

EC centrifugal module - RadiPac

backward curved, single inlet

in cube design

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Nominal data

Type	K3G800-AQ06-19	
Motor	M3G200-QA	
Phase		3~
Nominal voltage	VAC	200
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
State		prelim.
Speed	min ⁻¹	940
Power input	W	5620
Current draw	A	17.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations



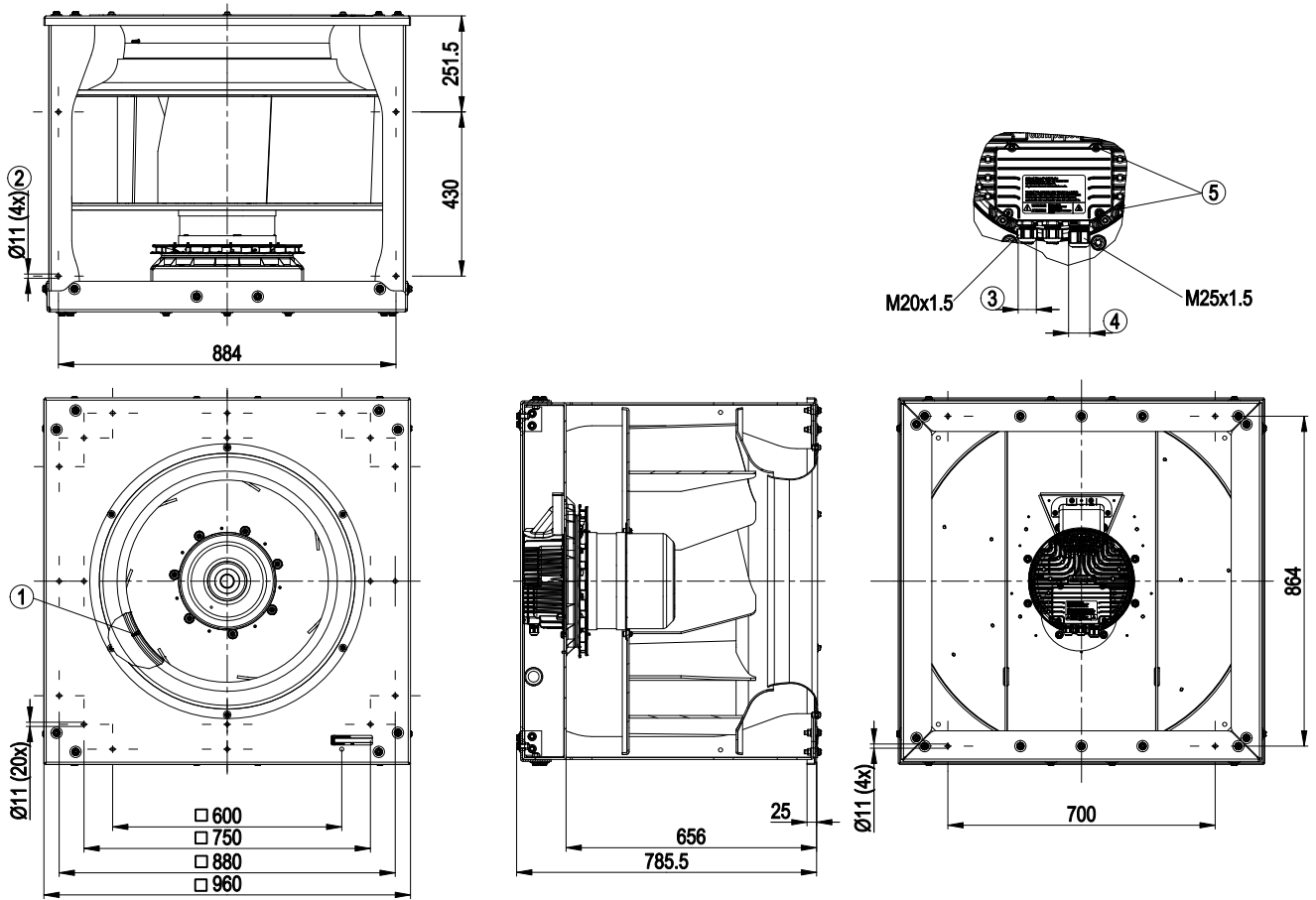
Technical features

Mass	180 kg
Size	800 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Material of inlet nozzle	Sheet steel, galvanised and plastic-coated in light grey (RAL 7035)
Material of support structure	Sheet steel, galvanised and plastic-coated in light grey (RAL 7035)
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
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 (only base mounting) or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	<ul style="list-style-type: none"> - 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 (programming) - External release input - Alarm relay - Integrated PID controller - Motor current limit - PFC, passive - RS485 MODBUS RTU - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Reverse polarity and locked-rotor protection
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE

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Product drawing



1	Inlet nozzle with pressure tap (k-factor: 695)
2	Screw-on position for vibration-absorbing elements
3	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4±0.6 Nm
4	Cable diameter min. 9 mm, max. 16 mm, tightening torque 6±0.9 Nm
5	Tightening torque 3.5±0.5 Nm



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Connection screen

	8	Din 2
	9	Din 3
	10	GND
	11	Ain 2 U
	12	+ 20 V
	13	Ain 2 I
	14	Aout
1	RSA	
2	RSB	
3	GND	
4	Ain 1 U	
5	+ 10 V	
6	Ain 1 I	
7	Din 1	

KL 3

1	NO
2	COM
3	NC

KL 2

PE

PE

1	L1
2	L2
3	L3

KL 1

No.	Conn.	Designation	Function / assignment
KL 1	1	L1	Mains supply connection, supply voltage 3~200-240 VAC; 50/60 Hz
