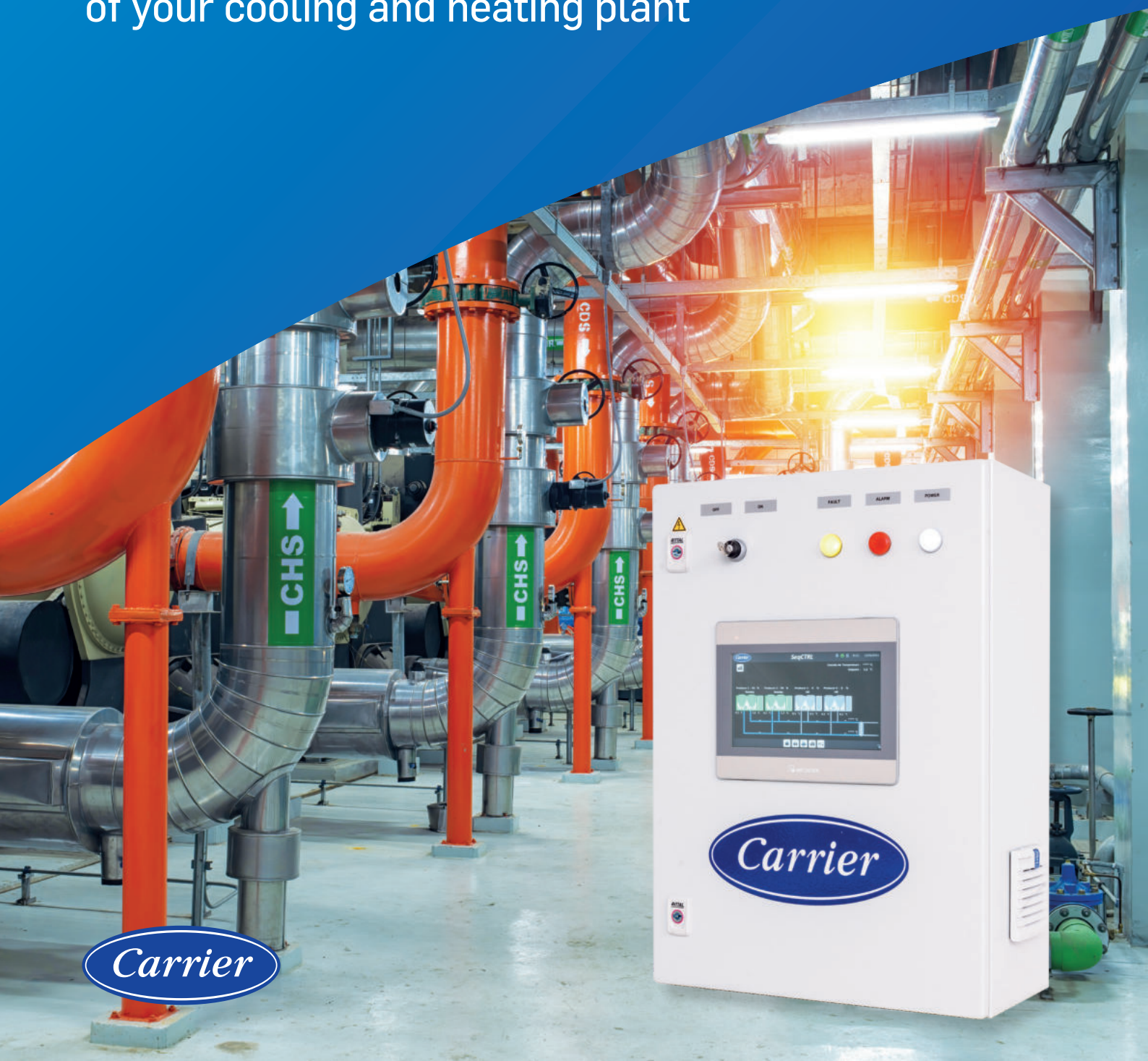
BLUEDGE

HVAC Service Solutions

TRUVU™ PLANT SEQUENCER

Regulation, Control & Optimization of your cooling and heating plant



Standard control solution to manage and optimize cooling & heating plants

TruVu Plant Sequencer
controls and optimizes cooling and heating plant rooms, benefiting from Carrier's expertise in HVAC systems.

A turnkey solution
with an advanced program, easily commissioned by Carrier service technicians.

Energy savings
of cooling / heating plant.

Reduced
operating and maintenance costs.

Credit gains
for Leed®, Breeam®, Hqe™ certifications.

