

KARTA KATALOGOWA

K3G355-PH49-05

Moduł wentylatora promieniowego EC RadiPac, łopatki zakrzywione do tyłu, jednostronnie ssący, z ramą wsporczą

Producent: ebm-papst



Zdjęcie poglądowe

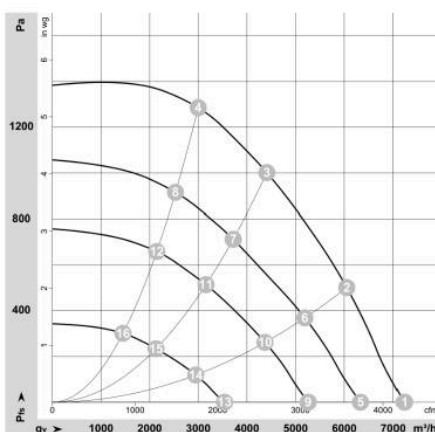
Dane znamionowe	
Napięcie znamionowe	3~ 400 V (380...480 V)
Częstotliwość	50/60 Hz
Prędkość obrotowa	2870 obr/min
Pobór mocy	1900 W
Pobór prądu	3 A
Maks. wydajność	7200 m³/h
Maks. ciśnienie statyczne	1390 Pa
Temperatura otoczenia	-25...+55 °C
Regulacja obrotów	0-10 V / PWM, MODBUS RTU

Dane ErP (UE 327/2011)	
Sprawność całkowita	68,8 %
Przepływ w pkt. optymalnym	4470 m³/h
Przyrost ciśnienia	991 Pa
Regulacja prędkości (ErP)	tak

Budowa	
Wielkość	355 mm
Silnik	M3G112-GA
Materiał wirnika	blacha aluminiowa
Obudowa elektroniki	odlew aluminiowy
Liczba łopatek	5
Kierunek obrotów	w prawo, patrząc na wirnik
Stopień ochrony	IP54
Klasa izolacji	B
Zabezpieczenie silnika	termik (TOP), podłączony wewnętrznie
Łożyskowanie	kulkowe
Podłączenie	skrzynka zaciskowa
Masa	24,5 kg

Charakterystyka przepływowa (50 Hz)

Charts: Air flow 50 Hz



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

Measurement: LU-174051-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Directional noise levels: LWA measured as per ISO 13347 / LpA measured with 1m distance to fan unit. 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 setup, the specific values have to be checked and reviewed with the unit installed.

Dane na okładce wg karty katalogowej producenta ebm-papst (oryginał na kolejnych stronach).
Wartości przy maksymalnym obciążeniu; producent zastrzega możliwość zmian.

Dobór, wycena i dostawa – zapytaj LUFTBERG

tel. +48 600 100 371 · tel. +48 604 959 199
biuro@luftberg.pl · www.luftberg.pl

K3G355-PH49-05

EC centrifugal module - RadiPac

backward curved, single inlet
with support bracket

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

Nominal data

Type	K3G355-PH49-05	
Motor	M3G112-GA	
Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min ⁻¹	2870
Power input	W	1900
Current draw	A	3
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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}	%	68.8	54.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		76.4	62
05 Variable speed drive		Yes	

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

09 Power input P_{ed}	kW	1.89
09 Air flow q_v	m³/h	4470
09 Pressure increase p_{fs}	Pa	991
10 Speed (rpm) n	min ⁻¹	2895
11 Specific ratio*		1.01

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$ LU-174051



K3G355-PH49-05

EC centrifugal module - RadiPac

backward curved, single inlet
with support bracket

Technical features

Mass	24.5 kg
Size	355 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Material of mounting plate	Sheet steel, galvanised
Material of support bracket	Steel, galvanised and coated in black
Material of inlet nozzle	Sheet steel, galvanised
Number of blades	5
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
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
Technical features	- Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Operation and alarm display - Input for sensor 0-10 V or 4-20 mA - External 24 V input (programming) - External release input - Alarm relay - Integrated PID controller - Output limit - 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	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

