

JETVENT CAR PARK FANS - JIU SERIES



Description

The JIU Series of JetVent fans are suitable for car park installations where a low ceiling height and tight spaces make fitting the fans particularly challenging. The CPC2 Series can be controlled either by a Variable Speed Drive (VSD) or two-speed switching, while the CPMF Series is suitable for lower cost installations requiring two-speed control.

Typical Applications

Enclosed or semi-enclosed spaces that contain harmful vehicle exhaust pollutants. These spaces include commercial and residential car parks, loading bays, drive through facilities and indoor go-kart tracks. Can also increase cross-flow ventilation in open car parks.

Features

- Highly efficient, aerodynamically designed internal flow elements.
- Available with powerful 50 or 100N thrust capacities (CPMF models available with 50N thrust capacity only).
- Compact low profile design makes it suitable for applications with low ceiling heights.
- Durable galvanised steel housing with light grey powder coated finish as standard.
- Integral mounting feet allows unit to be easily mounted to ceiling.
- High/low speeds selected by switching from star to delta electrical connection.
- Low noise/low speed models available.

Construction

Low profile galvanised steel housing with aerodynamically designed internal flow elements. Light grey powder coated finish as standard. Centrifugal or Mixed-flow impeller manufactured from durable aluminium. Electrical isolator fitted as standard.

Motor

Type - squirrel cage induction motor.

Electricity supply - 415V, three-phase, 50Hz.

Bearings - sealed-for-life, ball.

2-speed motor.

Speed control: CPMF models - Two speed system using relays to drive contactors.

CPC2 models - Using 0 to 10 VDC outputs to proportionally drive VSD or two speed system using relays to drive contactors.

Maximum ambient temperature 70°C.

See pages O-3/4 for details on these motors.

Internal Thermal Protection

CPMF models - Manual reset protection is supplied as standard on these units.

CPC2 models - Thermistors can be supplied on request.

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.

Additional Information

Jet fans should be treated as an Alternative Solution within the National Construction Code (NCC) (formerly the BCA) from a fire and smoke control perspective (in addition to the ventilation requirements). Therefore the fire engineer on the project would need to add the car park ventilation design into their fire engineering report for the project and ensure that they meet the relevant BCA performance clauses. For more information please refer to the JetVent "Practical Guide for Selection and Application" or the Elta Fans website.

Wiring Diagram

See page N-9, diagram ER-9.

Control System

There are two types of analogue control systems used with the JetVent JIU Series:

CPMF and CPC2 models :

Two speed system using relays to drive contactors connected to the fans (See page F-14)

CPC2 models:

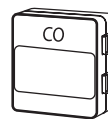
Variable speed system using 0 to 10 Vdc outputs to proportionally drive VSDs (See page F-15)

Suggested Specification

The high velocity jet fans shall be of the JetVent JIU Series as designed and manufactured by Elta Fans and be of the model number shown. 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. Impellers shall be of Mixed-flow or backward-curved centrifugal design manufactured from aluminium. They shall produce 50 or 100 Newtons of thrust and include a 2-speed star/delta motor.

Performance data shall be based on tests to BS848:Part 10,1999 for thrust and BS848:Part 2, 1985 for noise.

