

2798
VWA0630BTPMS

AxiBlade - EC Axial Fan

Fan housing with guard grille

ebm-papst Inc.
100 Hyde Road
Farmington, CT 06034
sales@us.ebmpapst.com
www.ebmpapst.us

Nominal Data

M-ID	2798	
Type	VWA0630BTPMS	
Motor	M3G084-GF	
Phase		3~
Nominal voltage	VAC	460
Nominal voltage range	VAC	400-480
Frequency	Hz	50/60
Method of obtaining data		ml
Speed	rpm	840
Power consumption	W	460
Current draw	A	0.7
Max. back pressure	Pa	120
Max. back pressure	in. wg	0.48
Min. ambient temp	°F (°C)	-40 (-40)
Max. ambient temp	°F (°C)	140 (60)

ml = Max. load (maximum fan input power over the range cataloged)
Subject to change

Speed (rpm) shown is nominal.
Performance is based on actual speed of test.

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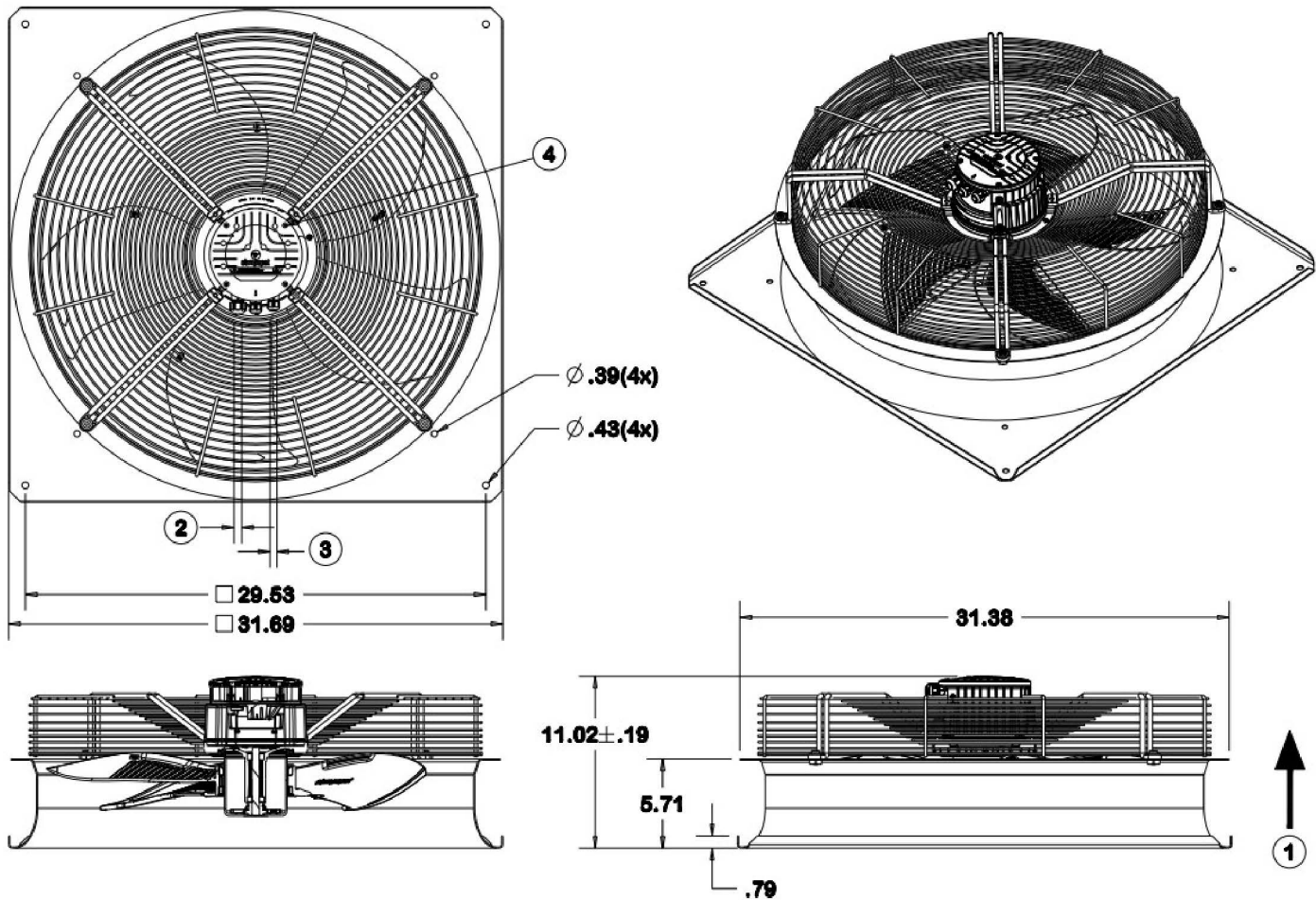
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Technical Description	
Nominal Impeller Size	24.8 in (630 mm)
Rotor surface	Painted black
Terminal box material	PP plastic
Electronic housing material	Die-cast aluminum, painted black
Blade material	PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades / Pitch	5 blades / 0 °
Airflow Direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	F
Environmental class	H2
Electrical hookup	Terminal box
Ambient temp. note	Occasional startup between -40 °F & -13 °F (-40 °C & -25 °C) is permitted. For continuous operation below -13 °F (-25 °C), use a fan design with special low-temp bearings.
Max. ambient temp.	176 °F (+80 °C) (for motor transport/storage)
Min. ambient temp.	-40 °F (-40 °C) (for motor transport/storage)
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drain holes	On rotor side
Mode	S1
Motor bearing	Ball bearings; (sealed)
Technical features	<ul style="list-style-type: none">- Output 10VDC, max. 10 mA- Operation and alarm display- External 24 VDC input (parameter setting)- Alarm relay- Integrated PID controller- Motor current limitation- PFC, passive- 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 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 61000-6-3 (household environment)
Touch current	≤ 3.5 mA (according to IEC60990; measuring circuit Fig.4, TN system)
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 (Conformity with standard EN 60335-1 on request)
Approvals	UL 1004-7 + 60730-1; EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1

