

Nominal data

Type	K3G400-RS03-H5	
Motor	M3G084-FA	
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	1450
Power consumption	W	500
Current draw	A	2.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	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}	%	63.8	48
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		77.8	62
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	0.46
09 Air flow q_v	m ³ /h	3060
09 Pressure increase p_{fs}	Pa	316
10 Speed (rpm) n	min ⁻¹	1450
11 Specific ratio*		1.00

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

LU-195014

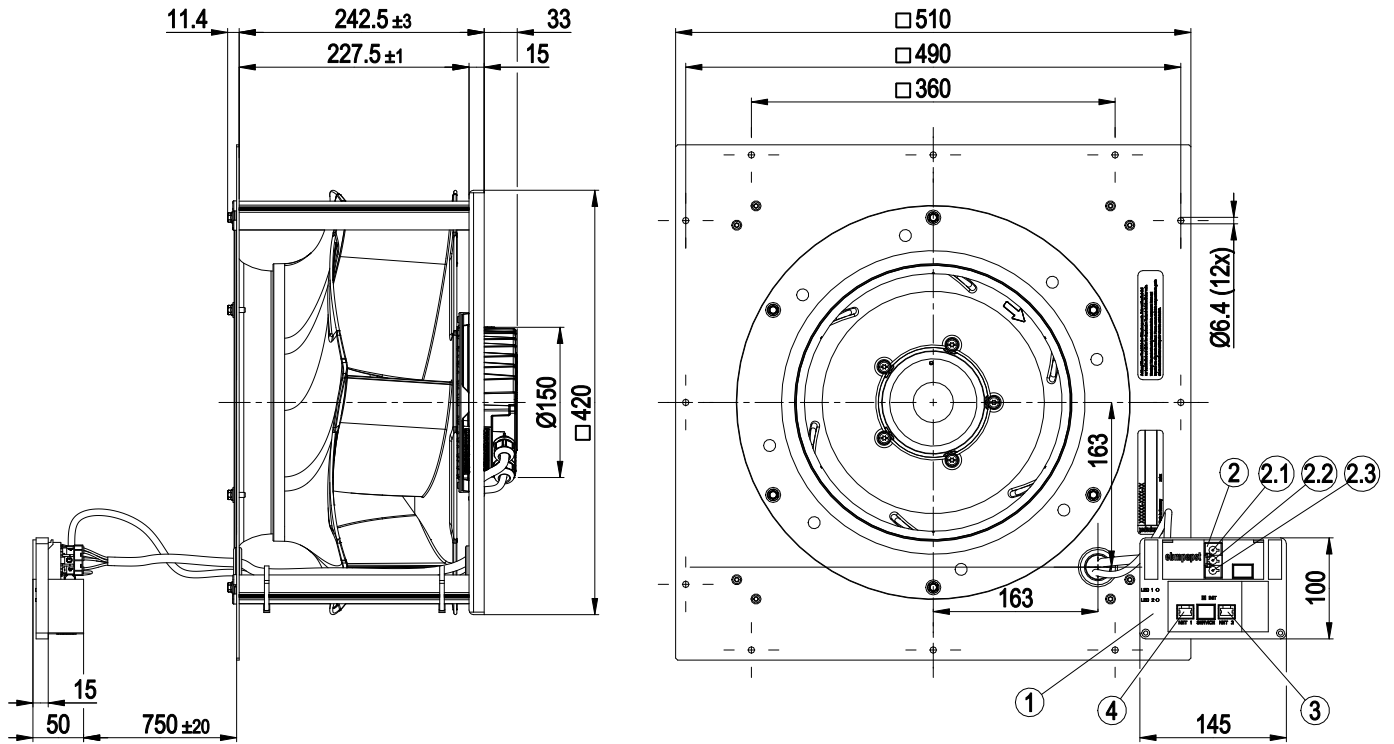


Technical description

Weight	9.7 kg
Size	400 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Support plate material	Sheet aluminum
Spacer material	Aluminum
Inlet nozzle material	ABS plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP55, electronics IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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 top; rotor on bottom on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display with LED - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, active - RS-485 MODBUS-RTU - Soft start - Control input 0-10 VDC / PWM - 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 circuit feedback	According to EN 61000-3-2/3
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	Connector with cable
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	UL 1004-7 + 60730-1; EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1