Ancillary Equipment



CO/NO_x Sensor
Ref. Section F-13

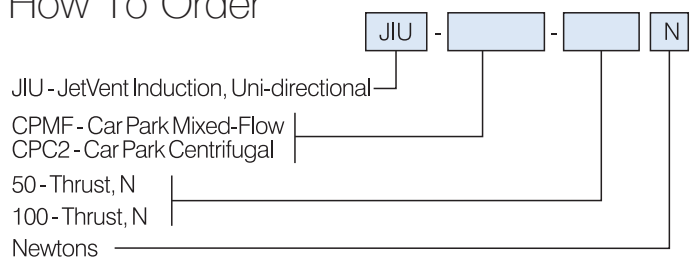


EcoVent Controller
Ref. Section F-12



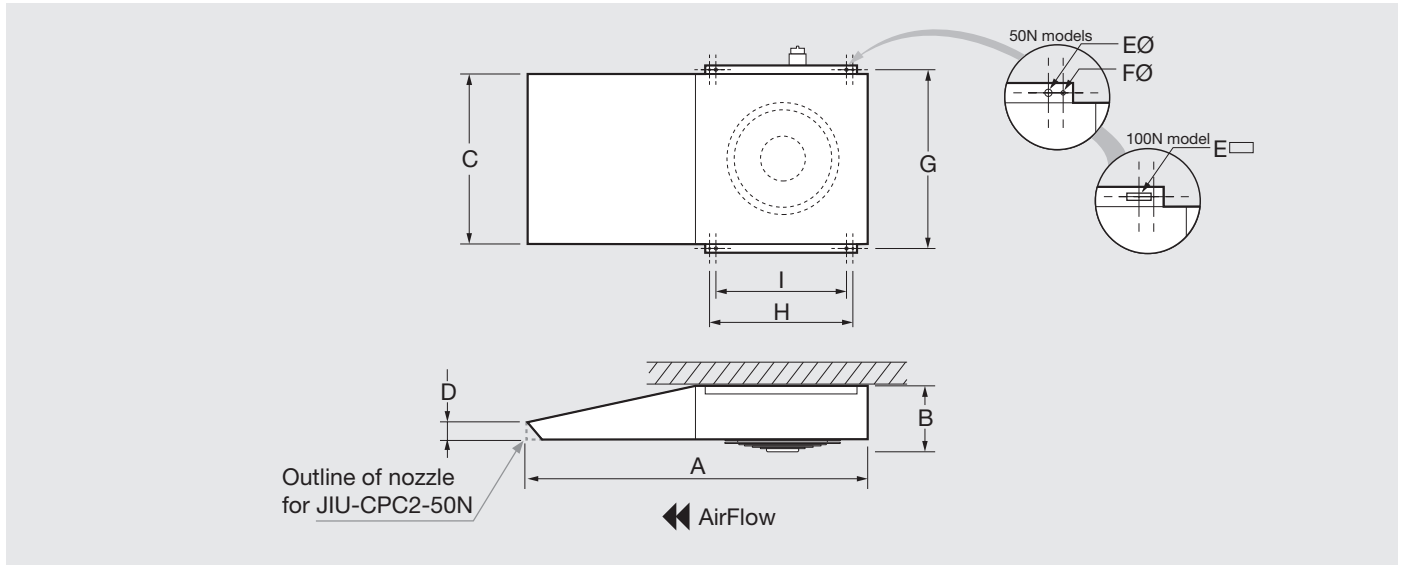
Variable Speed Drives
Ref. Section M

How To Order



JETVENT CAR PARK FANS - JIU SERIES

Dimensions



Model JIU-...	Dimensions, mm									Approx. wt. kg
	A	B	C	D	E	FØ	G	H	I	
CPMF-50N	1602	313	798	83	25Ø	13	872	675	605	71
CPC2-50N	1265	271	790	75	25Ø	13	866	395	325	86
CPC2-100N	1830	333	1147	69	27 x 12*	-	1203	700	-	160

* This is a rectangular slot

Technical And Noise Data

Model JIU-..	Fan Speed rev/sec	Free Air m³/s	Thrust N	JIU... 3 ph. kW	3 ph. Amps	Max. °C	Car park Installed Noise Levels dB(A)#	Free-field Noise Rating dB(A) @ 3m	Sound Power Levels L _w dB re 1pW							
									63	125	250	500	1k	2k	4k	8k
CPMF-50N	23(H)	1.51	50	0.75	2.00	40	76	69	89	83	89	84	82	78	73	66
	16(L)	1.10	22	0.25*	1.34	40	67	60	81	82	82	80	78	75	69	62
CPC2-50N	24(H)	1.68	54	1.38	3.21	40	82	73	79	91	90	91	87	85	82	74
	12(L)	0.80	12	0.35	1.38	40	66	57	82	79	77	76	72	68	60	53
CPC2-100N	23(H)	2.65	98	2.42	6.03	40	82	72	85	93	92	91	89	86	81	75
	12(L)	1.35	18	0.62	2.26	40	66	57	83	80	78	76	71	70	61	54

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

* Estimated power consumption

(H) - High Speed Setting

(L) - Low Speed Setting



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