Compliance
with local and european energy regulations.

TruVu

Main capabilities

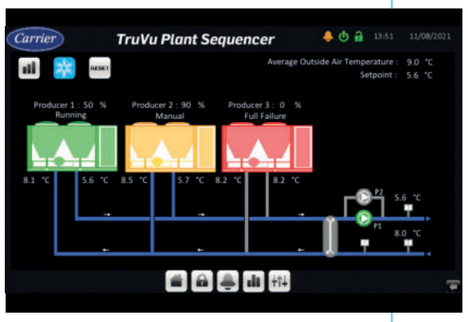
- Up to 4 Carrier chillers or heat pumps.
- Up to 2 secondary pumps.
- Up to 4 dry-coolers (version TruVu plant sequencer v2.0).
- 1 x 3-way valve (mutualized dry-coolers, version TruVu plant sequencer v3.0).

Local monitoring

- 10'' standard touchscreen with web server in the front of the electrical cabinet.

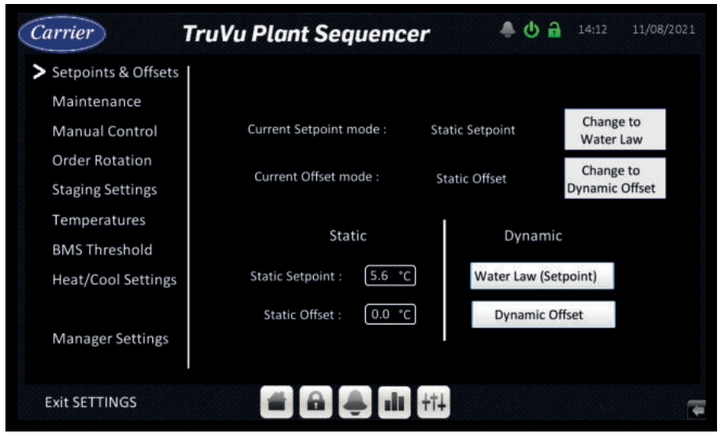
Remote Communication

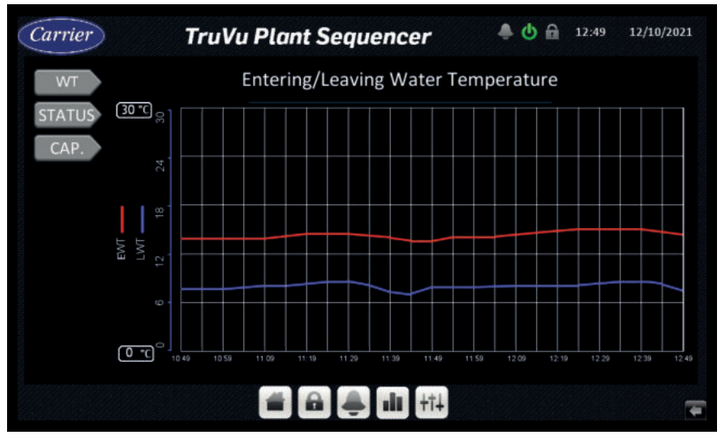
- BMS: BACnet/IP or Modbus TCP/IP.
- Optional Carrier i-Vu® remote monitoring solution.



Requirements

- BACnet/IP communication is compulsory with chillers or heat pumps.
- Evaporator pumps directly managed by the chiller or heat pump.
- Condenser pumps and 3-way valves for water-cooled units directly managed by the chiller or heat pump (version: TruVu plant sequencer v2.0).
- Modbus RTU communication compulsory with dry-coolers - optional Modbus RTU to physical I/O card (version: TruVu plant sequencer v2.0.).
- No wired I/O except temperature and allowed components in the standard scope (see electrical diagram or technical data sheet).





Control Carrier chillers and heat pumps with BACnet IP option:

Cascade with time balance and alternation.
Faults, alarms and back up management.
Maintenance mode and manual operation.

Dry-coolers:

Carrier & non-Carrier.
Setpoint configuration.
Faults, alarms and back up management.
Maintenance mode and manual operation.

Secondary pumps:

Normal/rescue operation with time balance and alternation.
Fixed or variable flow with PID regulation on delta pressure.
Faults, alarms and back up management.
Maintenance mode and manual operation.

Advanced cascade:

Automatic advanced cascade on temperature drift / temperature evolution / plant capacity / delta T°C.
Unit's cascade on full load or predefined partial load.
User setup (setpoints, setpoint offset units-network / mini-maxi running units, units priorities, etc.).

