

KARTA KATALOGOWA

K3G900-AQ01-01

Moduł promieniowy EC RadiPac (plug fan) z ramą nośną, łopatki zakrzywione do tyłu, jednostronnie ssący

Producent: ebm-papst

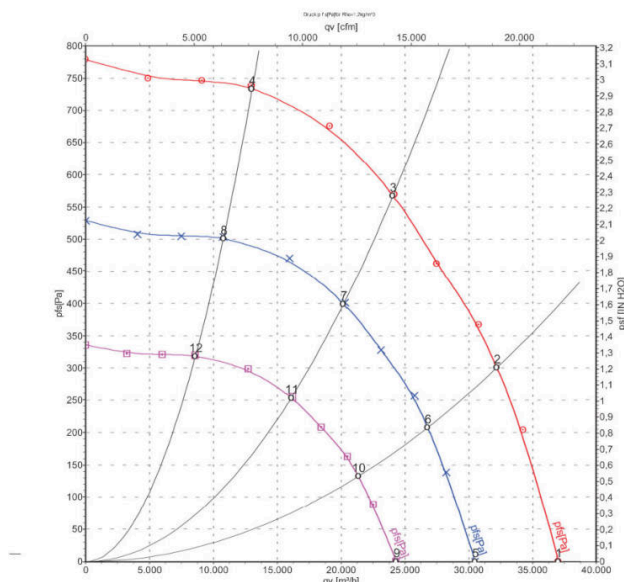


Dane znamionowe		Budowa	
Napięcie znamionowe	3~ 400 V (380...480 V)	Średnica wirnika	900 mm
Częstotliwość	50/60 Hz	Materiał wirnika	blacha aluminiowa
Prędkość obrotowa	800 obr/min	Liczba łopatek	7
Pobór mocy	5500 W	Stopień ochrony	IP54
Pobór prądu	8,5 A	Klasa izolacji	F
Maks. wydajność	37030 m³/h	Masa	195,9 kg
Maks. ciśnienie statyczne	800 Pa		
Temperatura otoczenia	-25...+40 °C		

Dane ErP (UE 327/2011)	
Sprawność całkowita	67,8 %
Przepływ w pkt. optymalnym	24195 m³/h
Przyrost ciśnienia	537 Pa
Regulacja obrotów	tak (0-10 V / MODBUS)

Charakterystyka przepływowa (50 Hz)

Charts: Air flow 50 Hz



Measurement: LU-142106

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 15347 / 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.

Dane na podstawie karty producenta ebm-papst (oryginał na kolejnych stronach).

Wartości znamionowe dla punktu maksymalnego obciążenia; 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

K3G900-AQ01-01

EC centrifugal module - Plug fan

backward curved, single inlet
with support structure


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

Limited partnership · Headquarters Mulfingen

County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 590142



Nominal data

Type	K3G900-AQ01-01	
Motor	M3G200-QA	
Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	800
Power input	W	5500
Current draw	A	8.5
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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		67.8	55.3	59.3
Efficiency grade N		70.5	58	62
Power input P_{ed}	kW	5.52		
Air flow q_v	m ³ /h	24195		
Pressure increase p_{fs}	Pa	537		
Speed n	min ⁻¹	790		

Data established at point of optimum efficiency


ebmpapst

K3G900-AQ01-01

EC centrifugal module - Plug fan

backward curved, single inlet
with support structure

Technical features

Mass	195.9 kg
Size	900 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
Material of support structure	Sheet steel, galvanised
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
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 - Input for sensor 0-10 V or 4-20 mA - External 24 V input (programming) - 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
Approval	GOST; UL 1004-7 + 60730; C22.2 Nr.77 + CAN/CSA-E60730-1

