R3G500-RP34-72

EC centrifugal fan - RadiCal

backward-curved

R3G500-RP34-72 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G500-RP34-72**	
Motor	**M3G084-FA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	730
Power consumption	W	260
Current draw	A	1.6
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}	%	53.8	45.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		70.6	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.25
09 Air flow q_v	m^3/h	2955
09 Pressure increase p_{fs}	Pa	150
10 Speed (rpm) n	min^{-1}	730
11 Specific ratio*		1.00

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-124867

ebmpapst

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Technical description

Weight	9 kg
Fan size	500 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
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 top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage detection
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 60335-1
Approval	VDE

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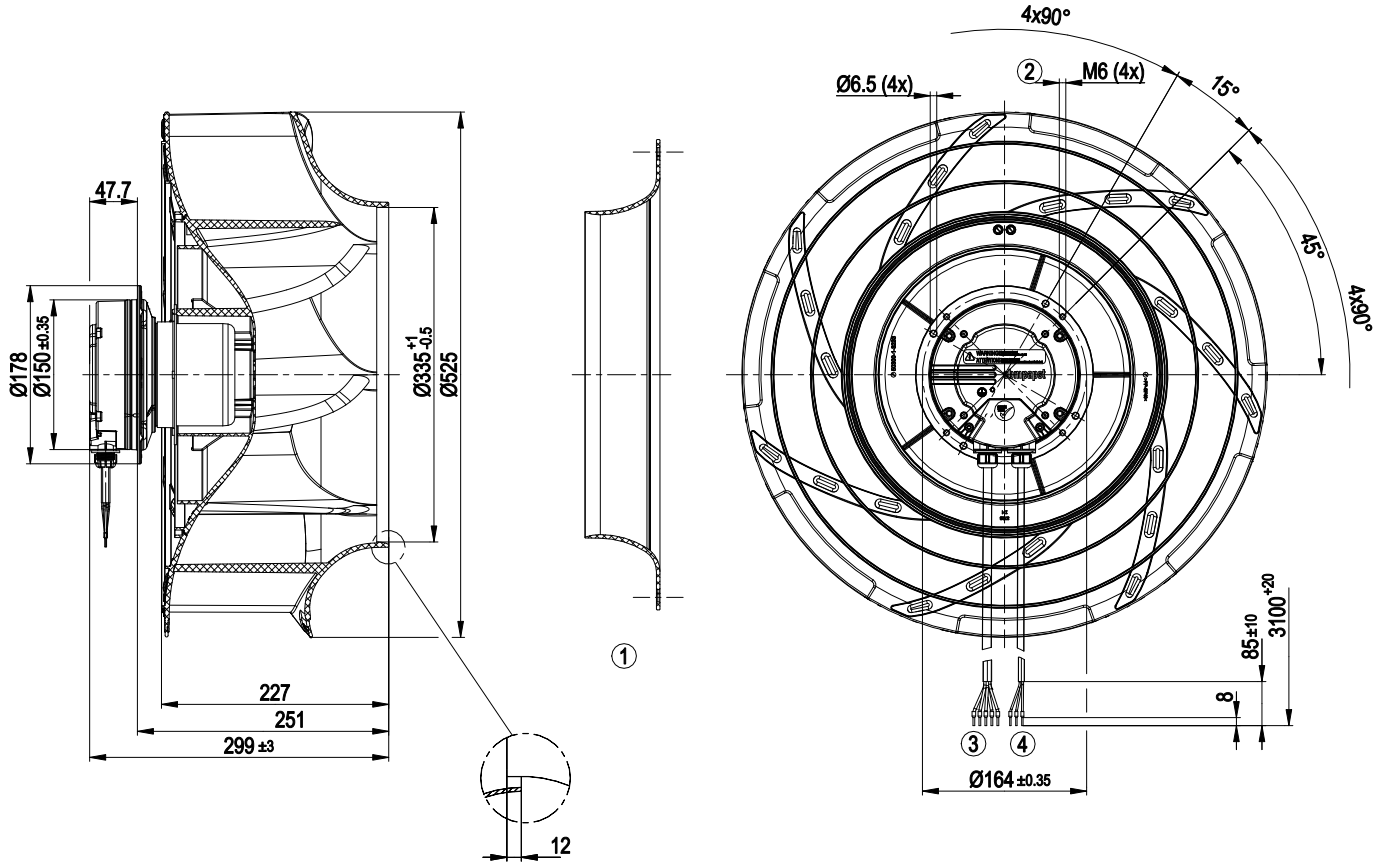
Product drawing



1	Accessory part: inlet ring 50901-2-2943, not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG18, 5x crimped ferrules
4	Cable PVC AWG22, 3x crimped ferrules

