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County court Stuttgart · HRA 590344

General partner: Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 590142

**Nominal data**

Type	R3G280-RO18-A1	
Motor	M3G084-DF	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min ⁻¹	2550
Power input	W	460
Current draw	A	2.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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}		64,7	43,9	47,9
Efficiency grade N		78,8	58	62
Power input P_{ed}	kW	0,45		
Air flow q_v	m ³ /h	2000		
Pressure increase p_{fs}	Pa	480		
Speed n	min ⁻¹	2535		

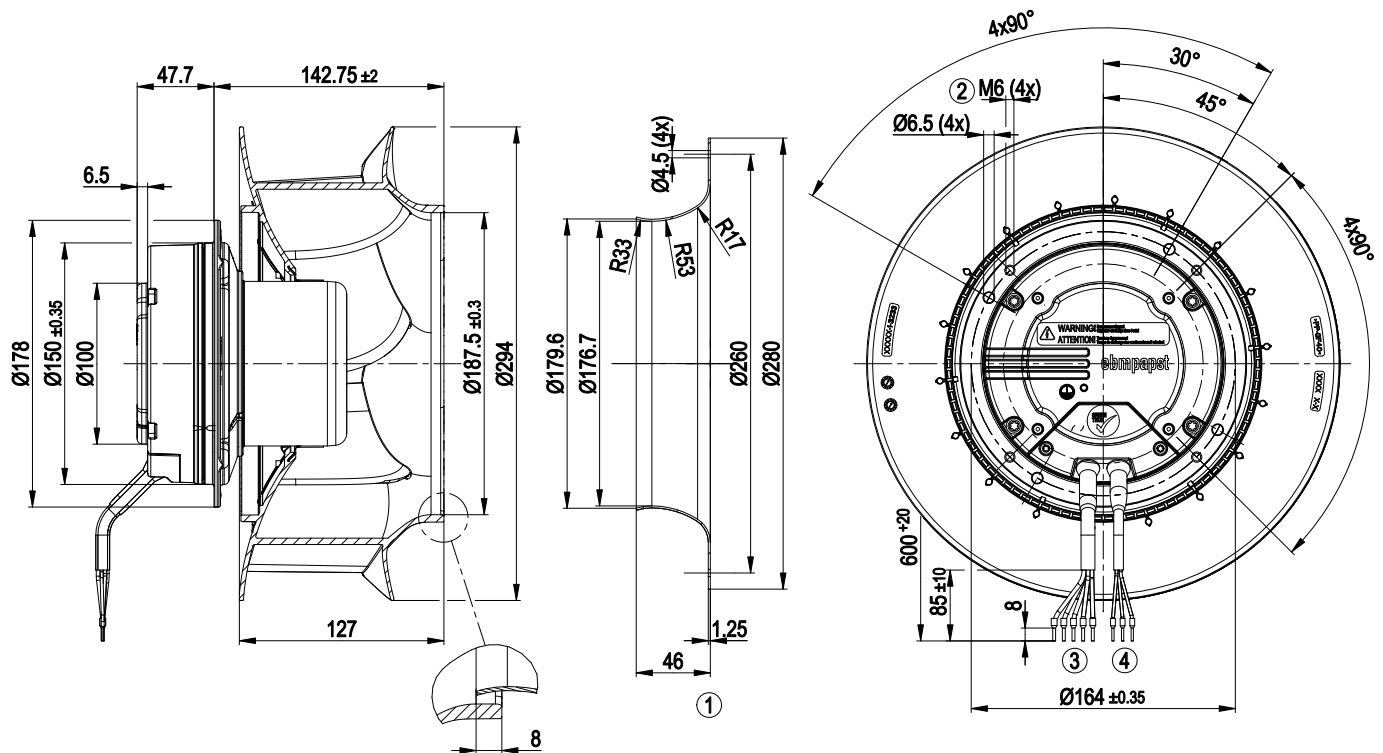
Data established at point of optimum efficiency