KL 1	2	L2	Mains supply connection, supply voltage 3~200-240 VAC; 50/60 Hz
KL 1	3	L3	Mains supply connection, supply voltage 3~200-240 VAC; 50/60 Hz
PE		PE	Earth connection, PE connection
KL 2	1	NO	Status relay, floating status contact; normally open; close with error
KL2	2	COM	Status relay; floating status contact; changeover contact; common connection; contact rating 250 VAC / max. 2 A (AC1) / min. 10 mA
KL2	3	NC	Status relay, floating status contact; break with error
KL 3	1	RSA	Bus connection RS-485, RSB, MODBUS RTU; SELV
KL 3	2	RSB	Bus connection RS-485, RSA, MODBUS RTU; SELV
KL 3	3 / 10	GND	Signal ground for control interface; SELV
KL 3	4	Ain1 U	Analogue input 1, set value: 0-10 V, Ri = 100 kΩ, parametrisable curve, only usable as alternative to input Ain1; SELV
KL 3	5	+ 10 V	Fixed voltage output 10 VDC, +10 V ±3%, max. 10 mA, short-circuit-proof, power supply for external devices (e.g. potentiometer), SELV
KL 3	6	Ain1 I	Analogue input 1, set value: 4-20 mA; Ri = 100 Ω, parametrisable curve, only usable as alternative to input Ain1 U; SELV
KL 3	7	Din1	Digital input 1: enabling of electronics, enabling: open pin or applied voltage 5-50 VDC disabling: bridge to GND or applied voltage <1 VDC reset function: triggers software reset after a level change to <1 VDC; SELV
KL 3	8	Din2	Digital input 2: parameter set switch 1/2, according to EEPROM setting, the valid/used parameter set can be selected via bus or via digital input DIN2. Parameter set 1: open pin or applied voltage 5-50 VDC Parameter set 2: bridge to GND or applied voltage <1 VDC; SELV
KL 3	9	Din3	Digital input 3: controller function of integrated controller, according to EEPROM setting, the controller function of the integrated controller is normally/inversely selectable per bus or per digital input normal: open pin or applied voltage 5-50 VDC inverse: bridge to GND or applied voltage <1 VDC; SELV
KL 3	11	Ain2 U	Analogue input 2, actual value: 0-10 V, Ri = 100 kΩ, parametrisable curve, only usable as alternative to input Ain2; SELV
KL 3	12	+ 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



