R3G280-AC60-19

EC centrifugal fan

backward-curved, single-intake

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G280-AC60-19**	
Motor	**M3G084-CA**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1750
Power consumption	W	100
Current draw	A	2.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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}	%	52.2	42.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		72	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.13
09 Air flow q_v	m^3/h	1115
09 Pressure increase p_{fs}	Pa	200
10 Speed (rpm) n	min^{-1}	1700
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-55823

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Technical description

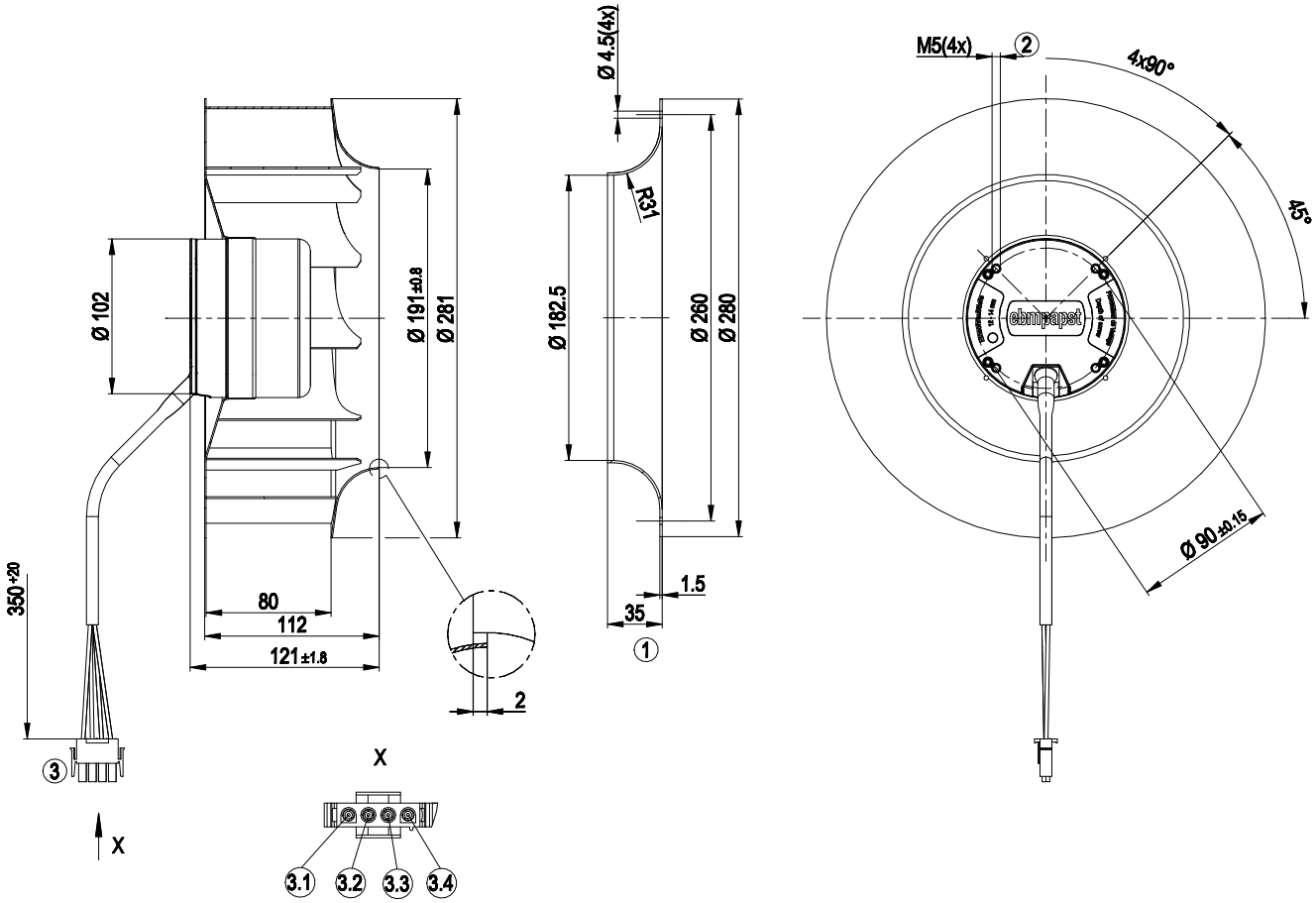
Weight	3.3 kg
Fan size	280 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized and painted black
Number of blades	11
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for motor
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Conformity with standards	EN 60950-1
Approval	CSA C22.2 No. 100; UL 1004-1