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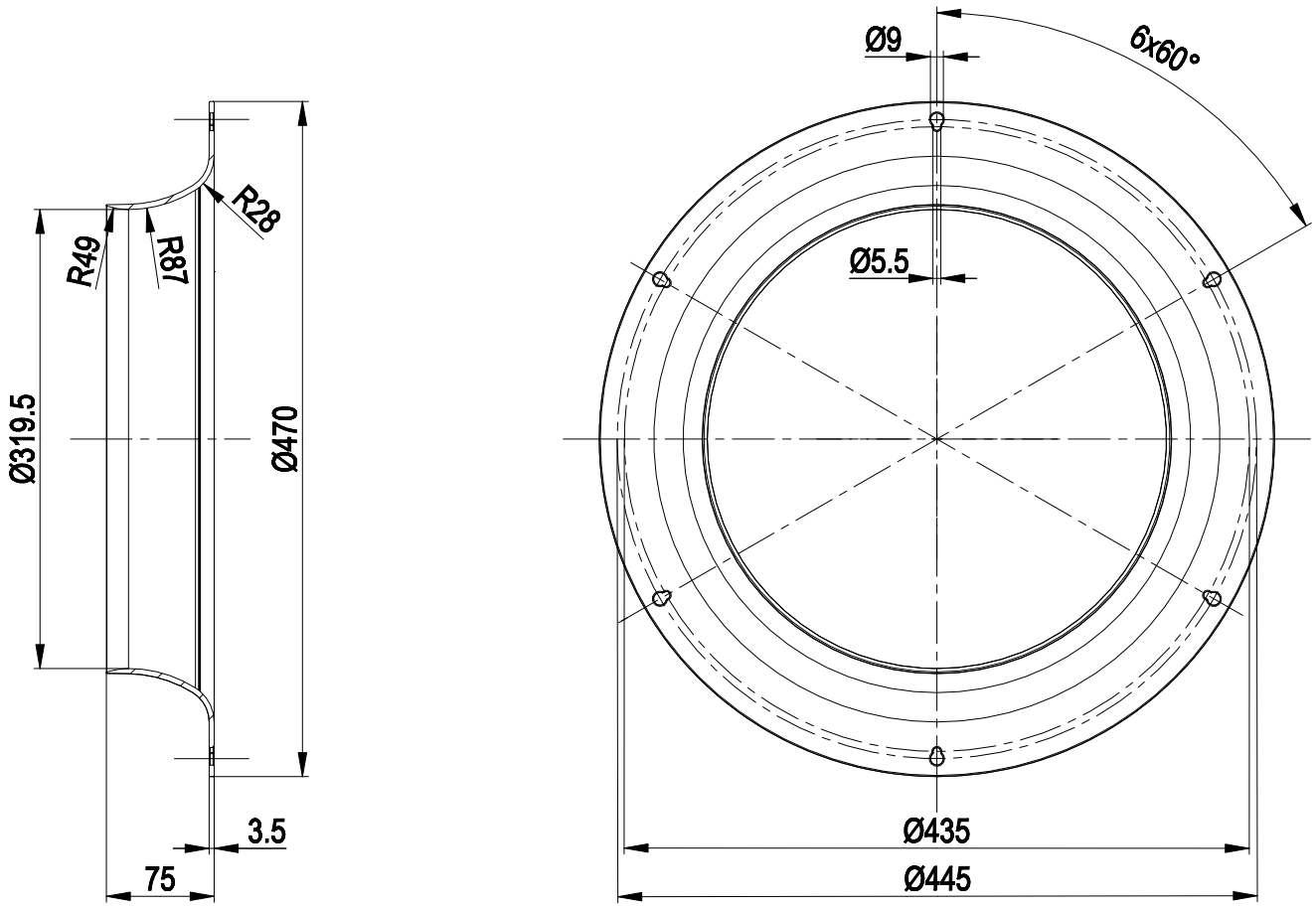
Accessory part



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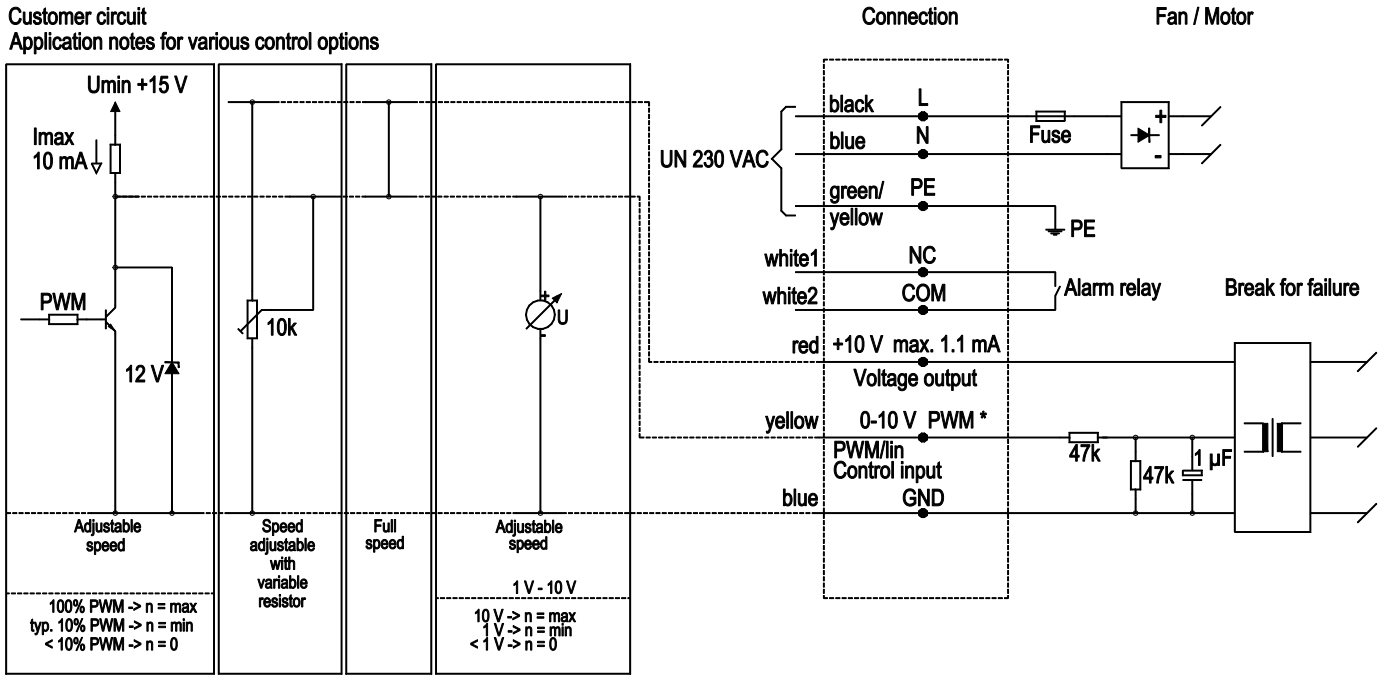
Connection diagram



