

8300101623
VVY0400CSNJS

EC axial panel fan - AxiEco

www.fansco.com
sales@fansco.com

Nominal data

Item	8300101623	
Motor	E07434-43	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min ⁻¹	1400
Power consumption	W	235
Current draw	A	1.05
Max. back pressure	Pa	170
Max. back pressure	in. wg	0.68
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · oe = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	52.5	29.7	09 Power consumption P_{ed}	kW	0.23
02 Measurement category		A		09 Air flow q_v	m ³ /h	2975
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	132
04 Efficiency grade N		62.8	40	10 Speed (rpm) n	min ⁻¹	1440
05 Variable speed drive		Yes		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

* Specific ratio = $1 + p_s / 100\,000\text{ Pa}$

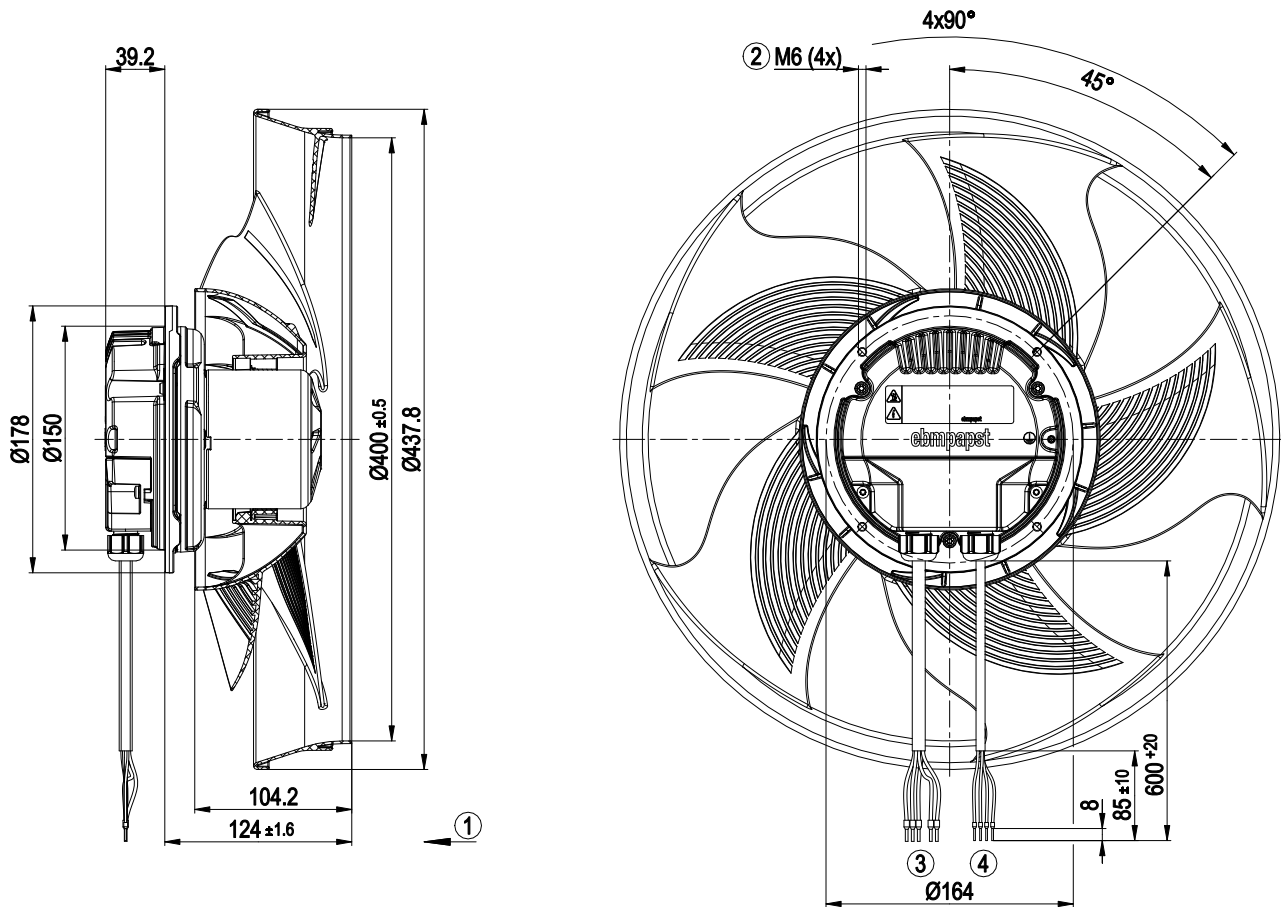
LU-232644

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).

