



MTM

Multi Technology Manager

Features

Tax incentives*

MTM is the new system, conceived, designed and manufactured by RHOSS, to manage up to a maximum of 10 units, including multipurpose equipment, reversible heat pumps and chillers operating in perfect harmony with each other in modern systems under the banner of total safety and reliability. Thanks to dedicated algorithms, MTM can effectively manage cooling and thermal loads steadily and accurately. MTM is a manager and as such can decide in the best of ways the start-up sequence for RHOSS units in the designer's everyday applications. MTM – THE OFFER • MTM is available in two configurations which have, however, a single goal: effectively manage the units selected for the system. • MTM/SI – with graphic interface and standard features such as the display of the units' operating parameters, the operation status, alarm control, etc. • MTM/SI – with Touch graphic interface and advanced features. Accessing the various pages for reference as well as editing parameters is simplified on the 7" display; the graphical temperature trends for water/air can be also displayed through charts and the notification of any alarm be set by e-mail

MTM - Types of units managed • Multi-purpose units • Reversible heat pumps and HT65 heat pumps • Chillers also available with freecooling technology and inverter technology • Condenserless units The units can work at variable flow rate with the innovative Rhoss VPF system. Ideal for using different technologies Management of the RHOSS cooling units present in the system by making the most of the specific technologies used (chillers, heat pumps and multi-purpose units). In addition to managing homogeneous units, EXP MULTIPURPOSE units can be combined with CHILLERS or HEAT PUMPS and units in different sizes and versions. Ideal for guaranteeing system loads In medium-large systems, MTM meets the required thermal loads in a precise and stable manner throughout the year. As to 2-pipe + DHW and 4-pipe systems, in which there is a demand for even very unbalanced cooling and thermal loads, being able to manage units with different technology and power optimises the system's efficiency and overall performance. Ideal because easy to connect • MTM is connected to the chiller units, that are hydraulically linked in parallel to each other, through a serial network (*). • The user interacts in a simple way with the manager through a graphic interface (standard or Touch). • MTM connectivity to BMS systems is guaranteed, through accessory serial interfaces, with MODBUS, BacNet MS/TP, BacNet MS/TP, Bacnet IP, Modbus TCP/IP protocols. • If there is a need to monitor and adjust MTM from a remote location using the specific web pages, MTM/TI is set up to be connected to a company LAN or to grant access to it through any Web browser from mobile devices (e.g. smartphone, tablet). (*) the RS485 serial sheet is required in some units. See the price list for more information Ideal because easy to configure The value of a manager like MTM is also measured through its simple installation. Thanks to the WIZARD procedure introduced and the self-learning function of the connected units, the user is guided towards the initial configuration of the device to be immediately ready and operational. Ideal for every installation In its standard configuration, MTM is designed to act automatically in the start-up sequence of the hydronic units. Once each available unit has been recognised, it decides which strategy to use to maximise efficiency, supporting e.g. freecooling units if the external temperature is favourable, the inverter technology to adjust power in the best of way or the simultaneous operation (cold+hot) of the multipurpose units. It is also possible to "customise" unit management, according to the customer's preferences or type of system, even with the Backup function in the most sensitive installations. The Booster function, which can be set if a Backup unit is available, can meet the various load peaks that may occur during the year. Ideal for service • MTM simplifies SERVICE operation as the implemented algorithms ensure proper functioning of the unit group even in the event of partial malfunctions. • MTM makes the logging of alarms and, for the MTM/TI version, also the e-mail/ text message notification function, available to designated users. Ideal to get the situation under control MTM can be accessed: • Directly from the device (KMTM/SI and KMTM/TI) through the available graphic interface. • From a BMS connected to the device (KMTM/SI and KMTM/TI) through serial interfaces • Through the relevant Web pages (KMTM/TI only). In this case the pages can be accessed via LAN connection or WEB APP (1) service can be activated (2) via interface, using the MODBUS, BACNET IP, MODBUS TCP/IP protocols

Technical data

UNIT MANAGEMENT AND TYPE	KMTM/SI	KMTM/TI
Maximum number of controllable units	10	10
Management of CHILLERS, HEAT PUMPS, EXP UNITS, FREECOOLING UNITS, CONDENSERLESS UNITS	x	x
Advanced management of STANDARD+FREECOOLING CHILLERS	x	x
Advanced management of EXP MULTIPURPOSE UNITS+CHILLERS in 4-pipe systems	x	x
Advanced management of EXP MULTIPURPOSE UNITS+HEAT PUMPS (connected to main circuit) in 2-pipe+DHW systems	x	x
Advanced management of EXP MULTIPURPOSE UNITS+HEAT PUMPS (connected to main circuit/reverse recovery)	x	x
Advanced management of external pumping unit(s), primary side. Option of managing single by single pump	x	x
MANAGEMENT LOGICS AND ADVANCED FUNCTIONS	KMTM/SI	KMTM/TI
STANDARD, based on the type of units connected, used technology, operating hours	x	x
ADVANCED, based on customisable SATURATION or EQUALISATION logics	x	x
Choice of the type of balancing of the operating hours	x	x
BACKUP unit management	x	x
Advanced management of units with VPF by RHOSS (primary side variable flow rate)	x	x
ADJUSTMENT	KMTM/SI	KMTM/TI
Adjustment on delivery or return	x	x
Adjustment with climatic compensation	x	x
Advanced double set point, sliding set point	x	x
Advanced function of forced limitation of the absorbed power	x	x
ACCESSIBILITY TO THE MTM DEVICE	KMTM/SI	KMTM/TI
Multilingual user interface	x	x
Standard graphic interface	x	
Touch screen graphic interface		x
Access from BMS system (including optional serial boards with specific protocols)	x	x
Access from dedicated web pages (MTM in LAN connection with the building where the units are installed)		x
Access from dedicated web pages via WEB APP (Enabling is optional)		x
UNIT MONITORING	KMTM/SI	KMTM/TI
Status display, setting and reading of the most important unit parameters, ..	x	x
Reading of active alarms of the individual units and alarms log display	x	x
Alarm notification via e-mail		x
Graphs of the main variables (e.g. water/air temperature trend of the units)		x
Sending periodical report (e.g. water/air temperature trend of the units)		x



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