R3G355-RP23-34

EC centrifugal fan - RadiCal

backward-curved, single-intake

R3G355-RP23-34 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G355-RP23-34**	
Motor	**M3G084-FA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1760
Power consumption	W	290
Current draw	A	6.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	68.8	47.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		83.7	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.38
09 Air flow q_v	m³/h	2405
09 Pressure increase p_{fs}	Pa	355
10 Speed (rpm) n	min^{-1}	1690
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-155134

EC centrifugal fan - RadiCal

backward-curved, single-intake

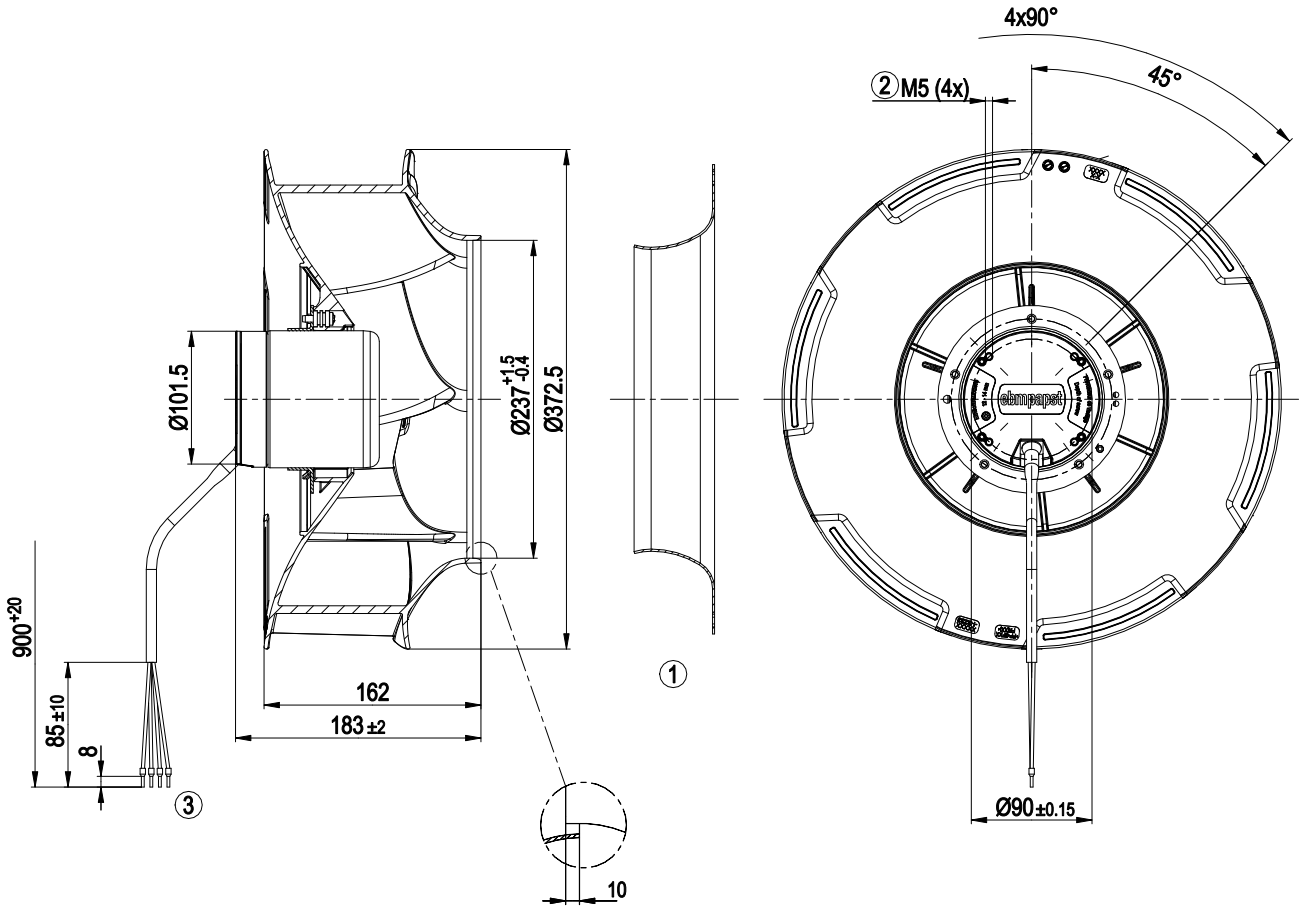
Technical description

Weight	4.9 kg
Fan size	355 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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	- Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class A, industrial environment)
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60950-1; CE
Approval	CSA C22.2 No. 100; UL 1004-1; EAC

