K3G355-PJ76-03

EC centrifugal module - RadiPac

backward curved, single inlet

with support bracket

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Nominal data

Type	**K3G355-PJ76-03**
Motor	**M3G112-EA**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
State		prelim.
Speed (rpm)	min^{-1}	2400
Power input	W	1100
Current draw	A	1.7
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	70.3	51.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		80.5	62
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	1.06
09 Air flow q_v	m^3/h	3660
09 Pressure increase p_{fs}	Pa	681
10 Speed (rpm) n	min^{-1}	2405
11 Specific ratio*		1.01

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-176926

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Technical features

Mass	16.4 kg
Size	355 mm
Surface of rotor	Coated in black
Material of terminal box	PP plastic
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Material of mounting plate	Sheet steel, galvanised
Material of support bracket	Steel, coated in black
Number of blades	5
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 55
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Refer to product drawing
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Output 10 VDC, max. 10 mA - Operation and alarm display - Alarm relay - Integrated PID controller - Output limit - Motor current limit - PFC, passive - RS485 MODBUS RTU - Soft start -Maximum EEPROM write cycles 100,000 - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Temperature derating - 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	Thermal overload protector (TOP) wired internally
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	C22.2 Nr.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730; EAC
Remark	Standard conformity as per EN 60335-1 in preparation

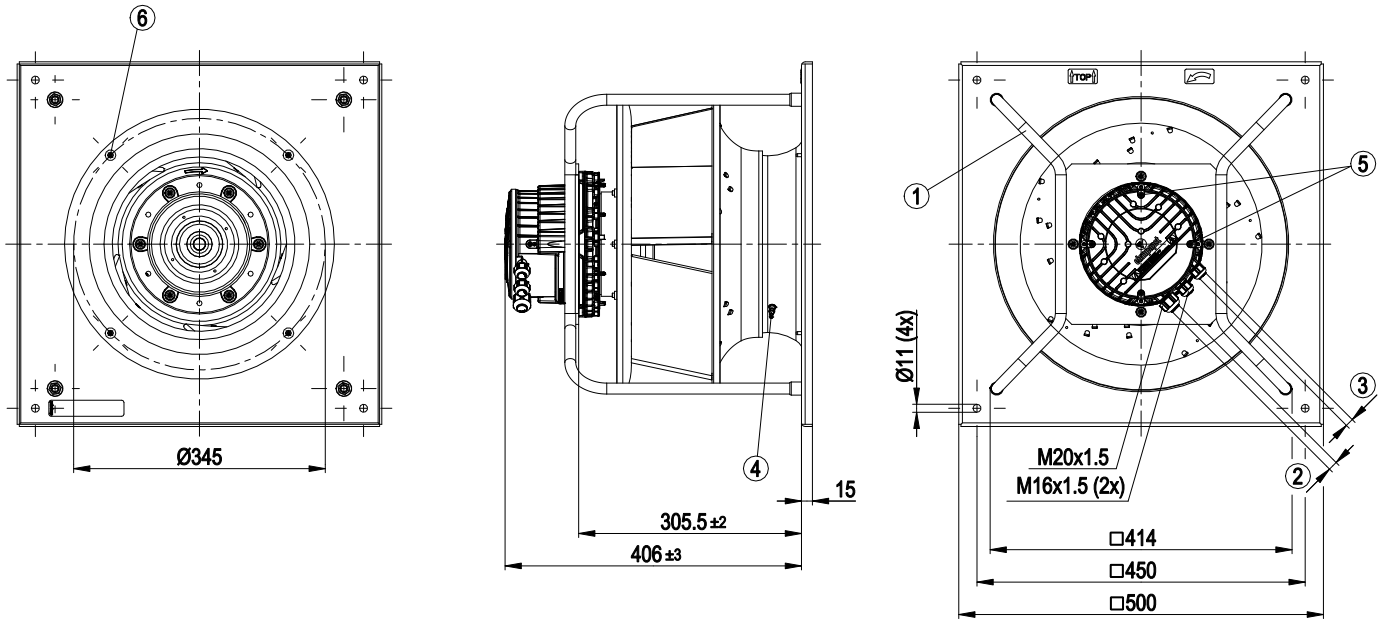
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Product drawing



1	Installation position: Shaft horizontal (install the support struts only vertically as shown in the illustration!) or rotor on bottom; rotor on top on request
2	Cable diameter min. 8 mm, max. 12 mm, tightening torque 2.5±0.4 Nm
3	Cable diameter min. 6 mm, max. 10 mm, tightening torque 2.5±0,4 Nm Cable diameter min. 4 mm, max. 7 mm, tightening torque 2.5±0.4 Nm (use must be made of sealing ring provided)
4	Inlet nozzle with pressure tap (k-factor: 148)
5	Tightening torque 3.5±0.5 Nm
6	Mounting for inlet nozzle and FlowGrid

