R3G630-AA26-25

EC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R3G630-AA26-25**
Motor	**M3G150-FF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	960
Power consumption	W	1400
Current draw	A	6.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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}	%	56.7	52.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		65.8	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	1.37
09 Air flow q_v	m^3/h	9005
09 Pressure increase p_{fs}	Pa	290
10 Speed (rpm) n	min^{-1}	960
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-121784

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Technical description

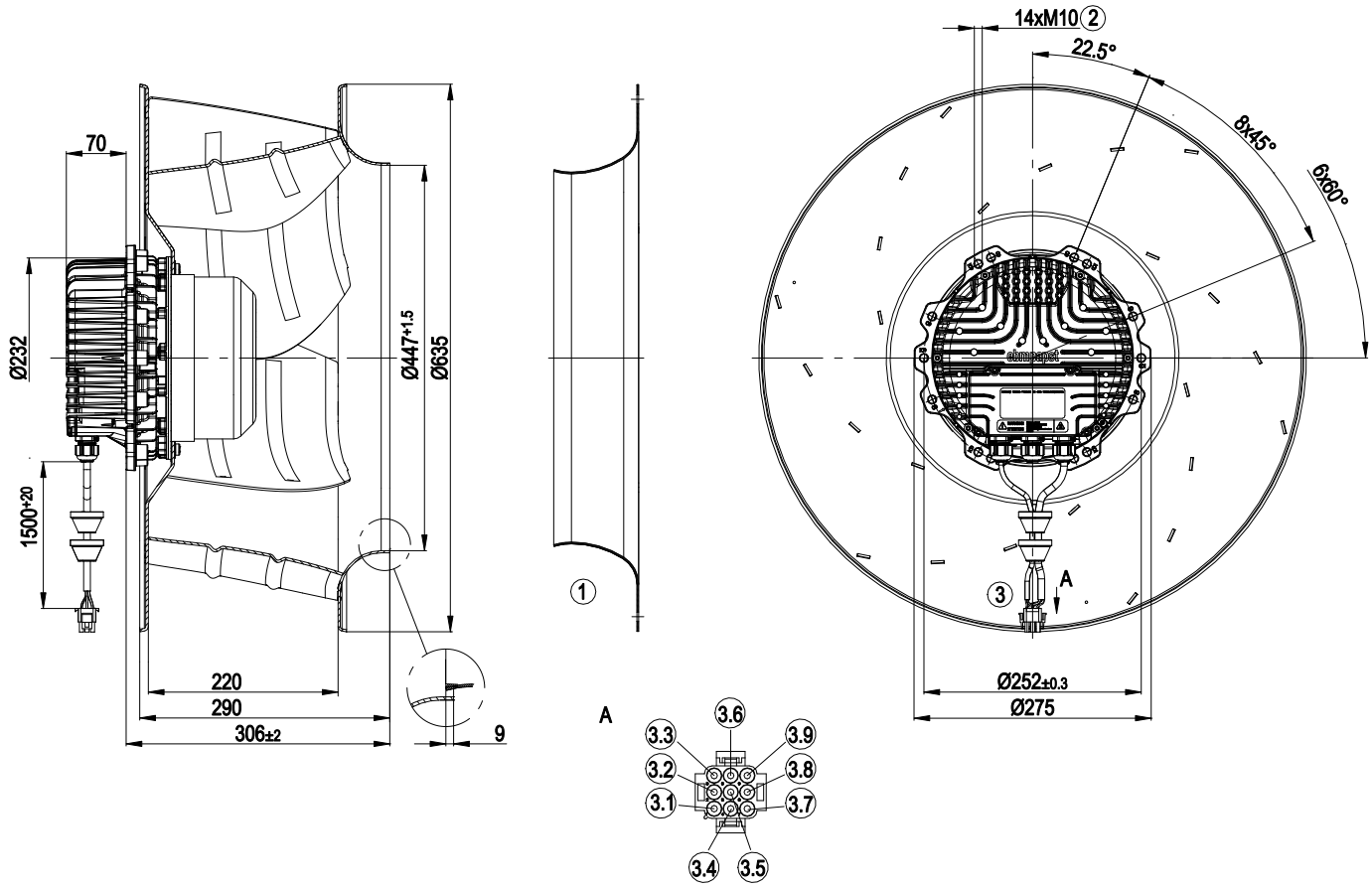
Weight	24.5 kg
Fan size	630 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
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 bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Output 20 VDC, max. 50 mA - Output for slave 0-10 V - Tach output - Input for sensor 0-10 V or 4-20 mA - External 24 V input (parameter setting) - External release input - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, active - RS-485 MODBUS-RTU - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With plug
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	CE
Approval	UL 1004-7 + 60730; EAC; C22.2 No.77 + CAN/CSA-E60730-1