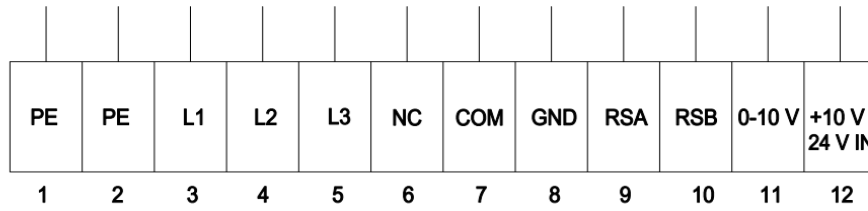
Product drawing

Drawing dimensions in inches



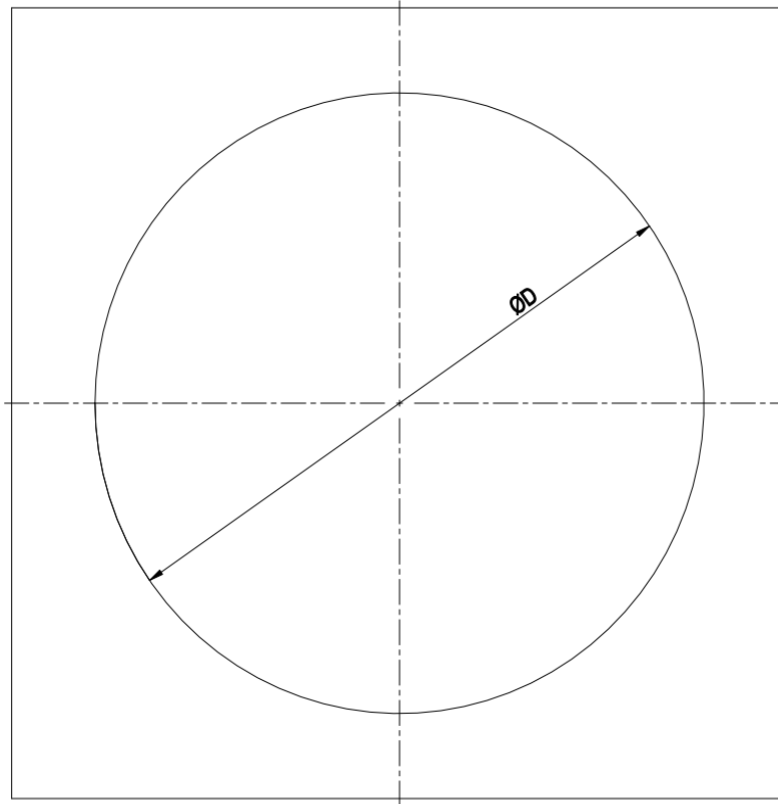
1	Airflow direction "V"
2	Cable diameter min. 0.31 in (8 mm), max. 0.47 in (12 mm), tightening torque 15.9±2.7 lbf-in (1.8±0.3 Nm). (Use must be made of seal provided) Cable diameter min. 0.16 in (4 mm), max. 0.39 in (10 mm), tightening torque 15.9±2.7 lbf-in (1.8±0.3 Nm).
3	Cable diameter min. 0.24 in (6 mm), max. 0.39 in (10 mm), tightening torque 15.9±2.7 lbf-in (1.8±0.3 Nm). (Use must be made of seal provided) Cable diameter min. 0.16 in (4 mm), max. 0.28 in (7 mm), tightening torque 15.9±2.7 lbf-in (1.8±0.3 Nm).
4	Tightening torque 13.3±1.8 lbf-in (1.5±0.2 Nm)
	Note: Please contact ebm-papst if conduit is required
	Note: In a shaft horizontal orientation, the cable glands need to be located at the bottom and the cables must always be routed downwards