Technical features

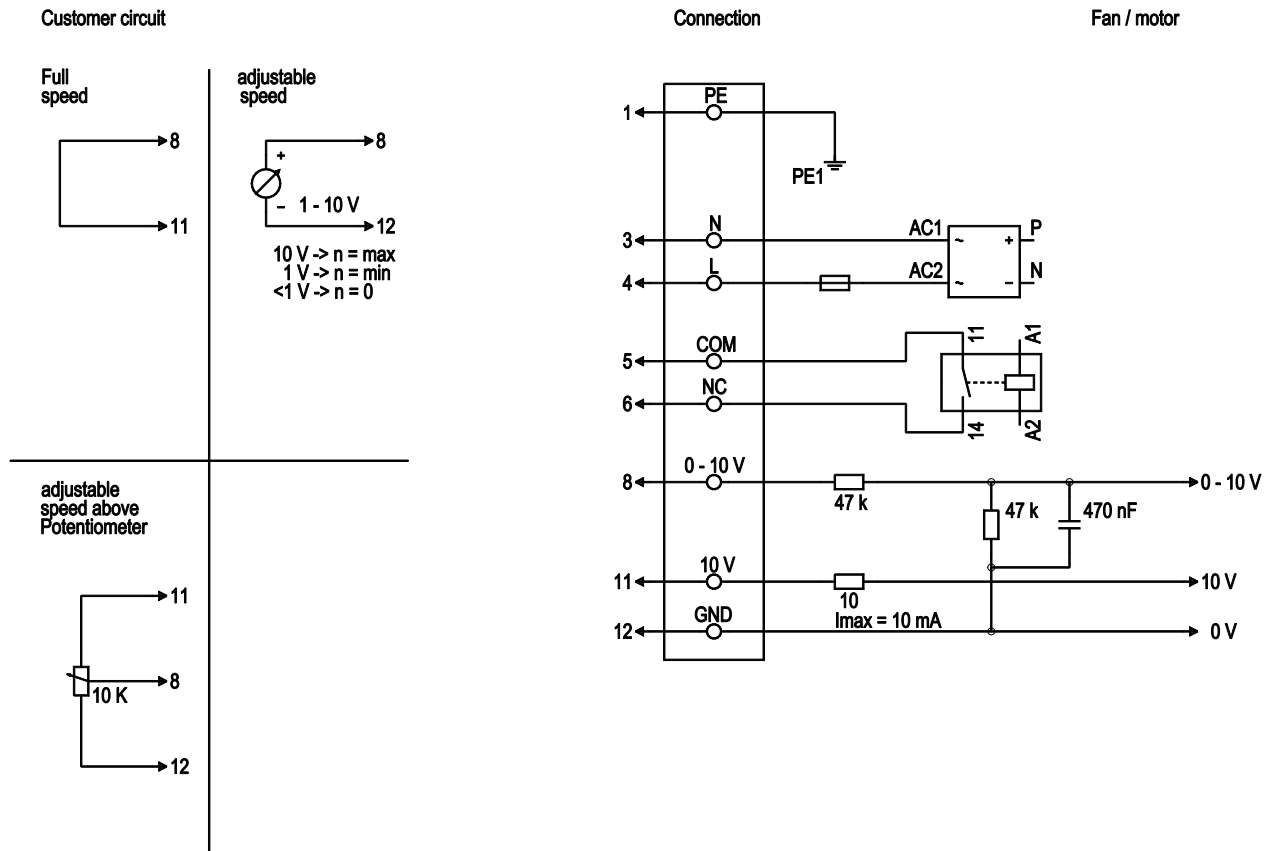
Mass	4 kg
Size	280 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PP plastic
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor 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	- 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 55022 (Class B)
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
Approval	UL 2111; CSA C22.2 Nr.77

Product drawing



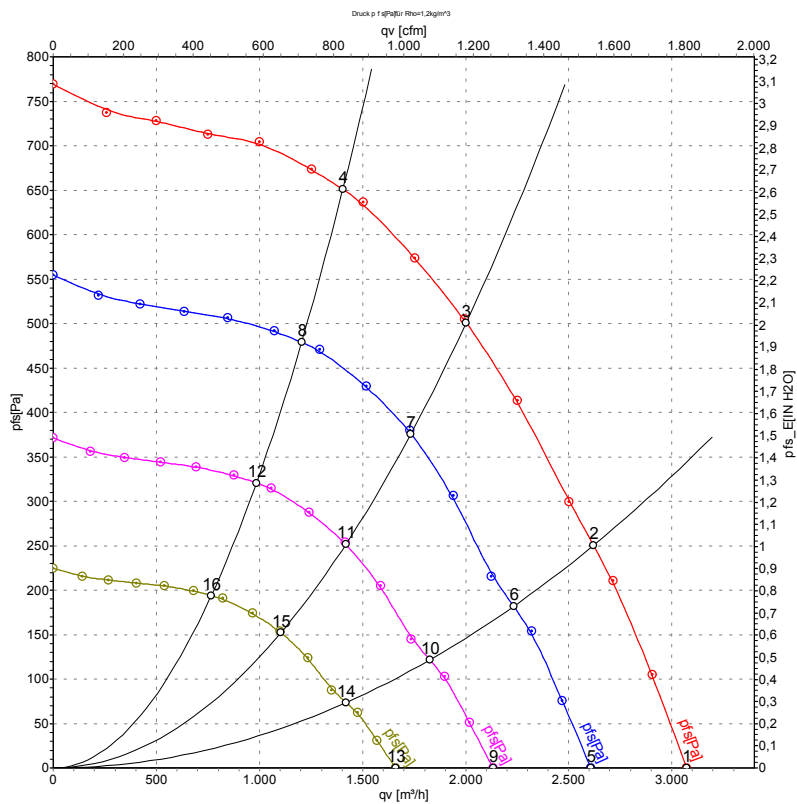
1	Accessory part: Inlet nozzle 28000-2-4013, not included in the standard scope of delivery
2	Depth of screw 8-10 mm
3	Connection line PVC AWG18, 5x crimped core-end sleeves
4	Connection line PVC AWG22, 3x crimped core-end sleeves

Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1	PE	green/yellow	Protective earth
1	3	N	blue	Supply voltage, neutral conductor, 50/60 Hz
1	4	L	black	Supply voltage, phase, 50/60 Hz
1	5	COM	white 1	Floating status message contact, normally closed for error (2 A, max. 250 VAC, min. 10 mA)
1	6	NC	white 2	Floating status message contact, normally closed for error
2	8	0 - 10 V	yellow	Control input, set value 0 - 10 VDC, impedance 100 kΩ, SELV
2	11	10 VDC	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

Charts: Air flow 50 Hz



Measurement: LU-136485

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	q _v	P _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	230	50	2570	353	1.56	3070	0
2	230	50	2570	424	1.86	2620	250
3	230	50	2550	460	2.00	2000	500
4	230	50	2570	437	1.91	1405	650
5	230	50	2200	216	0.95	2610	0
6	230	50	2200	262	1.15	2235	182
7	230	50	2200	298	1.30	1735	378
8	230	50	2200	276	1.21	1205	479
9	230	50	1800	118	0.52	2135	0
10	230	50	1800	144	0.63	1825	122
11	230	50	1800	163	0.71	1420	253
12	230	50	1800	151	0.66	985	321
13	230	50	1400	56	0.25	1660	0
14	230	50	1400	68	0.30	1420	74
15	230	50	1400	77	0.34	1105	153
16	230	50	1400	71	0.31	765	194