

Technical description

Weight	20.1 kg
Size	630 mm
Motor size	150
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted gray
Blade material	Sheet aluminum insert, sprayed with PP plastic
Number of blades	5
Blade pitch	0°
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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	- Operation and alarm display with LED - External 15-50 VDC input (parameterization) - Alarm relay - Integrated PI controller - Configurable inputs/outputs (I/O) - MODBUS V6.3 - Motor current limitation - RS-485 MODBUS-RTU - Soft start - Voltage output 3.3-24 VDC, Pmax = 800 mW - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
Power Factor Correction (PFC)	Passive (through low-capacitance DC link)
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-3 (household environment), except EN 61000-3-2 for professionally used equipment with a total rated power greater than 1 kW
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Reverse polarity and locked-rotor protection

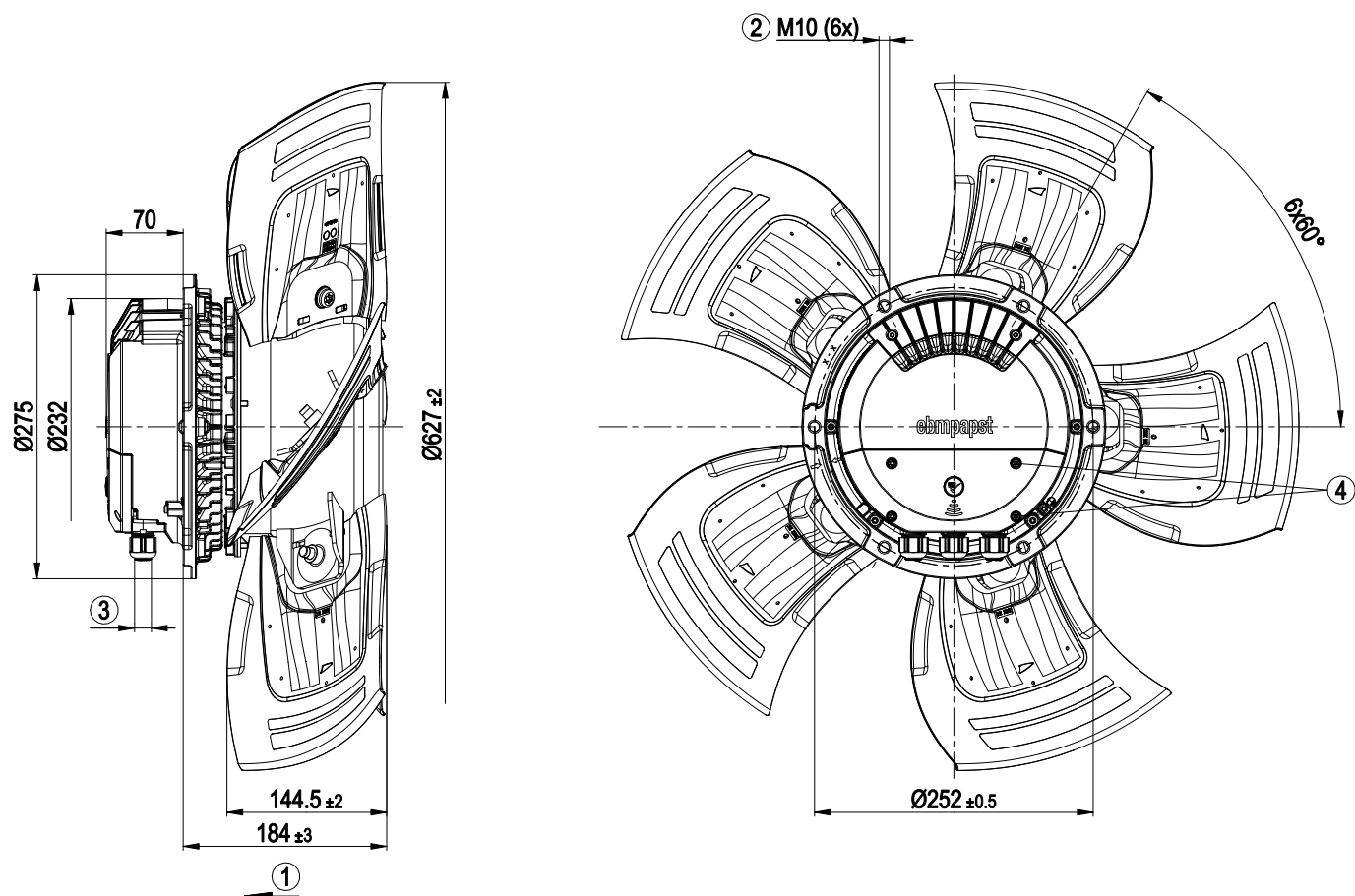
A3G630-AS25-09

EC axial panel fan - HyBlade

sickle-shaped blades (S series)

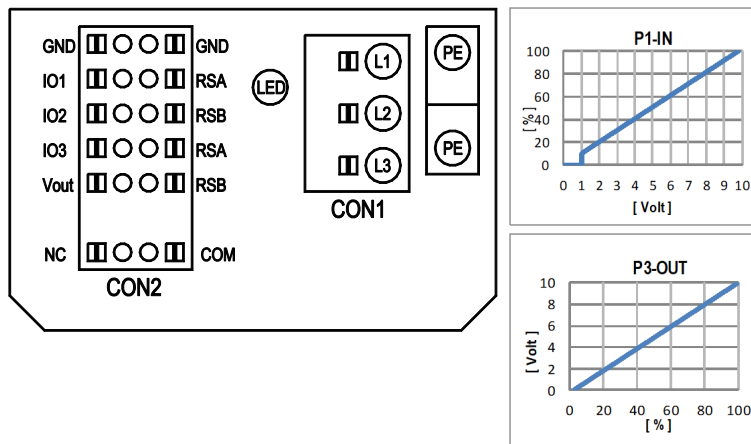
Protection class assignment	I; If a protective earth is connected. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 61800-5-1; CE
Approval	EAC; UL 1004-7 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1

Product drawing



1	Airflow direction "V"
2	Max. clearance for screw 20 mm
3	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm (The tightening torque is designed for PVC cables. If the cable materials are different, the tightening torque may have to be adjusted)
4	Tightening torque 1.5 ± 0.2 Nm

