W3G630-IU23-95

II 2 G Ex d e ib IIB T3 Gb

IBExU11ATEX1025 X /01

EC axial fan - HyBlade

sickle-shaped blades (S series)

with round full nozzle

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W3G630-IU23-95**
Motor	**M3G150-IF**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 440
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	1510
Power consumption	W	3160
Current draw	A	5.0
Max. back pressure	Pa	190
Max. back pressure	inH2O	0.76
Min. ambient temperature	°C	-55
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	44 kg
Fan size	630 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
Blade material	Sheet aluminum insert, sprayed with PP plastic
Support ring material	Steel, phosphated and coated with black plastic
Fan housing material	Sheet steel, pre-galvanized and coated with sky-blue plastic (RAL 5015)
Number of blades	5
Blade pitch	0°
Airflow direction	"V"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
Max. permitted ambient temp. for motor (transport/storage)	+60 °C
Min. permitted ambient temp. for motor (transport/storage)	Transport -40 °C / storage -55 °C
Installation position	Shaft horizontal with cable exit ±45° or rotor at bottom; rotor at top not permissible
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 - External 24 V input (parameter setting) - Alarm relay - Heating - Integrated PID controller - Motor current limitation - PFC, passive - RS-485 MODBUS-RTU - 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
Electric heating	24 V AC/DC (any polarity)
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Reverse polarity and locked-rotor protection
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE

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Approval	EAC; II 2G

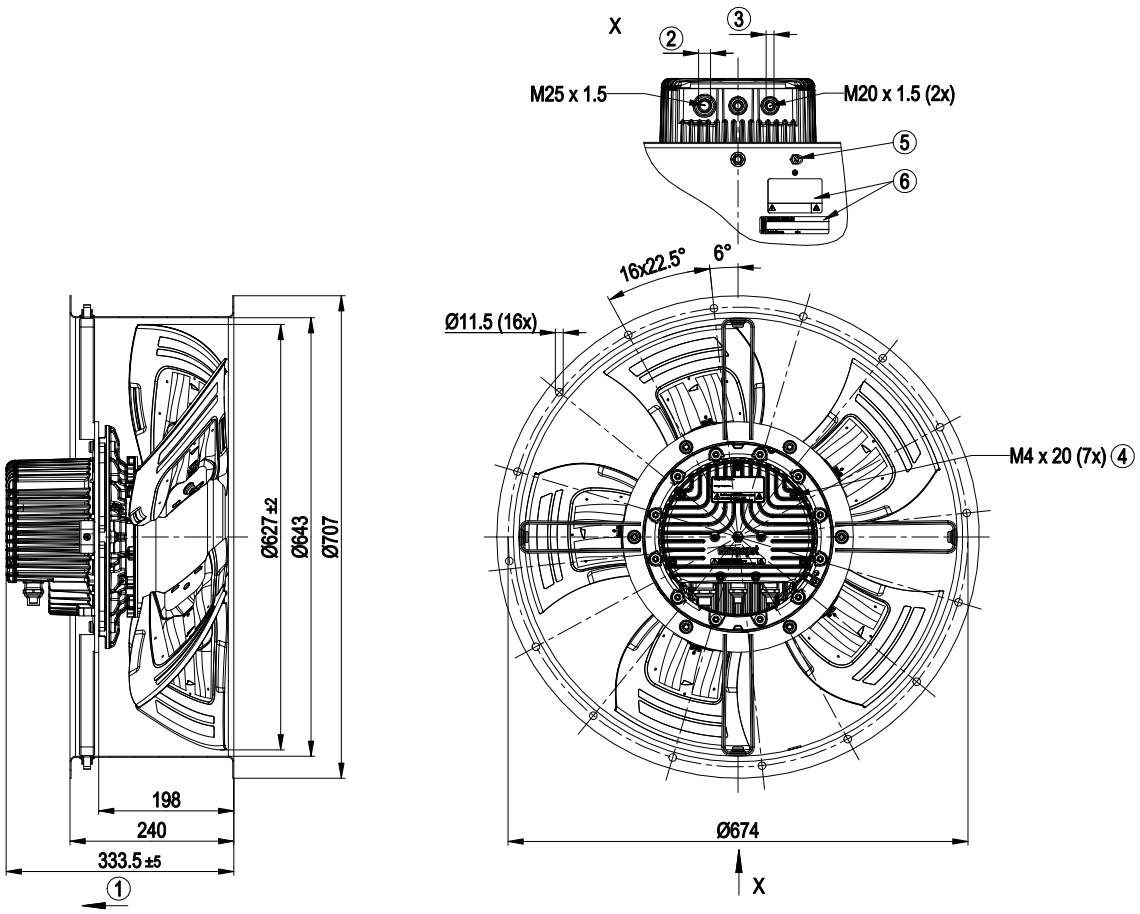
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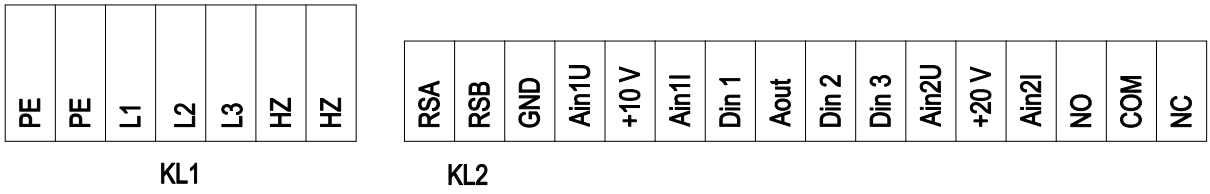
Product drawing