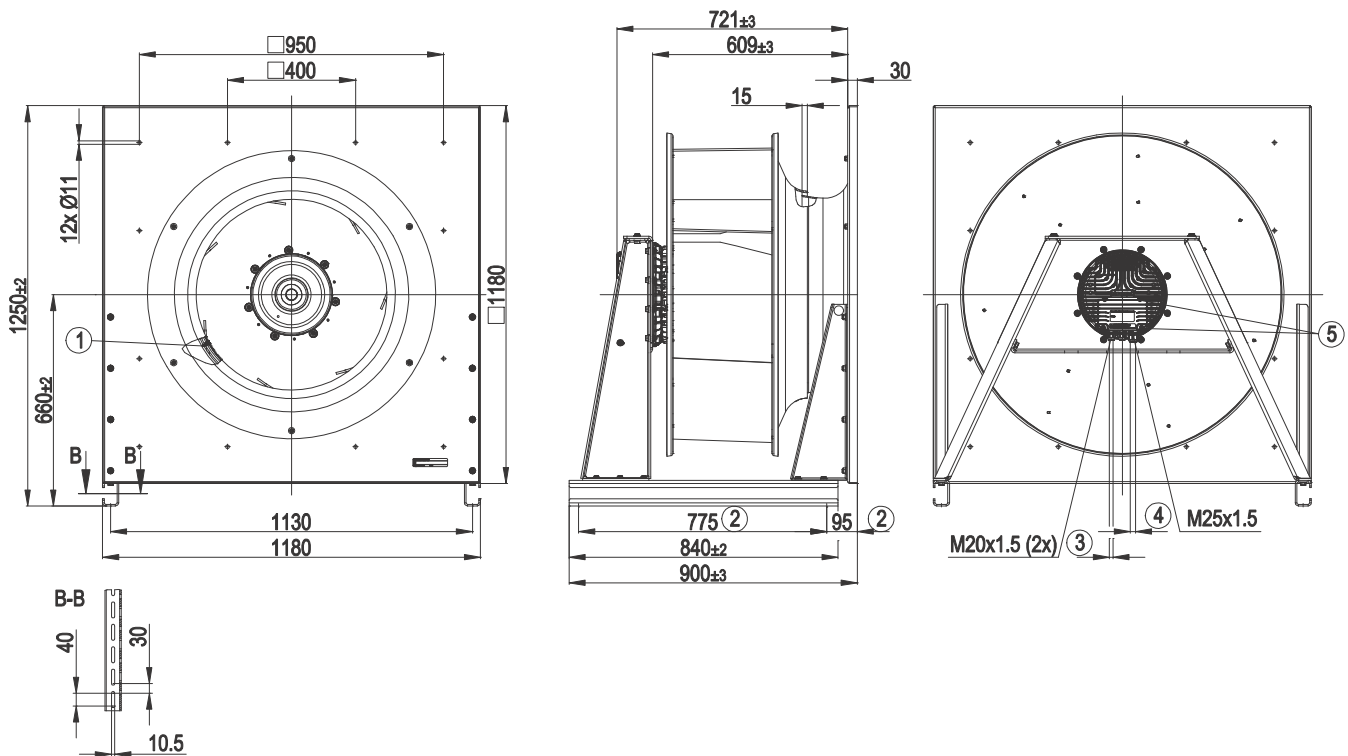


K3G900-AQ01-01

EC centrifugal module - Plug fan

backward curved, single inlet
with support structure

Product drawing



1	Inlet nozzle with bleeder connection for pressure relief (k-factor: 545)
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 ± 0.6 Nm
5	Tightening torque 3.5 ± 0.5 Nm

