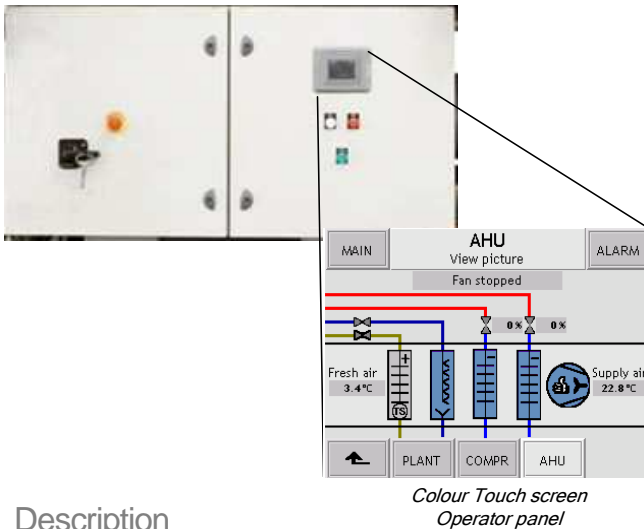


Marine AHU control concept

Efficient control and monitoring of standard Heating, Ventilation, Air-Condition system for AHUs



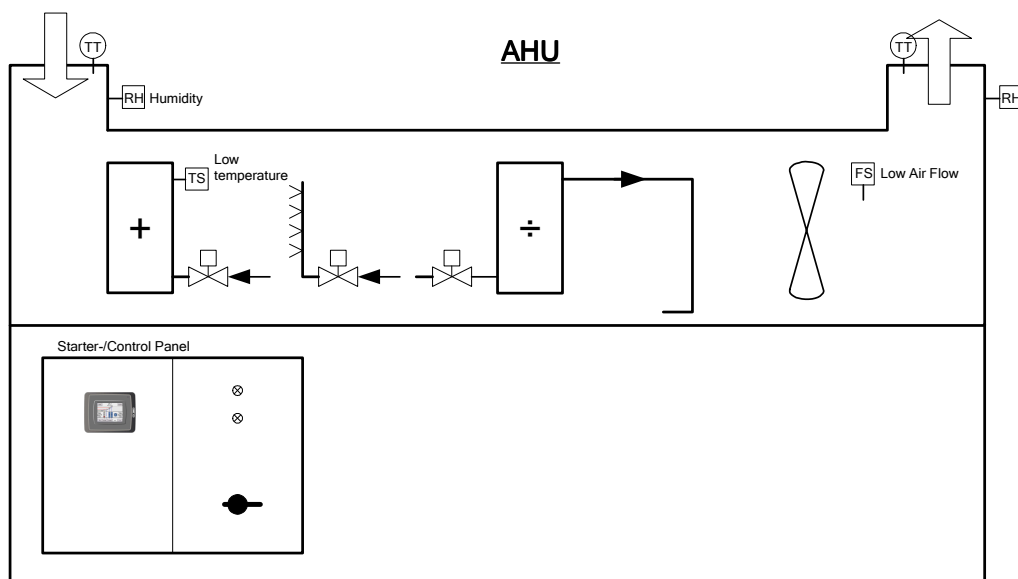
Description

The control concept integrates control and monitoring of one or dual redundant Air Handling Unit (AHU) and the entire concept is build in one common unit, se below sketch.

The Marine AHU control concept includes an electrical panel complete with motor starters and control equipment.

Advantages

- Easy operation at a colour touch screen operator panel
- Compressor supervision and control
- AHU supervision and control
- Summer/winter compensation
- Password and alarm system
- Common alarm output to main system
- Integrated electrical starter and control panel in IP55 execution, including:
 - Fan motor starter
 - Main switch and control lamps
- Remote operator panel (Optional)
- Gas monitoring system (Optional)
- Network communication to SCADA system (Optional)
- Virtual Network Computing (VNC) Server function (Optional)
- Larger display, such as 6.5" in stead of 3.5" (Optional)



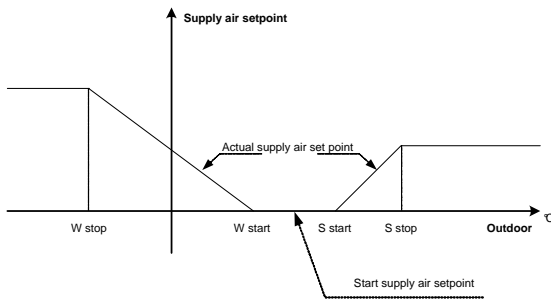
Additional benefits

- Standardized system ensures optimal functionality and reliability
- Easy installation and commissioning
- ISO9001 compliance

AHU control

The AHU control offers several functions and measuring data such as:

- AHU status, mode.
- Fans control (supply, return, exhaust)
(Freq. - Dol - Y/D - 2-speed started)
- Cooler regulation, with DX expansion or chiller water motor valves
- Pre-heat regulation, with water, hot oil, steam or electric heat
- Re-heat regulation, with water, hot oil, steam or electric heat
- Humidity regulation
- Enthalpy regulation
- Damper control
- Filter protection
- Thermostatic freeze protection
- Outdoor or return set-point compensation



Running hour meter incl. service warning are included for Fan motors.

Local operation

At the operator panel local operation of the AHU system includes:

- Efficient operation from a 3.5" colour touch-screen display
- Graphic overview pictures of the entire system
- Monitoring of all status values, alarms and warnings
- Operation of connected equipment and setting of modes, limits and regulation set points
- Trend curves that provides excellent overview of plant performance, e.g. temperature logging
- Trend curves and settings can be stored on a USB key

Remote operation

Connected to the ships LAN Network, the AHU system can be remotely controlled and monitored from operator panels or PC stations, such as:

- Monitoring and remote control of all data from any given PC on the network
- Monitoring and remote control, via the internet, to Johnson Controls Marine service centre or owners technical department, for optimal crew support at e.g. trouble shooting.

The above technical information is subject to updates in content and specification without prior notice..

