

# ISF 300K, 450K

## IT-Data Centre Computer Room Indoor Units

## Installation & Maintenance

### 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.

### Combinations

One ISF 300K with three OSA 110RKTH  
 One ISF 300K with one OSA 330RKTV  
 One ISF 450K with three OSA 160RKTHG  
 One ISF 450K with one OSA 460RKTB

### Optional

1. Remote return air sensor c/w 5m lead and no case.

2. Remote return air sensor c/w case.
3. Remote return air temperature sensor lead; 1.5, 6, 12 or 25 m.
4. 20 m extended interface lead (electrical box-to-plaque).
5. ISF indoor unit-to-OSA outdoor unit interconnecting power lead; 12.5 m or 25 m; 7 core.

### INSTALLATION

#### Positioning & Mounting

The unit is designed for hot isle/cold isle type computer room applications.

Provide sufficient clearance at the rear to access the filters.

### Condensate Drain

The unit has three internal condensate drain trays which are connected by drain tubes to the lower tray, then into a sump. Water is then removed, via a condensate lift-pump, out the top of the unit.

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

### 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 : 10 mm OD ( $\frac{3}{8}$ " ) sweat  
 Suction : 19 mm OD ( $\frac{3}{4}$ " ) sweat

The ISF 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.

### INDOOR FAN SPEED

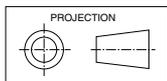
The ISF is fitted with an EC motor which will vary its speed according to the signal supplied by your chosen room temperature controller.

### INSTALLATION

The TZT-100 Controller PCB is supplied pre-installed in the ISD unit's electrical box.

1. Isolate the ISF unit from power supply, then remove electrical box cover.
2. Remove the TZT-100 Wall Plaque box supplied loose inside the electrical box.
3. Follow the instructions supplied in the TZT-100 Installation document supplied.

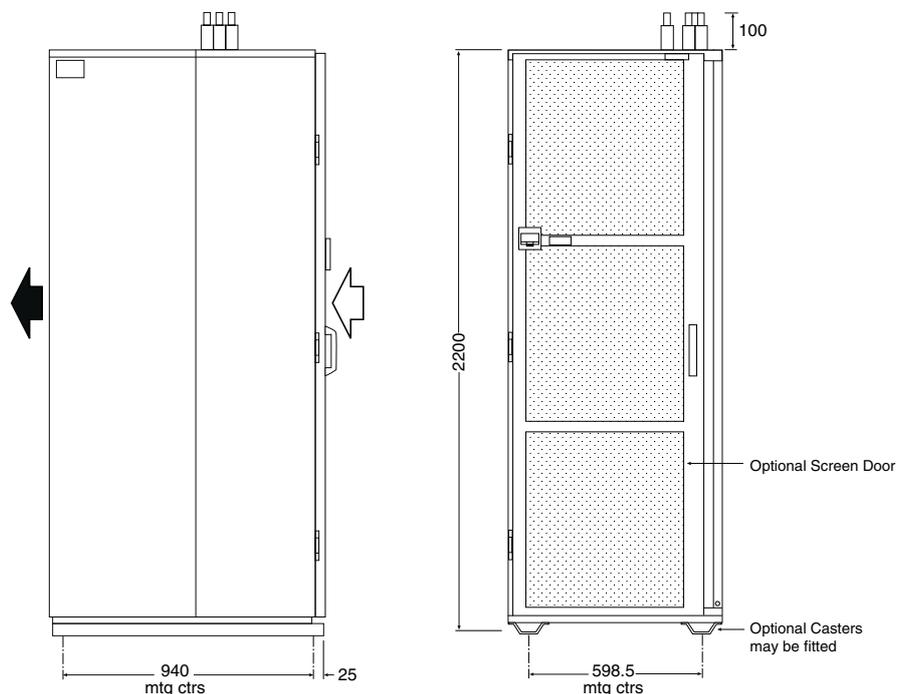
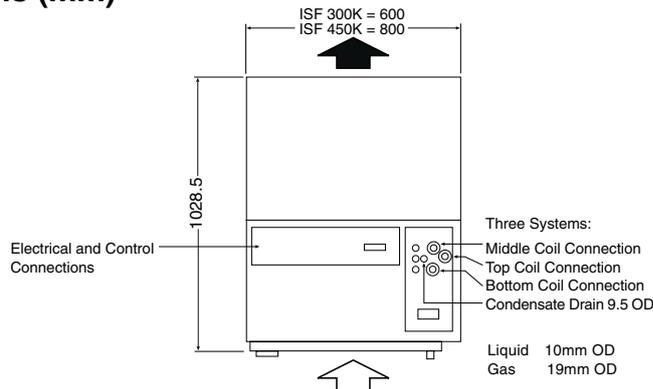
**Fig.1 Dimensions (mm)**



Not to Scale

### Net Weight:

ISF 300K 200 kg  
 ISF 450K 250 kg



## COMMISSIONING

### Indoor Unit

1. Check that the thermostat is correctly wired and set at the desired temperature.
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.