K3G900-AQ01-01

EC centrifugal module - Plug fan

backward curved, single inlet

with support structure

Connection screen

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

KL 3

NO	COM	NC
1	2	3

KL 2

PE

PE

L1	L2	L3
1	2	3

KL 1

No.	Pin	Signal	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
KL 2	2	COM	Status relay; floating status contact; changeover contact; common connection; contact rating 250 VAC / 2 A (AC1)
KL 2	3	NC	Status relay, floating status contact; break with error
KL 3	1	RSA	Bus connection RS485; RSA; MODBUS RTU
KL 3	2	RSB	Bus connection RS485; RSB; MODBUS RTU
KL 3	3 / 10	GND	Signal ground for control interface KL3
KL 3	4	Ain1 U	Analogue input 1 (set value); 0-10 V; Ri= 100 kΩ; parametrisable curves; only usable as alternative to input Ain1 I
KL 3	5	+ 10 V	Fixed voltage output 10 VDC; + 10 V +/-3%; max. 10 mA; short circuit proof; power supply for ext. devices (e.g. potentiometer)
KL 3	6	Ain1 I	Analogue input 1 (set value); 4-20 mA; Ri= 100 Ω; parametrisable curves; only usable as alternative to input Ain1 U
KL 3	7	Din1	Digital input 1: enabling of electronics; enabling: open pin or applied voltage 5 to 50 VDC; disabling: bridge to GND or applied voltage < 1 VDC; reset function: triggers software reset after a level change to <1 V
KL 3	8	Din2	Digital input 2: parameter set switch 1/2; according to EEPROM setting, the valid/used parameter set is selectable per BUS or per digital input DIN2. Parameter set 1: open pin or applied voltage 5 to 50 VDC; parameter set 2: bridge to GND or applied voltage < 1 VDC
KL 3	9	Din3	Digital input 3: Control characteristic of the integrated controller; according to EEPROM setting, the control characteristic of the integrated controller is normally/inversely selectable per BUS or per digital input; normal: open pin or applied voltage 5 to 50 VDC (control deviation = actual sensor value - set value) inverse: bridge to GND or applied voltage < 1 VDC (control deviation = set value - actual sensor value)
KL 3	11	Ain2 U	Analogue input 2; actual sensor value 0-10 V; Ri= 100 kΩ; parametrisable curve; only usable as alternative to input Ain2 I
KL 3	12	+ 20 V	Fixed voltage output 20 VDC; + 20 V +/-10 %; max. 50 mA; short circuit proof; power supply for ext. devices (e.g. sensors)
KL 3	13	Ain2 I	Analogue input 2; actual sensor value 4-20 mA; Ri= 100 Ω; parametrisable curve; only usable as alternative to input Ain2 U
KL 3	14	Aout	Analogue output 0-10 V; max. 5 mA; output of the actual motor control factor (output voltage of electronics)/ of the actual motor speed; function selectable per bus; parametrisable curve.



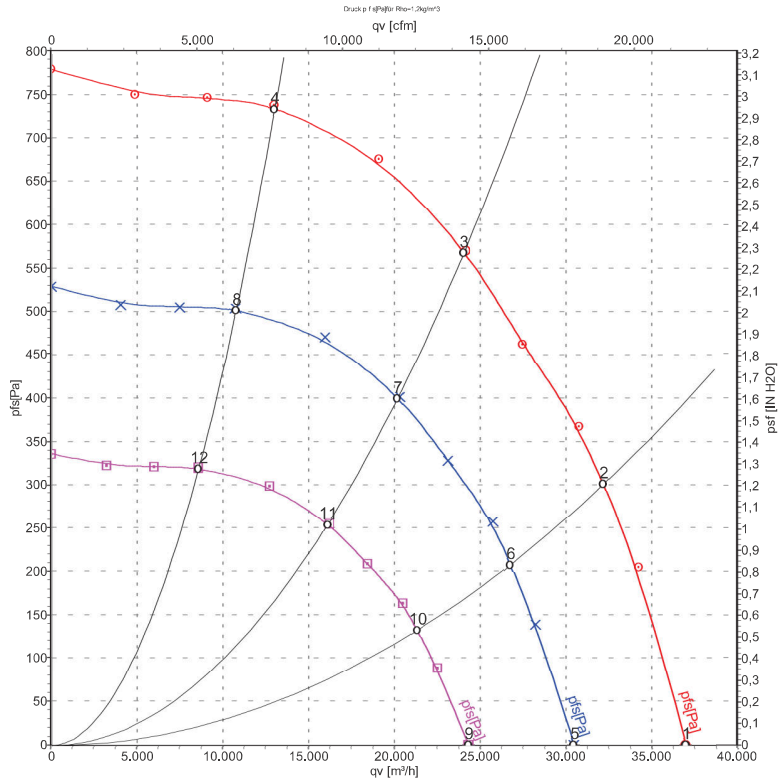
K3G900-AQ01-01

EC centrifugal module - Plug fan

backward curved, single inlet

with support structure

Charts: Air flow 50 Hz



Measurement: LU-142106

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)	m³/h	Pa
1	400	50	800	3915	5.89	79	89	94	37030	0
2	400	50	800	4992	7.51	75	84	89	32190	301
3	400	50	800	5500	8.50	71	80	85	24000	570
4	400	50	800	4796	7.20	71	80	85	13030	738
5	400	50	665	2190	3.30	75	84	89	30510	0
6	400	50	665	2869	4.32	70	79	84	26770	208
7	400	50	665	3269	4.87	67	75	80	20190	404
8	400	50	665	2704	4.06	67	75	81	10770	504
9	400	50	530	1109	1.67	69	79	83	24320	0
10	400	50	530	1453	2.18	64	73	78	21340	132
11	400	50	530	1655	2.47	61	70	74	16090	256
12	400	50	530	1369	2.06	61	69	75	8580	320

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

