K3G190-RD45-01

EC centrifugal module - RadiCal

backward-curved, single-intake

with housing



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G190-RD45-01**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	4120
Power consumption	W	169
Current draw	A	1.35
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	56	43.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		74.9	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	565
09 Pressure increase p_{fs}	Pa	524
10 Speed (rpm) n	min^{-1}	4055
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-132500

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Technical description

Weight	1.8 kg
Fan size	190 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Speed setting input (230 V) - Motor current limitation - Soft start - Thermal overload protection for electronics/motor - Line undervoltage detection
Speed levels	2
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CCC; UL 2111; CSA C22.2 No. 77

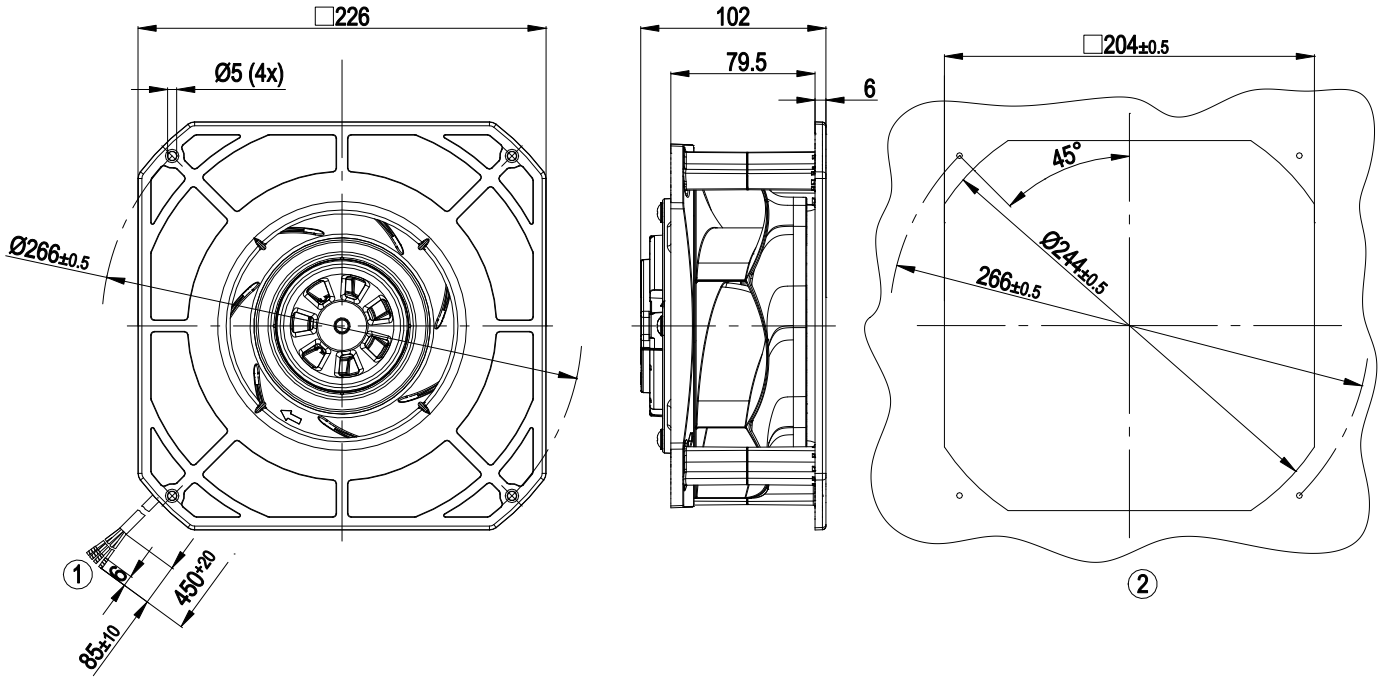
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Product drawing