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Product drawing



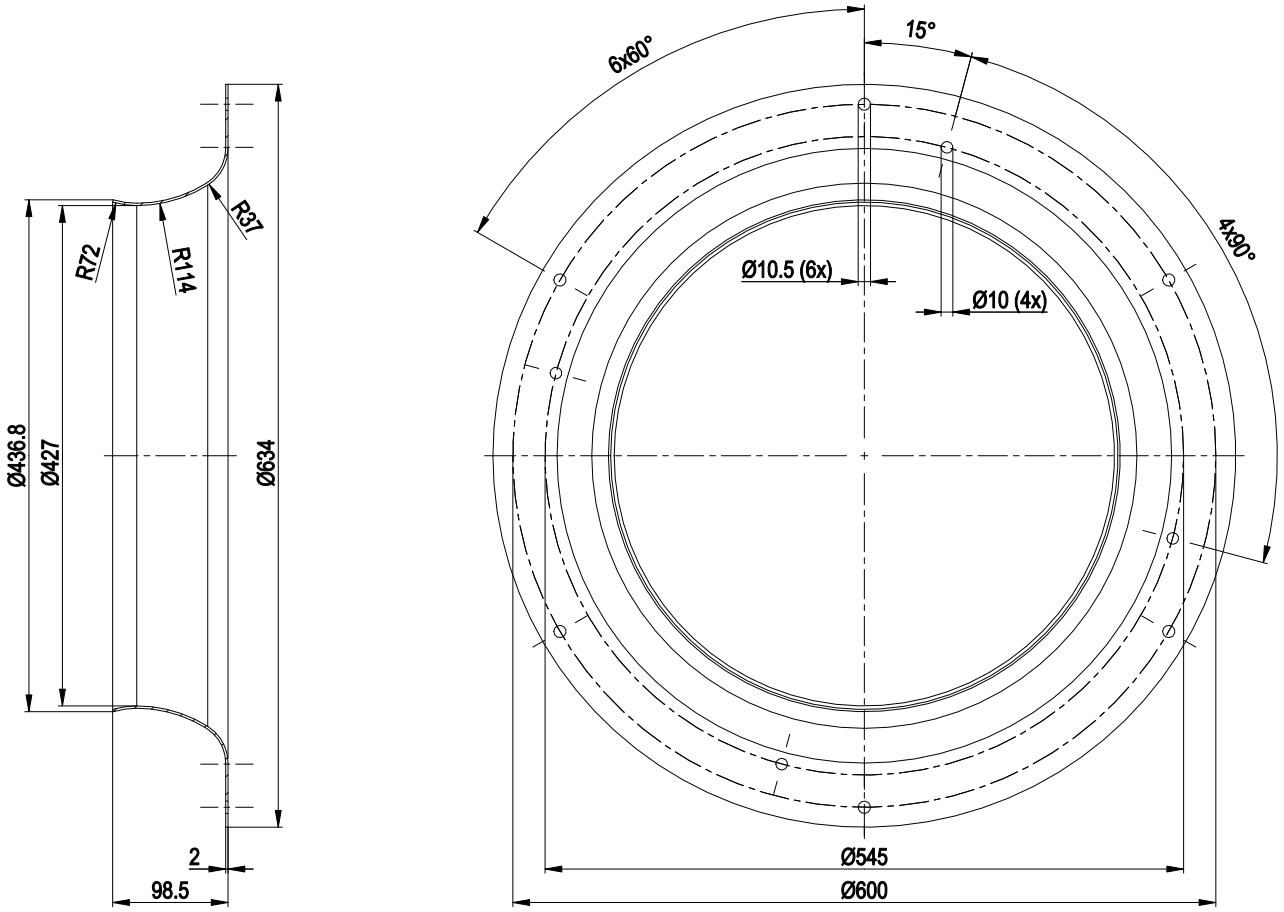
1	Accessory part: inlet ring 63070-2-4013 not included in scope of delivery
2	Max. clearance for screw 25 mm
3	Cable AWG18 and AWG 22 with grommets and connector housing AMP 350 720-4 and plug pins AMP 926 883-1 and AMP 926 885-1, mating connector not included in scope of delivery
3.1	L1 (black)
3.2	N (blue)
3.3	PE (green/yellow)
3.4	COM (white 1)
3.5	NC (white 2)
3.6	not used
3.7	GND (blue)
3.8	+10 V (red)
3.9	Ain1/U (yellow)

