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Nominal data

Type	W3G800-FL10-36		
Motor	M3G150-NA		
Phase		3~	3~
Nominal voltage	VAC	400	400
Nominal voltage range	VAC	380 .. 480	380 .. 480
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	ml
Speed (rpm)	min ⁻¹	2020	2100
Power consumption	W	4600	5300
Current draw	A	7.0	8.1
Max. back pressure	Pa	500	540
Max. back pressure	in. wg	2.01	2.17
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	50

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}	%	48	38.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		49.8	40
05 Variable speed drive		Yes	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_{ed}	kW	5.21
09 Air flow q_v	m³/h	21245
09 Pressure increase p_{fs}	Pa	408
10 Speed (rpm) n	min ⁻¹	2100
11 Specific ratio*		1.00

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

LU-194902



Technical description

Weight	51 kg
Size	800 mm
Motor size	150
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
Blade material	Die-cast aluminum, painted silver
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	4
Blade pitch	23.5°
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2+C
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	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 for slave 0-10 V - External 24 V input (parameter setting) - External release input - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, passive - RS-485 MODBUS-RTU - Soft start - Control input 0-10 VDC - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
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	Reverse polarity and locked-rotor protection

W3G800-FL10-36

EC axial fan

Airfoil blade

Fan housing with guard grille

Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	UL 1004-7 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1; EAC