1	Cable PVC 4G AWG20, 4x crimped splices
2	Mounting dimensions

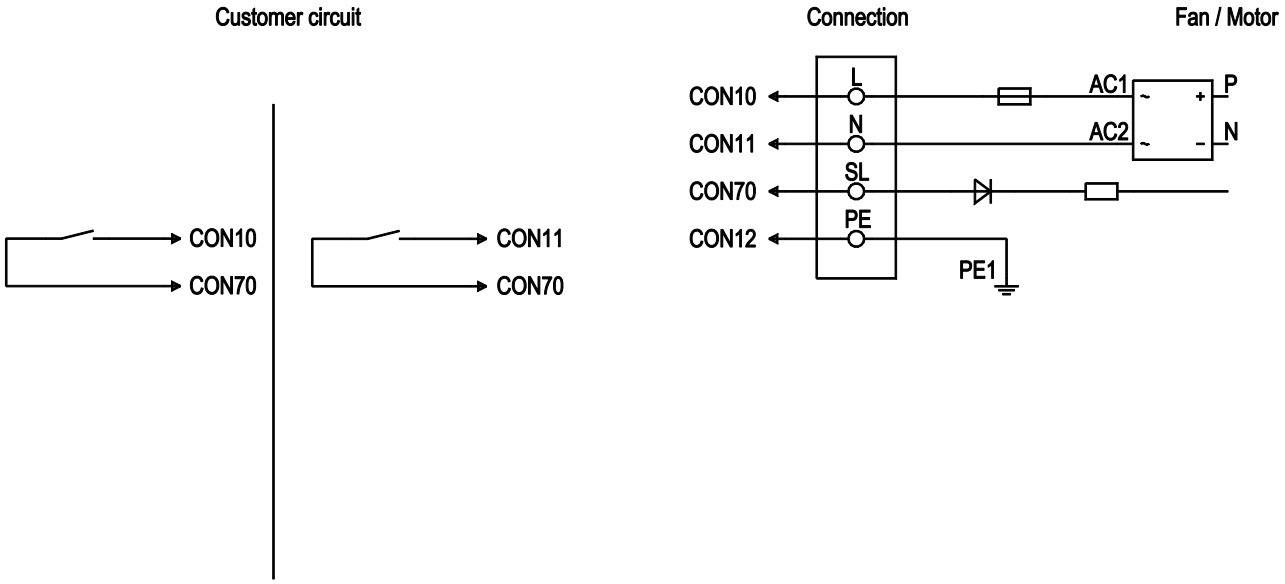
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON 10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	CON 11	N	blue	Neutral conductor
	CON 12	PE	green/yellow	Protective earth
	CON 70	SL	brown	Speed selection: switch open speed 1; switch closed speed 2

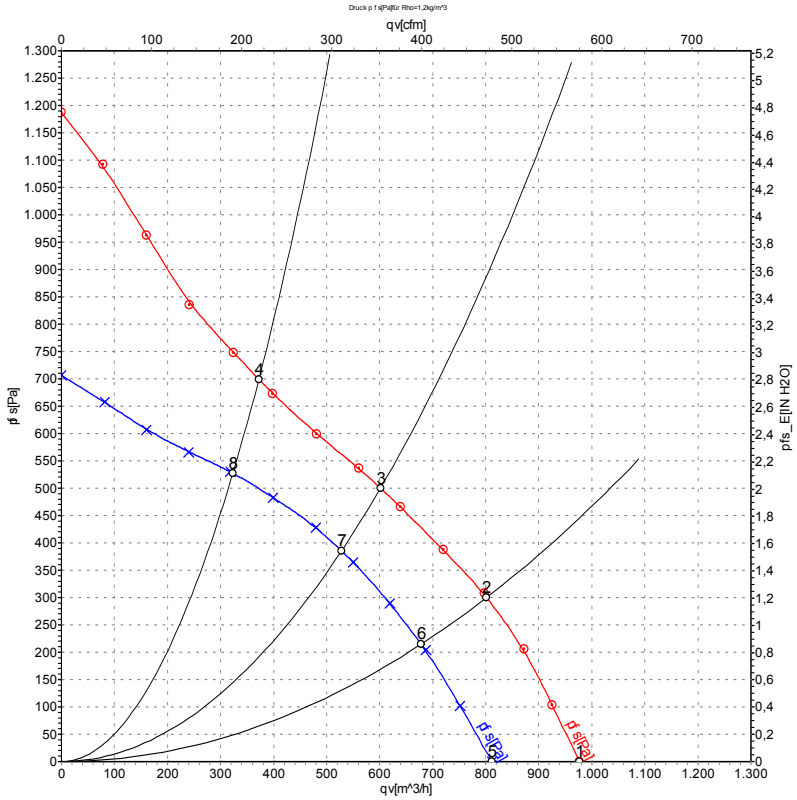
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Curves: Air performance 50 Hz



Measurement: LU-132500-1
Measurement: LU-133493-1

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

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	4440	161	1.35	72	81	975	0	575	0.00
2	230	50	4235	165	1.35	67	75	800	300	470	1.20
3	230	50	4120	169	1.35	63	72	600	500	355	2.01
4	230	50	4150	160	1.35	66	74	370	700	220	2.81
5	230	50	3720	95	0.85	69	77	810	0	475	0.00
6	230	50	3675	106	0.95	64	73	680	216	400	0.87
7	230	50	3615	116	1.01	61	69	530	386	310	1.55
8	230	50	3650	108	0.95	64	72	325	528	190	2.12

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
qv = Air flow · p_{fs} = Pressure increase

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