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Product drawing



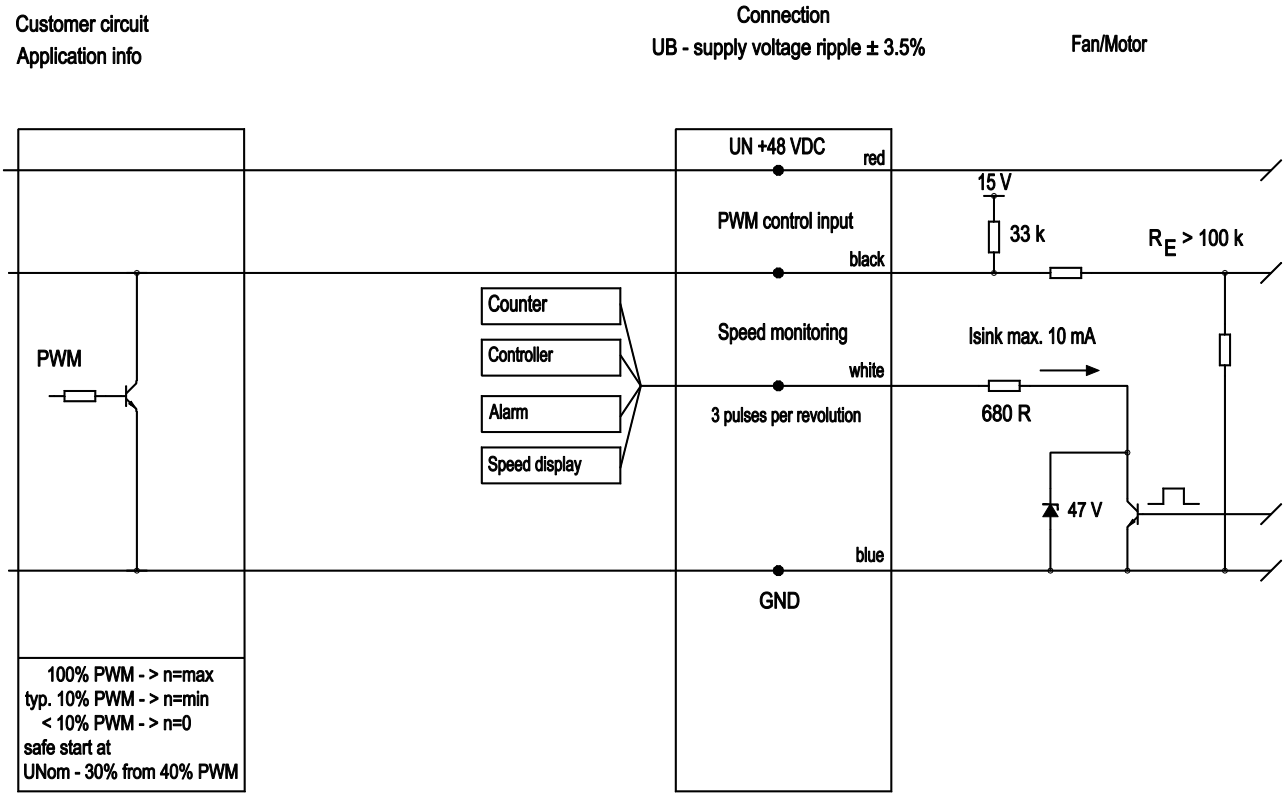
1	Accessory part: inlet ring 96360-2-4013 not included in scope of delivery
2	Max. clearance for screw 14 mm
3	Cable PVC AWG16 with connector housing AMP 350779-1, 4x plug pin 926887-1 crimped.
3.1	blue (GND)
3.2	yellow (PWM) control input
3.3	white (tach) speed monitoring
3.4	red (+48 V)

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Connection diagram

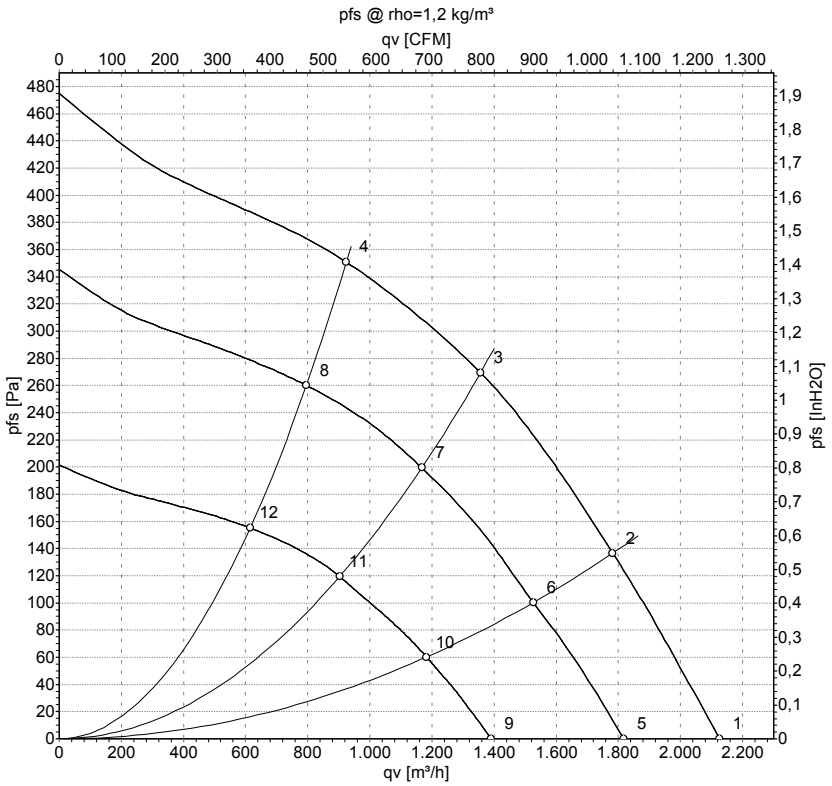


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Curves: Air performance



Measurement: LU-55824-1
Measurement: LU-55823-1
Measurement: LU-55826-1

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	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	57	2040	158	2.80	2125	0	1250	0.00
2	57	1990	191	3.38	1780	137	1050	0.55
3	57	1960	210	3.72	1355	271	800	1.09
4	57	1990	191	3.38	925	351	545	1.41
5	48	1750	100	2.10	1815	0	1070	0.00
6	48	1720	123	2.59	1525	100	900	0.40
7	48	1700	135	2.84	1165	200	685	0.80
8	48	1720	124	2.60	795	260	470	1.04
9	36	1360	48	1.35	1390	0	820	0.00
10	36	1340	58	1.62	1185	60	695	0.24
11	36	1325	64	1.80	905	119	530	0.48
12	36	1340	58	1.64	615	156	360	0.63

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

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