Electrical Interface

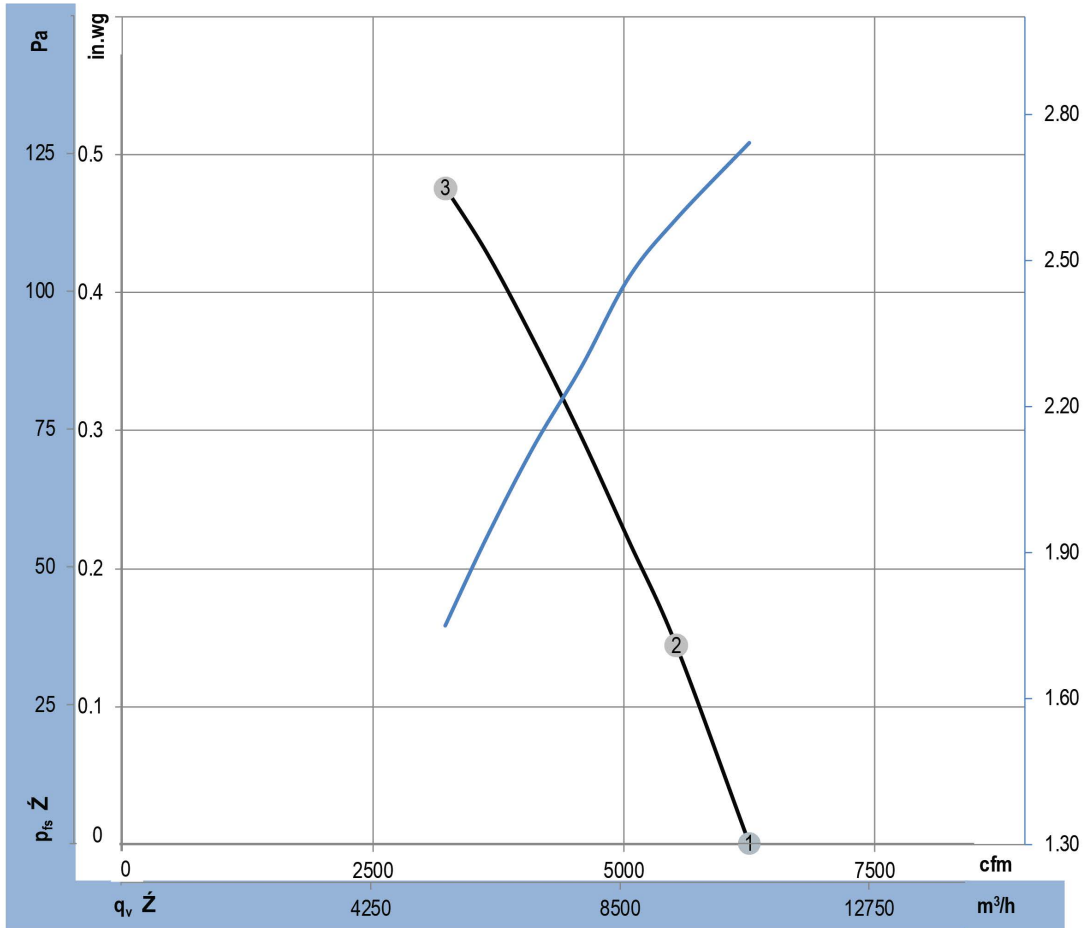


No.	Conn.	Desig.	Function/ Assignment
1	PE	PE	Protective earth
2	PE	PE	Protective earth
2	L1	L1	Power supply
4	L2	L2	Power supply
5	L3	L3	Power supply
6	NC	NC	Status relay, floating status contact, break for failure Contact rating 250 VAC / 2 A (AC1) / min. 10 mA; reinforced insulation on supply side and basic insulation on control interface side
7	COM	COM	Status relay, floating status contact, break for failure Contact rating 250 VAC / 2 A (AC1) / min. 10 mA; reinforced insulation on supply side and basic insulation on control interface side
8	GND	GND	Reference ground for control interface, SELV
9	RSA	RSA	RS485 interface for MODBUS, RSA; SELV
10	RSB	RSB	RS485 interface for MODBUS, RSB; SELV
11	0-10 V	0-10 V	Analog input (set value) SELV, 0-10 V, Ri = 100 kΩ, adjustable curve
12	+10 V	+10 V	Fixed voltage output 10 VDC, SELV, +10 V ±3%, max. 10 mA, short-circuit-proof, power supply for external devices (e.g. pot); Fixed voltage input 24 VDC for setting parameters via MODBUS without line voltage supply

