

# SUP120



## DATA ACQUISITION AND REAL TIME ENTHALPIC DIAGRAM BOX



### Experimental capabilities

- Data acquisition on refrigeration systems operating with R134a or R448a
- Connection possible on any system equipped with service valves
- Plotting of the refrigerating cycle on enthalpy diagram in real time.
- Visualization of the values on a block diagram of installation (temperatures, pressures and enthalpies)
- Recording of data towards an Excel file type

DIDATEC– Zone d'activité du parc – 42490 FRAISSES- FRANCE  
Tél. +33(0)4.77.10.10.10 – Fax+33(0)4.77.61.56.49 – [www.didatec-technologie.com](http://www.didatec-technologie.com)  
email : [service\\_commercial@didatec-technologie.com](mailto:service_commercial@didatec-technologie.com)

*Reproduction interdite / copy prohibited– Copyright DIDATEC févr.-23- page 1*

Dans le cadre de l'amélioration permanente de nos produits, ce descriptif technique est susceptible d'être modifié sans préavis  
As part of the continuous improvement of our products, this technical specification may be modified without previous notifying

Illustrations non contractuelles / Illustrations not contractual

version : FT-SUP120-STD-C

# SUP120

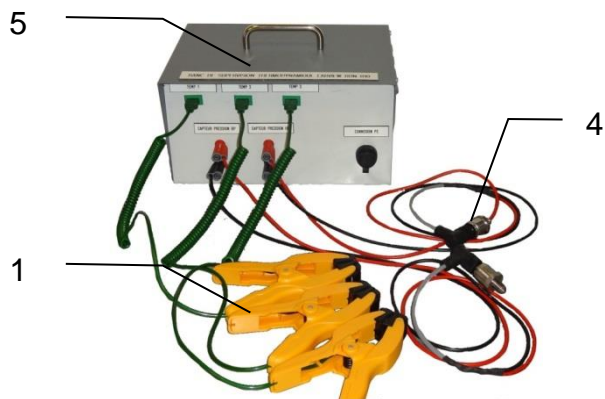


## Operating principle

The SUP120 bench allows the data acquisition and the refrigeration cycle plot on enthalpy diagram for any machine running on R134a or R448a. Students will initially connect the pressure measuring hoses (standard manifold) then set up the temperature probes (clamps equipped with thermocouple) to the characteristic points of the circuit (suction and discharge compressor, expansion valve inlet). They will then connect electrically all the sensors on the acquisition device (quick connectors) and connect it to a PC via WIFI. They then launch software appropriate for fluid used.

The unit is delivered with all the necessary material to connect the sensors on the box (hoses, manifold)  
The manufactory of this equipment is conforming to European standards.

## Illustrations

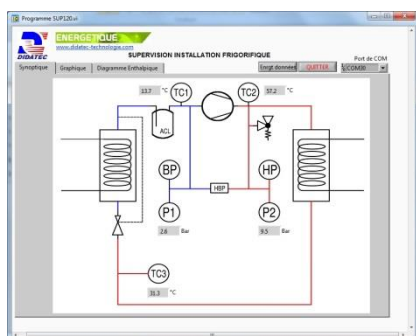


## Technical details

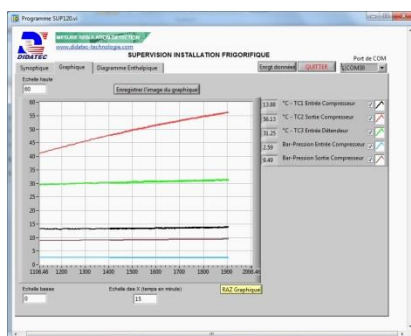
The supervision bench SUP 120 includes the following elements:

1. 3 pliers of temperature measurement with type K thermocouple
  2. 3 extension cords of 1.5m of thermocouple wire with quick connectors
  3. A refrigeration manifold with three hoses (blue, red and yellow) equipped with valves
  4. Two pressure sensors with analog output and quick connector
  5. An acquisition device equipped with three thermocouple inputs, two analog inputs.
  6. An acquisition software allowing to:
    - Visualize the measured values of a block diagram (pressures and temperatures)
    - Draw the evolution curves in function of time (pressures and temperatures)
    - Draw the refrigerating cycle in enthalpy diagram in real time and display the values of enthalpy
    - Save the data to an Excel file type
- The supplied software is unlicensed

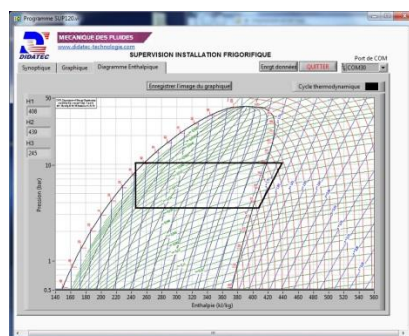
## Illustrations of the software



Block diagram



Curves in function of time



Enthalpic diagram in real time

## Services required

- Electrical supply : 230 Vac – 50 Hz – 4 A
- Electrical network : 1 phase(s) + Neutral + Earth.
- Dimensions: (LxWxH mm): 250 x 300 x 250
- weight (Kg): 5

## Documentation

- User's manual
- Technical documentation of the components
- Software compatible with windows 7 and 10
- Certificate of conformity CE

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

DIDATEC– Zone d'activité du parc – 42490 FRAISSES- FRANCE  
Tél. +33(0)4.77.10.10.10 – Fax+33(0)4.77.61.56.49 – [www.didatec-technologie.com](http://www.didatec-technologie.com)  
email : [service\\_commercial@didatec-technologie.com](mailto:service_commercial@didatec-technologie.com)

Reproduction interdite / copy prohibited– Copyright DIDATEC févr.-23- page 2

Dans le cadre de l'amélioration permanente de nos produits, ce descriptif technique est susceptible d'être modifié sans préavis

As part of the continuous improvement of our products, this technical specification may be modified without previous notifying  
Illustrations non contractuelles / Illustrations not contractual

version : FT-SUP120-STD-C