R3G355-RP31-61

EC centrifugal fan - RadiCal®

backward curved, single inlet

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G355-RP31-61**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
State		prelim.
Speed	min^{-1}	1550
Power input	W	320
Current draw	A	1.4
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	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	64.5	42.2	46.2
Efficiency grade N		80.3	58	62
Power input P_{ed}	kW	0.31		
Air flow q_v	m^3/h	2405		
Pressure increase p_{fs}	Pa	275		
Speed n	min^{-1}	1560		

Data definition with optimum efficiency. LU-151742
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

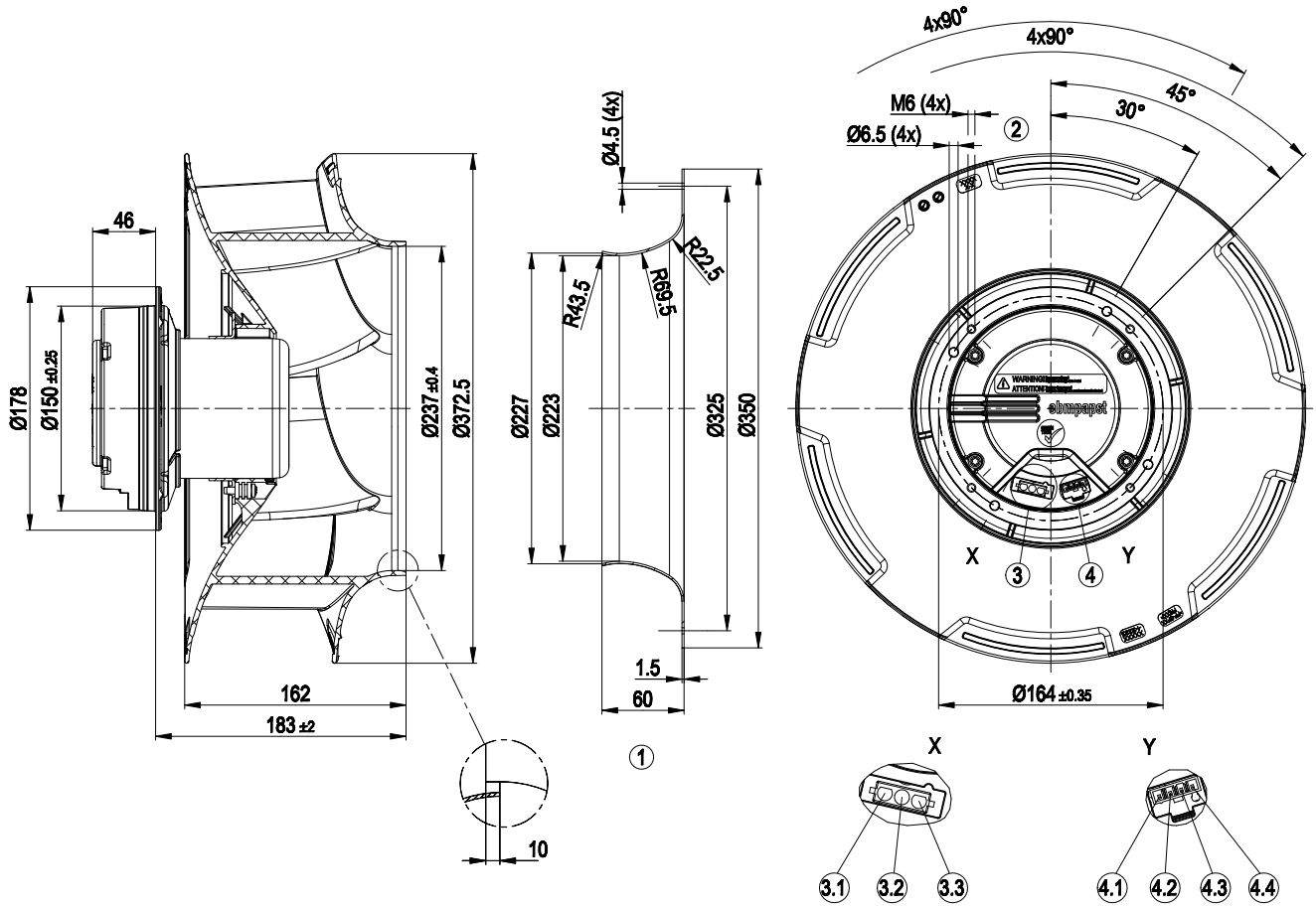
Mass	5.4 kg
Size	355 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PP plastic
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Humidity class	F0
Max. permissible ambient motor 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 via LED - 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	CSA C22.2 Nr.77; EAC; UL 2111