Technical description

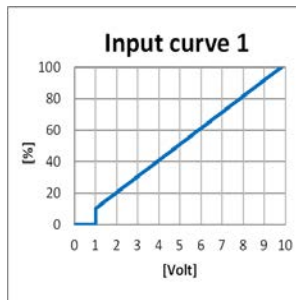
Size	400 mm
Motor size	74
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1 = Moist – occasional or constantly high level of humidity
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Locked-rotor detection - Speed control - Alarm relay - Power limiter - Motor current limitation - Soft start - Control interface with SELV potential safely disconnected from the mains - Temperature derating - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
Power Factor Correction (PFC)	Active
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
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 60034-1; EN 60204-1; EN 60335-1; CE; UKCA

Product drawing



1	Airflow direction "V"
2	Max. clearance for screw 16 mm
3	Supply line (PWR) PVC AWG18 5x wire-end ferrule
4	Control wire (CTRL) PVC AWG22 4x wire-end ferrule

Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	PWR	PE	green/yellow	Protective earth
	PWR	L	black	Power supply, phase, see nameplate for voltage range
	PWR	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	PWR	COM	orange	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
	PWR	NC	orange	Status relay, floating status contact, break for failure
	CTRL	GND	blue	Reference ground for control interface, SELV
	CTRL	Vout	red	Voltage output 10 VDC +/-3%, I _{max} =10 mA Short-circuit-proof, power supply for external devices, SELV
	CTRL	IO1	yellow	Factory setting: Analog input 0-10 V / PWM, R _i =100 kΩ, function: set value Characteristic curve parameterizable (see input characteristic curve "Input curve 1"), SELV Function parameterizable at the factory (see table Optional interface functions)
	CTRL	IO2	white	Factory setting: Open collector output, U _{max} =50 VDC, I _{max} =20 mA, function:Tacho output 1 pulse/revolution, SELV Function parameterizable at factory (see table Optional interface functions)

