



W2E143-AB09-01 ebmpapst

Brand: ebmpapst

SKU: W2E143-AB09-01

Category: Axial compact fans

URL: <https://www.fansco.com/item/w2e143-ab09-01-ebmpapst/>

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Product Description

W2E143-AB09-01 ebmpapst 230VAC 171.5x51mm 294.2CFM Ball 58dB(A) 30W
3300RPM 2Terminals Tubeaxial AC axial compact fan
6078ES

I. Basic Product Information

1. Model and Manufacturer

1. Model: W2E143-AB09-01
2. Type: AC Axial Compact Fan

II. Rated Technical Parameters

Parameter 50Hz 60Hz **Rated Voltage (VAC)** 230 230 **Frequency (Hz)** 50 60
Speed (rpm) 2800 3300 **Power Consumption (W)** 24 30 **Current (A)** 0.12
0.12 **Capacitance (µF)** 0.75 (400V DC) 0.75 (400V DC) **Operating Ambient**
Temperature Range -25°C ~ 60°C -25°C ~ 75°C **Motor Protection Class**
IP20 (Against Solid Objects) IP20 (Against Solid Objects) **Insulation Class** Class
B Class B III. Structure and Materials

1. Physical Specifications

1. Weight: 0.91 kg
2. Fan Size: 143 mm (Diameter)
3. Number of Blades: 5
4. Airflow Direction: "V" type (Axial Flow)
5. Rotation Direction: Counterclockwise (when viewed from the rotor side)

2. Materials

1. Blades: Black Painted Steel Plate
2. Housing: Black Painted Die-Cast Aluminum
3. Rotor: Open, Black Painted

3. Installation Features

1. Installation Position: Any direction (unrestricted)
2. Bearing Type: Ball Bearing (suitable for long-term stable operation)
3. Condensate Drainage: None (open rotor design)

IV. Electrical and Safety Features

1. Electrical Connection

1. Connection Method: With Plug (Flat Plug, Specification 2.8 x 0.5 mm)
2. Motor Protection: Built-in Thermal Overload Protector (TOP)
3. Protection Class: Class I (customer needs to connect protective grounding)

2. Safety and Compliance

1. Standards Compliance: CE, UL, CCC, CSA C22.2 No. 113, VDE, EAC, EN 60335-1
2. Touch Current: < 0.75 mA (in compliance with IEC 60990, TN system)
3. Transportation/Storage Temperature: Motor -40°C ~ 80°C

V. Performance Data 1. Air Performance Curve (50Hz)

1. **Measurement Standard:** ISO 5801 (Installation Category A), Air Density $\rho = 1.15 \text{ kg/m}^3$
2. **Typical Operating Conditions** (see table below):

Condition	Voltage (V)	Frequency (Hz)	Speed (rpm)	Power (W)	Current (A)	Airflow (m³/h)	Static Pressure (Pa)	Airflow (cfm)	Static Pressure (inH2O)
1	230	50	2800	26	0.13	420	0	245	0.00
2	230	50	2770	27	0.13	365	30	215	0.12
3	230	50	2755	27	0.13	310	50	185	0.20
4	230	50	2750	28	0.13	240	65	140	0.26

2. Air Performance Curve (60Hz)

1. **Measurement Standard:** Same as 50Hz, the speed increases due to frequency change
2. **Typical Operating Conditions** (see table below):

Condition	Voltage (V)	Frequency (Hz)	Speed (rpm)	Power (W)	Current (A)	Airflow (m³/h)	Static Pressure (Pa)	Airflow (cfm)	Static Pressure (inH2O)
1	230	60	3300	29	0.13	490	0	290	0.00
2	230	60	3210	31	0.14	440	30	260	0.12
3	230	60	3175	32	0.14	375	60	220	0.24
4	230	60	3140	33	0.14	280	85	165	0.34

VI. Application Scenarios and Advantages

1. Applicable Scenarios

1. Cooling of industrial equipment (such as control cabinets, power supply units)
2. Ventilation systems (scenarios with low to medium static pressure requirements)
3. Harsh environments (resistant to low temperature of -25°C and high

temperature of 75°C, IP20 protection)

2. **Core Advantages**

- 1. **Compact Design:** 143mm diameter, suitable for space-constrained scenarios.
- 2. **Wide Temperature Operation:** Supports low-temperature start at -25°C and stable operation in high-temperature environments (up to 75°C).
- 3. **Reliable and Durable:** Ball bearing design for long service life; built-in thermal protection to prevent overload damage.
- 4. **Multi-standard Compliance:** Certified by CE, UL, CCC, etc., suitable for global market applications.

VII. Precautions

- 1. **Installation Impact:** The actual airflow and static pressure may deviate from the standard values due to the installation method, and on-site measurement and verification are required.
- 2. **Capacitance Specification:** The capacitor complies with the safety level S0 of EN 60252-1. When replacing, components of the same specification should be used.
- 3. **Transportation and Storage:** The motor allows extreme temperatures (-40°C ~ 80°C), but the operating temperature limit should be followed during operation.

Conclusion

The W2E143-AB09-01 is a cost-effective AC axial fan. With its compact structure, wide temperature adaptability, and multi-standard compliance, it is suitable for medium-load cooling requirements in industrial and ventilation fields. Its reliable ball bearing and built-in protection mechanism ensure long-term stable operation, making it an ideal choice for equipment heat dissipation solutions.

Technical Specifications

Attribute	Value
Part Number	W2E143-AB09-01
Manufacturer	ebm-papst
Series	W2E143

Fan Type	AC
Voltage Rating	230 VAC
Dimensions	171.5x51 mm
Air Flow	294.2 CFM
Air Flow (m3)	8.24m ³ /min
Bearing Type	Ball Bearing
Subcategory	Tubeaxial
Noise Level	58 dB(A)
Power Rating	30 W
Fan Speed	3300 RPM
Termination	2 Terminals
Operating Temperature	-40 ~ 176°F (-40 ~ 80°C)
Approval Agency	CCC, CE, CSA, GOST, UL, VDE
Weight	2 lbs (907.2 g)
Subcategory	AC axial compact fan