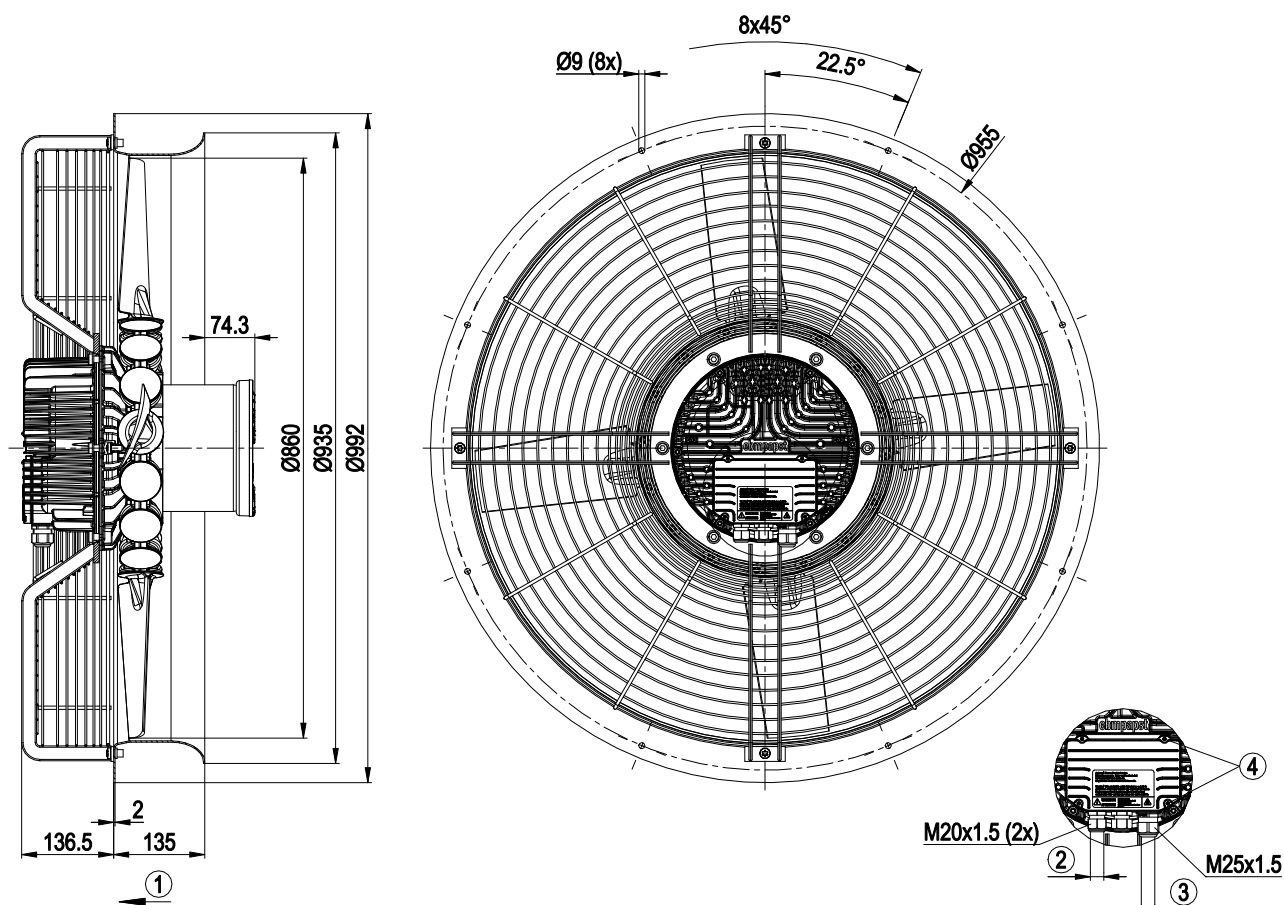


EC axial fan

Airfoil blade

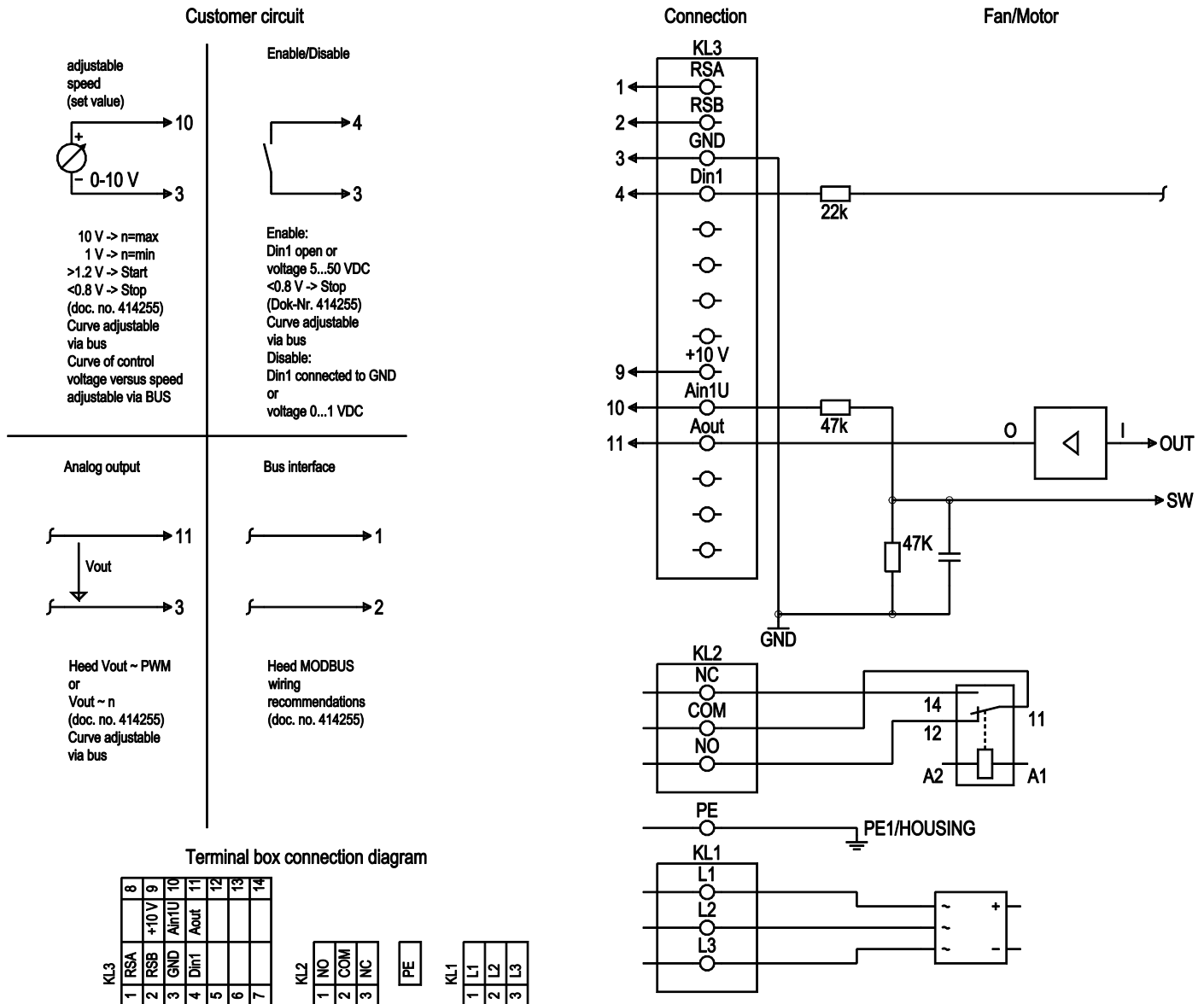
Fan housing with guard grille

Product drawing



1	Airflow direction "V"
2	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
3	Cable diameter min. 9 mm, max. 16 mm, tightening torque 6 ± 0.9 Nm
4	Tightening torque 3.5 ± 0.5 Nm