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Product drawing



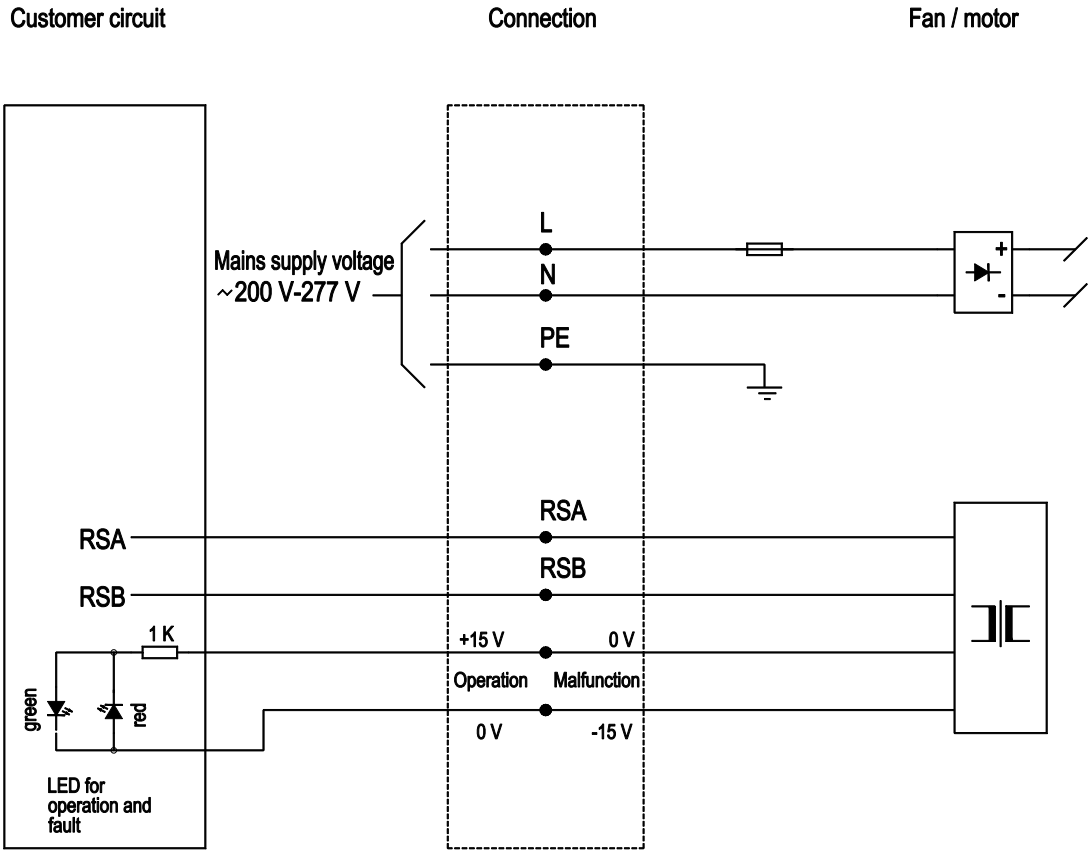
1	Accessory part: Inlet nozzle 35500-2-4013 not included in scope of delivery
2	Depth of screw max. 10 mm
3	Strip Lonco No. C63502-3A, mating connectors with female terminals are not included in the standard scope of delivery
3.1	PE
3.2	L
3.3	N
4	Strip 4-pole Molex 39-30-2040, mating connectors with 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

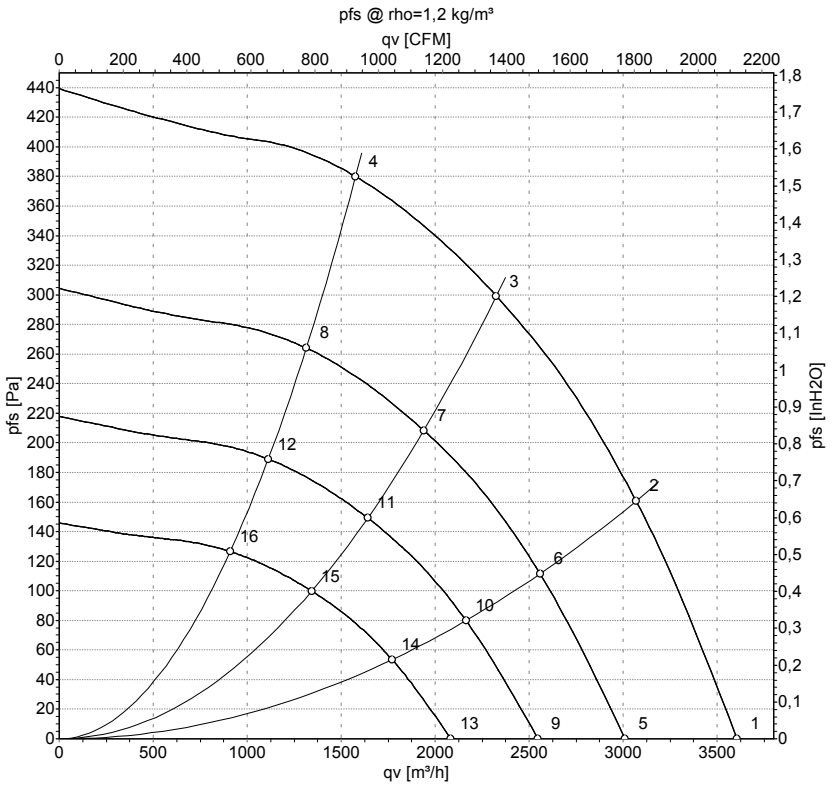


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Charts: Air flow 50 Hz



Measurement: LU-151742

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	1550	221	0.97	67	75	3605	0
2	230	50	1550	291	1.27	62	69	3070	160
3	230	50	1550	320	1.40	57	65	2325	300
4	230	50	1550	301	1.32	58	66	1575	380
5	230	50	1300	128	0.56	63	70	3010	0
6	230	50	1300	169	0.74	57	65	2555	112
7	230	50	1300	185	0.81	53	60	1940	208
8	230	50	1300	175	0.76	54	61	1315	264
9	230	50	1100	78	0.34	59	66	2545	0
10	230	50	1100	102	0.45	53	60	2165	80
11	230	50	1100	112	0.49	49	56	1640	149
12	230	50	1100	106	0.46	50	57	1110	189
13	230	50	900	43	0.19	54	61	2085	0
14	230	50	900	56	0.24	48	55	1770	54
15	230	50	900	62	0.27	44	51	1345	100
16	230	50	900	58	0.25	44	52	910	127

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
p_{fs} = Pressure increase

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