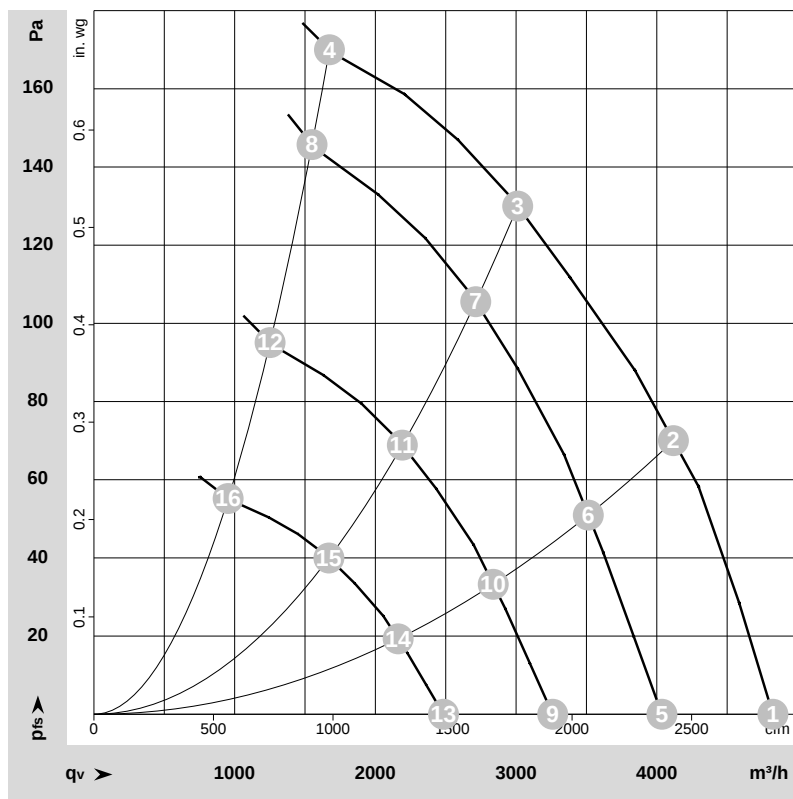
Terminal/plug assignment

		electrical specification		INPUT		OUTPUT			
configurable IO mode		active: parametrizable voltage x - 30 VDC not active: pin open or parametrizable voltage < x VDC, SELV		switch: parameter set: #1 / #2		signal: tach out		signal: configurable function	
Din1 (high active): digital input		Ri = 100 kΩ, characteristic curve parameterizable, f _{PWM} = 1 k - 10 kHz, SELV		switch: direction of rotation: cw / ccw		signal: diagnostics out		signal: alarm out	
Ain1 0-10 V/PWM: analog input		Umax = 50 VDC, Imax = 20 mA, SELV		switch: enable/disable input		signal: tach out		signal: run monitoring	
Tach out (open collector)		Umax = 50 VDC, Imax = 20 mA, SELV		configurable function		signal: diagnostics out		signal: status	
Diagnostics out (open collector)		Umax = 50 VDC, Imax = 20 mA, SELV				signal: tach out		signal: alarm out	
Alarm out (open collector)		Umax = 50 VDC, Imax = 20 mA, SELV				signal: diagnostics out		signal: run monitoring	
Open collector		Umax = 50 VDC, Imax = 20 mA, SELV				signal: tach out		signal: alarm out	
Relais		250 VAC / 2 A (AC1)				signal: diagnostics out		signal: status	
COM						signal: tach out		signal: alarm out	
NC						signal: diagnostics out		signal: run monitoring	
Voltage output		Voltage 10 VDC, SELV				signal: tach out		signal: alarm out	
Vout						signal: diagnostics out		signal: status	

Basic (B5)
Factory configuration option upon request

o factory configuration option

Curves: Air performance 50 Hz



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

Measurement: LU-232644-1
Date: 2024-06-28
Nozzle: 40100-2-4013

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	LpA _{in}	LwA _{in}	LwA _{out}	LwA	q _v	P _{fs}	q _v	P _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	dB	m³/h	Pa	cfm	in. wg
1	1~	230	50	1555	195	0.88	65	72	74	76	4825	0	2840	0.00
2	1~	230	50	1525	235	1.05	62	69	71	73	4120	70	2425	0.28
3	1~	230	50	1445	235	1.05	59	66	69	71	3010	130	1775	0.52
4	1~	230	50	1405	235	1.05	62	69	72	74	1675	170	985	0.68
5	1~	230	50	1300	114	0.52	60	67	70	72	4035	0	2375	0.00
6	1~	230	50	1300	146	0.65	58	65	67	69	3515	51	2070	0.20
7	1~	230	50	1300	172	0.77	56	63	67	68	2715	106	1595	0.43
8	1~	230	50	1300	186	0.84	60	67	70	72	1550	146	910	0.59
9	1~	230	50	1050	60	0.27	55	62	64	66	3260	0	1920	0.00
10	1~	230	50	1050	77	0.34	53	59	62	64	2840	33	1670	0.13
11	1~	230	50	1050	90	0.41	51	58	61	63	2190	69	1290	0.28
12	1~	230	50	1050	98	0.44	55	62	64	66	1250	95	735	0.38
13	1~	230	50	800	27	0.12	48	55	57	59	2485	0	1460	0.00
14	1~	230	50	800	34	0.15	46	53	55	57	2160	19	1275	0.08
15	1~	230	50	800	40	0.18	44	51	54	56	1670	40	985	0.16
16	1~	230	50	800	43	0.19	48	55	57	59	955	55	560	0.22

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = 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