K3G250-AT39-73

EC centrifugal module

backward-curved, single-intake

with support bracket



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G250-AT39-73**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3000
Power consumption	W	448
Current draw	A	2.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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}	%	63.1	47.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		77.2	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.45
09 Air flow q_v	m^3/h	1550
09 Pressure increase p_{fs}	Pa	601
10 Speed (rpm) n	min^{-1}	2940
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

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Technical description

Weight	9 kg
Fan size	250 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Support plate material	Sheet steel, galvanized
Support bracket material	Steel, painted black
Inlet nozzle material	Sheet steel, galvanized
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Thermal overload protection for electronics/motor - Alarm relay - Line undervoltage detection - Motor current limitation - Soft start
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE

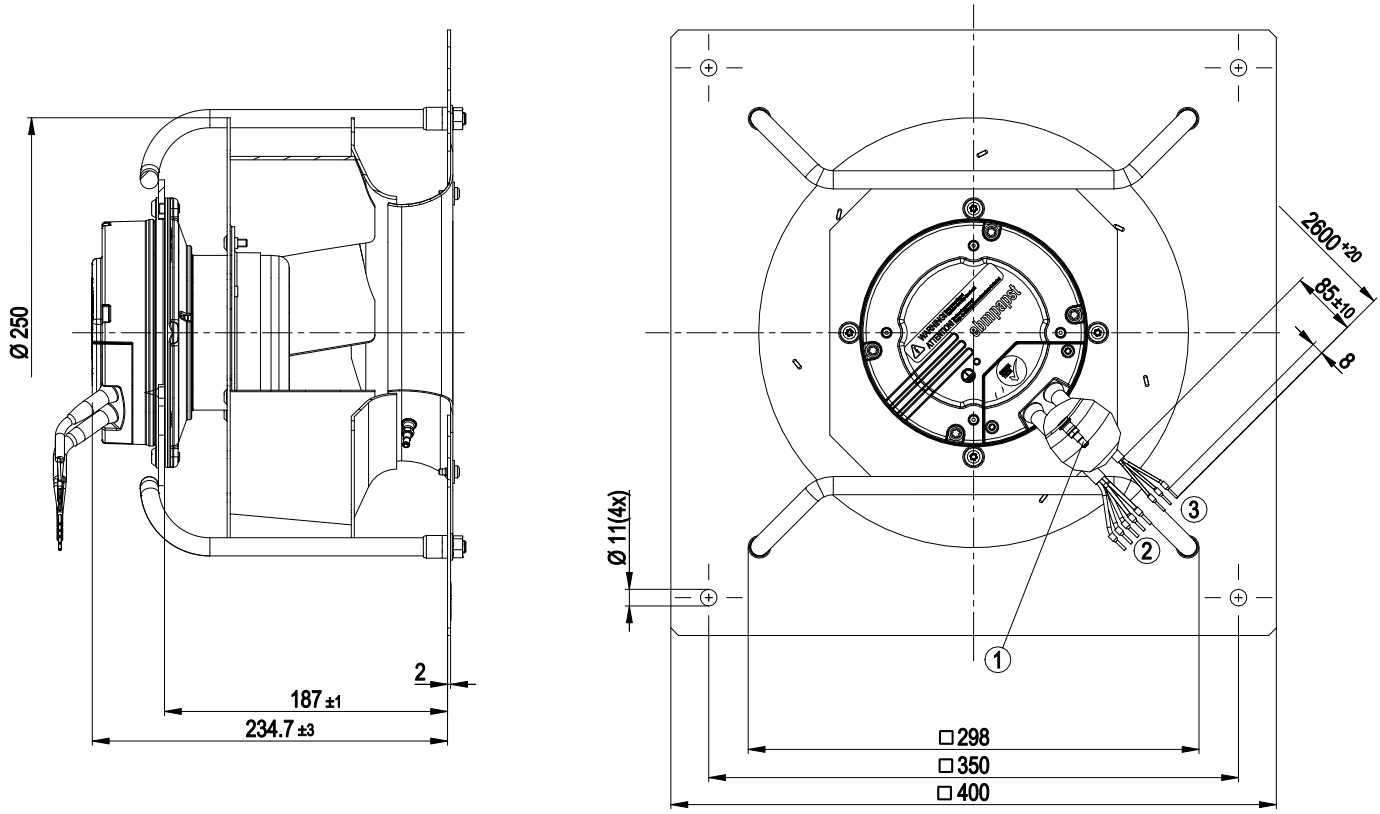
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Product drawing



1	Inlet ring with pressure tap (k-factor 70)
2	Cable PVC AWG18, 5 x crimped ferrules
3	Cable PVC AWG22, 3 x crimped ferrules

