High Performance (HP) JetVent with centrifugal aluminium impeller

ANCILLARY EQUIPMENT

CO/NO_X Sensor *Ref. F-8*	Decentralised Smoke Detector *Ref. F-8*	Aviator MAX/MINI Controller *Ref. Section M*
Aviator MAX Expansion Module *Ref. Section M*	Aviator 4.3" & 7" GUI *Ref. Section M*	VLT - Variable Speed Drive *Ref. Section M*
Aviator Fan Interface Module *Ref. Section M*	Comlink Repeater Module *Ref. Section M*	Supply & Exhaust Fans *Ref. Section C*

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DESCRIPTION

The JetVent HP is designed for car park applications that require high ventilation rates and where varying levels of pollutants need to be removed quickly and efficiently. These high performance EC fans have a thrust rating of 91.8 newtons at high speed and pre-set setting of 48.2 newtons making them well suited to car parks with high ceilings and high load requirements.

High performance (HP) JetVents have a 50 metres recommended fan spacing due to their high thrust rating and an average of 1000m² coverage per unit used.

Features

- The HP JetVent is a three phase EC model.
- An energy efficient ventilation system that provides the ventilation rate according to the CO or NO_X pollutant levels in the space.
- Available with a factory fitted and fully integrated smoke detection kit mounted to the side of the JetVent fan.
- Additional decentralised smoke detectors can be connected to the JetVent system based on car park layout.
- Utilises Aviator controls to digitally connect JetVent fans, Supply & Exhaust fans, Sensors and the BMS together.
- Aviator controls with propriety ComLink system provides a simple control wiring scheme with easy installation, fast commissioning and a high level of system monitoring.
- EC motor features reverse polarity protection, locked rotor protection and soft starting.
- EC motor technology eliminates the need for external VSDs, current overloads and motor phase protection.

Construction

Low-profile galvanised steel housing with aerodynamically designed internal flow elements. Light grey powder coated finish as standard. These JetVent HP models have backward-curved centrifugal impellers made from durable aluminium.

Internal Thermal Protection

Integral thermal overload protection is supplied as standard.

Wiring Diagram

Refer to the latest JetVent Carpark Ventilation Solutions Application Guide for an overview of wiring schemes. Contact your Fantech sales engineering team for further information.

Motors

Type - Electronically commutated (EC) Motor.

Electricity supply: 380V-480V, three-phase, 50/60 Hz.

Bearings - sealed-for-life ball.

See page O-7 for details on motors.

Integrated EC-Controller providing infinite speed control.

Integrated EC speed control over analogue 0-10V or 4-20mA, PWM or MODBUS High Level Interface over RS485

Testing

Thrust-air performance based on tests to BS848 Part 10,1999: "Fans for general purpose - Performance testing of jet fans."

Noise data based on tests to BS848: Part 2:1985.

Special Note

In most cases Jet fans will be treated as a mechanical performance solution within the National Construction Code (NCC) (formally the BCA). Where required, a mechanical performance solution should comply with the AFAC Guideline 1.0 on Fire Safety for impulse (Jet) fans in Car Parks, and be approved by the appropriate authority. The mechanical performance solution should contain a pollutant analysis and detailed justification to demonstrate the jet fan system will not have a significant detrimental effect on the safe egress of occupants or operation of the sprinkler system.

SUGGESTED SPECIFICATION

The high velocity jet fans shall be of the JetVent JIU-CPCEC-HP Series as designed and manufactured by Fantech Pty Ltd and be of the model numbers shown on the schedule/drawings. The impellers must be driven by EC external rotor motors with integrated EC-Controller and integral thermal overload protection. They shall be pre-configured to suit CO/NO_X sensors and the required applications.

The housing shall be of galvanised steel with a light grey powder coated finish as standard. They shall incorporate mounting feet and aerodynamically designed internal flow elements.

Performance data shall be based on tests to BS848:Part 10,1999 for thrust and ISO3744 or ISO13347-3 for noise.

HOW TO ORDER

Step 1

Select the digital EC JetVent fan model

JIU - CPCEC - HP

JIU-JetVent Induction

CPCEC - CarPark Centrifugal, EC Motor

HP - High Performance

Step 2

Select isolator or smoke detection kit

Smoke Detector Kit — JIU-SMOKEKIT

or

Isolator Kit — JIU-ISOLATORKIT

Refer to the latest JetVent Carpark Ventilation Solutions Application Guide for further selection information.

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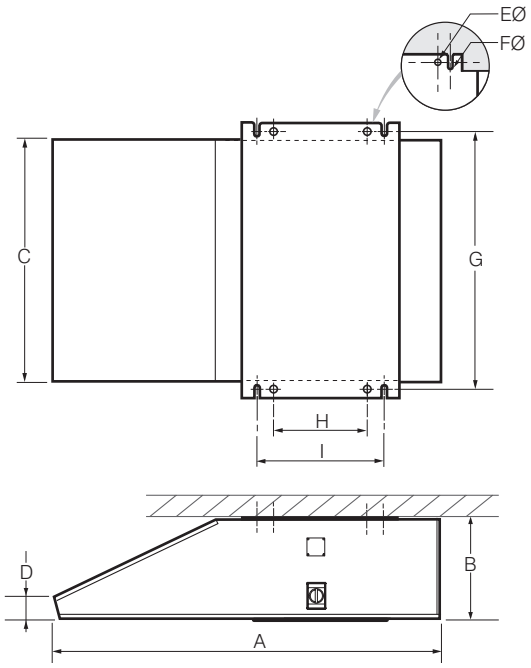
DIMENSIONS



Scan the QR Code to view more information online.

Model	Dimensions, mm A	B	C	D	EØ	FØ	G	H	I	Approx. wt. kg
JIU-CPCEC-HP	1833	492	1151	110	30	16	1240	450	600	160

TECHNICAL AND NOISE DATA

Model		Fan Speed rev/sec	Free Air m^3/s	Thrust N	JIU-CPCEC-.. 3 ph. kW	Amps	Max. °C	Car park Installed Noise Levels dB(A)#	Free-field Noise Rating dB(A) @ 3m**	Sound Power Levels L_WdB re 1pW 63	125	250	500	1k	2k	4k	8k
JIU-CPCEC-HP	High Speed	21	2.90	98	2.8	4.2	40	75	66	83	89	85	81	80	81	75	72
	Pre-set Speed*	14	1.95	49	1.0~	1.6	40	65	57	77	81	77	73	73	68	65	59

\# Car park installed noise levels apply 8m away from the fan with multiple fans operating.

** Free-field noise rating applies 3m away from the fan with single fan operating.

~ Estimated power consumption.

* Pre-set speed so fan does not operate above the AS2107:2016 recommended noise level of 65dB(A) @ 8m.