



Icefree Sapphire Ltd - Standard Permafrost Heated Wire System

This Permafrost Heated Wire System uses heavy-gauge 3.15mm Stainless Steel Wire, PVC sheathed for extra protection, laid at 300mm centres, energised at very low voltage through a double-wound step-down transformer.

The system is controlled using an electronic thermostat/thermometer having a remote probe to measure the underfloor temperature.

The remote probe is encased in a 25mm plastic tube embedded in the heater mat screed.

The electrical loading is normally about 13.5 watts per square metre of floor area.

This is designed to compensate for heat losses through the floor insulation, with an adequate safety margin.

Items provided by Icefree Ltd include heating wires of the required length, with factory fitted cold tail cable fixing clips with rubber inserts, 25mm plastic tubing to accommodate the remote sensing probe, and a control panel manufactured from 1.2mm Zintex, finished in white houses the following items,

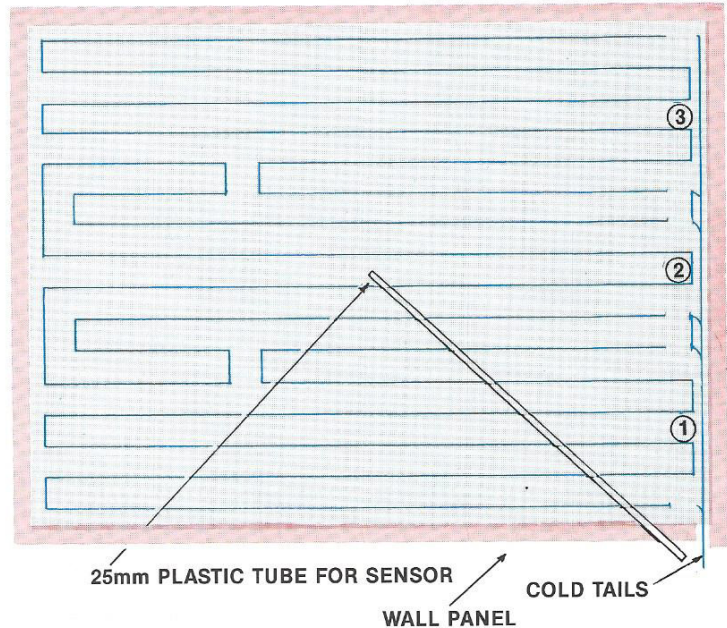
- 1 x step-down transformer (up to 1.25 KVA)
- 1 x electronic thermostat/thermometer set to 4°C
- 1 x contactor
- 1 x auxilliary transformer
- 1 x on/off illuminated switch
- 2 x fuses
- 1 x indicating load light.

Note: step-down transformers exceeding 1.25kva housed in a separate steel case, and supplied with busbars and control panel.

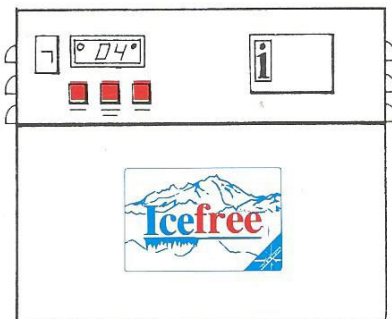
In the case of a 3 phase system (transformer exceeds 4.5kva) two extra thermometers are provided, each with its own remote probe.

TYPICAL LAYOUT

SHOWING 3 ELEMENTS SPACED AT 300 CNTS



Easy-to-use control panel

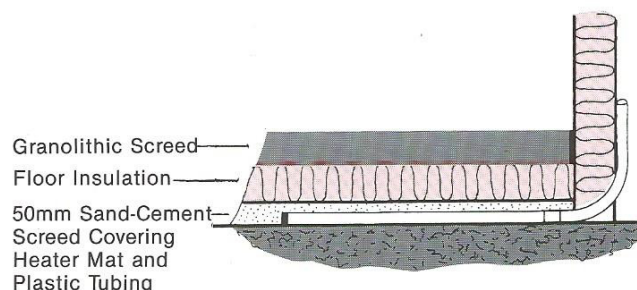


CONTROL PANEL SIZES

- 1) UP TO 400Va, 300 x 250 x 135.
- 2) 400Va TO 1.25KVA, 340 x 290 x 160.
- 3) 1.25KVA TO 4.5KVA, 190 x 250 x 120.
- 4) 4.5KVA AND ABOVE, 340 x 290 x 160.

TYPICAL SECTION

THROUGH LOW TEMPERATURE COLD STORE FLOOR



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