Refer to Outdoor Unit Installation Instructions in order to complete the start-up and commissioning procedure for the complete air conditioning system.

Demonstrate the optional TZT-100 Wall Control to the owner/user, after having first thoroughly familiarised yourself with the User's Operating Instructions. This document is to remain with the owner/user.

## MAINTENANCE

### Weekly For First Four Weeks

1. Check air filters; vacuum clean or replace 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 that fan motor is free running.
4. Check tightness of electrical connections.

## WARNING

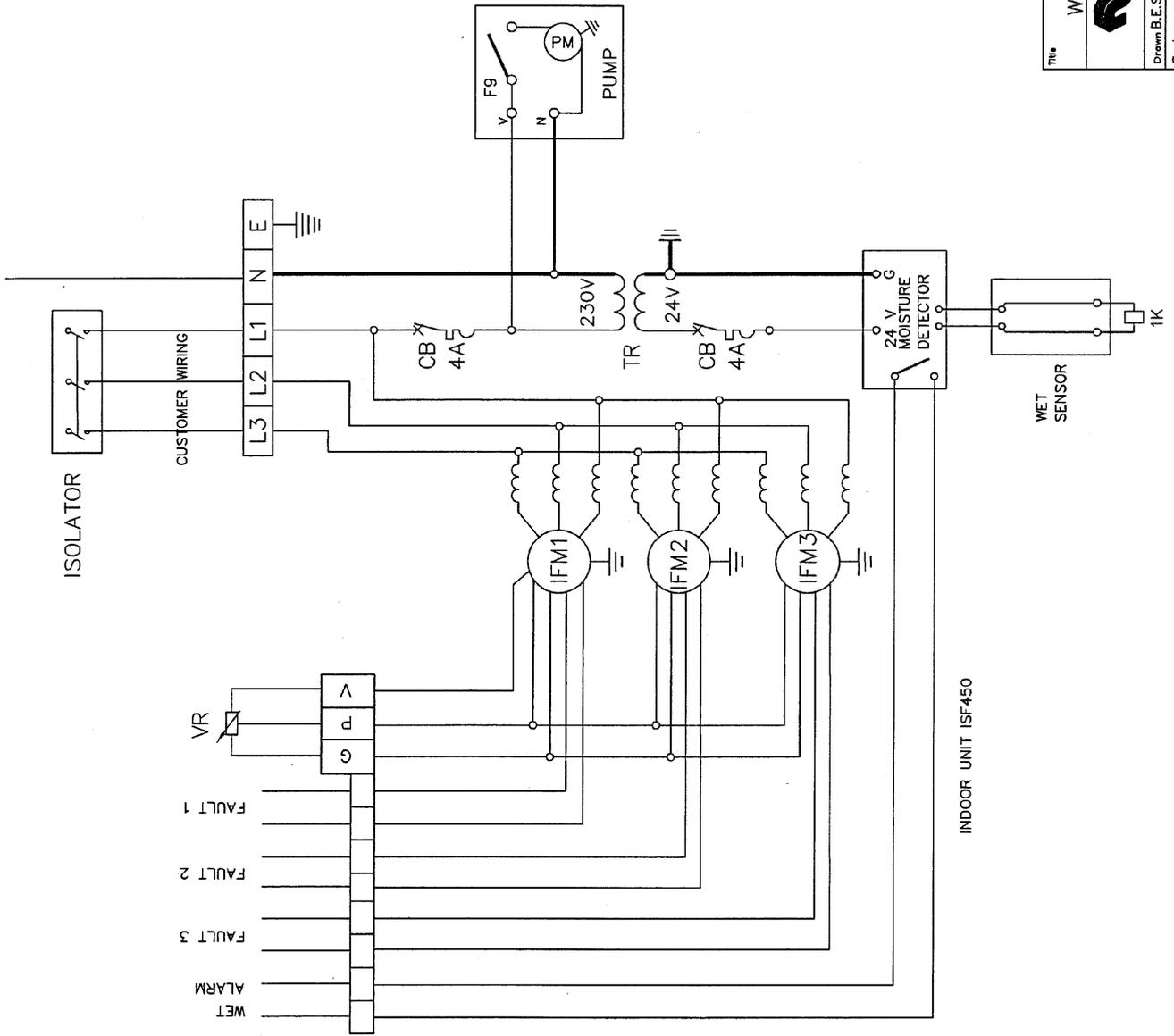
This unit is designed for use ONLY with the refrigerant HFC-410A (R410A). The use of other refrigerants is NOT authorised or approved by the manufacturer and may cause operational problems such as poor performance and efficiency, loss of capacity, degradation of materials and refrigerant leaks.

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. 3073 dated 09/10. TZT-100 replaces TZT-701.



INDOOR UNIT ISF450

Title		SF300/450 WIRING SCHEMATIC		Programmed by	
Drawn		B.E.S		Date	
Date		30-06-11		Revision	
Scale		291-000-651		©temperzone Ltd 2009	



