



Isotherm Cased Fan Coil Unit Operating and Maintenance Instructions.

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**ISOTHERM CASED FAN COIL UNITS
OPERATING AND MAINTENANCE INSTRUCTIONS.**

CONTENTS:

AGENTS & DISTRIBUTORS	Page 1	CASING & DRAIN	Page 3
UNIT ISOLATION	Page 2	WIRING	Page 3
ACCESS TO INTERIOR	Page 2	ELECTRICAL DATA	Page 4
FILTERS	Page 2	SPARES	Page 4
COOLING/HEATING ELEMENT	Page 2		
FANS	Page 3		
MOTOR	Page 3		

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Model	A
B1	1185
B2	1435
B3	1935
B4	2160

GENERAL ARRANGEMENT
SIZES B1 - B4 TYPE F1
CASED ISOTHERM

The materials and methods used in the construction of these units must conform with Biddle Air Systems engineering requirements.
Manufact. tolerance ± 1mm unless otherwise stated.
Dimensions are in mm. Any exceptions are fully specified.

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Date 18/10/01 Do not scale
Issue 1 Sig. MDW Size Factor 10 MS079

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Drng No. KK800

RECOMMENDED SPARES LIST ISOTHERM CASED FAN COIL UNIT		
ITEM	MODEL REF	SALES CODE
INDIVIDUAL MOTORS	ALL UNITS	6390500
FILTER ASSEMBLY	ALL UNITS	6590302
ELEMENT (K3/H1)	B1	6390101
	B2	6390102
	B3	6390103
	B4	6390104
ELEMENT (K3/H0)	B1	6390111
	B2	6390112
	B3	6390113
	B4	6390114
ELEMENT (K4/H0)	B1	6390121
	B2	6390122
	B3	6390123
	B4	6390124

IMPORTANT. IT IS ESSENTIAL TO ISOLATE THE UNIT FROM THE ELECTRICAL SUPPLY AND THE CONTROL POWER SUPPLY BEFORE CARRYING OUT ANY MAINTENANCE ON THE UNIT, ALSO TO ENSURE THAT THE POWER CANNOT BE ACCIDENTALLY RESTORED BY UNAUTHORISED PERSONNEL DURING MAINTENANCE.

When the access panel is removed from the unit, additional safety will be provided by removing the 3 amp fuse from the 3 way fused connector.

Discrete electrical components must always be wired in accordance with the manufacturer's instructions using cable suited to the electrical data given on page 3.

ACCESS TO INTERIOR.

The access panel is secured by four "Poizdrive" instrument head screws. This panel gives access to the fans and motor.

FILTERS.

These are located before the fans and are accessible via the small access panel, which is secured by quarter turn fastners. They are accessible without removing the main access panel.

The individual filters are carried in channel slides and can be fully withdrawn by hand. The filter is of non-woven nylon manufacture and should be regularly cleaned from the dirty side with a vacuum cleaner. The filter can be partially cleaned by gentle beating.

The period between cleaning is dependent on operating conditions. In a very dirty atmosphere, the filter will require frequent cleaning.

COOLING / HEATING ELEMENT.

Provided the filter is regularly serviced, the cooling/heating element will require little or no attention. However, if the filter is allowed to get very dirty, some dust will percolate through and become entrained in the element. In this case, the element should be cleaned by applying an air jet to the air leaving face.

FANS.

These are double inlet, double width centrifugal fans complete with built in direct drive motors. Units comprise of the following number of individual fan/motors.

Model B1 = One
 B2 = Two
 B3 = Three
 B4 = Four

Occasionally check the fans for security and, if necessary, carefully clean with a soft brush and a vacuum cleaner.

MOTOR.

These are single phase, direct drive motors with integral thermal protection having pre-lubricated sealed-for-life sleeve bearings requiring no maintenance.

Electric supply 220/240 volt, 1 phase, 50 Hz.

Each motor is controlled via a multi voltage transformer to give three-speed operation.

CASING & DRAIN.

Occasionally clean the interior of the unit, and on cased units check that the paint is in good condition, repaint when necessary.

Always ensure that the condensate drain lines are clear, enabling the condensate to run free from the drain tray. Horizontally mounted units need the casing installed at a slight angle towards the drain connection (5-10mm from the horizontal).

WIRING.

Occasionally check that all terminals are tight and that the cable insulation is in good condition. After servicing, ensure that no parts have been disturbed in such a manner that open terminals (especially spade type) are short-circuited to the unit casing.

ELECTRIC DATA.

Electric supply 220/240, 1 phase, 50 Hz.

The running and locked rotor current will vary according to the operating fan speed of each unit. The following table lists the maximum values for each unit and these should be used for sizing cable, etc.

MODEL No	Absorbed Power (watts)	Locked Rotor Current (amps)
B1	110	0.50
B2	195	1.00
B3	300	1.50
B4	400	2.00

SPARES

When ordering spares from Biddle Air Systems Ltd, please quote the W.O. number, the serial & model number of each unit concerned together with the individual article number for the component required (see chart for article numbers). Details of the unit can be found on the rating plate located inside the unit.