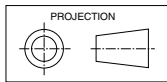


# ISD 570/670 KB-P (c/w Plug fan)

## Ducted Split System Indoor Units

## Installation & Maintenance

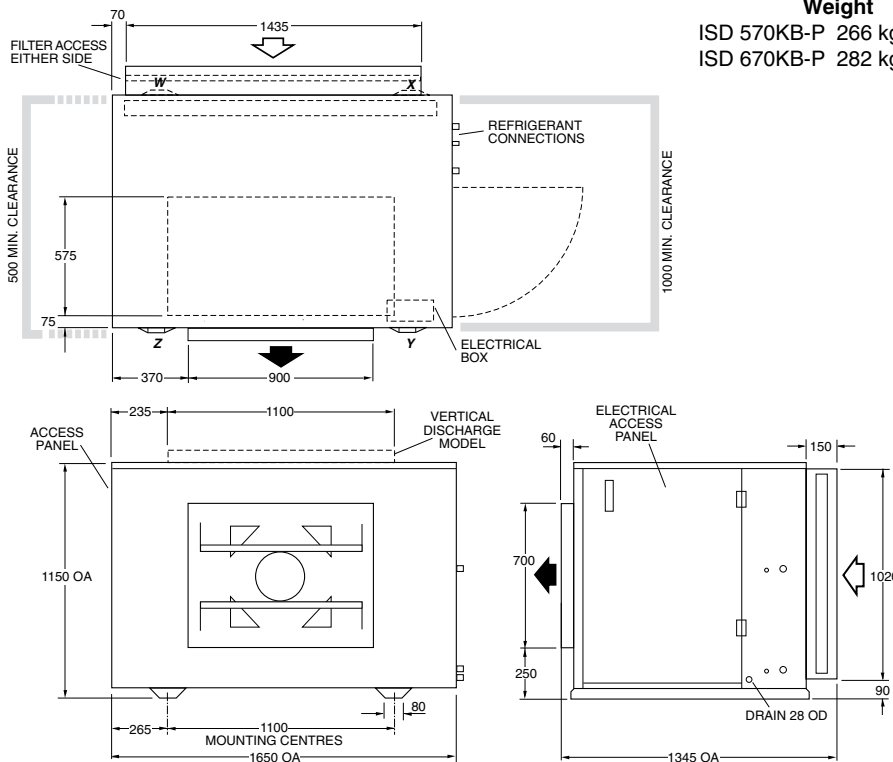
**Fig.1 Dimensions (mm)**



Not to Scale

MODEL	CORNER LOADS (kg)			
	W	X	Y	Z
ISD 570KB-P	81	81	52	52
ISD 670KB-P	87	87	54	54

**Net Weight**  
 ISD 570KB-P 266 kg  
 ISD 670KB-P 282 kg



**GENERAL**

These ISD indoor units are designed to be coupled with their respective OSA outdoor units. Units must be installed in accordance with all national and local safety codes. There are two versions available:  
 1. Horizontal discharge (H)  
 2. Vertical discharge (V)

**Combinations**

One ISD 570KBH-P with one OSA 570RKTB  
 One ISD 570KBV-P with one OSA 570RKTB  
 One ISD 670KBV-P with one OSA 670RKTB

**Option**  
 Filters

**INSTALLATION**

**Unpacking**  
 The unit's supply air spigot has been secured inside the unit for ease of shipping. Remove the spigot and secure it in place using the existing screws.

**Positioning & Mounting**

Provide sufficient clearance to the access panels.  
 Mount on a suitable level platform using vibration isolators. Access to fixing centres beneath the return air spigot can be made via the removeable bungs in the spigot's base.

**Condensate Drain**

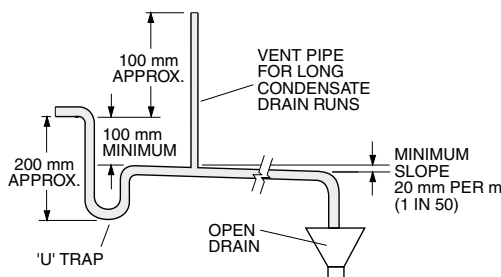
The unit has an internal sloping condensate drain tray. The trap should have a vertical height of at least 100 mm. The drain should have a slope of at least 1 in 50 and must not be piped to a level above the unit drain tray (refer Fig.2).