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Accessory part



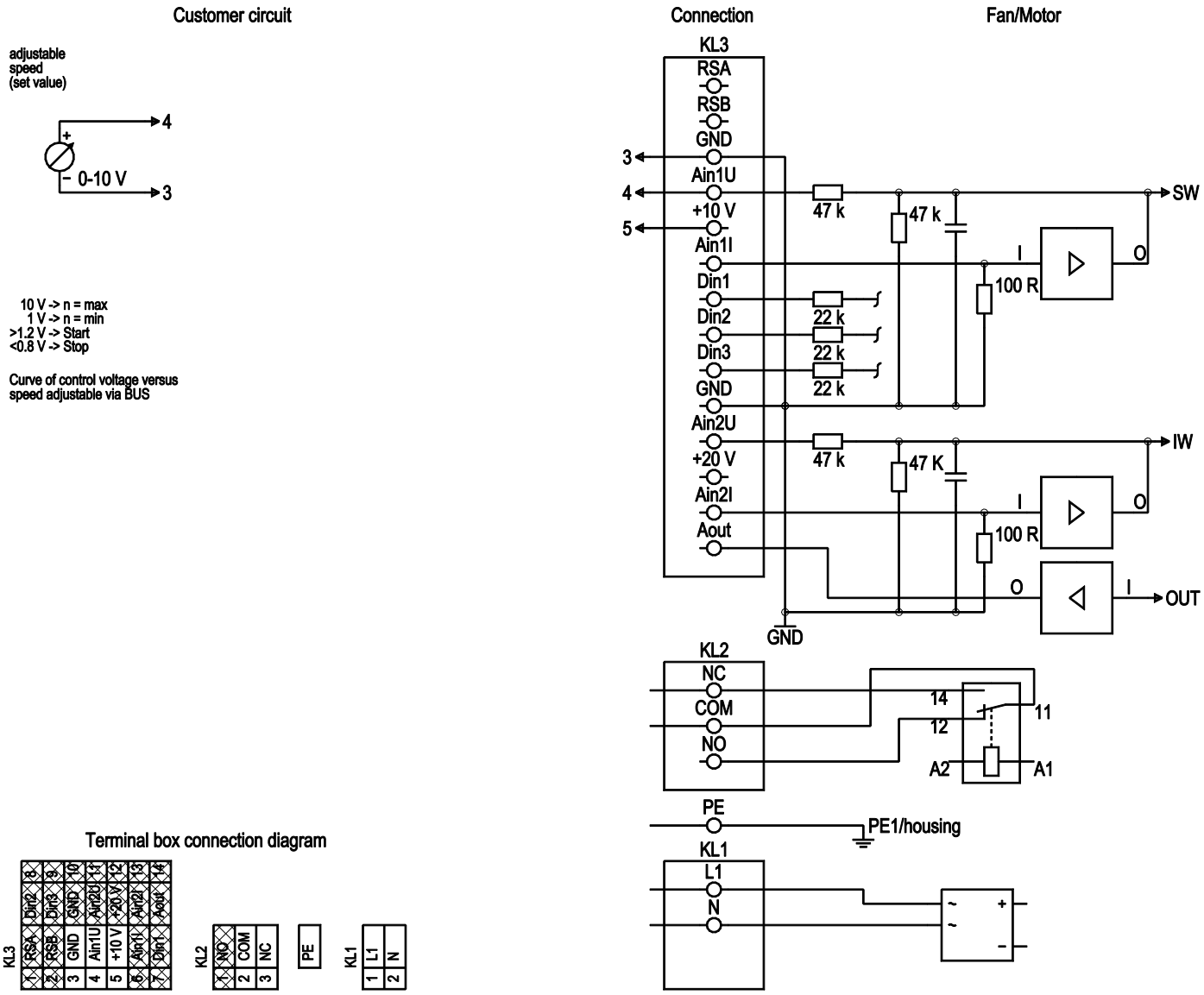
Inlet ring 63070-2-4013 not included in scope of delivery

