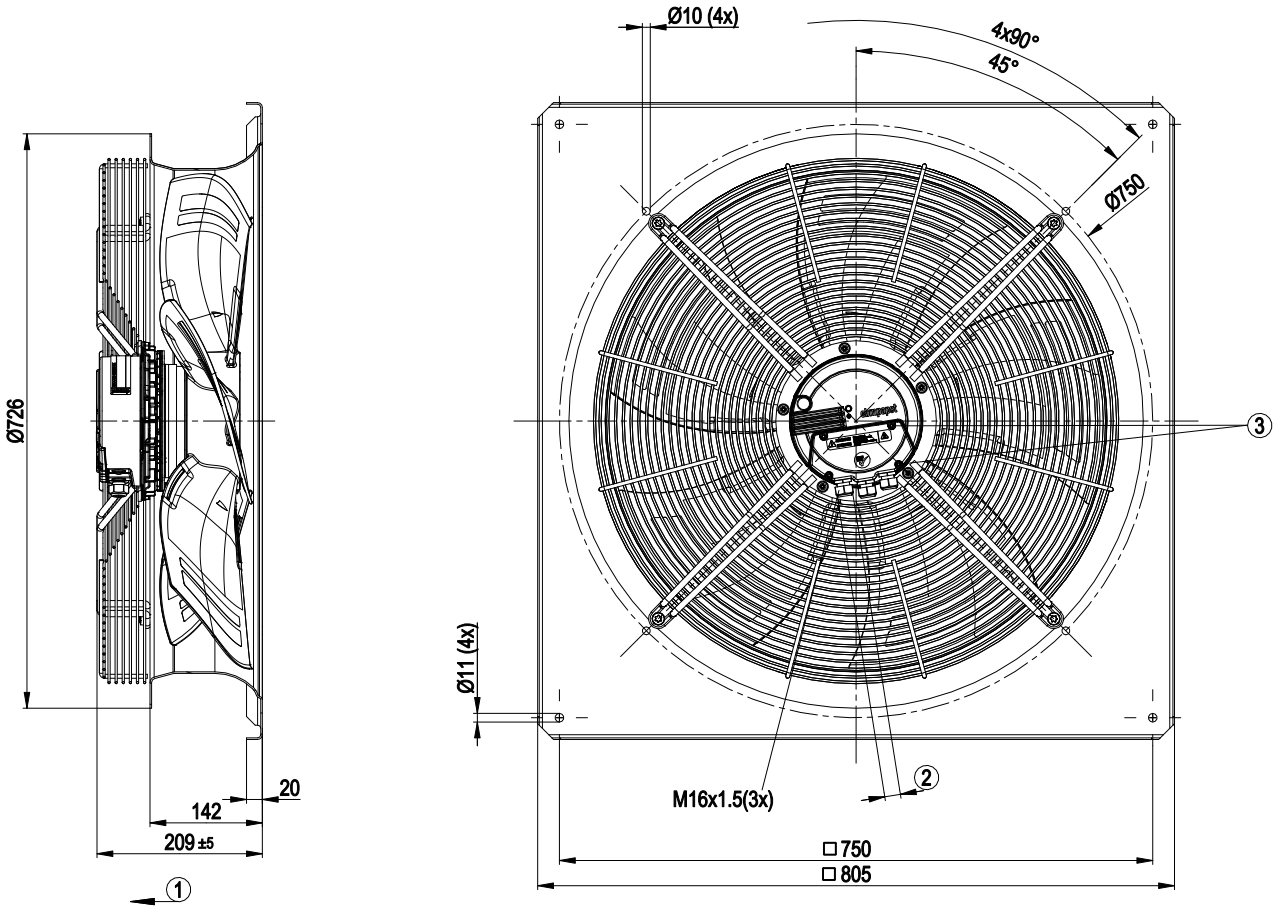
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Product drawing



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

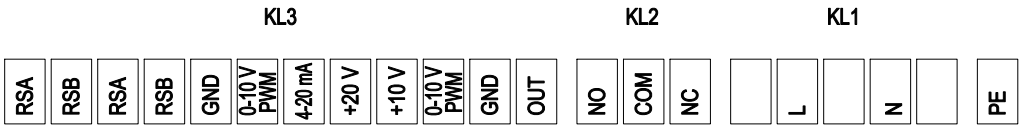
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Connection diagram



