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Amtsgericht (court of registration) Stuttgart · HRB 590142

**Nominal data**

<b>Type</b>	<b>R3G280-AF35-71</b>	
<b>Motor</b>	<b>M3G084-DF</b>	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min <sup>-1</sup>	2600
Power consumption	W	455
Current draw	A	2.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change

**Data according to Commission Regulation (EU) 327/2011**

		Actual	Req. 2015
01 Overall efficiency $\eta_{es}$	%	49.2	48.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		63	62
05 Variable speed drive		Yes	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption $P_{ed}$	kW	0.48
09 Air flow $q_v$	m <sup>3</sup> /h	1610
09 Pressure increase $p_{fs}$	Pa	484
10 Speed (rpm) $n$	min <sup>-1</sup>	2595
11 Specific ratio*		1.01

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

LU-144378



## Technical description

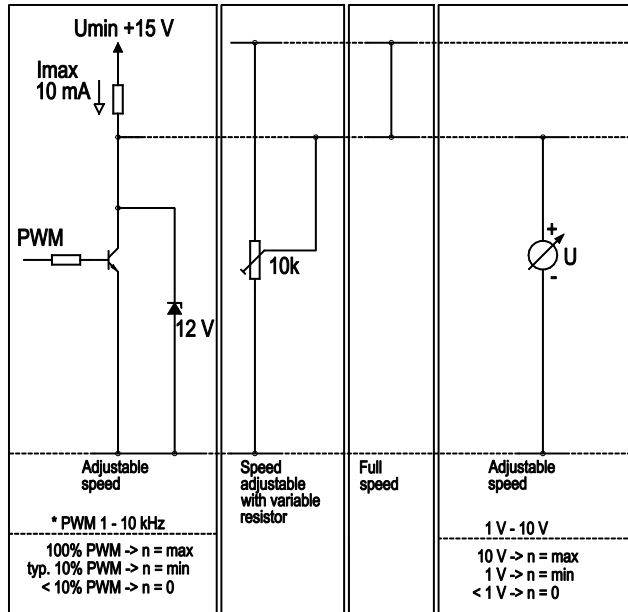
<b>Weight</b>	4.86 kg
<b>Fan size</b>	280 mm
<b>Rotor surface</b>	Painted black
<b>Electronics housing material</b>	Die-cast aluminum
<b>Impeller material</b>	Sheet steel, hot-dip galvanized
<b>Number of blades</b>	11
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP54
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	F3-1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	-40 °C
<b>Installation position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensation drainage holes</b>	None
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Alarm relay</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage detection</li> </ul>
<b>EMC immunity to interference</b>	According to EN 61000-6-2 (industrial environment)
<b>EMC circuit feedback</b>	According to EN 61000-3-2/3
<b>EMC interference emission</b>	According to EN 61000-6-3 (household environment)
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	<= 3.5 mA
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 61800-5-1; CE
<b>Approval</b>	CCC; VDE; UL1004-3 +60730; EAC; C22.2 No.77 + CAN/CSA-E60730-1



## Connection diagram

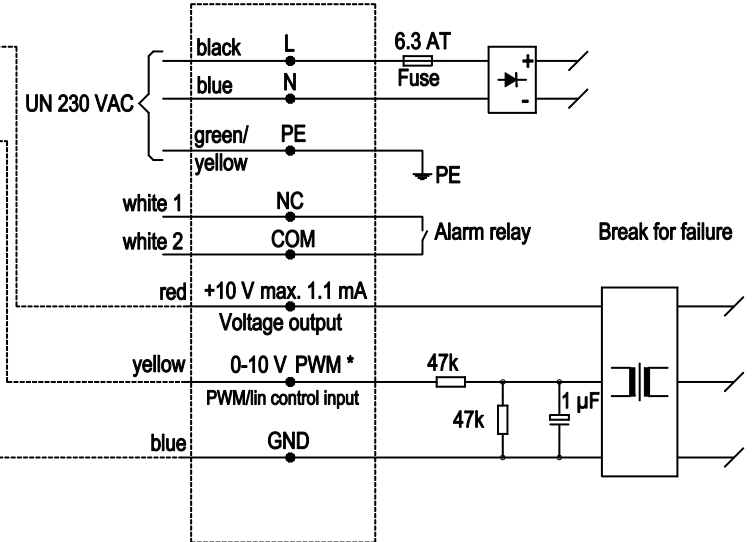
### Customer circuit

#### Application notes for various control options

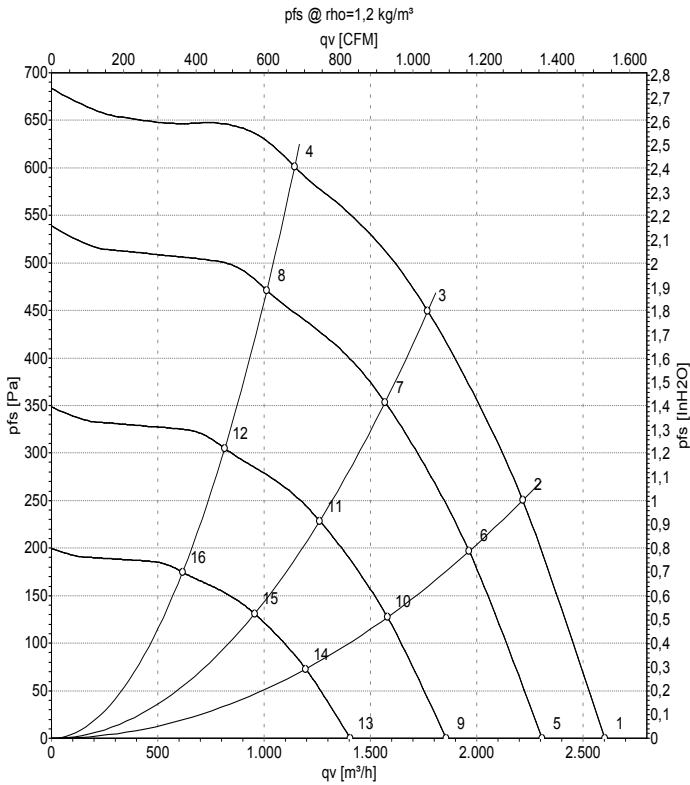


### Connection

### Fan / Motor



## Curves: Air performance 50 Hz



Measurement: LU-144378-1

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	f	n	P <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	50	2600	330	2.16	77	84	2605	0	1530	0.00
2	230	50	2600	430	2.78	74	82	2215	250	1305	1.00
3	230	50	2600	455	2.80	72	80	1770	450	1040	1.81
4	230	50	2600	422	2.78	73	81	1145	600	675	2.41
5	230	50	2300	230	1.51	74	81	2310	0	1360	0.00
6	230	50	2300	300	1.97	71	79	1965	199	1155	0.80
7	230	50	2300	338	2.24	69	77	1570	354	925	1.42
8	230	50	2300	293	1.94	70	78	1015	471	595	1.89
9	230	50	1850	120	0.78	68	76	1855	0	1095	0.00
10	230	50	1850	156	1.03	66	73	1580	129	930	0.52
11	230	50	1850	176	1.17	64	71	1260	229	745	0.92
12	230	50	1850	152	1.01	64	72	815	305	480	1.22
13	230	50	1400	52	0.34	61	69	1405	0	825	0.00
14	230	50	1400	68	0.44	58	66	1195	74	705	0.30
15	230	50	1400	76	0.51	57	64	955	131	560	0.53
16	230	50	1400	66	0.44	57	65	615	174	365	0.70

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
 q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



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