Connection diagram



No.	Conn.	Designation	Function/assignment
KL 1	1, 2, 3	L1, L2, L3	Power supply, phase, see nameplate for voltage range
PE	PE	PE	Protective earth
KL2	1	NO	Status relay, floating status contact, option 1: make for failure, option 2: make for error for run monitor
KL2	2	COM	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) / min. 10 mA; basic insulation on supply side and reinforced insulation on control interface side
KL2	3	NC	Status relay, floating status contact, option 1: break for failure, option 2: break for error message for run monitor
KL 3	1	RSA	RS485 interface for MODBUS, RSA; SELV
KL 3	2	RSB	RS485 interface for MODBUS, RSB; SELV
KL 3	3	GND	Reference ground for control interface; SELV
KL 3	4	Din1	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 VDC; SELV

EC axial fan

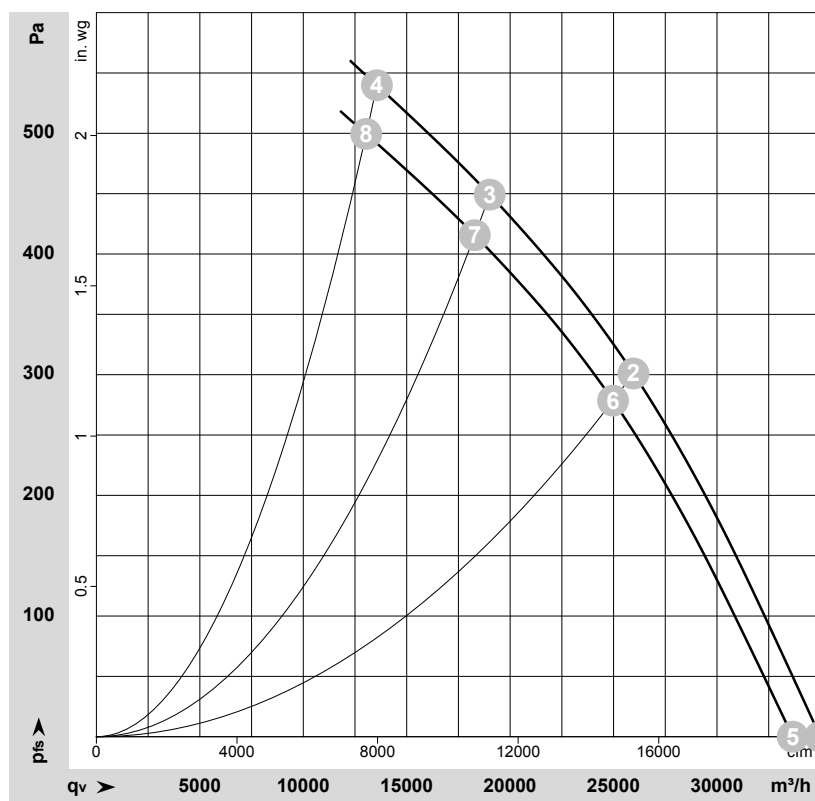
Airfoil blade

Fan housing with guard grille

No.	Conn.	Designation	Function/assignment
KL 3	-	-	-
KL 3	-	-	-
KL3	-	-	-
KL3	-	-	-
KL 3	9	10 V / max. 10 mA	Voltage output, power supply for external devices (e.g. potentiometers), SELV
KL 3	10	Ain1 U	Analog input 1, set value: 0-10 V, Ri = 100 kΩ, adjustable curve; SELV
KL 3	11	Aout	Analog output 0-10 VDC, max. 5 mA, output of current motor modulation level / motor speed adjustable curve; SELV
KL 3	-	-	-
KL 3	-	-	-
KL 3	-	-	-



Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-194902-1
Measurement: LU-195263-1

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	3~	400	50	2100	4454	6.82	105	110	110	34995	0	20595	0.00
2	3~	400	50	2100	5300	8.10	103	108	108	25965	300	15280	1.20
3	3~	400	50	2100	5132	7.83	107	113	112	19015	450	11190	1.81
4	3~	400	50	2100	5000	7.64	105	111	110	13560	540	7980	2.17
5	3~	400	50	2020	3964	6.07	104	109	109	33660	0	19810	0.00
6	3~	400	50	2020	4600	7.00	102	107	107	24975	279	14700	1.12
7	3~	400	50	2020	4567	6.97	106	112	111	18290	416	10765	1.67
8	3~	400	50	2020	4453	6.81	104	110	109	13045	500	7675	2.01

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