



JTv Slim Line Garage Fan (Uni-Directional)

- 3 diameters available, 315, 355 & 400mm
- Thrust performance: Up to 66 Newtons / 14.84 lbf
- Available Smoke Vent Categories:
200°C (392°F) / 2 hours
- Fans tested to ISO 13550:1999, and EN12101-3 (High Temperature)
- High efficiency design reduces running costs
- Low installed noise levels
- Motor protection IP55
- Pre-Galvanized sheet steel grade Z2 G275N
- Features a Slim Line profile (cylindrical) casing for reduced height installations.

IMPELLER

Material: Aluminum (LM6)

Blade Design: High Twist, High Efficiency 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.

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 B: Airflow through impeller then over the motor (as standard).

Impeller location and fixing: Impeller is located and fixed 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.

Impeller Design: Impeller is designed for uni-directional operation.

Aerodynamic design: Fan maximum absorbed power is designed to occur within the normal working range (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 AND SILENCER HOUSINGS

Material: All sheet components are constructed using pre-galvanized sheet steel grade Z2 275N, guide vane arms are constructed from mild steel to BSEN 10111 Grade DD14 then hot dip galvanized after manufacture to BSENISO 1461.

Fan Housing and Silencer Design: The inner fan housing is constructed from 2mm thick steel and encloses the entire length of the impeller and motor assembly. The inner silencer face is made from 0.7mm thick pre-galvanized perforated sheet which is shaped to aerodynamically match the fan casing and integrated bellmouth inlets. Each of the two silencers have a cylindrical outer skin, manufactured from 1 mm thick pre-galvanized sheet steel and designed to be flush mounted together. Silencers are each fitted with inlet and discharge bellmouth which are spun from 1.6mm thick mild steel to BSEN 10111 Grade DD14 and hot dip galvanized to BSENISO 1461 after manufacture.

MOTOR

Type: Fan motors are of the totally enclosed, squirrel cage induction, continuous duty variable torque type, UL Listed.

Bearings: Either ball or roller type bearing with an L10 design life of at least 20,000 hours when calculated using ISO 281 for rated fan duty.

Motor insulation: The minimum insulation standard (for standard temperature fans) is Class "F". High temperature fans which are designed for Smoke Extraction have a minimum insulation standard of Class "H". When operating under the most onerous catalogued condition the motor temperature rise will be in accordance with EN 60034-1, or EN 12101-3 in cases of Emergency High Temperature applications.



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Motor output ratings: Motor outputs are *integrated fan motor* rated (based on insulation class), unless otherwise agreed. Power ratings reply on an enhanced level of cooling being provided by the fan impeller, motor mounting shaft and fan casing and as such, the motor is therefore considered to be an integrated fan component. Performance is generally in accordance with BSEN 60034-1.

Motor Finish: Aluminum self-finish or Cast iron painted to motor manufacturers specification.

Ingress Protection: IP55 with drain plug fitted.

Terminal Boxes: All terminal boxes shall have the same level of protection as the motor.

Standard Temperature fans: Fans are designed for Continuous operation from -40°F to +122°F, but is suitable for frequent starting down to -4°F. Motor insulation is class F.

High Temperature (HT) Range: Once off emergency use up to (200°C) 392°F for a duration of 2 hours in accordance with EN12101-3.

Motor insulation is class H.

Electrical Supply Options:

Three Phase, 208v or 460v, 60Hz,
3 phase.

MOTOR SPEED CONTROL

Two Speed: Pole Change (PC) or Dahlander two speed motors are reconnected from a single winding via six winding terminals to give two separate pole numbers.

Speed Control: All three phase, single speed, motors are suitable for inverter control. The Inverter must be switched out (running Direct-On-Line) once the fan is at full speed during High Temperature mode to maintain the HT certification.

PERFORMANCE DATA

Published fan performance data represents what will be achieved when tested to ISO 13350:1999 (or equivalent to AMCA standard

210), and the achieved sound power level when tested to ISO13347-3 (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

Accessories are factory-fitted as standard.

BELLMOUTH INLETS

Bellmouth inlets are spun from 2mm mild steel in accordance with BSEN 10111 Grade DD14, cropped to match the height of the Jet Thrust Fan and hot dip galvanized to BSENISO 1461 after manufacture.

INLET/OUTLET GUARD

Inlet wire guards are always fitted. Outlet wire guards can be provided where requested. Either guard are fabricated from mild steel wire and rod as a welded assembly, which is zinc plated after manufacture. Guards are manufactured in accordance with BS 848-5/ISO 12499.

OUTLET DEFLECTOR

Outlet deflector vanes can be fitted instead of an outlet guard. These are constructed from pre-galvanized mild steel and mount to the silencer end plate.

FAN MOUNTING BRACKET

A single, centrally located fan mounting bracket makes fan installation and maintenance easy. To install the fan, first remove the mounting bracket (foot) and any transport feet from the fan, then install the mounting foot in the required position (on the car park ceiling) using the 4 corner bolt holes, then lift the Jet Thrust Fan up to the mounting bracket and attach it using the 7 bolts as supplied.

ELECTRICAL ISOLATOR SWITCHES

High Temperature Isolator switches can be supplied instead of Terminal Boxes on Jet Thrust Fans.