8300101630

VKK0250XSLGS

EC diagonal module

with housing

Nominal data

Item	**8300101630**
Motor	**E05520-35**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	3300
Power consumption	W	170
Current draw	A	1.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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 (prEN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	43.7	31.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		62.3	50
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	920
09 Pressure increase p_{fs}	Pa	252
10 Speed (rpm) n	min^{-1}	3330
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-226699

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

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Technical description

Size	250 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Housing material	PP plastic
Flowgrid material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Locked-rotor detection - Selection of direction of rotation left/right - Tach output - Alarm relay - Cable break detection with control line - Power limiter - Motor current limitation - Emergency operation - RS-485 MODBUS-RTU - Soft start - EEPROM write cycles: 100,000 maximum - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
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	Terminal strip
Motor protection	Thermal switch auto reset, internally connected
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60335-1; EN 60034-1; EN 60204-1; CE

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Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.
Approval	CSA C22.2 No.113 + CAN/CSA-E60730-1; UL 507 + 60730-1

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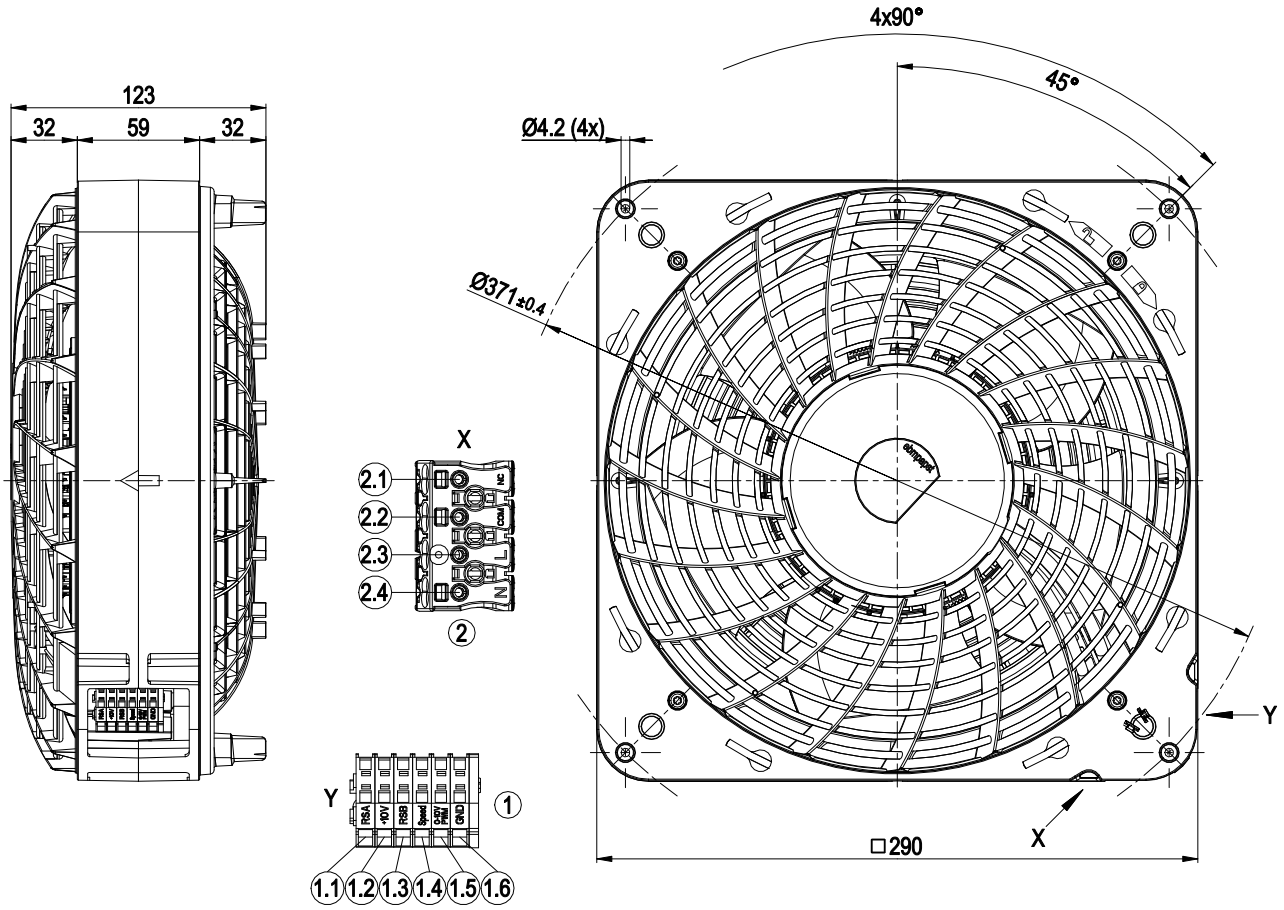
Product drawing



