

EC centrifugal module - RadiPac

backward curved, single inlet
with support bracket



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Nominal data

Type	K3G250-AT39-72	
Motor	M3G084-DF	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	3000
Power input	W	448
Current draw	A	2.8
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}	%	63.1	43.9	47.9
Efficiency grade N		77.2	58	62
Power input P_{ed}	kW	0.45		
Air flow q_v	m ³ /h	1550		
Pressure increase p_{fs}	Pa	601		
Speed n	min ⁻¹	2940		

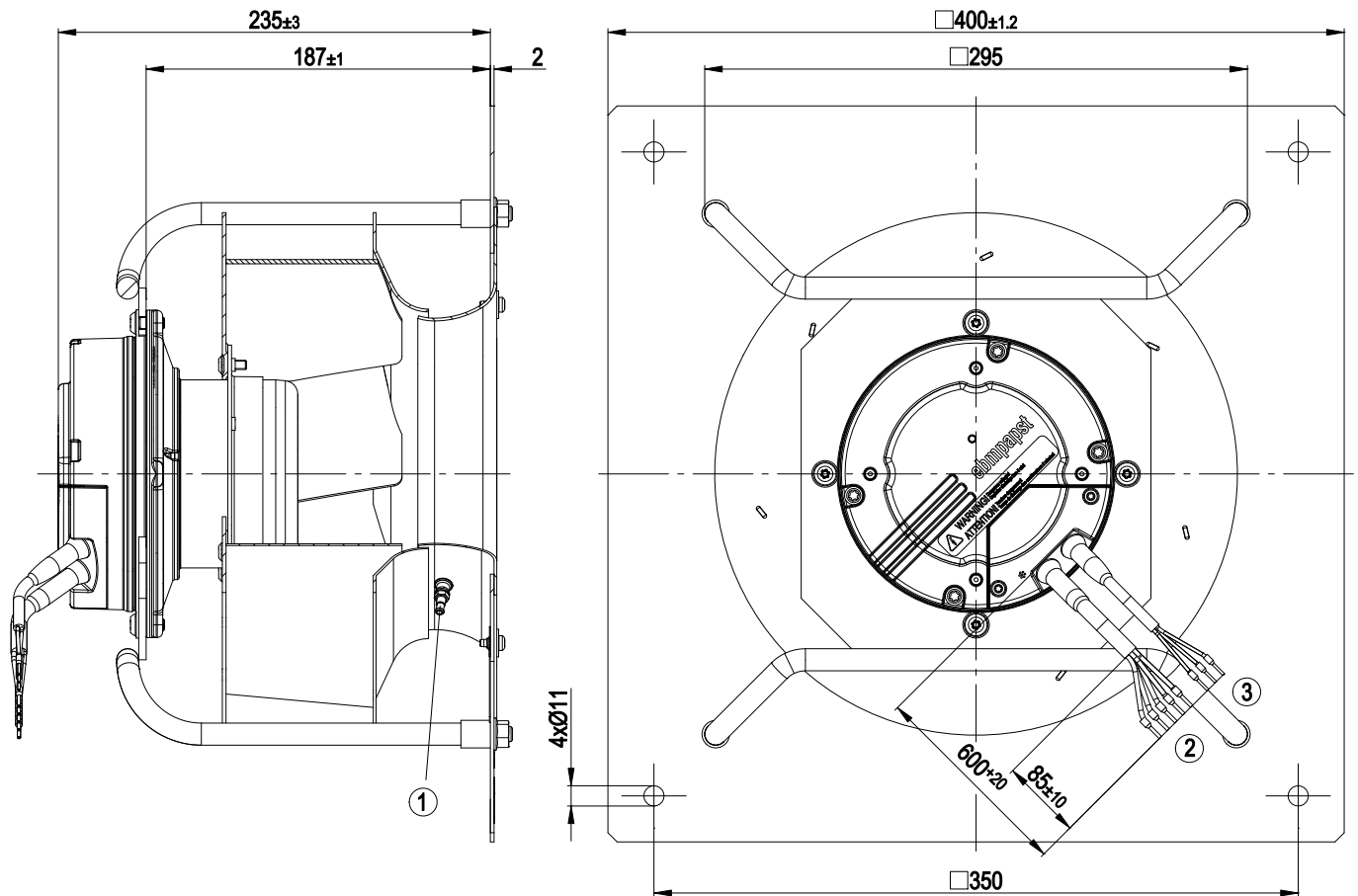
Data definition with optimum efficiency. LU-108683
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



Technical features

Mass	8.4 kg
Size	250 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, hot-dip galvanised
Material of support bracket	Steel, coated in black plastic (RAL 9005)
Material of inlet nozzle	Sheet steel, hot-dip galvanised
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Over-temperature protected electronics / motor - Alarm relay - Line undervoltage detection - Motor current limit - Soft start
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	CCC; EAC

