

ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

sales@fansco.com

www.fansco.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	R3G280-AF42-62	
Motor	M3G084-DF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	2550
Power input	W	415
Current draw	A	1.8
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*	1,00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		48,2	43,9	47,9
Efficiency grade N		62,3	58	62
Power input P_{ed}	kW	0,45		
Air flow q_v	m ³ /h	1510		
Pressure increase p_{fs}	Pa	472		
Speed n	min ⁻¹	2610		

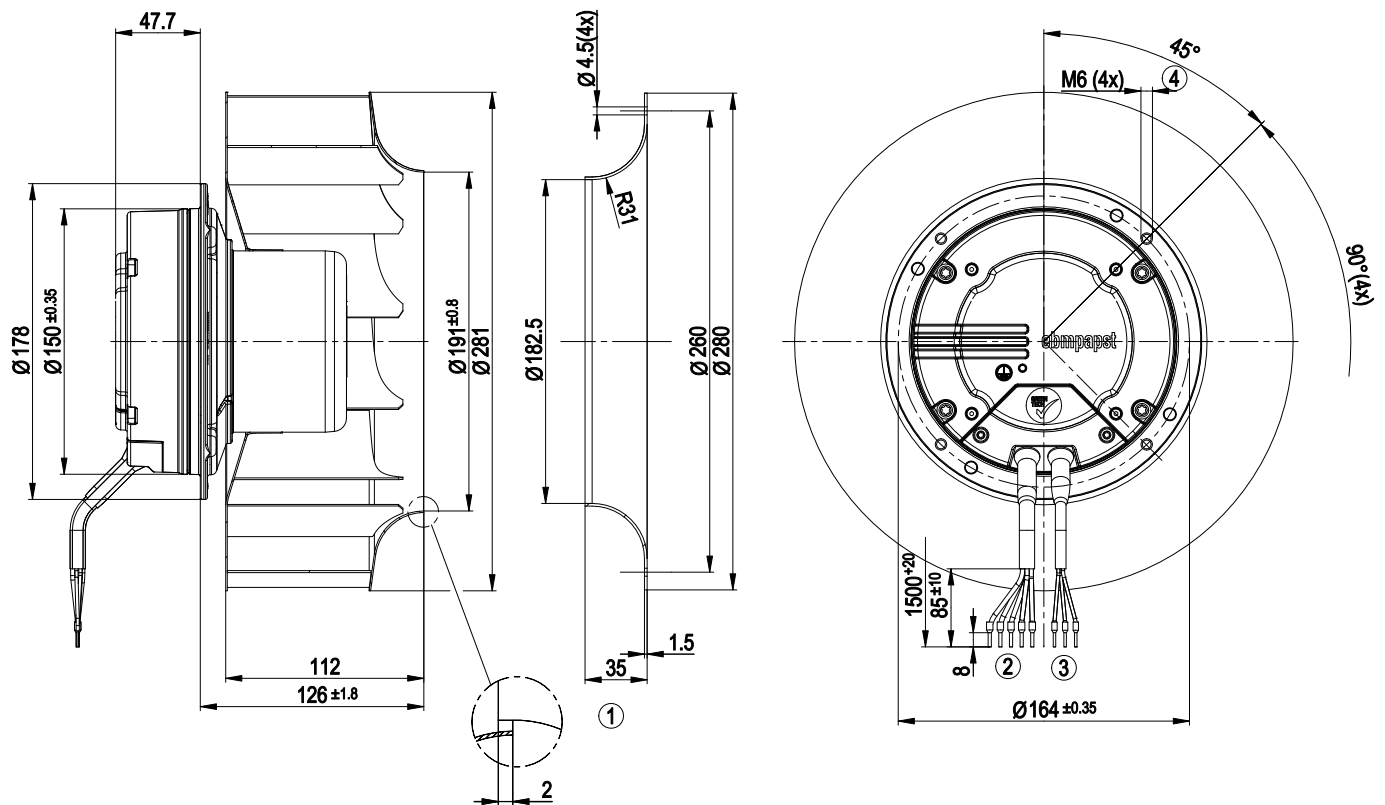
Data established at point of optimum efficiency



Technical features

Mass	5.1 kg
Size	280 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, galvanised
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
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	- Output 10 VDC, max. 10 mA - Alarm relay - Motor current limit - PFC, active - 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 / phase failure detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
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

