

DESCRIPTION

The standard height (USD) JetVent Ultra range is designed for typical car park layouts and ceiling heights. It incorporates advanced digital EC motor technology, delivering high-speed thrust performance of up to 52 N and pre-set speed thrust of up to 38.5 N. The cutting-edge mixed-flow impeller enhances acoustic performance while maximising energy efficiency.

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Features

- All USD JetVents are three phase EC models.
- 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 Class A - Aspirating smoke detection kit (ASD) or duct probe style smoke detection kit.
- 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 modbus 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 USD models have mixed-flow impellers made from high-performance injection-moulded composite material.

Internal Thermal Protection

Integral thermal overload protection is supplied as standard.

Wiring Diagram

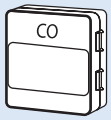
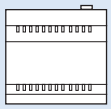
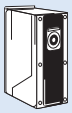
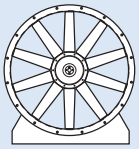
Refer to the latest JetVent Carpark Ventilation Solutions Application Guide for an overview of wiring schemes. Contact your Fantech sales engineering team for further information.

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.

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*	 Variable Speed Drive *Ref. Section M*
 Aviator Fan Interface Module *Ref. Section M*	 Modbus Repeater Module *Ref. Section M*	 Supply & Exhaust Fans *Ref. Section C*

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.

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 Carparks, 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 standard height JetVent JIU-CPCEC 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.

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MODELS TO ORDER

Advanced - Ultra Standard Series

- Modbus Control using Modbus RTU
- Utilises Aviator controls to digitally connect JetVent fans, Supply & Exhaust fans, Sensors and the BMS together
- 2 x connections for 4-20mA sensors
- Fan speed control with RPM feedback
- Fan faulty monitoring
- Product Code: JIU-CPCEC-USDA
- Can be programmed for 0-10V control

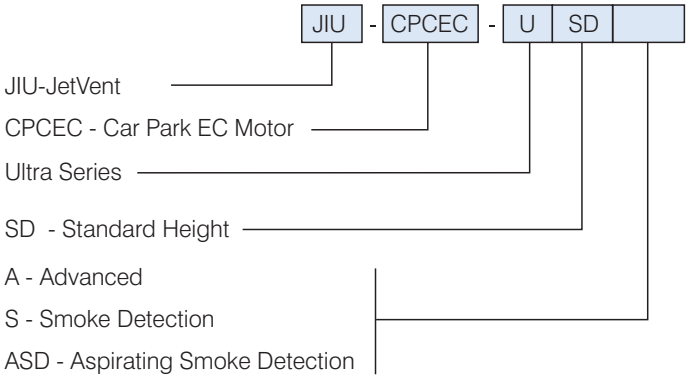
Smoke Detection (Duct Probe) - Ultra Standard Series

- Fully integrated duct probe smoke detection kit mounted to the side of the JetVent fan
- Modbus Control using Modbus RTU
- Utilises Aviator controls to digitally connect JetVent fans, Supply & Exhaust fans, Sensors and the BMS together
- 2 x connections for 4-20mA sensors
- Fan speed control and RPM feedback
- Fan faulty monitoring
- Product Code: JIU-CPCEC-USDS

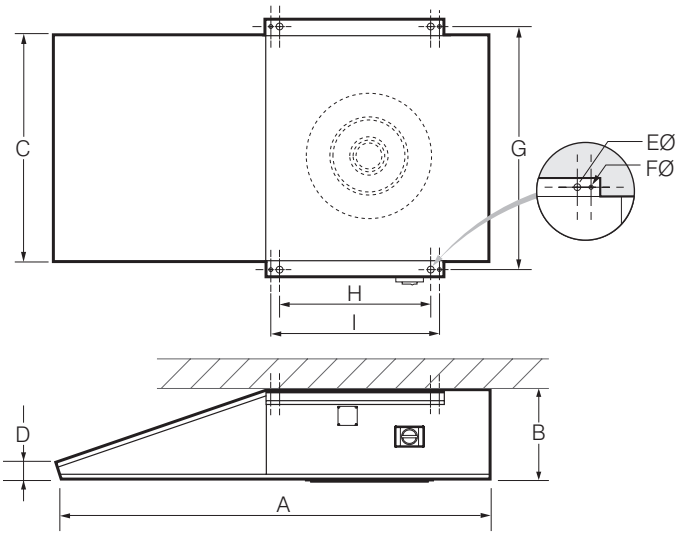
Smoke Detection (ASD) - Ultra Standard Series

- Fully integrated Class A Aspirating smoke detection kit mounted to the side of the JetVent fan
- Modbus Control using Modbus RTU
- Utilises Aviator controls to digitally connect JetVent fans
- Supply & Exhaust fans, Sensors and the BMS together
- 2 x connections for 4-20mA sensors
- Fan speed control and RPM feedback
- Fan faulty monitoring
- Product Code: JIU-CPCEC-USDASD

HOW TO ORDER



DIMENSIONS



Model	Dimensions, mm A	B	C	D	EØ	FØ	G	H	I	Approx. wt. kg
JIU-CPCEC-USD..	1745	370	906	68	25	13	973	605	675	89

Scan the QR Code to view more information online.

TECHNICAL AND NOISE DATA

Model		Fan Speed rev/sec	Free Air m³/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-USD..	High Speed	24	1.39	38	1.1	1.8	60	67	60	75	85	78	74	75	74	70	64
	Pre-set Speed*	23	1.34	36.5	1.1~	1.8	60	65	59	74	84	77	73	75	73	69	63

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.