Product drawing

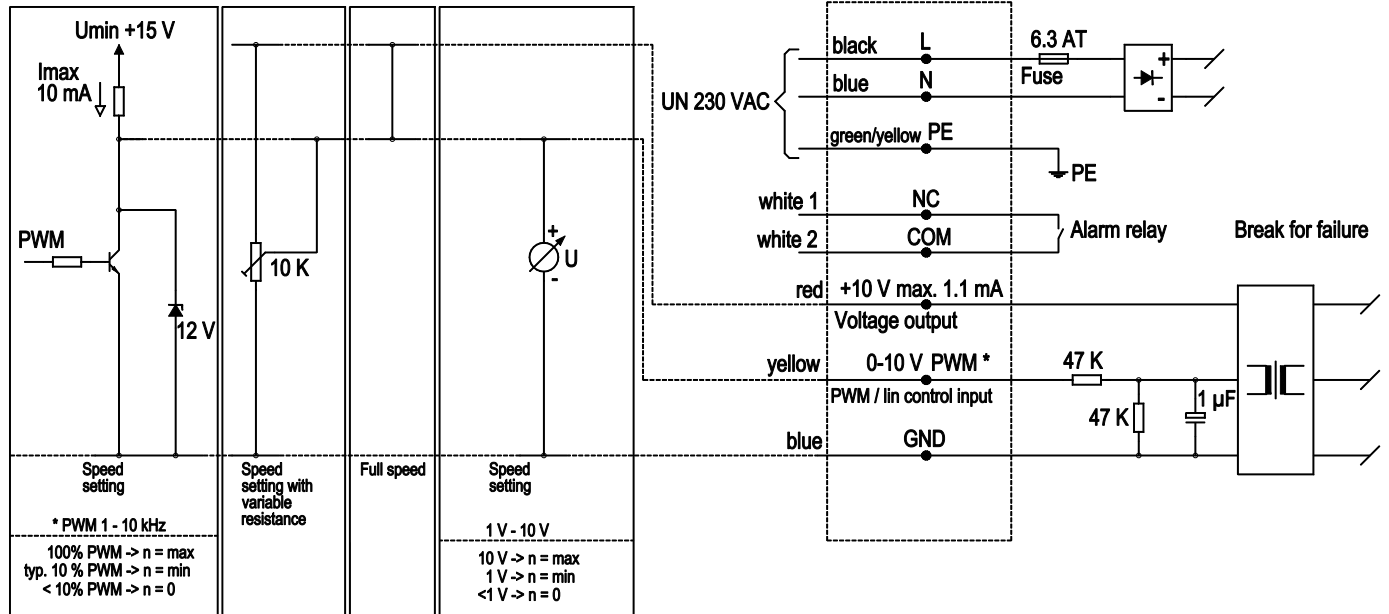


1	Bleeder connection for pressure relief (k-value 70)
2	Connection line AWG18, 5 x crimped core-end sleeves
3	Connection line AWG22, 3 x crimped core-end sleeves

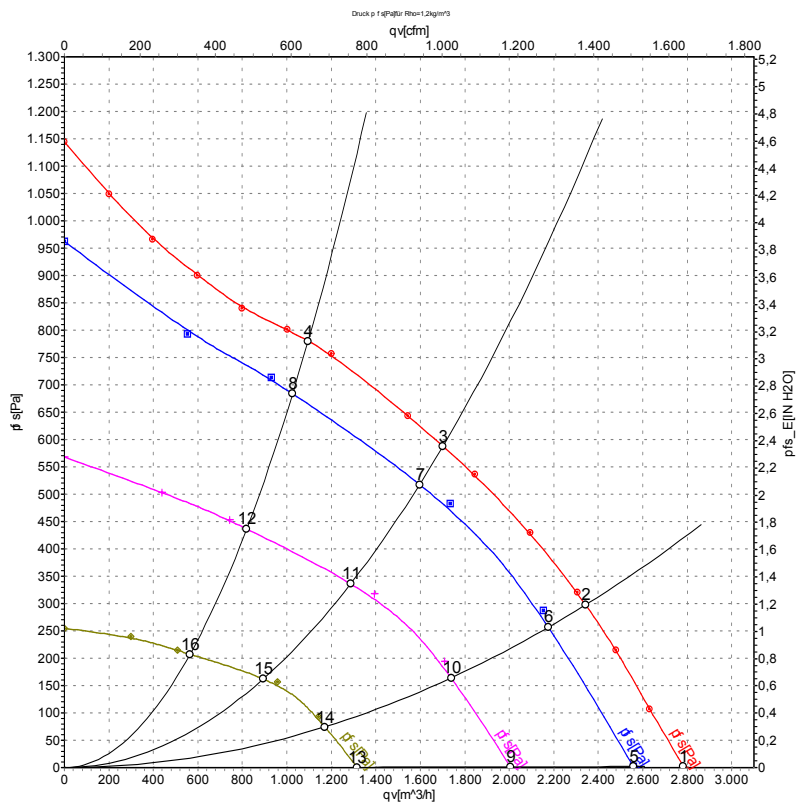
Connection screen

Customer circuit

Notes on various control possibilities and their applications



Charts: Air flow 50 Hz



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: L_{WA} measured as per ISO 13347 /
L_{pA} 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	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	230	50	3175	380	2.48	2785	0
2	230	50	3045	436	2.72	2345	300
3	230	50	3000	448	2.80	1700	590
4	230	50	3020	436	2.72	1095	780
5	230	50	2925	294	1.90	2555	0
6	230	50	2845	335	2.16	2175	271
7	230	50	2790	341	2.25	1595	522
8	230	50	2835	326	2.14	1025	686
9	230	50	2300	142	0.97	2005	0
10	230	50	2265	166	1.12	1740	174
11	230	50	2240	174	1.19	1285	340
12	230	50	2270	163	1.13	820	438
13	230	50	1510	44	0.34	1315	0
14	230	50	1520	53	0.40	1170	78
15	230	50	1555	58	0.45	895	165
16	230	50	1555	55	0.43	565	208

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase