

EC-JMS Axial Flow Fan



Range Feature Summary

- Available sizes: 315mm to 800mm (12.4" to 31.5") diameters
- Volume up to 23,000 cfm
- Static pressures up to 3.25 inwg
- EC Motor technology - delivering IE5 Class efficiency levels and Modbus compatible.
- cURus/CE certified EC Motors
- Fans tested to ISO5801 and BS848
- Suitable for Standard temperature ventilation (up to 104°F). The 213T frame size is suitable for temperatures up to 122°F
- Fan casings are hot dip galvanized to offer enhanced corrosion resistance
- Short cased design makes installation quick, simple and cost effective
- Plate mounted and guard options available
- Low installed noise levels
- The optimal solution for OEM markets
- Assembled in the USA for reduced lead times
- Flexible Design - spares available for quick maintenance on site
- Customized Paint Finishes - available on request

IMPELLER

Material: Aluminum Hub and Blades (LM6 or LM13 dependent on application and rotational speed) or Steel Hub with Aluminum Blades.

Blade Design: High Twist Aerofoil section blades

Hub Design: Aluminum hub and clamp-plate, with integral steel shaft insert to ensure correct motor drive shaft fit. Hub design allows for each blade pitch angle to be individually adjusted. Alternatively, steel hubs are available for some applications.

Manufacture: All die cast impeller components are examined using real time X-ray radiography (in accordance with ASTM E-155) before machining to ensure highest quality.

Balance: In accordance with BS 848-7 / ISO 14694, Grade G16 to G6.3, depending on rated motor power.

Form of Running: Form A: Airflow through impeller then over the motor (as standard)

Impeller location and fixing: Impeller is located and fastened to the motor drive shaft by a key and keyway manufactured in accordance with BS 4235:1972. Axial location is provided by a collar or shoulder on the drive shaft together with a retaining washer and screw, fitted into a tapped hole in the end of the shaft. The screw is locked in position

Aerodynamic design: Fan maximum absorbed power is designed to occur within the normal working range, i.e., Fan exhibits a non-overloading characteristic. To provide an extended operational life, impellers are designed to have low stress levels, when operated below the maximum speed stated within the published fan performance characteristic data.

FAN HOUSING

Material: Short Fan housings are manufactured from mild steel to BSEN 10111 Grade DD14.

Housing Design: Housing and flange thickness varies depending on fan diameter. Fan housings are of the long type, enclosing the entire length of the impeller and motor assembly.

Fan Housing Finish: Hot dip galvanized after manufacture to BSENISO1461

Connection Flanges: Flanges are an integral part of the fan housing and feature fixing holes that are equally spaced around a pitch circle diameter to facilitate connection to duct work in accordance with BS EN 13351:2009.

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MOTOR

Electrical Characteristics

Voltage: 380–480 VAC, Frequency: 50/60 Hz
Electronic protection: Overload, over temperature, and locked-rotor
Fire mode: Override & maximum speed mode

Mechanical Design

Aluminum frame / housing
Protection rating: IP55
Sealed-for-life bearings
V-ring seal and drain plug included
Mounting: Industrial mounting standards (e.g., B3T) – PAD Mounted
Vibration grade: A

Continuous speed adjustment via

Tact/buttons (local control)
Remote analog signals (2–10 VDC, 4–20 mA)
PWM (10–95%)

Local controls optically isolated

Design Features

- Alarm relay: NO & NC contacts
- Connection box:
 - Push-in or spring terminals
- Modular & service-friendly features:
 - Bearing cap or locking ring
 - Drain plug for maintenance

Motor Finish: Aluminum self-finish to motor manufacturers specification.

Ingress Protection: IP55 with drain plug fitted.

Standard Temperature fans: Fans are designed for Continuous operation from -40°F to +104°F (213T up to 122°F), but is suitable for frequent starting down to -4°F.

Supply: Three Phase, 460v, 60Hz, 3 phase.

MOTOR SPEED CONTROL

Speed Control: All three phase, single speed, motors are suitable for inverter control.

PERFORMANCE DATA

Published fan performance data represents what will be achieved when tested to ISO 5801 (equivalent to AMCA standard 210) and the achieved sound power level, when tested to BSENISO 5136 (which replaces BS 848-1, BS 848-2.5, etc.) or equivalent to AMCA standard 300. Acoustic data is to be given as sound power levels (Lw re: 1 pW (10^{-12} watts)) for each of the eight octave bands (63Hz to 8kHz).

WARRANTY PERIOD

Our standard warranty period for both the fan and motor is 1 year from date of dispatch.

STANDARD ACCESSORIES

BELLMOUTH INLETS

Bellmouth inlets can be provided for fans with long or short housings and are spun from mild steel which complies with BSEN 10111 Grade DD14. Bellmouths are hot dip galvanized in accordance with BSENISO 1461 after manufacture.

INLET/OUTLET GUARD

Inlet and outlet wire guards can be provided where requested and are fabricated from mild steel wire and rod as a welded assembly, which is either hot dip galvanized, or zinc plated after manufacture. Guards are manufactured in accordance with BS 848-5/ISO 12499.

FAN MOUNTING PLATE

Fans can be provided with attachable mounting plates where requested, suitable for horizontal or vertical mounting, fabricated from mild steel to BSEN 10111 Grade DD14, up to 8mm thick. Feet are hot dip galvanized in accordance with BSENISO 1461 after manufacture or in accordance with BS EN 10346:2015.