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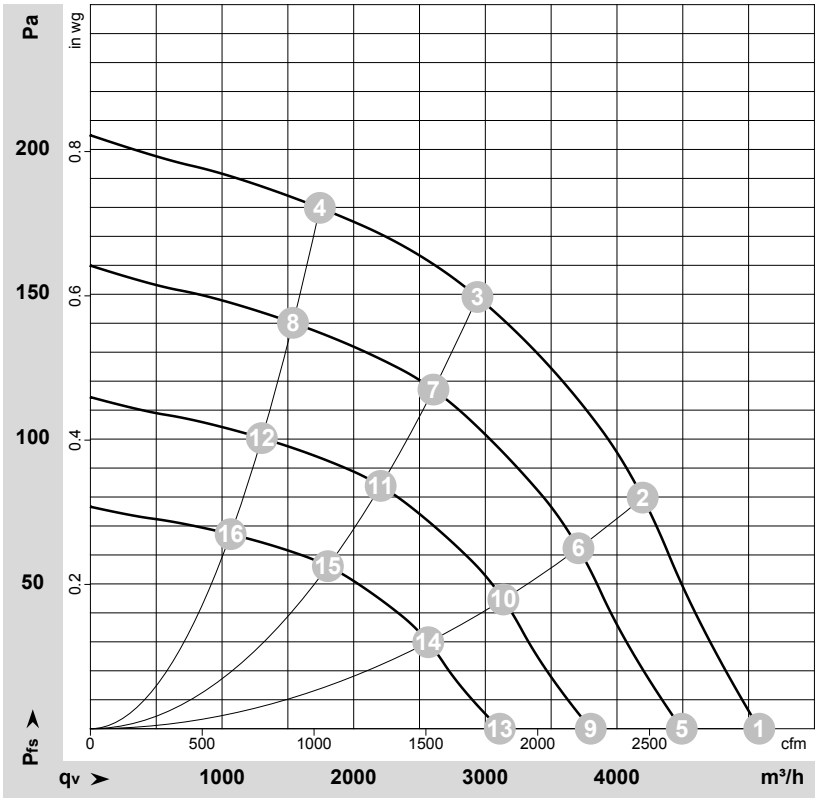
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-124867-1

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}	LwA_{out}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	730	168	1.06	56	63	70	5080	0	2990	0.00
2	230	50	730	238	1.47	52	59	66	4195	80	2470	0.32
3	230	50	730	260	1.60	50	57	62	2940	150	1730	0.60
4	230	50	730	214	1.33	49	56	61	1745	180	1025	0.72
5	230	50	650	116	0.73	53	60	67	4490	0	2645	0.00
6	230	50	650	165	1.01	49	56	63	3705	64	2180	0.26
7	230	50	650	180	1.10	47	54	59	2605	118	1535	0.47
8	230	50	650	148	0.91	46	52	58	1540	140	905	0.56
9	230	50	550	70	0.44	49	56	62	3800	0	2235	0.00
10	230	50	550	100	0.61	45	52	58	3135	46	1845	0.18
11	230	50	550	109	0.67	43	50	55	2205	85	1300	0.34
12	230	50	550	89	0.55	42	48	53	1300	101	765	0.41
13	230	50	450	38	0.24	44	51	57	3110	0	1830	0.00
14	230	50	450	55	0.34	40	47	53	2565	31	1510	0.12
15	230	50	450	60	0.37	38	45	50	1805	57	1060	0.23
16	230	50	450	49	0.30	37	43	48	1065	67	625	0.27

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
LwA_{out} = Sound power level outlet side · qv = Air flow · p_{fs} = Pressure increase