Mounting Dimensions



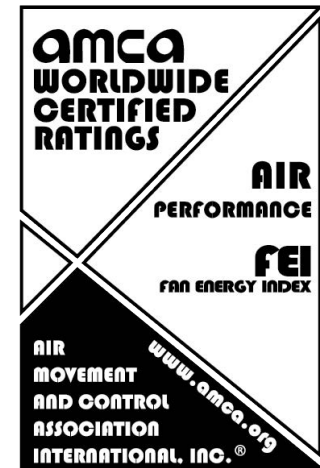
	Diameter of the necessary recess for mounting the fan housing in the end device
	BG630: D = Ø30.91 in (785 mm)
	BG710: D = Ø32.68 in (830 mm)
	BG800: D = Ø37.40 in (950 mm)
	BG910: D = Ø41.34 in (1050 mm)



$\rho = 0.075 \text{ lbm/ft}^3$

Measurement: LU-2798

ebm-papst Inc. certifies that the AxiBlade - EC Axial Fan shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.



Performance Ratings

		U	f	n	P _{ed}	I	q _v	p _{fs}	FEI
		V	Hz	rpm	W	A	cfm	in. wg	
1	3~	460	60	844	256	0.5	6256	0.00	2.74
2	3~	460	60	839	320	0.5	5529	0.14	2.58
3	3~	460	60	838	460	0.7	3228	0.48	1.75

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Electrical power · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase

Performance certified is for installation type A - Free inlet, Free outlet.
Rating Method "E" (Direct Drive, As Run Speed)
Performance ratings include the effects of guard grille.