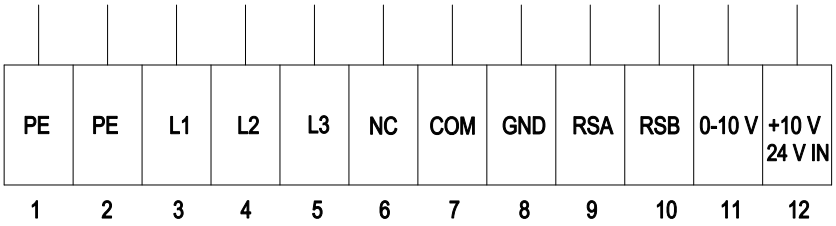
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Connection screen



No.	Conn.	Designation	Function / assignment
	1	PE	Protective earth
	2	PE	Protective earth
	3	L1	Power supply
	4	L2	Power supply
	5	L3	Power supply
	6	NC	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) / min. 10 mA; reinforced insulation on mains side and basic insulation on control interface side
	7	COM	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) / min. 10 mA; reinforced insulation on mains side and basic insulation on control interface side
	8	GND	Signal ground for control interface, SELV
	9	RSA	RS-485 interface for MODBUS, RSA; SELV
	10	RSB	RS-485 interface for MODBUS, RSB; SELV
	11	0-10 V	Analogue input (set value) SELV, 0-10 V, Ri=100kΩ, parametrisable curve
	12	+10 V	Fixed voltage output 10 VDC, SELV, +10 V +/-3%, max. 10 mA short-circuit-proof, power supply for ext. devices (e.g. potentiometer); Fixed voltage input 24 VDC for parameter setting via MODBUS without mains power supply

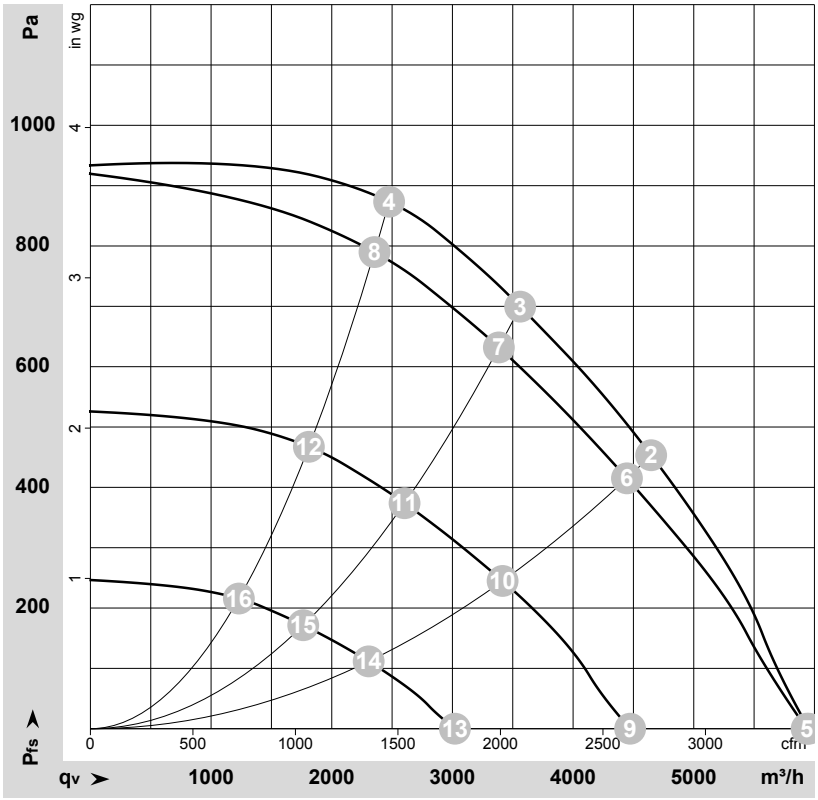
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-176926-1

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}	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	inH2O
1	400	50	2400	572	0.91	79	86	88	5955	0	3505	0.00
2	400	50	2400	978	1.51	69	77	82	4645	450	2735	1.81
3	400	50	2400	1100	1.70	68	75	80	3560	700	2095	2.81
4	400	50	2400	1054	1.62	73	80	84	2475	875	1455	3.51
5	400	50	2395	573	0.92	78	85	87	5935	0	3495	0.00
6	400	50	2300	866	1.34	68	76	81	4445	415	2615	1.67
7	400	50	2280	915	1.41	66	74	79	3385	632	1990	2.54
8	400	50	2285	905	1.40	72	78	82	2355	797	1385	3.20
9	400	50	1810	270	0.50	68	77	79	4475	0	2635	0.00
10	400	50	1770	413	0.69	62	70	75	3415	245	2010	0.98
11	400	50	1755	435	0.72	60	68	73	2605	374	1530	1.50
12	400	50	1755	433	0.72	64	71	76	1810	473	1065	1.90
13	400	50	1230	109	0.28	62	69	72	3020	0	1780	0.00
14	400	50	1200	152	0.33	53	62	67	2305	112	1355	0.45
15	400	50	1195	161	0.35	51	59	65	1765	172	1040	0.69
16	400	50	1195	162	0.35	53	61	67	1230	219	725	0.88

U = Supply voltage · f = Frequency · n = Speed (rpm) · 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
q_V = Air flow · p_{fs} = Pressure increase

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