R3G400-AD27-61

EC centrifugal fan

backward curved, single inlet



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G400-AD27-61**	
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}	1420
Power input	W	370
Current draw	A	1.65
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	35

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	Yes
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	60.3	42.7	46.7
Efficiency grade N		75.6	58	62
Power input P_{ed}	kW	0.35		
Air flow q_v	m^3/h	1805		
Pressure increase p_{fs}	Pa	385		
Speed n	min^{-1}	1435		

Data definition with optimum efficiency. LU-66012
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

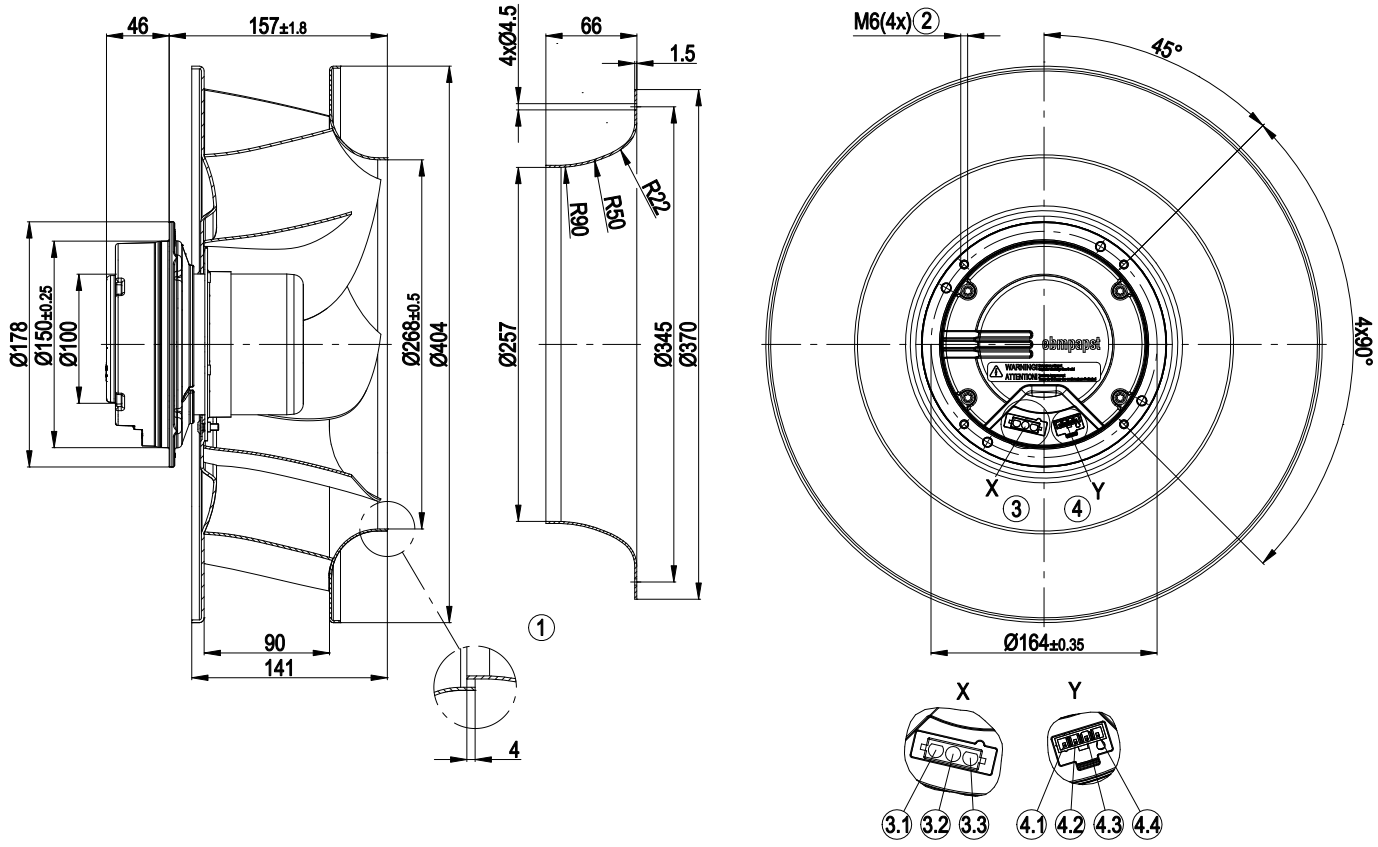
Mass	5.7 kg
Size	400 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Humidity class	F0
Max. permissible ambient motor 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	- Operation and alarm display: reversible voltage output 0 V / +15 V - Integrated PID controller - Motor current limit - PFC, active - RS485 ebmBUS - Soft start - 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 harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	CCC; CSA C22.2 Nr.113; EAC; UL 507