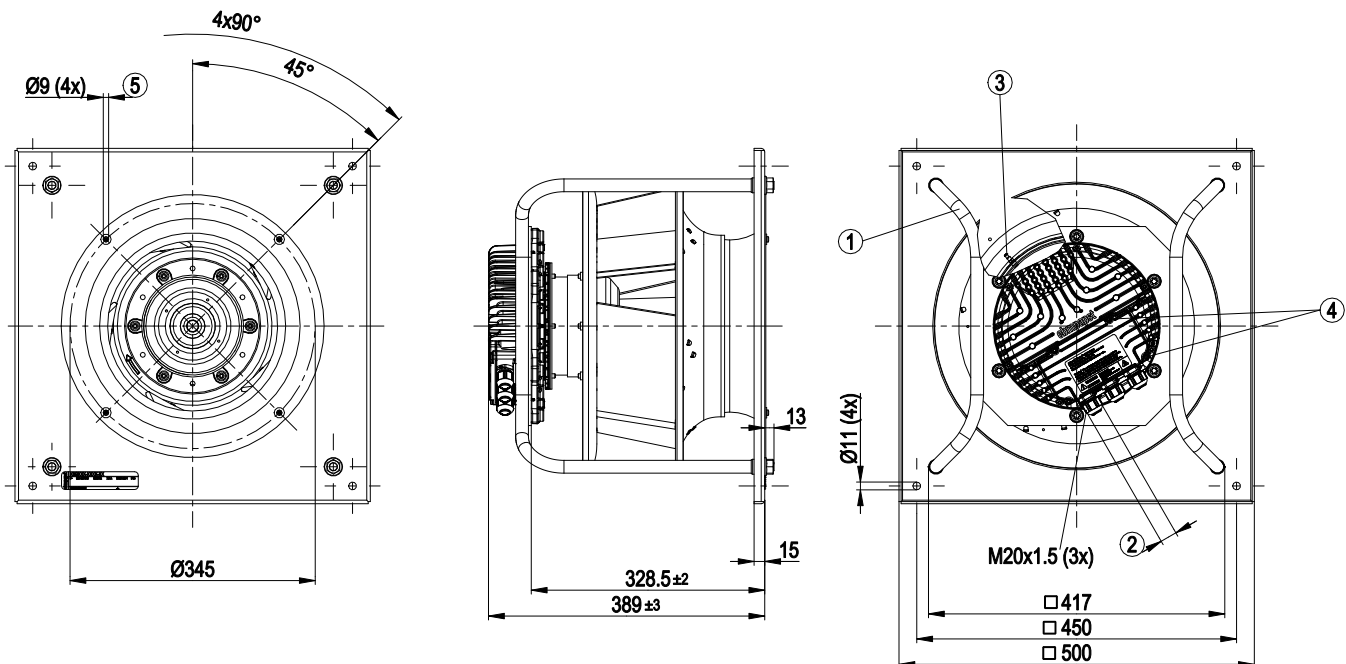
K3G355-PH49-05

EC centrifugal module - RadiPac

backward curved, single inlet

with support bracket

Product drawing



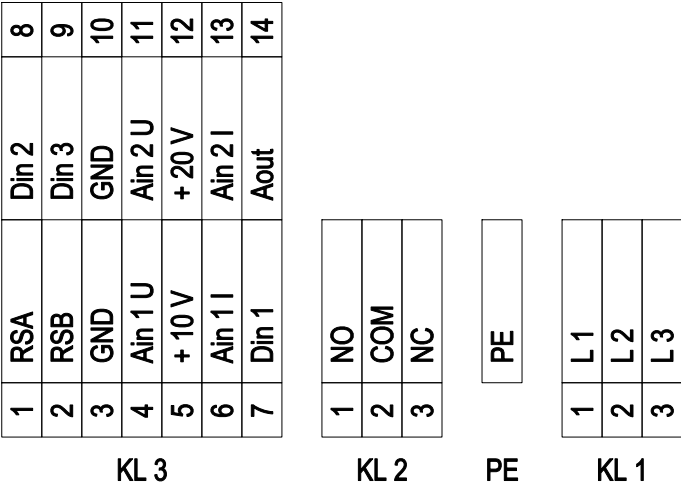
1	Installation position: Shaft horizontal (install the support struts only vertically as shown in the illustration!) or rotor on bottom; rotor on top on request
2	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm
3	Inlet nozzle with pressure tap (k-factor: 148)
4	Tightening torque 3.5 ± 0.5 Nm
5	Mounting holes for FlowGrid

K3G355-PH49-05

EC centrifugal module - RadiPac

backward curved, single inlet
with support bracket

Connection screen



No.	Conn.	Designation	Function / assignment
KL 1	1	L1	Mains supply connection, supply voltage 3~380-480 VAC; 50/60 Hz
KL 1	2	L2	Mains supply connection, supply voltage 3~380-480 VAC; 50/60 Hz
KL 1	3	L3	Mains supply connection, supply voltage 3~380-480 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, RSA, MODBUS RTU; SELV
KL 3	2	RSB	Bus connection RS-485, RSB, 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



K3G355-PH49-05

EC centrifugal module - RadiPac

backward curved, single inlet
with support bracket

No.	Conn.	Designation	Function / assignment
KL 3	13	Ain2 I	Analogue input 2, actual value: 4-20 mA, Ri = 100 Ω, 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

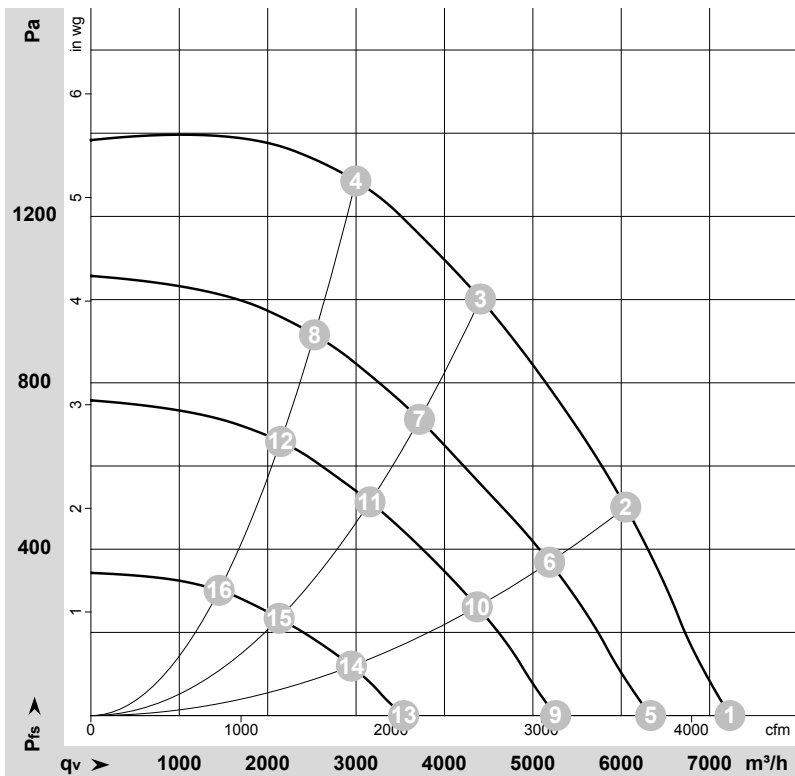


K3G355-PH49-05

EC centrifugal module - RadiPac

backward curved, single inlet
with support bracket

Charts: Air flow 50 Hz



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

Measurement: LU-174051-1

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)	m³/h	Pa	cfm	inH2O
1	400	50	2870	1046	1.69	85	92	94	7230	0	4255	0.00
2	400	50	2870	1580	2.46	77	85	89	6050	500	3560	2.01
3	400	50	2870	1900	3.00	73	81	86	4410	1000	2595	4.01
4	400	50	2870	1887	2.92	79	86	89	3000	1300	1765	5.22
5	400	50	2540	735	1.25	81	88	91	6335	0	3725	0.00
6	400	50	2480	1024	1.65	73	81	85	5190	370	3055	1.49
7	400	50	2440	1156	1.84	70	77	82	3715	714	2190	2.87
8	400	50	2440	1142	1.82	75	81	85	2530	923	1490	3.71
9	400	50	2130	468	0.88	77	85	87	5260	0	3095	0.00
10	400	50	2090	649	1.14	70	78	82	4370	262	2570	1.05
11	400	50	2070	738	1.25	66	73	79	3155	515	1860	2.07
12	400	50	2070	737	1.25	71	77	81	2145	665	1265	2.67
13	400	50	1440	179	0.41	65	75	76	3540	0	2085	0.00
14	400	50	1415	232	0.50	60	68	73	2945	119	1735	0.48
15	400	50	1400	260	0.54	57	65	70	2130	234	1255	0.94
16	400	50	1400	262	0.54	60	67	72	1450	304	855	1.22

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

