R3G225-RN18-02

EC centrifugal fan - RadiCal®

backward curved, single inlet

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G225-RN18-02**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min^{-1}	3400
Power input	W	230
Current draw	A	4.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	58.3	41.2	45.2
Efficiency grade N		75.1	58	62
Power input P_e	kW	0.25		
Air flow q_v	m³/h	800		
Pressure increase p_{fs}	Pa	603		
Speed n	min^{-1}	3435		

Data definition with optimum efficiency. LU-156103
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

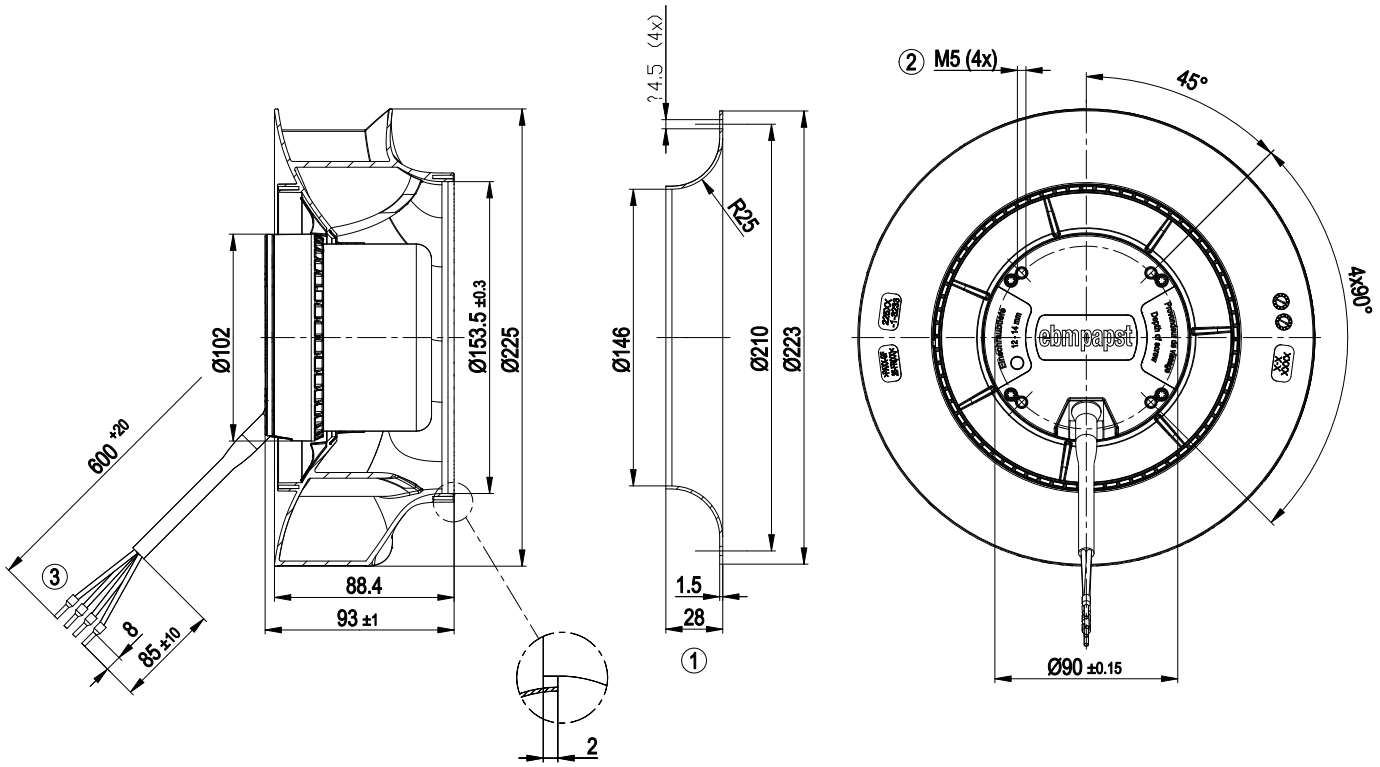
Mass	2.06 kg
Size	225 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Product conforming to standard	EN 60950-1
Approval	CCC; EAC