Energy savings:

Setpoint offset according to outside air temperature (user configurable).
Cascade staging up on predifined units partial load value (user configurable).

Daily and seasonal programming:

Production start linked to BMS schedule.
Manual or automatic changeover for heating/cooling mode selection.

Heat recovery and free-cooling:

(version: TruVu plant sequencer v2.0)

Priority given to units with the option enabled when conditions are met.
Setpoint management.

Local Human to Machine Interface (HMI) and remote monitoring (option i-Vu):

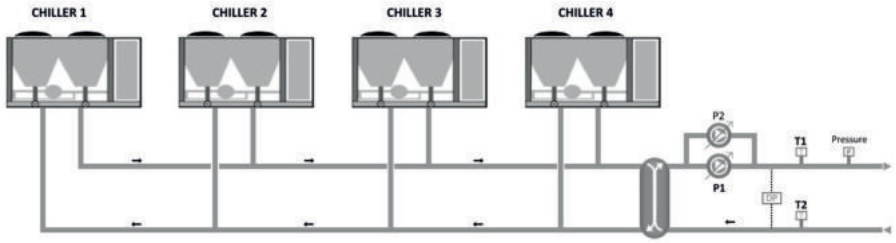
HMI with Real-time synoptic / plant and components status / trends / events / secure access.
Webserver for remote visualization of the HMI.

BMS communication:

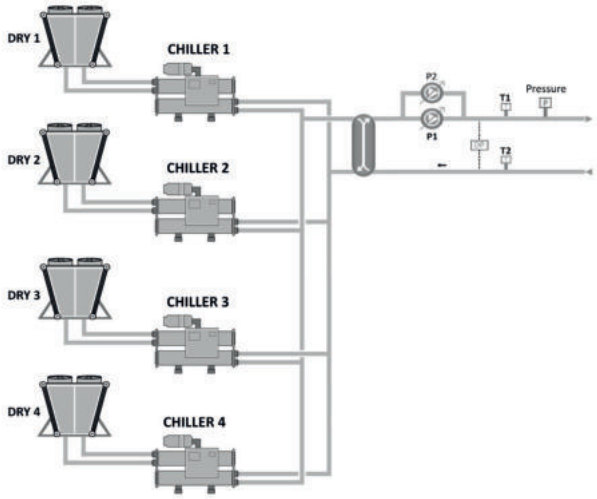
Communication table (read/write access) feedback of all the main operating parameters, faults, alarms.

Hydraulic configuration examples

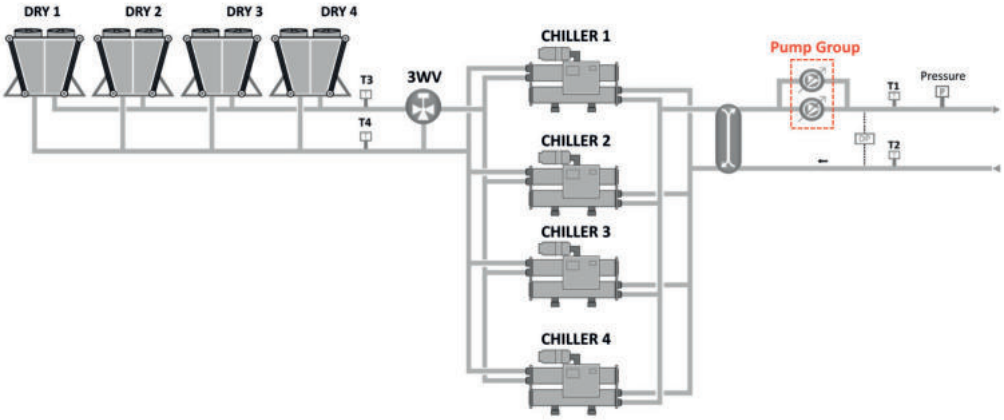
Air-cooled chillers/heat pumps with secondary pumps



Water-cooled chillers/heat pumps with dedicated dry-coolers, and secondary pumps(1)



Water-cooled chillers/heat pumps with mutualized dry-coolers, and secondary pumps(2)



Additionnal equipment (not included)

- Pressure switch for lack of water detection.
- Delta P sensor for variable flow secondary pumps - 0/10 V.
- Modbus RTU for electrical meter - 1 on each chiller/heat pump or 1 common.
- Modbus RTU for flow meter or thermal meter - on leaving or return of network.

(1) Available for TruVu plant sequencer v2 or above.
(2) Available for TruVu plant sequencer v3 or above.

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TruVu Plant Sequencer brochure English. 2022.