

4. Energy efficiency and regulation

Modular bench for energy efficiency in ventilation

Training objectives

- Showing an energy efficiency solution.
- Measuring network and motor U/I in the light of the energy chain.
- Using a measurement unit:
 - Energy measurements,
 - Comparison of consumption levels.
- Setting the speed controller parameters under the law of energy savings.

Presentation

This modular bench makes it possible to highlight the energy savings that could be made in a ventilation or pumping installation. The comparison is made between electro-mechanical control with a contactor and electronic control with a speed controller. The ventilation flow rate is adjusted by means of an iris or a speed controller.

Description

Contents	
Description	Quantity.
Support structure ref. MD1AM000	1
Magnetic protection module ref. MD1AM1004	1
Thermal relay module ref. MD1AM1007	1
Contactor module ref. MD1AM1008	1
PM central measurement module ref. MD1AM2003	1
3 CT 50 / 5 A module ref. MD1AM2004	1
Ethernet gateway module with Web server ref. MD1AM2005	1
Altivar module ref. MD1AM5001	1
Variable speed controller command module ref. MD1AM7001	1
Motor output command module ref. MD1AM7004	1
24 V DC power supply module ref. MD1AM4001	1
Motor fan unit with column and ball ref. MD1AMP014	1
USB/RJ45 cable for connection to the variable speed controller.	1
RJ45/RJ45 cable for connection to the gateway.	1
SoMove parameterisation software program.	

References

Description	Reference No.
Modular bench for energy efficiency in ventilation	MD1AMLATVEE



Decision aid

Sectors concerned

- Electrical engineering
- Energy
- Scientific

Designated skills

- Checking
- Studying

Themes studied

- Energy efficiency
- Energy management
- Measuring