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Connection diagram



shaded gray => not brought out via leads

No.	Conn.	Designation	Function/assignment
KL1	1	L1	Supply connection, power supply; for nominal voltage range see technical data
KL1	2	N	Supply connection, power supply; for nominal voltage range see technical data
PE		PE	Ground connection, PE connection
KL2	1	NO	Status relay, floating status contact, make for failure
KL2	2	COM	Status relay, floating status contact, changeover contact, common connection, contact rating 250 VAC/ max. 2 A (AC1)/min. 10 mA
KL2	3	NC	Status relay, floating status contact, break for failure
KL3	1	RSA	Bus connection RS485, RSA, MODBUS-RTU; SELV
KL3	2	RSB	Bus connection RS485, RSB, MODBUS-RTU; SELV
KL3	3	GND	Reference ground for control interface; SELV
KL3	4	Ain1 U	Analog input 1, set value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain1 I; SELV

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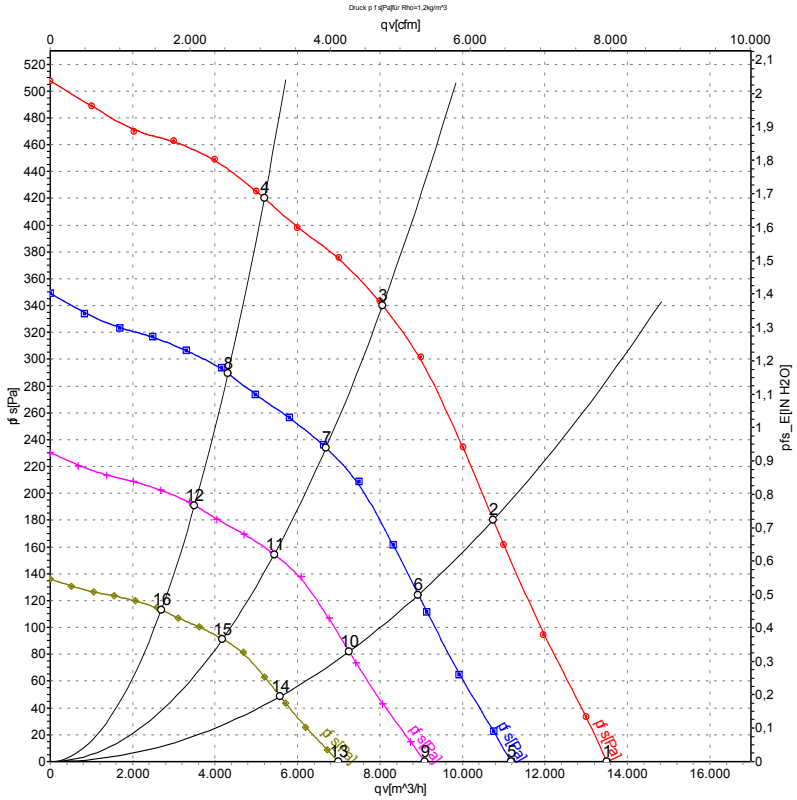
No.	Conn.	Designation	Function/assignment
KL3	5	+ 10 V	Fixed voltage output 10 VDC, + 10 V +/-3%, max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometers); SELV
KL3	6	Ain1 I	Analog input 1, set value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain1 U; SELV
KL3	7	Din1	Digital input 1: enable electronics, enable: pin open or applied voltage 5-50 VDC disable: bridge to GND or applied voltage < 1 VDC reset function: triggers software reset after a level change to < 1 VDC; SELV
KL3	8	Din2	Digital input 2: Switching parameter sets 1/2, according to EEPROM setting, the valid or used parameter set can be selected via bus or via digital input DIN2. Parameter set 1: pin open or applied voltage 5-50 VDC Parameter set 2: bridge to GND or applied voltage < 1 VDC; SELV