For long condensate pipe runs, fit a vent pipe near the drain trap. The top of the vent pipe must be at least 100 mm above the ISD unit's drain tray.

**NOTE**  
 The manufacturer reserves the right to change specifications at any time without notice or obligation. Certified dimensions available on request.

**Fig. 2**

### Condensate Drain



It is essential that the drainage system for the evaporator is checked by pouring water in the drain tray and seeing that it discharges at the end of the drain and does not overflow the drain tray.

**INDOOR-OUTDOOR UNIT CONNECTIONS**

Refer to the relevant OSA Outdoor Unit 'Installation & Maintenance' pamphlet for piping instructions. For wiring connections, refer to the Outdoor Unit wiring diagram.

## REFRIGERATION PIPING

### Pipe Connection Sizes & Type

Liquid : 13 mm OD ( $\frac{1}{2}$ " ) sweat  
Suction : 28 mm OD ( $1\frac{1}{8}$ " ) sweat

The ISD is shipped from the factory with a pressurised holding charge of nitrogen. Immediately before removing any brazed pipe connection's seal, reduce holding charge to atmospheric pressure.

**Warning:** failure to do so may cause injury.

Refer to the Outdoor Unit 'Installation & Maintenance' pamphlet for evacuation procedure and piping requirements.

## ELECTRICAL WIRING

The electrical supply required (via the Outdoor Unit) is specified on the Outdoor Unit's wiring diagram.

Electrical work must be carried out by a qualified electrician in accordance with local supply authority regulations and the wiring diagram.

In a free blow or low resistance application, beware of exceeding the fan motor's full load amp limit (refer Outdoor Unit's wiring diagram).

To make the indoor fan switch off during de-ice cycle, refer to the Outdoor Unit wiring diagram for the appropriate changes.

## INDOOR FAN SPEED

The fan speed is continuously variable via the 0-10V DC control signal applied between terminals 'FAN GND' and '0-10V'.

Once the maximum design air flow has been set (refer Commissioning), the fan speed can be controlled as follows:

### 1. ON/OFF

a.) Connect 24V a.c. control signal to either 'LOW 24', 'MED 24V' or 'HIGH 24V', and 'COM 24V',

or

b) Wire a N/O control relay contact (or switch) between 'FAN 10V' and '0-10V'.

### 2. Variable Speed

Apply an external variable 0-10V DC control voltage to '0-10V' terminal. Connect 0V reference to 'FAN GND'.

## COMMISSIONING

### Indoor Unit

1. Check that the thermostat is correctly wired and set at the desired temperature.
2. Link terminals 'FAN 10V' to '0-10V'. Adjust the 'POT' to deliver your maximum design air flow. Remove link 'FAN 10V' to '0-10V' when fan speed has been set.
2. Check that any air filter (if fitted) is clean.
3. Check that the fan runs freely without vibration.
4. Check the airflow at each air outlet (diffuser) and adjust if necessary.
5. Check condensate drain for free drainage.
6. Run the unit in cooling mode and heating mode.

## MAINTENANCE

### Weekly For First Four Weeks

1. Check air filter (if fitted); vacuum clean as necessary.
2. Check condensate drain for free drainage.

### Monthly

Check air filter (if fitted); vacuum clean as necessary.

### Six Monthly

1. Check condensate drain for free drainage.
2. Check heat exchanger coil; vacuum or brush clean as necessary.
3. Check the tightness of the fan, motor mountings, pulley and belt tension.
4. Check that fan motor is free running.
5. Check tightness of electrical connections.
6. Check air supply at diffuser outlets.

## WARNING

This unit is designed for use ONLY with the refrigerant HFC-410A (R410A). The use of other refrigerants is NOT authorised or approved by the manufacturer and may cause operational problems such as poor performance and efficiency, loss of capacity, degradation of materials and refrigerant leaks.