No.	Conn.	Designation	Function/assignment
PE		PE	Protective earth
KL1		N	Supply 50/60 Hz, neutral conductor
KL1		L	Supply 50/60 Hz, phase
KL2		COM	Alarm relay, common (2 A, 250 VAC, AC1)
KL2		NC	Alarm relay, break for failure
KL2		NO	Alarm relay, make for failure
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 / current sensor value input
KL3		0-10 V/PWM	Control / current sensor value input (impedance 100 kΩ)
KL3		4-20 mA	Control / current 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, RSA
KL3		RSA	RS485 interface for ebmBUS, RSA
KL3		RSB	RS485 interface for ebmBUS, RSB
KL3		RSB	RS485 interface for ebmBUS, RSB

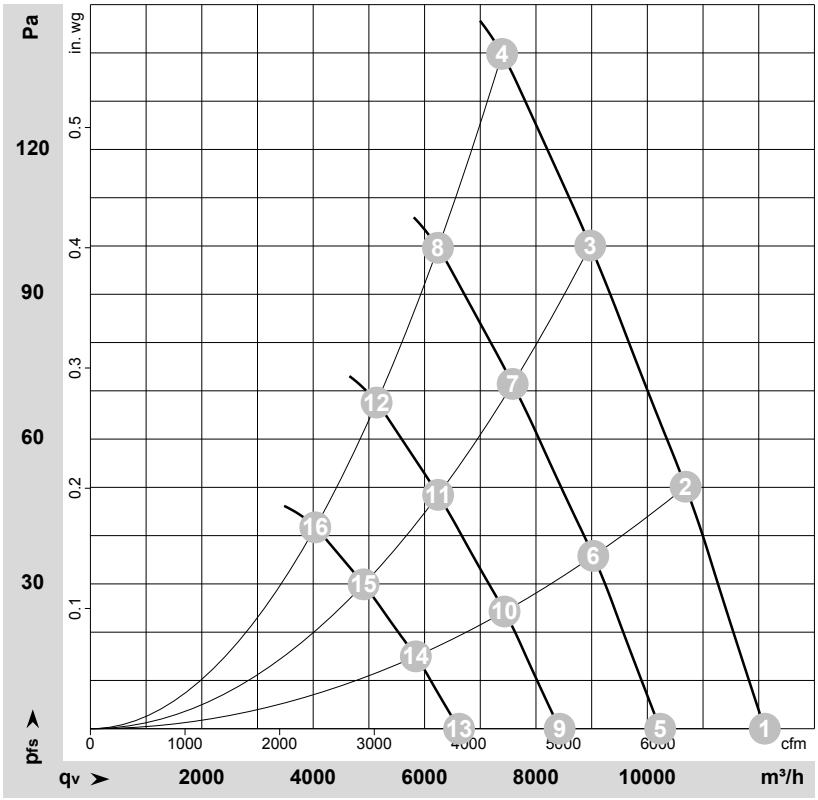
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-116825-1

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

	Wired	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	in. wg
1	1~	230	50	1000	462	2.11	65	71	71	12110	0	7125	0.00
2	1~	230	50	1000	562	2.55	61	68	67	10685	50	6290	0.20
3	1~	230	50	1000	657	2.96	63	69	68	8975	100	5280	0.40
4	1~	230	50	1000	720	3.20	65	71	71	7390	140	4350	0.56
5	1~	230	50	850	279	1.27	61	67	67	10230	0	6020	0.00
6	1~	230	50	850	339	1.54	57	64	63	9030	36	5315	0.14
7	1~	230	50	850	396	1.78	58	65	64	7580	72	4465	0.29
8	1~	230	50	850	436	1.95	60	67	67	6240	100	3675	0.40
9	1~	230	50	700	156	0.71	56	62	62	8425	0	4960	0.00
10	1~	230	50	700	189	0.86	52	59	58	7435	24	4375	0.10
11	1~	230	50	700	221	1.00	54	60	59	6245	49	3675	0.20
12	1~	230	50	700	243	1.09	55	62	62	5140	68	3025	0.27
13	1~	230	50	550	75	0.35	50	56	56	6620	0	3895	0.00
14	1~	230	50	550	92	0.42	46	53	52	5845	15	3440	0.06
15	1~	230	50	550	107	0.48	47	54	53	4905	30	2890	0.12
16	1~	230	50	550	118	0.53	49	56	56	4040	42	2375	0.17

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

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