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Product drawing



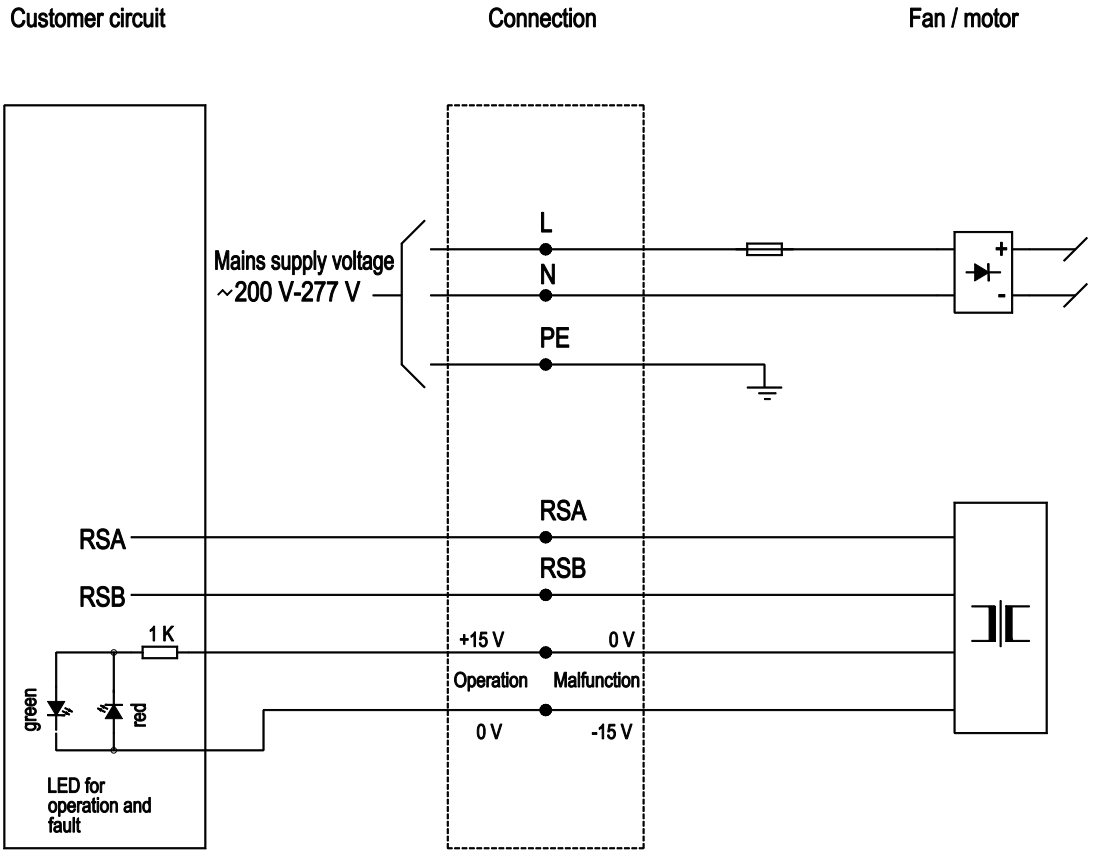
1	Accessory part: Inlet nozzle 54476-2-4013 not included in scope of delivery
2	Depth of screw max. 10 mm
3	Strip Lonco No. C63502-3A, mating connectors with female terminals are not included in the standard scope of delivery
3.1	PE
3.2	N
3.3	L
4	Strip 4-pole Molex 39-30-2040, mating connectors with female connectors not included in scope of delivery
4.1	RSB
4.2	RSA
4.3	+15 V; in the event of fault: 0 V
4.4	0 V; in the event of fault: +15 V

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Connection screen

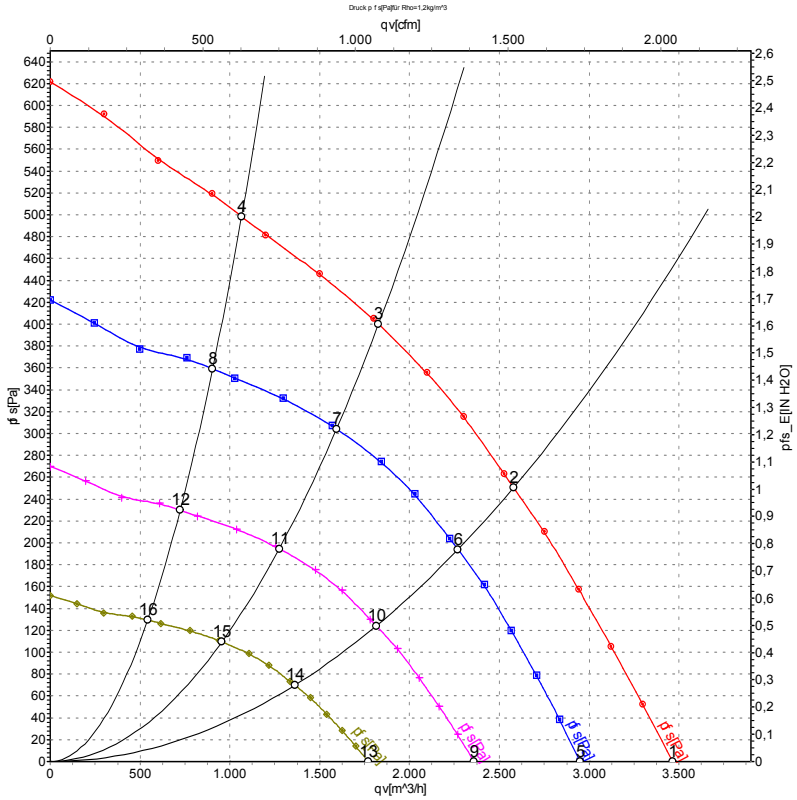


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Charts: Air flow 50 Hz



Measurement: LU-66012

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: LwA measured as per ISO 13347 / LpA 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	m^3/h	Pa
1	230	50	1470	323	1.44	3465	0
2	230	50	1420	370	1.65	2580	250
3	230	50	1435	358	1.58	1825	400
4	230	50	1475	316	1.40	1065	500
5	230	50	1250	199	0.89	2950	0
6	230	50	1250	253	1.12	2270	194
7	230	50	1250	238	1.05	1595	305
8	230	50	1250	194	0.86	905	359
9	230	50	1000	102	0.45	2360	0
10	230	50	1000	130	0.57	1815	124
11	230	50	1000	122	0.54	1275	195
12	230	50	1000	99	0.44	725	230
13	230	50	750	43	0.19	1770	0
14	230	50	750	55	0.24	1360	70
15	230	50	750	51	0.23	955	110
16	230	50	750	42	0.19	540	129

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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