R3G355-AM14-61

EC centrifugal fan

backward-curved, single-intake



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Nominal data

Type	**R3G355-AM14-61**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1900
Power consumption	W	350
Current draw	A	1.5
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	60	47.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		74.5	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.42
09 Air flow q_v	m^3/h	2050
09 Pressure increase p_{fs}	Pa	400
10 Speed (rpm) n	min^{-1}	1770
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-64229

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Technical description

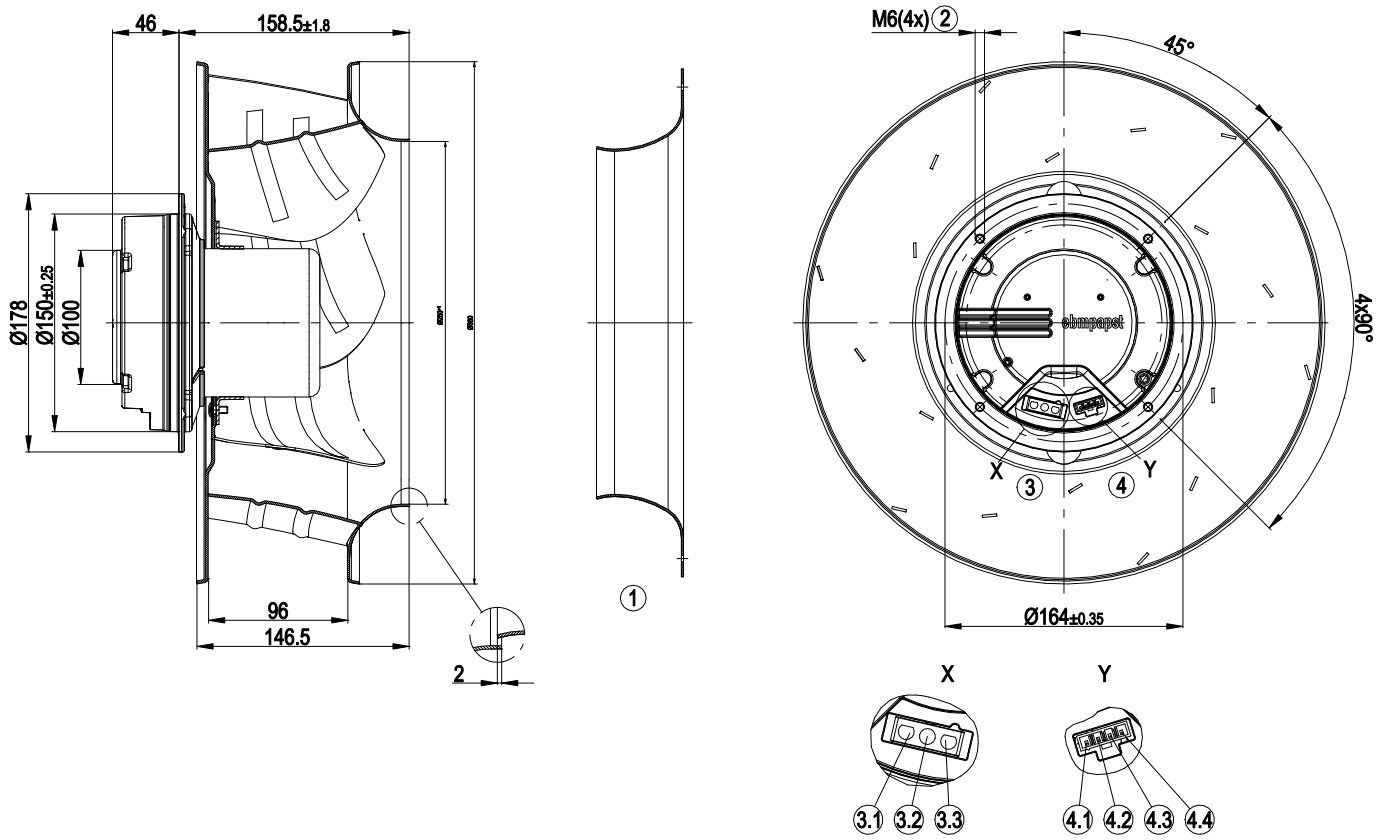
Weight	5.4 kg
Fan size	355 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Operation and alarm display: reversible voltage output 0 V / +15 V - Integrated PID controller - Motor current limitation - PFC, active - RS-485 ebmBUS - Soft start - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	CCC; UL 507; EAC; CSA C22.2 No. 113

