

R3G310-AN43-71

EC centrifugal fan

backward curved, single inlet



ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner: Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142



Nominal data

Type	R3G310-AN43-71	
Motor	M3G084-FA	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	2435
Power input	W	470
Current draw	A	3.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45

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 integrated	Integrated
Specific ratio*	1,01

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

	Actual	Request 2013	Request 2015
Overall efficiency η_{es}	60,6	44	48
Efficiency grade N	74,6	58	62
Power input P_{ed}	kW	0,46	
Air flow q_v	m ³ /h	1810	
Pressure increase p_{fs}	Pa	507	
Speed n	min ⁻¹	2455	

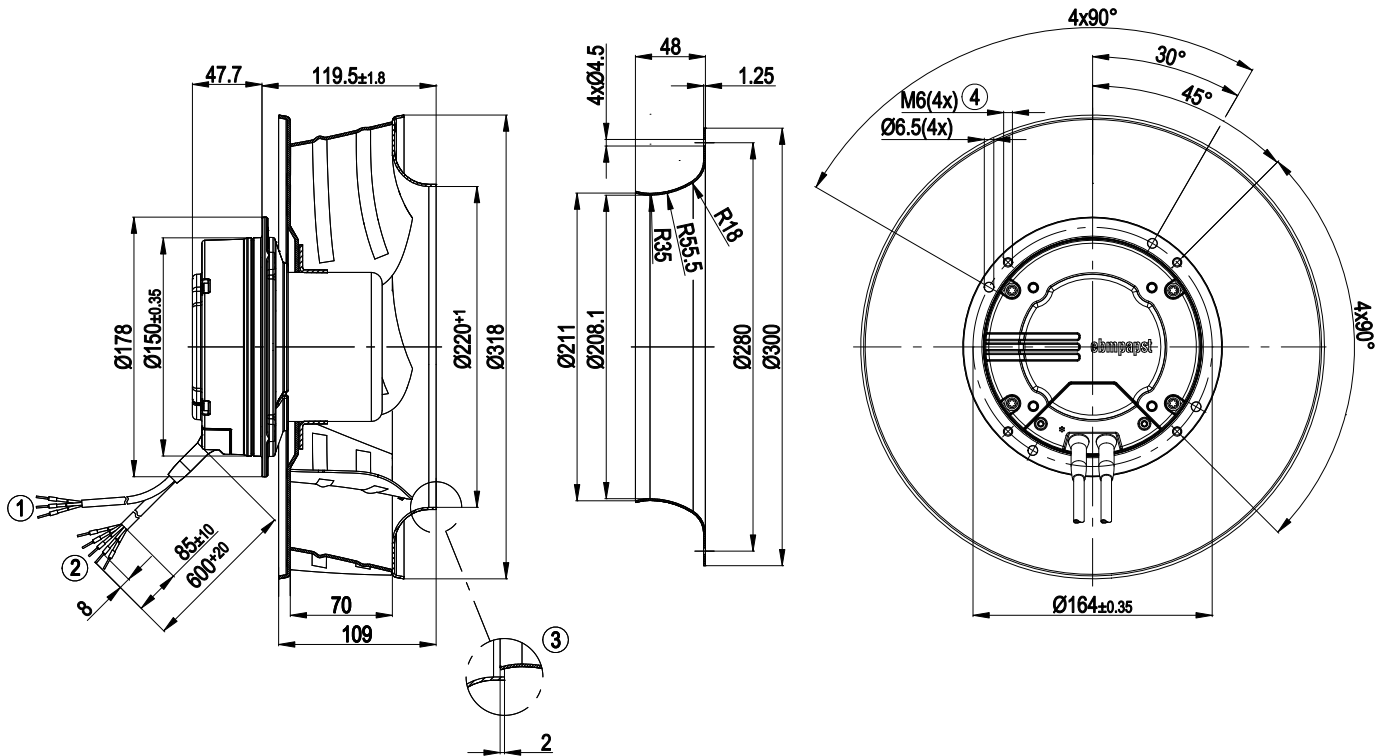
Data established at point of optimum efficiency



Technical features

General description	Integrated electronics
Mass	4.56 kg
Size	310 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
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 top; rotor on bottom on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	<ul style="list-style-type: none"> - Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage detection
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)
Leakage current	<= 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	CSA C22.2 Nr.77; UL 2111

Product drawing



1	Connection line PVC AWG22, 3x crimped core-end sleeves
2	Connection line PVC AWG18, 5x crimped core-end sleeves
3	Accessory part: Inlet nozzle 31050-2-4013, not included in the standard scope of delivery
4	Depth of screw 8 - 10 mm

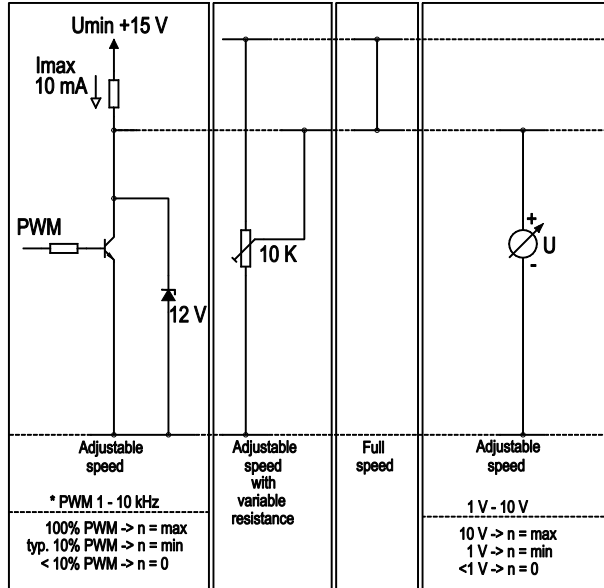
EC centrifugal fan

backward curved, single inlet

Connection screen

Customer circuit

Notes on various control possibilities and their applications



Connection

Fan / motor