KL3	9	Din3	Digital input 3: according to EEPROM setting, the integrated controller's direction of action can be selected via bus or digital input Din3; normal: pin open or applied voltage 5-50 VDC inverse: bridge to GND or applied voltage < 1 VDC; SELV
KL3	10	GND	Reference ground for control interface, SELV
KL3	11	Ain2 U	Analog input 2, measured value: 0-10 V, Ri = 100 kΩ, adjustable curve, only usable as alternative to input Ain2 I; SELV
KL3	12	+ 20 V	Fixed voltage output 20 VDC, + 20 V +25/-10%, max. 50 mA, short-circuit-proof, power supply for ext. devices (e.g. sensors); SELV Alternatively: +24 VDC input for parameterization without line voltage
KL3	13	Ain2 I	Analog input 2, measured value: 4-20 mA, Ri = 100 Ω, adjustable curve, only usable as alternative to input Ain2 U; SELV
KL3	14	Aout	Analog output 0-10 VDC, max. 5 mA, output of current motor modulation level / motor speed adjustable curve; SELV

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Curves: Air performance 50 Hz



Measurement: LU-121784-1

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	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	960	973	4.25	80	88	89	13510	0	7950	0.00
2	230	50	960	1219	5.33	72	79	82	10750	180	6325	0.72
3	230	50	960	1400	6.10	66	74	80	8065	340	4745	1.36
4	230	50	960	1219	5.33	67	74	80	5195	420	3055	1.69
5	230	50	800	552	2.41	76	84	85	11180	0	6580	0.00
6	230	50	800	698	3.05	68	74	78	8930	124	5255	0.50
7	230	50	800	799	3.50	62	70	76	6690	235	3935	0.94
8	230	50	800	698	3.05	63	70	76	4310	290	2535	1.16
9	230	50	650	296	1.29	71	79	81	9085	0	5345	0.00
10	230	50	650	375	1.64	63	70	73	7255	82	4270	0.33
11	230	50	650	429	1.88	58	65	71	5435	155	3200	0.62
12	230	50	650	374	1.64	58	66	72	3505	191	2060	0.77
13	230	50	500	135	0.59	65	73	75	6990	0	4115	0.00
14	230	50	500	170	0.75	57	64	68	5580	48	3285	0.19
15	230	50	500	195	0.85	52	60	66	4180	92	2460	0.37
16	230	50	500	170	0.74	52	60	66	2695	113	1585	0.45

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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