Connection diagram

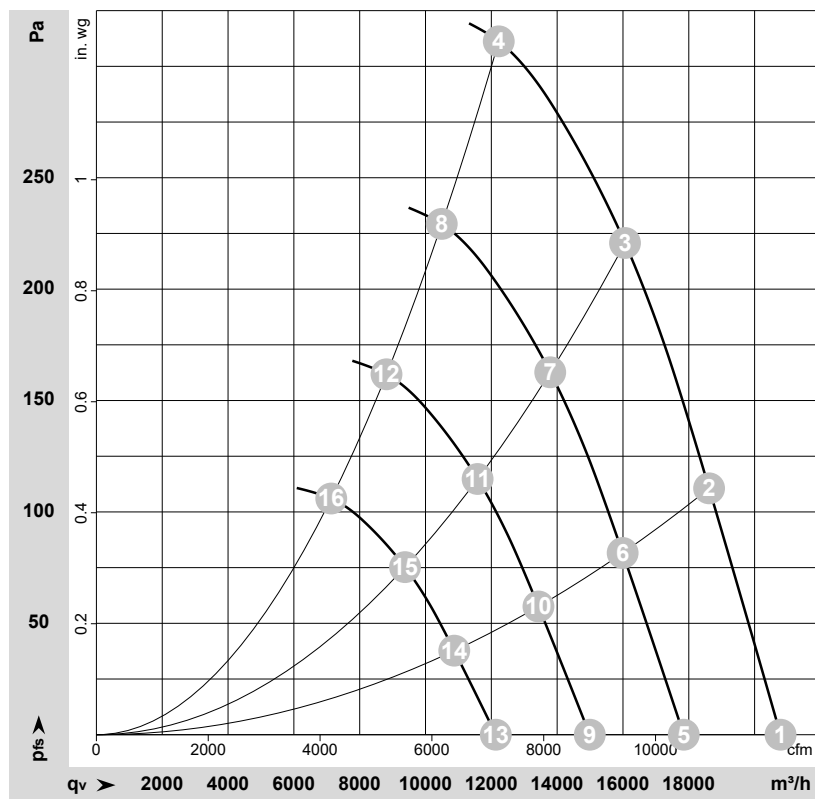


No.	Conn.	Designation	Function/assignment
	CON1	L1, L2, L3	Power supply, phase, see nameplate for voltage range
	PE	PE	Protective earth
	CON2	RSA	RS485 interface for MODBUS, RSA; SELV
	CON2	RSB	RS485 interface for MODBUS, RSB; SELV
	CON2	GND	Reference ground for control interface, SELV
	CON2	IO1	Function parameterizable (see "Optional interface functions" table) Factory setting: Digital input - high active, function: Disable input, SELV - inactive: Pin open or applied voltage < 1.5 VDC - active: applied voltage 3.5-50 VDC Reset function: Triggering of error reset on change of state from "enabled" to "disabled"
	CON2	IO2	Function parameterizable (see "Optional interface functions" table) Factory setting: Analog input 0-10 V/PWM, Ri=100 kΩ, function: Set value Characteristic curve parameterizable (see input characteristic curve P1-IN), SELV
	CON2	IO3	Function parameterizable (see "Optional interface functions" table) Factory setting: Analog output 0-10 V, max. 5 mA, function: Actual speed Characteristic curve parametrizable (see output characteristic curve P3-OUT), SELV
	CON2	Vout	Voltage output 3.3-24 VDC ±5%, Pmax=800 mW, voltage parameterizable Factory setting: 10 VDC short-circuit-proof, supply for external devices, SELV alternatively: 15-50 VDC input for parameterization via MODBUS without line voltage
	CON2	COM	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) / min. 10 mA, reinforced insulation on supply side and on control interface side
	CON2	NC	Status relay, floating status contact, break for failure
		LED	green: status = good, ready for operation orange: status = warning red: status = failure
		P1-IN	Input characteristic curve
		P3-OUT	Output characteristic curve

Terminal/plug assignment

[illegible]

Curves: Air performance 50 Hz


 $\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-202452-1
 Date: 2019-10-09
 Housing: 38633-2-4037

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 _{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)	m³/h	Pa	cfm	in. wg
1	3~	400	50	1450	2312	3.59	73	80	82	20790	0	12235	0.00
2	3~	400	50	1450	2556	3.95	73	79	80	18615	110	10960	0.44
3	3~	400	50	1450	2782	4.28	73	80	80	16060	220	9455	0.88
4	3~	400	50	1450	3000	4.60	79	86	86	12225	310	7195	1.24
5	3~	400	50	1250	1463	2.27	69	76	78	17845	0	10505	0.00
6	3~	400	50	1250	1620	2.50	69	75	77	15990	83	9410	0.33
7	3~	400	50	1250	1761	2.71	70	76	76	13790	163	8115	0.65
8	3~	400	50	1250	1875	2.88	76	83	82	10495	230	6175	0.92
9	3~	400	50	1050	867	1.35	65	72	73	14990	0	8825	0.00
10	3~	400	50	1050	960	1.48	64	71	72	13430	58	7905	0.23
11	3~	400	50	1050	1044	1.61	65	72	72	11585	115	6815	0.46
12	3~	400	50	1050	1111	1.71	71	78	78	8815	162	5190	0.65
13	3~	400	50	850	460	0.71	59	66	68	12135	0	7145	0.00
14	3~	400	50	850	509	0.79	59	66	67	10875	38	6400	0.15
15	3~	400	50	850	554	0.85	60	66	67	9375	75	5520	0.30
16	3~	400	50	850	589	0.91	66	73	72	7135	106	4200	0.43

Wired = Wiring · U = Voltage · 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