Product drawing

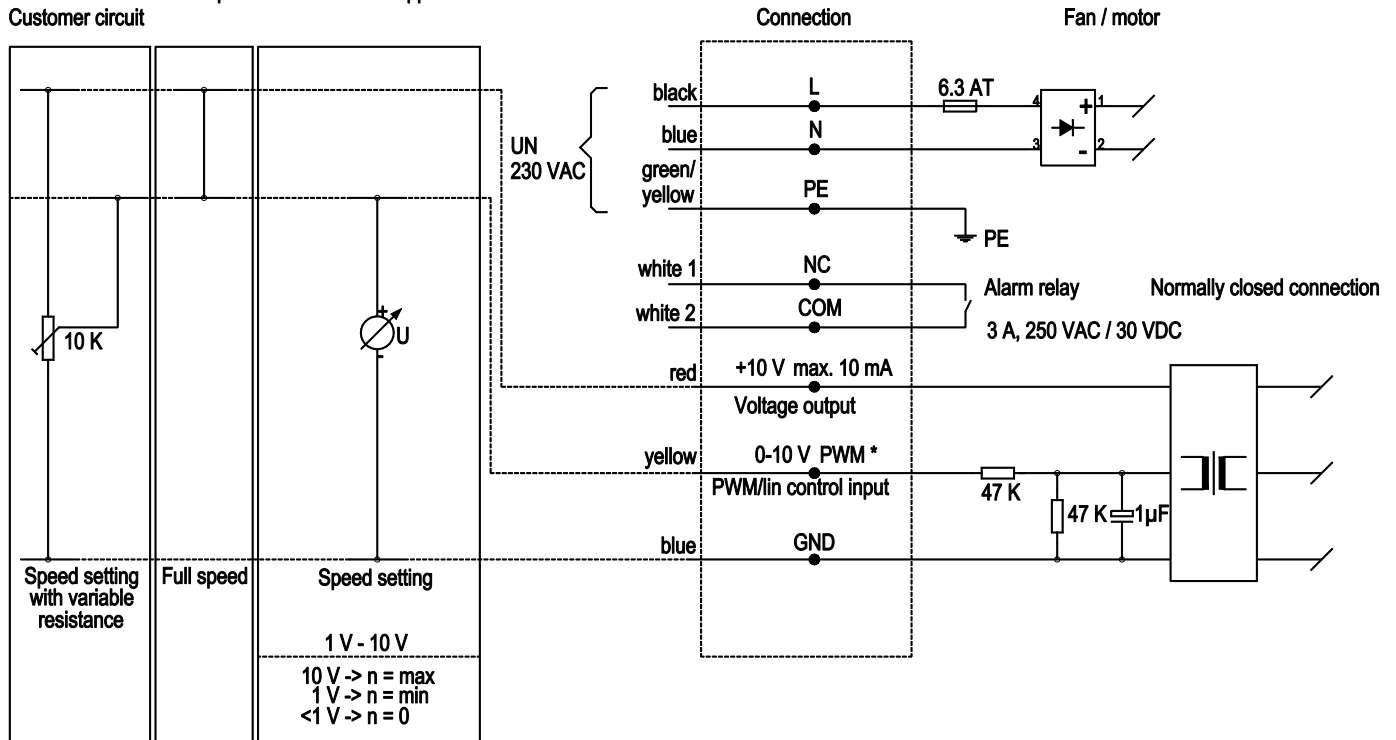


1	Accessory part: Inlet nozzle 96360-2-4013, not included in the standard scope of delivery
2	Connection line PVC AWG18, 5x crimped core-end sleeves
3	Connection line PVC AWG22, 3x crimped core-end sleeves
4	Depth of screw 8-10 mm

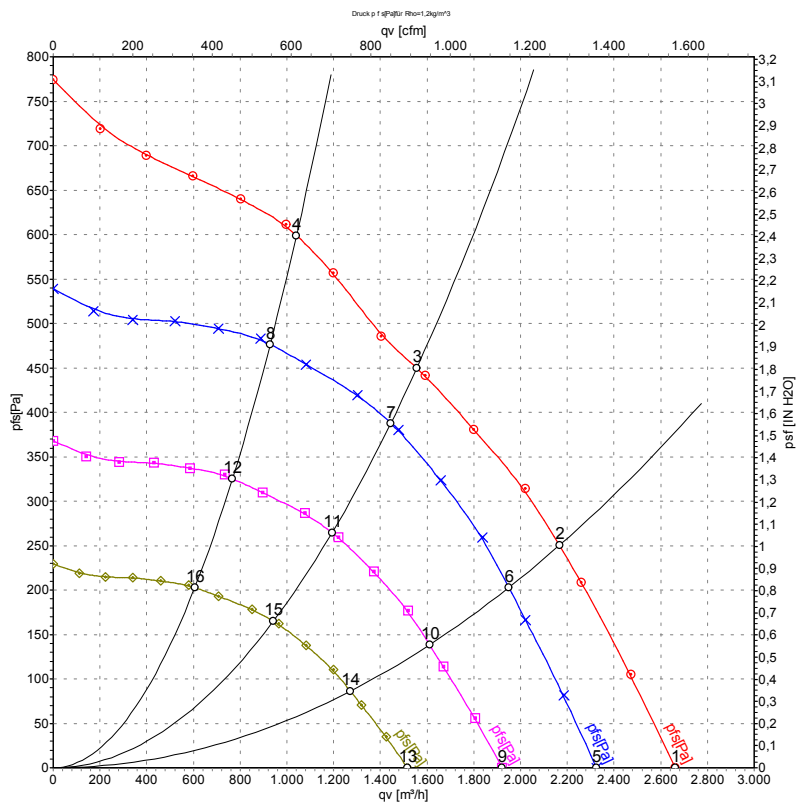
Connection screen

Notes on various control possibilities and their applications

Customer circuit



Charts: Air flow 50 Hz



Measurement: LU-111192

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: L_{wA} measured as per ISO 13347 /
L_{pA} 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	f	n	P _{ed}	I	qv	P _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	230	50	2635	342	1.49	2665	0
2	230	50	2555	404	1.78	2165	250
3	230	50	2550	415	1.80	1555	450
4	230	50	2580	395	1.74	1040	600
5	230	50	2300	227	0.99	2325	0
6	230	50	2300	294	1.30	1950	203
7	230	50	2300	332	1.46	1445	388
8	230	50	2300	280	1.23	930	477
9	230	50	1900	128	0.56	1920	0
10	230	50	1900	166	0.73	1610	138
11	230	50	1900	187	0.82	1195	265
12	230	50	1900	158	0.70	765	326
13	230	50	1500	63	0.28	1515	0
14	230	50	1500	82	0.36	1270	86
15	230	50	1500	92	0.40	940	165
16	230	50	1500	78	0.34	605	203