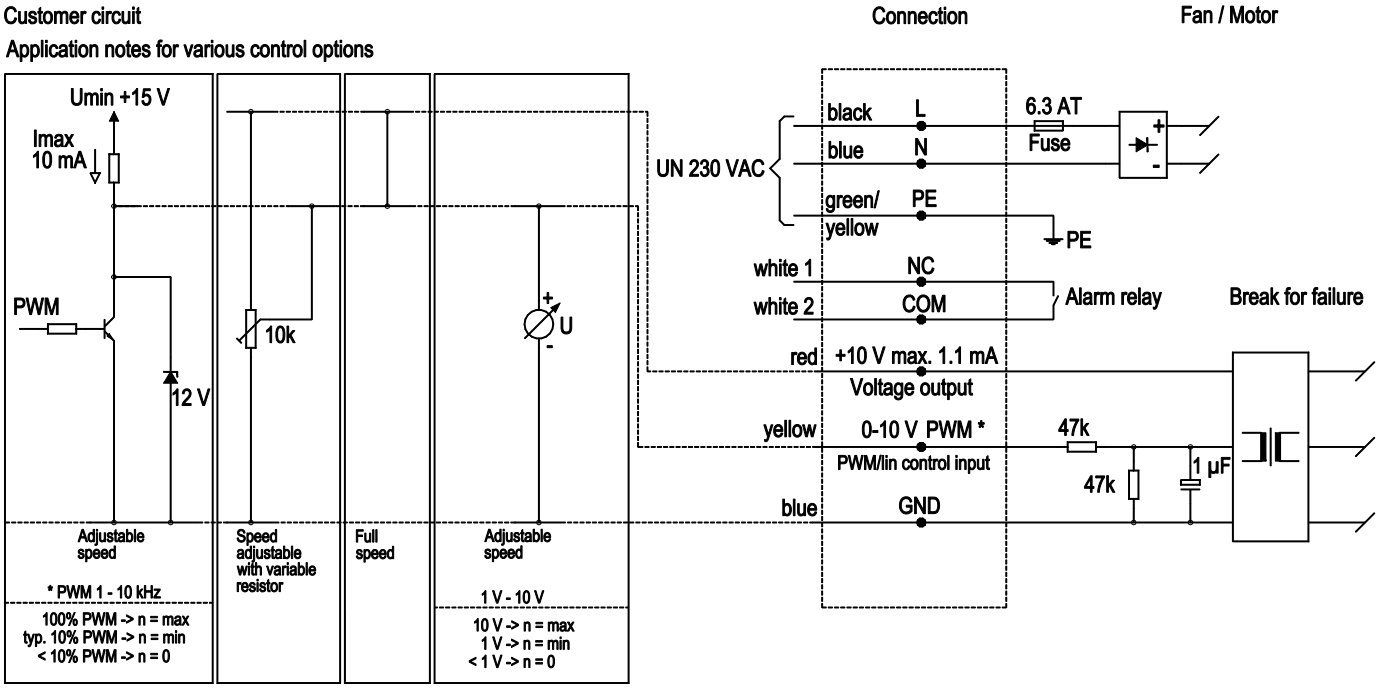
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Connection diagram



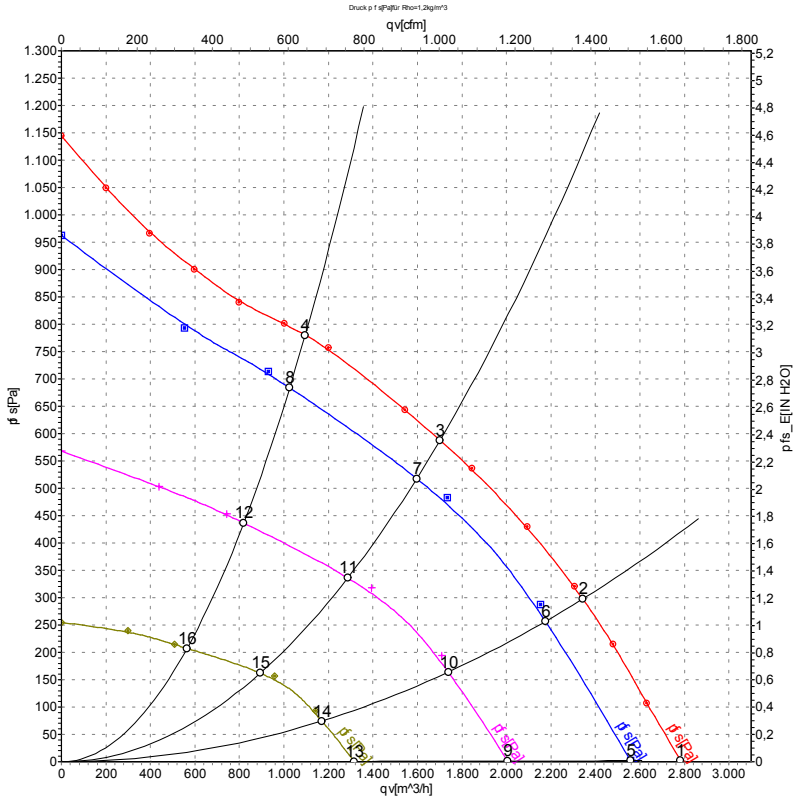
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Curves: Air performance 50 Hz



Measurement: LU-108683-1
Measurement: LU-124170-1
Measurement: LU-124171-1
Measurement: LU-124172-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	3175	380	2.48	2785	0	1640	0.00
2	230	50	3045	436	2.72	2345	300	1380	1.20
3	230	50	3000	448	2.80	1700	590	1000	2.37
4	230	50	3020	436	2.72	1095	780	645	3.13
5	230	50	2925	294	1.90	2555	0	1505	0.00
6	230	50	2845	335	2.16	2175	271	1280	1.09
7	230	50	2790	341	2.25	1595	522	940	2.10
8	230	50	2835	326	2.14	1025	686	605	2.75
9	230	50	2300	142	0.97	2005	0	1180	0.00
10	230	50	2265	166	1.12	1740	174	1025	0.70
11	230	50	2240	174	1.19	1285	340	755	1.36
12	230	50	2270	163	1.13	820	438	485	1.76
13	230	50	1510	44	0.34	1315	0	775	0.00
14	230	50	1520	53	0.40	1170	78	690	0.31
15	230	50	1555	58	0.45	895	165	525	0.66
16	230	50	1555	55	0.43	565	208	335	0.84

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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