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Product drawing



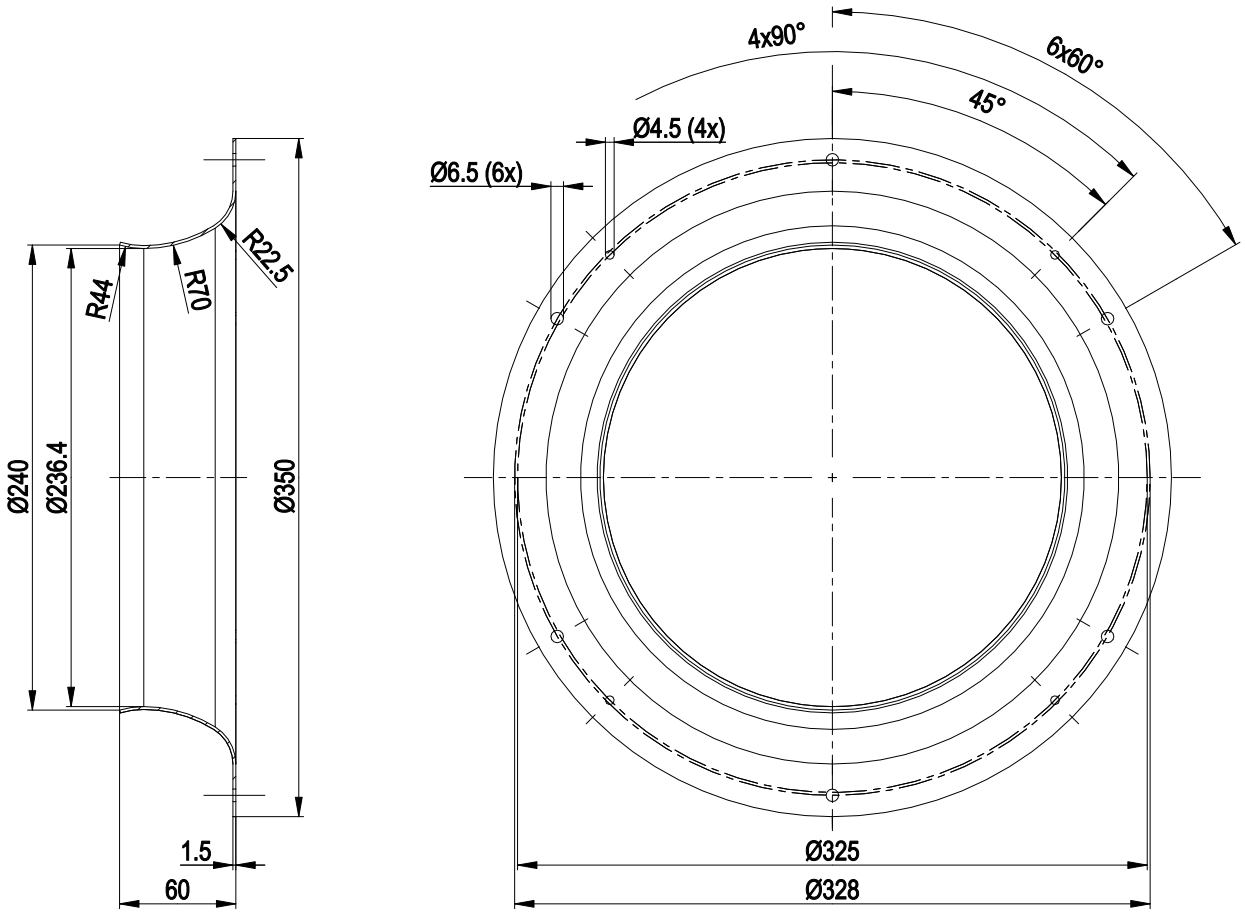
1	Accessory part: inlet ring 35560-2-4013 not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Header Lonco no. C63502-3A, mating connectors with sockets not included in scope of delivery
3.1	PE
3.2	N
3.3	L
4	4-pole header Molex 39-30-2040, mating connector with sockets not included in scope of delivery
4.1	RSB
4.2	RSA
4.3	+15 V; in case of fault: 0 V
4.4	0 V; in case of fault: +15 V