1	Terminal strip WAGO 0260-0099
1.1	RSA
1.2	+10 V / max. 10 mA
1.3	RSB
1.4	Tach
1.5	0-10 V/PWM
1.6	GND
2	Terminal strip Adels Contact LK 980-01 RZ/ 4 B V0
2.1	NC
2.2	COM
2.3	L
2.4	N

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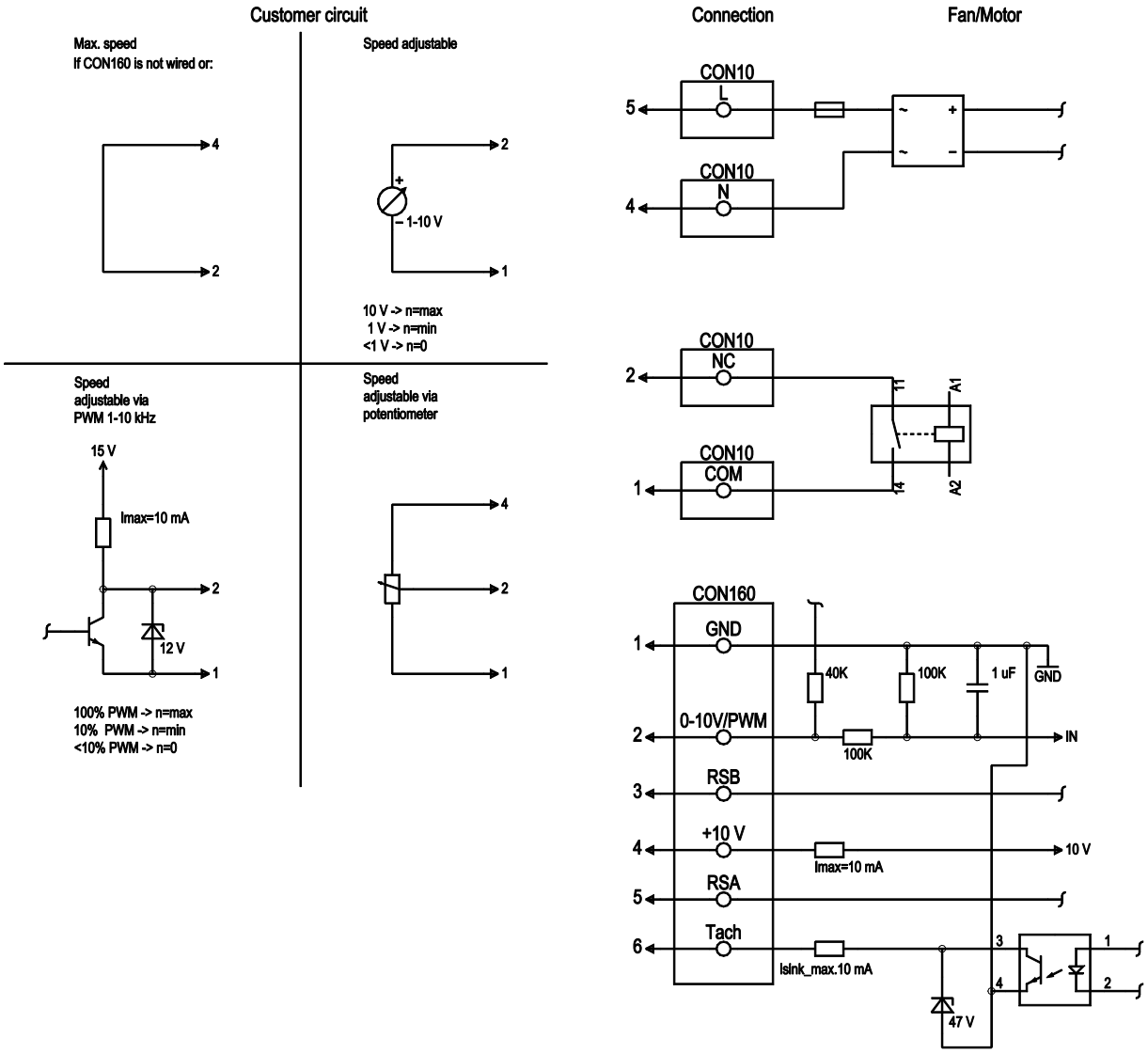
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
CON10	5	L	black	Power supply, phase, see nameplate for voltage range
CON10	4	N	blue	Power supply, neutral conductor, see nameplate for voltage range
CON10	2	NC	red	Status relay, floating status contact, break for failure
CON10	1	COM	white	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, reinforced insulation on control interface side
CON160	1	GND	blue	Reference ground for control interface, SELV
CON160	2	0-10 V / PWM	yellow	Control input 0-10 V or PWM, impedance 100 kΩ, SELV, adjustable curve
CON160	3	RSB	brown	RS-485 interface for MODBUS RSB, SELV
CON160	4	+10 V/max. 10 mA	red	Voltage output, power supply for external devices (e.g. potentiometers), SELV
CON160	5	RSA	white	RS-485 interface for MODBUS RSA, SELV
CON130	6	Tacho	gray	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV

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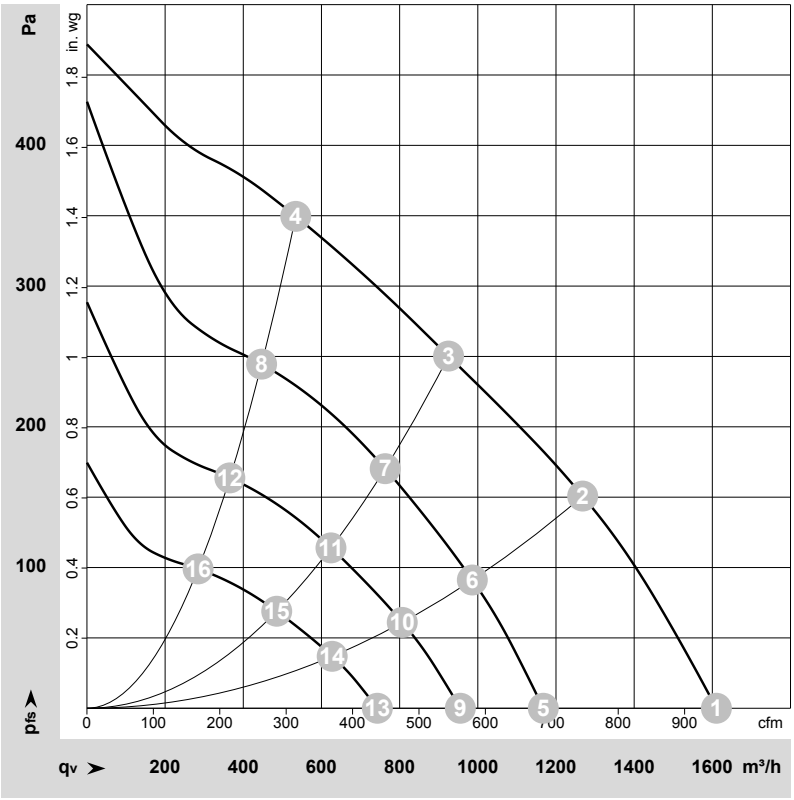
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-226699-1
Date: 2023-04-27

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

	Wired	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	50	3795	170	1.40	1610	0	950	0.00
2	1~	230	50	3540	170	1.40	1270	150	745	0.60
3	1~	230	50	3330	170	1.40	925	250	545	1.00
4	1~	230	50	3300	170	1.40	535	350	315	1.41
5	1~	230	50	2750	64	0.53	1170	0	685	0.00
6	1~	230	50	2750	79	0.65	985	91	580	0.37
7	1~	230	50	2750	94	0.78	765	171	450	0.69
8	1~	230	50	2750	98	0.81	445	245	265	0.98
9	1~	230	50	2250	35	0.29	955	0	560	0.00
10	1~	230	50	2250	43	0.36	805	61	475	0.24
11	1~	230	50	2250	52	0.43	625	114	365	0.46
12	1~	230	50	2250	54	0.44	365	164	215	0.66
13	1~	230	50	1750	17	0.14	745	0	435	0.00
14	1~	230	50	1750	20	0.17	625	37	370	0.15
15	1~	230	50	1750	24	0.20	485	69	285	0.28
16	1~	230	50	1750	25	0.21	285	99	165	0.40

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

ebmpapst