KPM22

Electronic controller for HVAC systems

Radiant Systems | Energy Management

Datasheet
1116EN 03/2026

Electronic controller for HVAC systems.
Operates in combination with electronic control components (expansion modules and bus or stand-alone thermostats).
Integrated display for system monitoring, configuration and control. Provided with removable terminals.
The device allows fast connection to K493TW chronothermostats via Modbus, to expansion modules or to K495C thermostats via CANbus, or, when in stand-alone operation, to any type of thermostat equipped with a dry contact.
Automatically manages the operation of the pump and the actuator of the mixing valve.

Versions and product codes

PRODUCT CODE	No. OF KPM25 EXPANSION MODULES	No. OF THERMOSTATS
KPM22Y001	0	No limits if in stand-alone configuration
		6 K493TW or 6 K495C
KPM22Y002	0	No limits if in stand-alone configuration
		6 K493TW or 6 K495C
	1	10 K493TW
	2	14 K493TW
	3	18 K493TW

Accessories
- KPM25: expansion module to be combinet with KPM22 electronic controller, CANbus connection
- K493TW: touch-screen chronothermostat, Wi-Fi, with temperature and humidity probe, ModBus connection
- K495C: thermostat with temperature and humidity probe, CANbus connection
- K463P: immersion supply water temperature probe
- K465P, K365P: external temperature probe

GIACOMINI WATER E-MOTION

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italy
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com

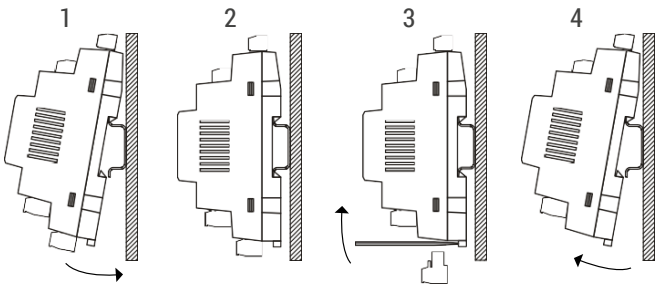
Technical data

- Power supply:
  24 Vac, 50/60 Hz (±3 Hz), 20 VA max. no insulation
  20...40 Vdc, 12 W max. no insulation provided by a class 2 circuit
- Nominal impulse voltage: 4 kV
- Overvoltage category: III
- Software class and structure: A
- Clock: built-in (with lithium primary battery)
  - Battery autonomy in case of power failure: 5 years at 25 °C
  - Drift: ≤ 30 s/month at 25 °C
- Analogic inlets: 10 inlets
- Digital inlets: 13 inlets
- Analogic outlets: 3 outlets
- Digital outlets: 11 outlets
- Communication ports: 5 ports
  - 1 RS-485 port with ModBus slave communication protocol
  - 1 RS-485 port with ModBus master/slave communication protocol, BACnet MS/TP
  - 1 CAN port with CANbus communication protocol
  - 1 USB port
  - 1 Ethernet port with ModBus TCP communication protocol, Web Server, BACnet IP (not used)
- Working temperature range: -10÷55 °C
- Storage temperature: -25÷70 °C
- Humidity of use: 10÷90 % of relative humidity with no condensation
- Heat and fire resistance category: D
- Dimensions: 142 x 128 x 60 mm; 8 DIN modules
- Protection class: overall IP20; front IP40
- Connections:
  - removable male-only screw terminal strips, pitch 3,5 mm for connectors up to 1,5 mm^2: power supply, analogic inlets, digital inlets, analogic outlets and RS-485 ModBus slave, RS-485 ModBus master/slave and CAN CANbus ports
  - removable male-only screw terminal strips, pitch 5 mm for connectors up to 2,5 mm^2: digital outlets
  - type A USB connector: USB port
  - RJ45 F phone connector: Ethernet ModBus TCP port, Web Server
- Max length of connection wires:
  - power supply: 100 m
  - analogic inlets: 100 m
  - transducer power supply: 100 m
  - digital inlets: 100 m
  - PWM analogic outlets: 1 m
  - analogic outlets 0-20 mA, 4-20 mA and 0-10 V: 100 m
  - digital outlets (electromechanic relays): 100 m
  - digital outlets (command for solid relays): 100 m
  - RS-485 ModBus slave and RS-485 ModBus master/slave ports: 1000 m
  - CAN CANbus port: 250 m with baud rate 125000 baud
  - USB port: 1 m

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italy
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com

Installation

⚠ **WARNING.** Installation and maintenance should be carried out by a professional operator with power Off.



The device should be installed on a DIN 35 x 7.5 mm or 35 x 15 mm guide in a control board.
Follow the operations shown in the picture to install the device.
To remove the device, first disconnect any removable terminal strip inserted in the lower portion, then pry on the clip of the DIN guide using a screwdriver as shown.
To reinstall the device, first push on the clip of the DIN guide.

Reference standards

- RoHS 2011/65/EU
- WEE 2012/19/EU
- EMC 2014/30/EU
- LVD 2014/35/EU
- REACH (CE) N° 1907/2006
- Classification of temperature control devices according to Reg.(EU) N.811/2013-813/2013: energy class IV, 2%.

Product specifications

KPM22

Electronic controller for HVAc systems. with integrated display for system monitoring, configuration and control. 24 Vac power supply, dimension 8 DIN modules. Optional mixing valve control, circulator and free contact outlets. Connection to K493TW chronothermostats via Modbus, to expansion modules or to K495C thermostats via CANbus, or, when in stand-alone operation, to any type of thermostat equipped with a dry contact. CE Certification.

⚠ Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

♻ Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

ℹ Additional information. For more information, go to giacomini.com or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

🗑 Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.

GIACOMINI
WATER E-MOTION

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italy
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com