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Accessory part

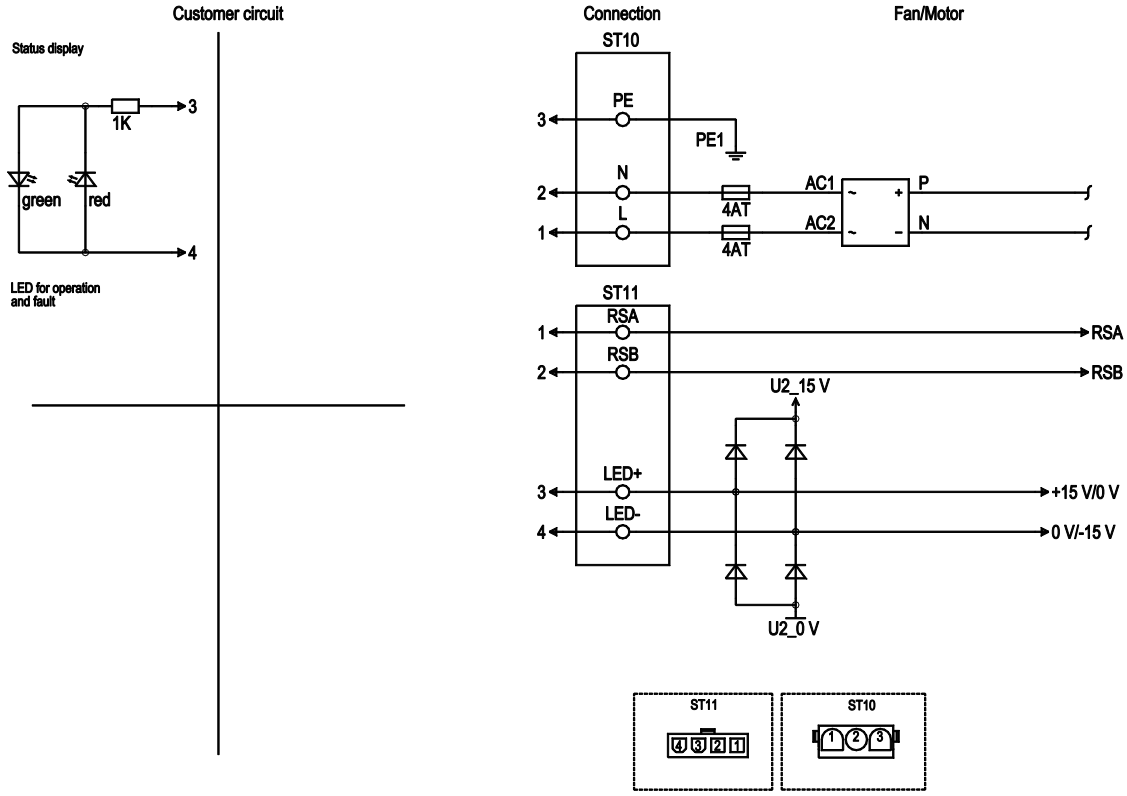


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Connection diagram



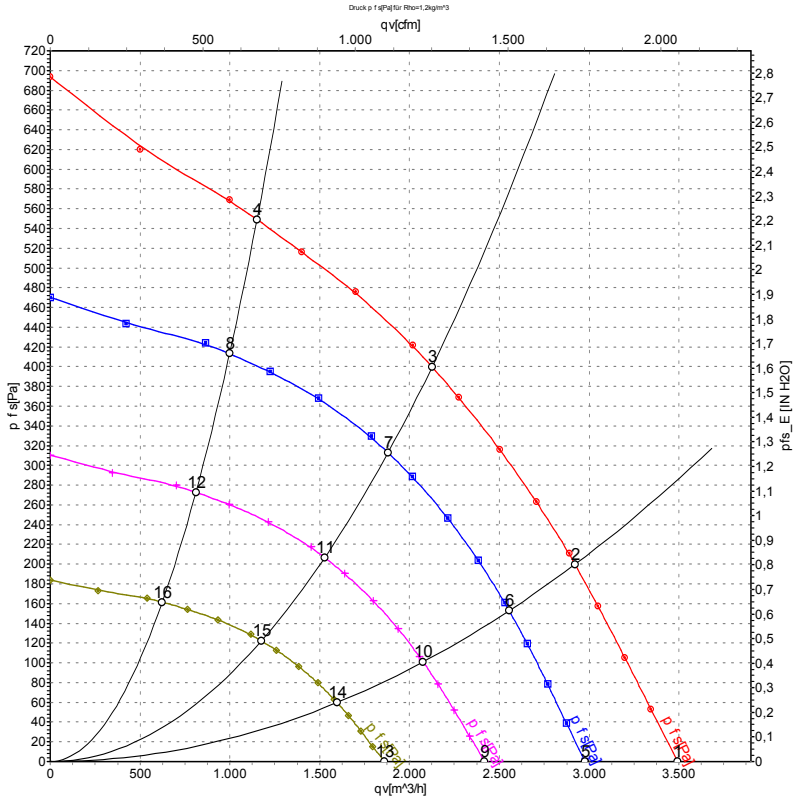
No.	Conn.	Designation	Color	Function/assignment
10	1	L		Power supply, phase, 50/60 Hz
10	2	N		Power supply, neutral conductor, 50/60 Hz
10	3	PE		Protective earth
11	1	RSA		RS485 interface for ebmBUS, RSA, SELV
11	2	RSB		RS485 interface for ebmBUS, RSB, SELV
11	3	LED +		Voltage output 15 V (+15%/-10%), max. 30 mA, power supply for external devices (e.g. status display for LED), SELV
11	4	LED -		Reference ground for control interface, SELV

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Curves: Air performance 50 Hz



Measurement: LU-63219-1

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_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	1900	350	1.50	3500	0	2060	0.00
2	230	50	1830	416	1.83	2920	200	1720	0.80
3	230	50	1810	446	1.97	2125	400	1250	1.61
4	230	50	1845	402	1.77	1150	550	675	2.21
5	230	50	1600	216	0.96	2975	0	1750	0.00
6	230	50	1600	278	1.23	2555	153	1505	0.61
7	230	50	1600	309	1.36	1880	313	1105	1.26
8	230	50	1600	262	1.16	1000	413	585	1.66
9	230	50	1300	116	0.51	2420	0	1425	0.00
10	230	50	1300	149	0.66	2075	101	1220	0.41
11	230	50	1300	166	0.73	1530	207	900	0.83
12	230	50	1300	141	0.62	810	273	475	1.10
13	230	50	1000	53	0.23	1860	0	1095	0.00
14	230	50	1000	68	0.30	1595	60	940	0.24
15	230	50	1000	75	0.33	1175	122	690	0.49
16	230	50	1000	64	0.28	625	162	365	0.65

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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