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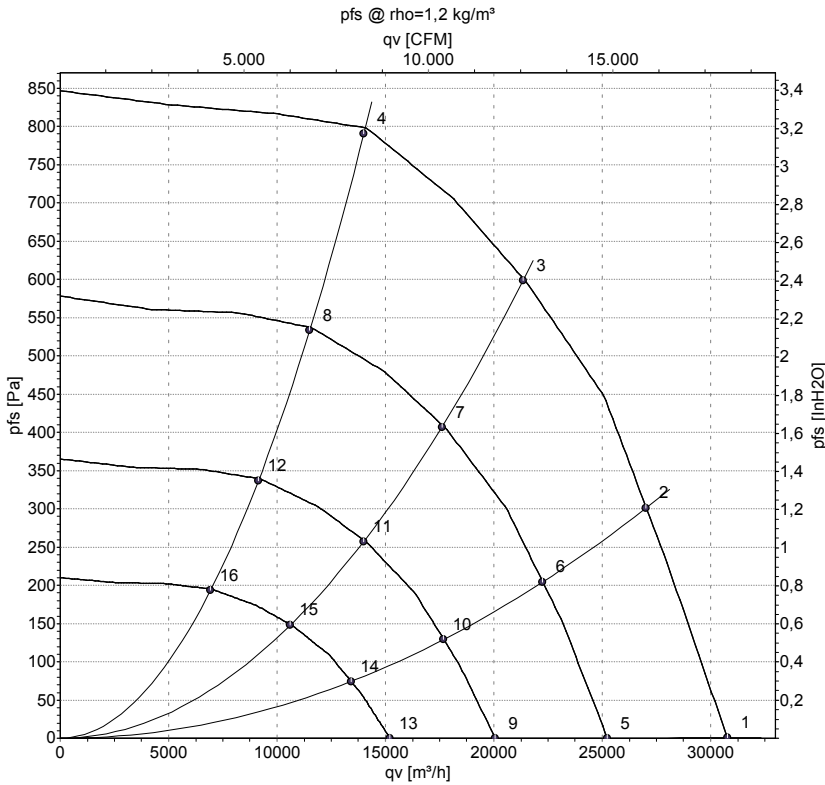
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No.	Conn.	Designation	Function / assignment
KL 3	13	Ain2 I	Analogue input 2, actual value: 4-20 mA, $R_i = 100 \Omega$, parametrisable curve, only usable as alternative to input Ain2 U; SELV
KL 3	14	Aout	Analogue output 0-10 VDC, max. 5 mA, output of the current motor level control coefficient / motor speed parametrisable curve; SELV



Charts: Air flow 50 Hz



Measurement: LU-159265

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)	m ³ /h	Pa
1	200	50	940	3588	11.17	84	92	94	30785	0
2	200	50	940	4828	14.82	79	87	90	27035	300
3	200	50	940	5620	17.40	76	83	87	21355	600
4	200	50	940	5350	16.23	76	83	87	14010	800
5	200	50	780	1980	6.16	79	87	89	25250	0
6	200	50	780	2698	8.28	74	82	85	22255	205
7	200	50	780	3195	9.70	71	78	82	17615	410
8	200	50	780	2956	8.96	71	78	82	11510	537
9	200	50	620	994	3.10	73	81	84	20070	0
10	200	50	620	1355	4.16	68	76	80	17690	129
11	200	50	620	1605	4.87	66	72	76	14000	259
12	200	50	620	1484	4.50	65	72	76	9145	339
13	200	50	470	433	1.35	66	74	77	15215	0
14	200	50	470	590	1.81	61	69	73	13410	74
15	200	50	470	699	2.12	59	65	69	10615	149
16	200	50	470	647	1.96	58	65	69	6935	195

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