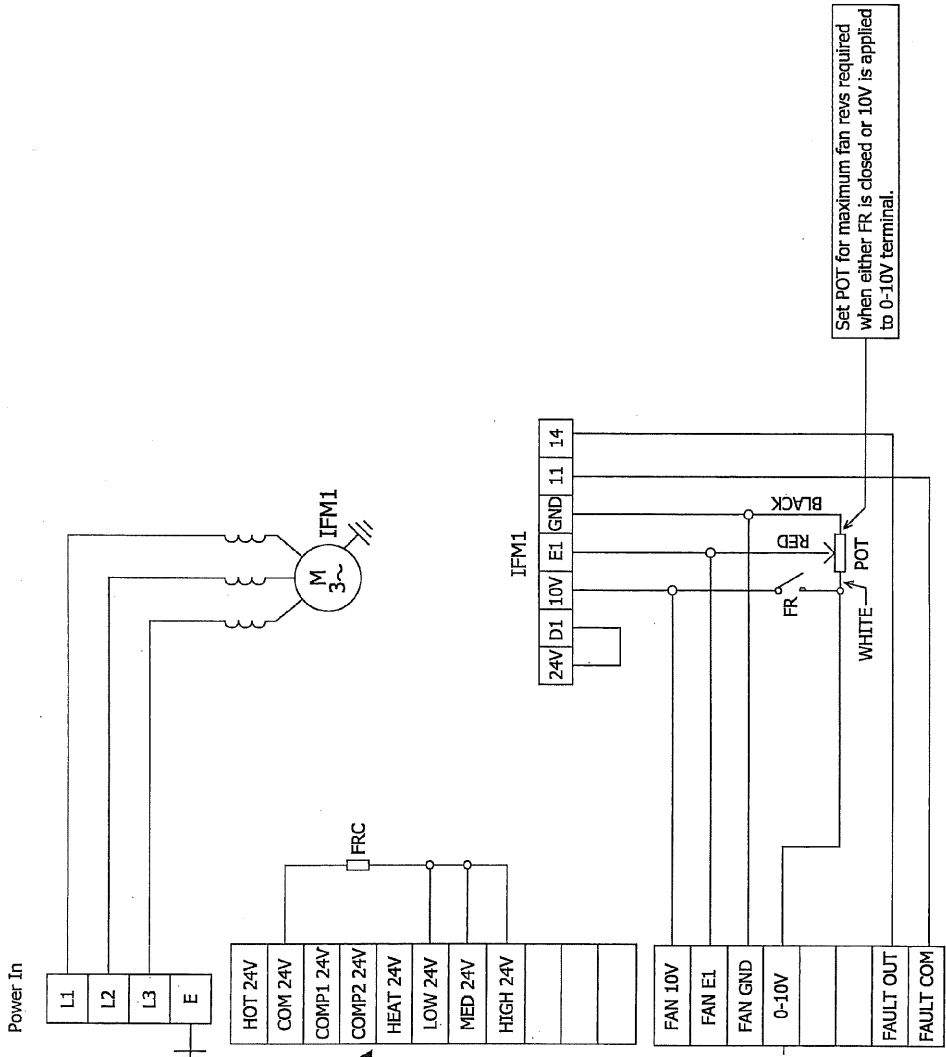
**The use of flammable or explosive materials as a refrigerant creates the additional risks of fire and explosion which may result in property damage, personal injury or death.**

## NOTE

The manufacturer reserves the right to change specifications at any time without notice or obligation. Certified dimensions available on request.

This pamphlet replaces the previous issue no. 3848 dated 09/12. Wiring revision B.

Model	ISD	570-P	670-P
Voltage In	V	400/415	400/415
IFM Amps (max)	A	5.7	5.7
FR	Fan Relay		
FRC	Fan Relay Coil		
IFM	Indoor Fan Motor		
POT	Potentiometer (max speed)		



Note: For external '0-10V' control, feed 0-10V control signal to terminal '0-10V' and 'FAN GND'

Set POT for maximum fan revs required when either FR is closed or 10V is applied to 0-10V terminal.

Visit: [www.tempezone.biz](http://www.tempezone.biz) for client wiring diagrams.

Title		ISD 570/670KB-P WIRING SCHEMATIC	
Drawn AFC	Date	02-03-12	Revision
Scale	Aprvd	<i>[Signature]</i>	291-000-047
			B



Programmed by	
PLOTTED	24-06-13
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ISSUE	MODIFICATION	ECN	DATE	APRVD
B	'Comp2' was 'comp1', IFM Amps were 5.0 now 5.7	N3294	20-11-12	A.F.C.