EC centrifugal fan - RadiCal

backward-curved, single-intake

Product drawing

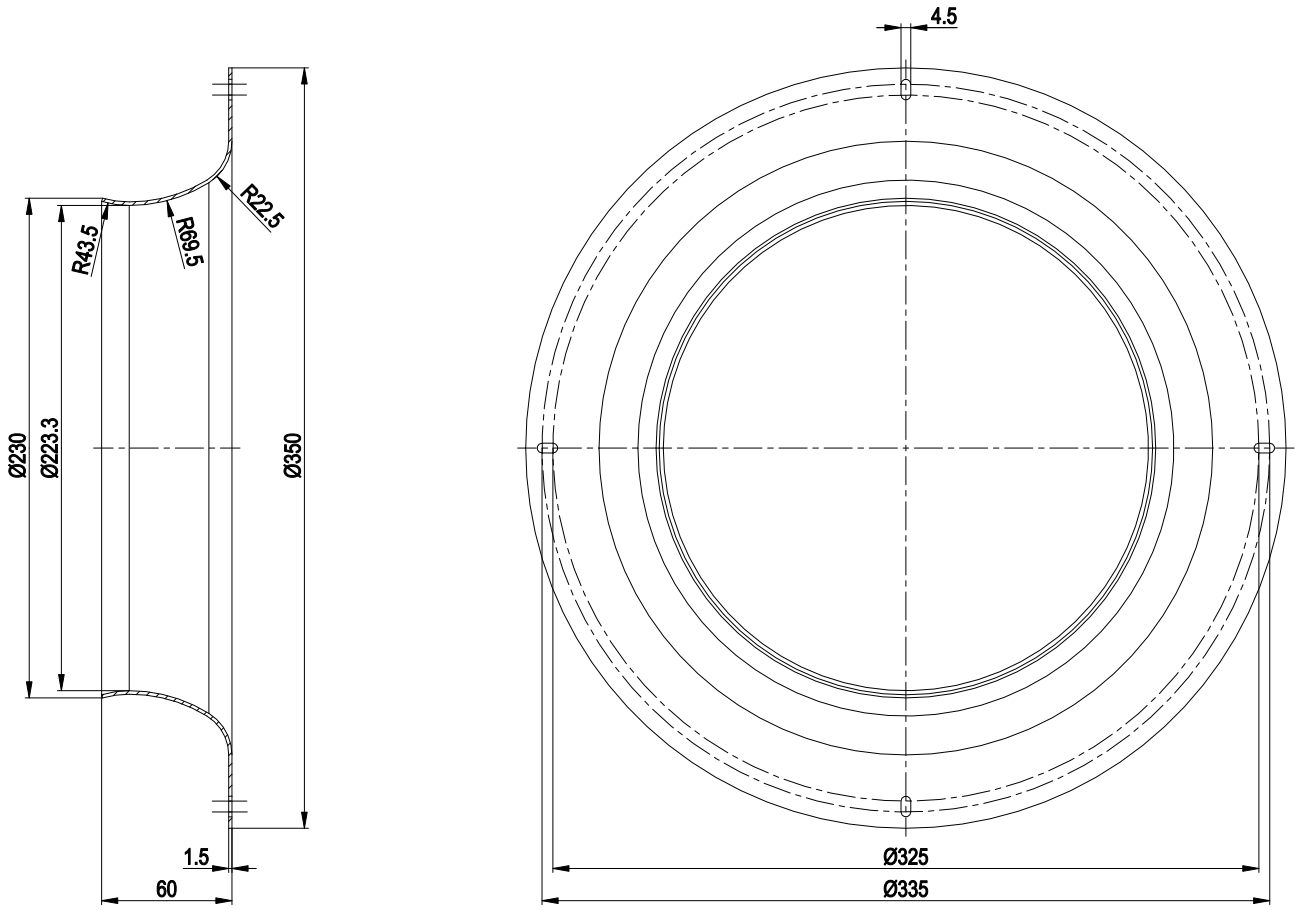


1	Accessory part: inlet ring 35500-2-4013 not included in scope of delivery
2	Max. clearance for screw 14 mm
3	Cable PVC AWG16, 4x crimped ferrules

EC centrifugal fan - RadiCal

backward-curved, single-intake

Accessory part

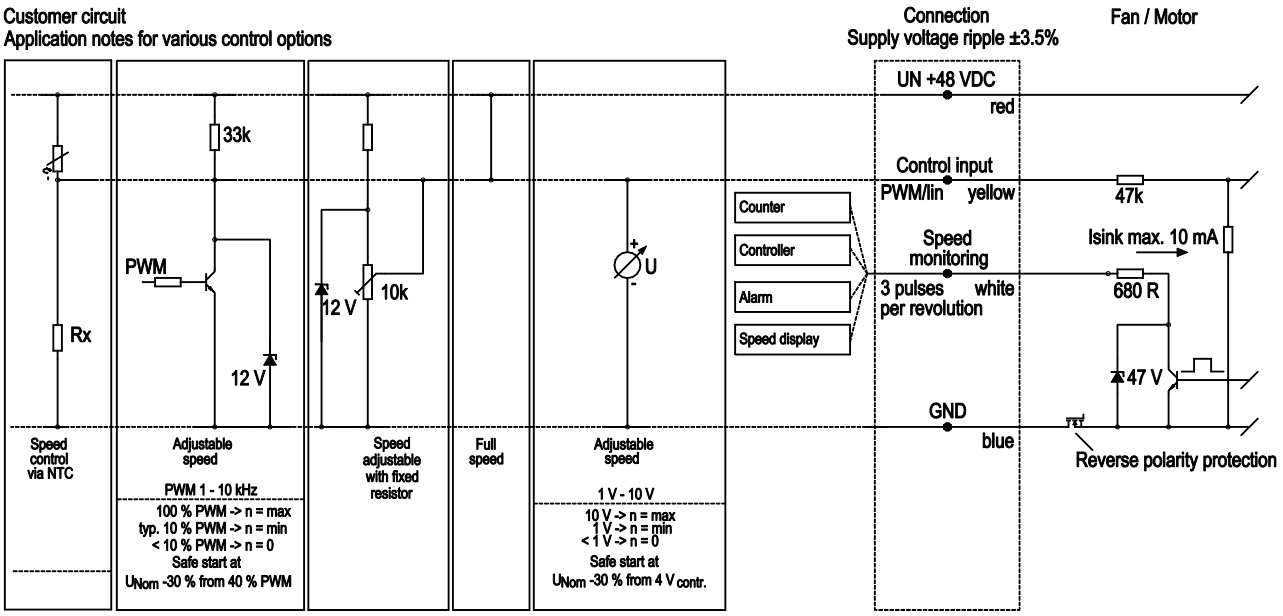


Inlet ring 35500-2-4013 not included in scope of delivery

EC centrifugal fan - RadiCal

backward-curved, single-intake

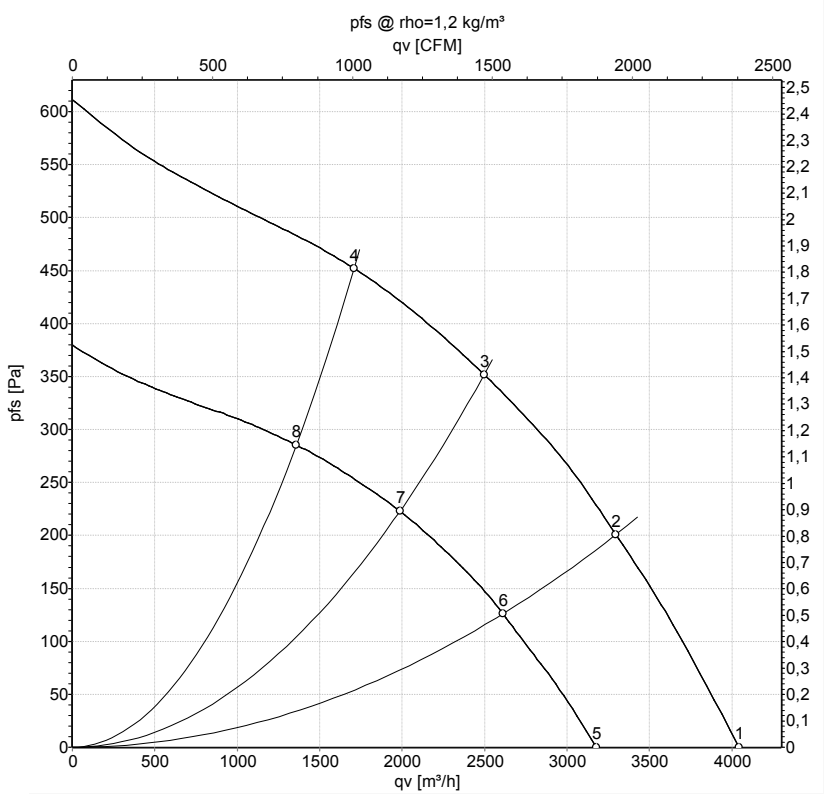
Connection diagram



EC centrifugal fan - RadiCal

backward-curved, single-intake

Curves: Air performance



Measurement: LU-155134-1
Measurement: LU-145471-1

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	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	48-57	1760	290		4045	0	2380	0.00
2	48-57	1710	358		3295	200	1940	0.80
3	48-57	1690	383		2495	350	1470	1.41
4	48-57	1705	368		1710	450	1005	1.81
5	36	1390	147	4.11	3180	0	1870	0.00
6	36	1360	175	4.88	2610	126	1535	0.51
7	36	1345	192	5.35	1985	224	1170	0.90
8	36	1355	183	5.12	1360	285	800	1.14

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