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Product drawing



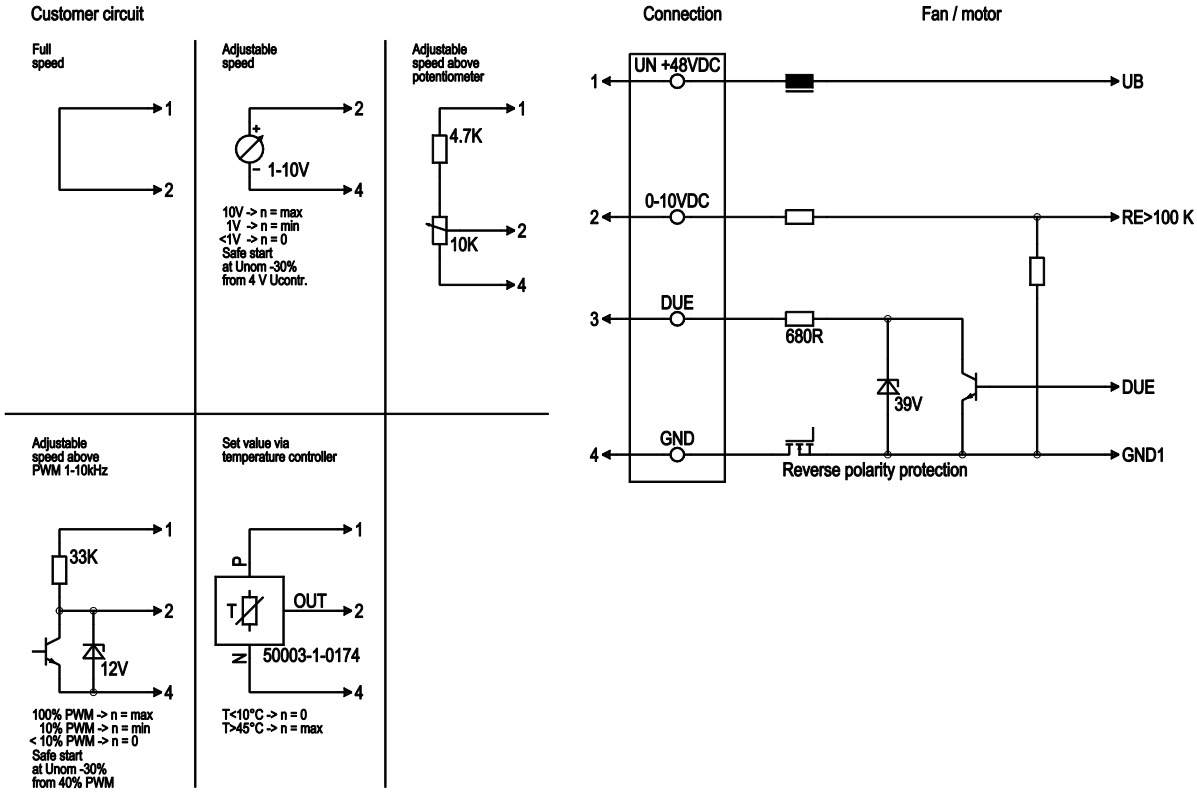
1	Accessory part: Inlet nozzle 96358-2-4013 not included in scope of delivery
2	Connection line PVC AWG16, 4x crimped core-end sleeves
3	Depth of screw max. 12 - 14 mm

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Connection screen



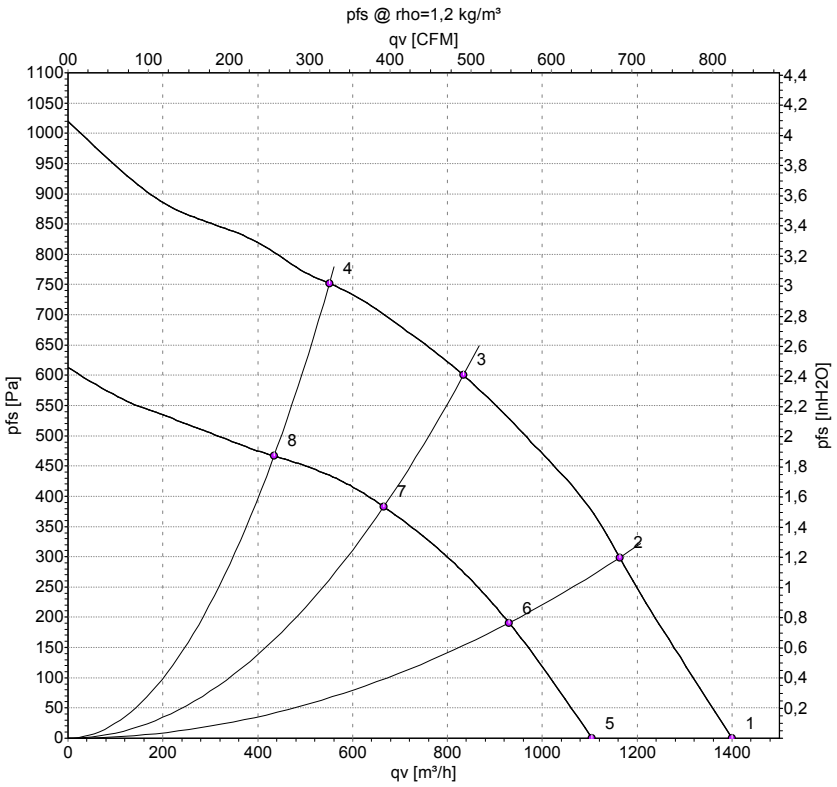
No.	Conn.	Designation	Colour	Function / assignment
	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
	2	0-10 VDC	yellow	Control input Re>100 K
	3	Tach	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
	4	GND	blue	Reference mass

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Charts: Air flow



Measurement: LU-156103
Measurement: LU-156109

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: LwA measured as per ISO 13347 / LpA 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	n	P_{ed}	I	LwA_{in}	qv	p_{fs}
	V	min^{-1}	W	A	dB(A)	m^3/h	Pa
1	48-57	3500	245	5.0*	83	1400	0
2	48-57	3440	257	5.35*	80	1165	300
3	48-57	3435	260	5.43*	76	835	600
4	48-57	3500	239	4.97*	78	550	750
5	36	2770	124	3.45		1105	0
6	36	2750	129	3.60		930	191
7	36	2745	133	3.69		665	383
8	36	2785	122	3.38		435	466

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · * = Current measured at rated voltage · LwA_{in} = Sound power level inlet side · qv = Air flow · p_{fs} = Pressure increase

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