1	Direction of air flow "V"
2	M25 x 1.5 Cable diameter min. 10 mm, max. 16 mm, tightening torque 6±0.6 Nm; standard value depending on cable
3	M20 x 1.5 Cable diameter min. 10 mm, max. 14 mm, tightening torque 6±0.6 Nm; standard value depending on cable
4	Terminal box fastening screws, tightening torque 3.5 ± 0.5 Nm
5	Ground connection point M10 (functional ground for discharge of electrostatic charges, no protective earth)
6	Additional nameplate and warning sticker in Russian

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Connection diagram



No.	Conn.	Designation	Function/assignment
1		PE	Ground connection, PE connection
1		L1	Supply connection, power supply 3-phase 380-440 VAC, 50/60 Hz
1		L2	Supply connection, power supply 3-phase 380-440 VAC, 50/60 Hz
1		L3	Supply connection, power supply 3-phase 380-440 VAC, 50/60 Hz
1		HZ	Connection of external heating element, 24 V AC/DC, any polarity, max. start-up current 30 A
2		RSA	Bus connection RS485, RSA, MODBUS RTU; double terminal point (SELV)
2		RSB	Bus connection RS485, RSB, MODBUS RTU; double terminal point (SELV)
2		GND	Reference ground for control interface (SELV)
2		Ain1 U	Analog input 1 (set value), 0 - 10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain1I (SELV)
2		+10 V	Fixed voltage output 10 VDC, +10 V ±3%, max. 10 mA, short-circuit-proof power supply for external devices (e.g. pot) (SELV)
2		Ain1 I	Analog input 1 (set value); 4 - 20 mA; Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain1U (SELV)
2		Din 1	Digital input 1: enable electronics, enable: pin open or applied voltage 5...50 VDC: disable: bridge to GND or applied voltage < 1 VDC; reset function: triggers software reset after a level change to < 1 V (SELV)
2		Aout	Analog output 0 - 10 V; max. 5 mA; output of current motor modulation level / of the current motor speed. Adjustable curve. (SELV)
2		Din 2	Digital input 2: Switching parameter sets 1/2; according to EEPROM setting, the valid/used parameter set can be selected via bus or via digital input DIN 2. Parameter set 1: pin open or applied voltage 5-50 VDC; parameter set 2: bridge to GND or applied voltage < 1 VDC (SELV)
2		Din 3	Digital input 3: according to EEPROM setting, the integrated controller's direction of action can be selected as normal/inverse via bus or digital input. Normal: pin open or applied voltage 5...50 VDC inverse: bridge to GND or applied voltage < 1 VDC (SELV)
2		Ain2 U	Analog input 2 (measured value), 0 - 10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain2I (SELV)
2		+20 V	Fixed voltage output 20 VDC; +20 V + 25 / - 10%, max. 50 mA, short-circuit-proof power supply for external devices (e.g. sensors) (SELV)
2		AIN2 I	Analog input 2 (measured value); 4 - 20 mA; Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain2U (SELV)
2		NO	Status relay, floating status contact; make for failure
2		COM	Status relay, floating status contact, common connection, changeover contact; contact rating 250 VAC / 2A (AC1)
2		NC	Status relay; floating status contact, break for failure

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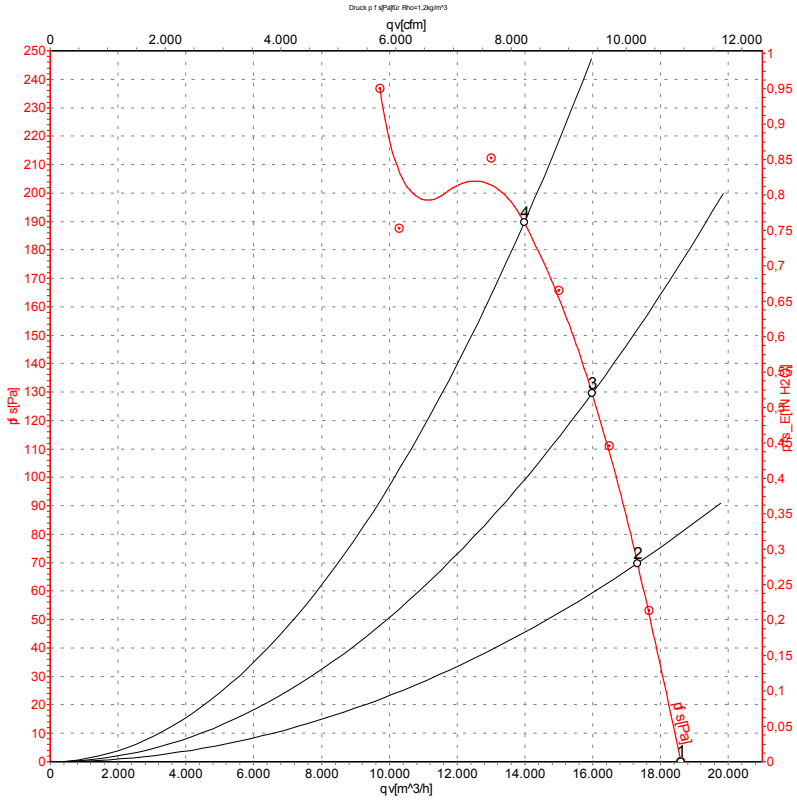
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Curves: Air performance 50 Hz



Measurement: LU-132025-1

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	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	400	50	1510	2745	4.48	82	90	90	18600	0	10950	0.00
2	400	50	1510	2883	4.63	83	90	90	17320	70	10195	0.28
3	400	50	1510	3160	5.00	83	91	91	15980	130	9405	0.52
4	400	50	1510	2907	4.69	86	93	93	13980	190	8230	0.76

U = Power supply · 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 · qv = Air flow · p_{fs} = Pressure increase

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