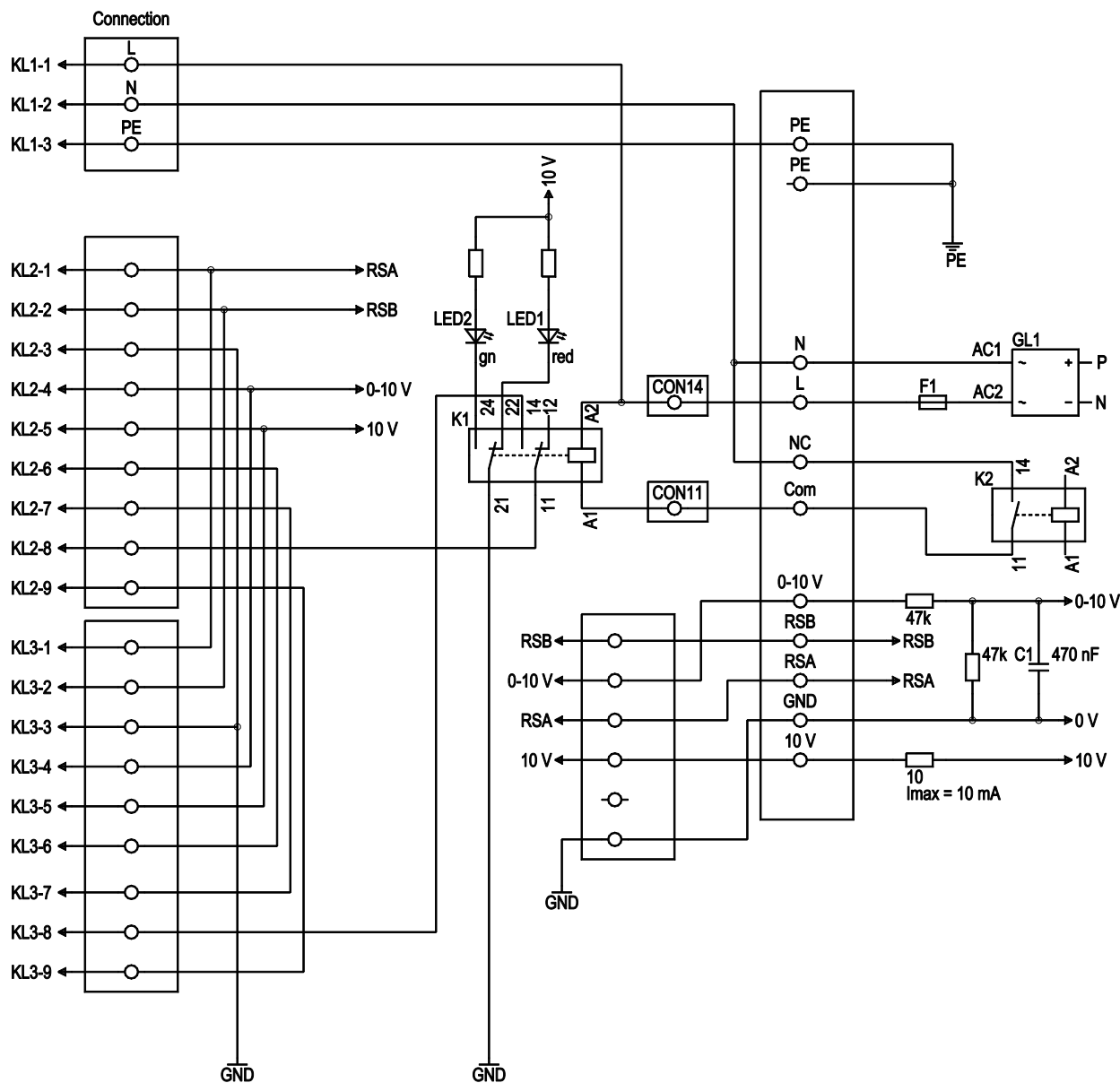


Product drawing



1	Terminal box
2	Connector housing 3-pole GST18/3 Wieland 92.032.9058.1
2.1	N
2.2	PE
2.3	L
3	8-pole socket housing tyco 100616-2
4	8-pole socket housing tyco 100616-2

Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	L	black	Supply connection, power supply single-phase 200-277 VAC, 50/60 Hz
1	2	N	blue	Power supply, single-phase 200-277 VAC, 50/60 Hz
1	3	PE	green/yellow	Ground connection
2	1	RSA	-	Bus connection RS485, RSA, MODBUS-RTU; SELV
2	2	RSB	-	Bus connection RS485, RSB, MODBUS-RTU; SELV
2	3	GND	-	Reference ground for control interface; SELV
2	4	0-10 V	-	Control input
2	5	+10 V	-	Fixed voltage output 10 VDC
2	6	RES	-	Reserve
2	7	COM*	-	Alarm COM*
2	8	NC	-	NC KL2 UMAX 24 V
2	9	Schirm	-	Shield

EC centrifugal module - RadiCal

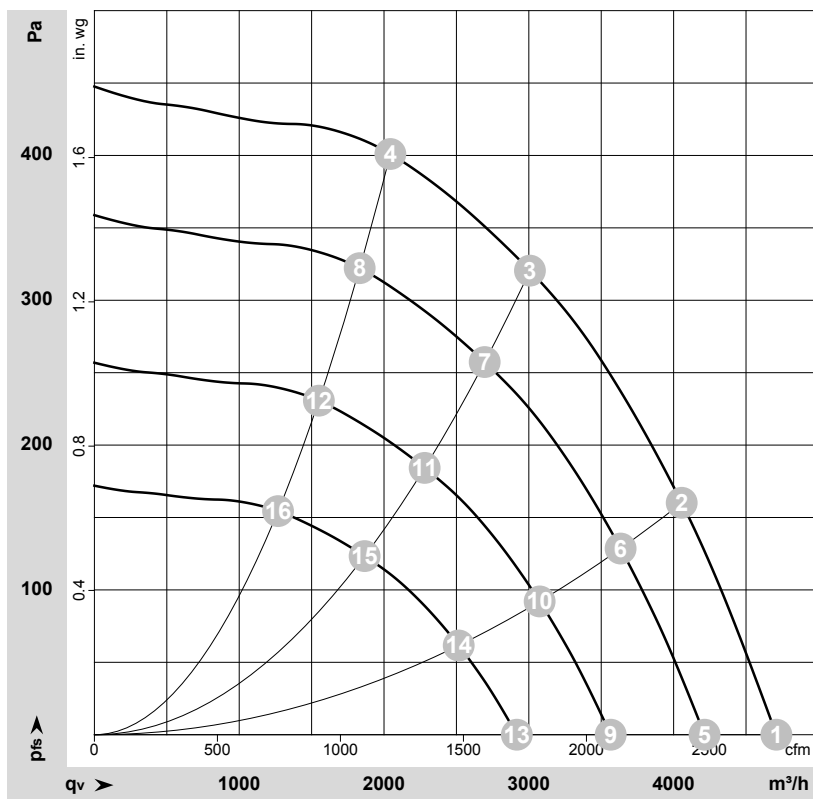
backward-curved, single-intake

with support plate

No.	Conn.	Designation	Color	Function/assignment
3	1	RSA	-	Bus connection RS485, RSA, MODBUS-RTU; SELV
3	2	RSB	-	Bus connection RS485, RSB, MODBUS-RTU; SELV
3	3	GND	-	Reference ground for interface; SELV
3	4	0-10 V	-	Control input
3	5	+10 V	-	Fixed voltage output 10 VDC
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Curves: Air performance 50 Hz



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

Measurement: LU-195014-1

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	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	m ³ /h	Pa	cfm	in. wg
1	1~	230	50	1450	306	1.36	4710	0	2770	0.00
2	1~	230	50	1450	415	1.82	4055	160	2385	0.64
3	1~	230	50	1450	500	2.20	3010	320	1770	1.28
4	1~	230	50	1450	431	1.89	2045	400	1205	1.61
5	1~	230	50	1300	219	0.97	4215	0	2480	0.00
6	1~	230	50	1300	298	1.31	3635	129	2140	0.52
7	1~	230	50	1300	335	1.47	2695	258	1585	1.04
8	1~	230	50	1300	310	1.36	1830	322	1080	1.29
9	1~	230	50	1100	133	0.59	3565	0	2100	0.00
10	1~	230	50	1100	181	0.79	3075	92	1810	0.37
11	1~	230	50	1100	203	0.89	2280	184	1345	0.74
12	1~	230	50	1100	188	0.82	1550	231	910	0.93
13	1~	230	50	900	73	0.32	2915	0	1715	0.00
14	1~	230	50	900	99	0.43	2515	62	1480	0.25
15	1~	230	50	900	111	0.49	1865	123	1100	0.49
16	1~	230	50	900	103	0.45	1270	154	745	0.62

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase

