

## Information notice on M4M series power meters (M4M 20, M4M30, M4M 2X)

If you are interested in purchasing, renting or leasing an ABB Connected Product this information notice (“**Notice**”) provides you with information according to the Data Act (EU Regulation 2023/2854)<sup>1</sup>.

All terms in this Notice shall have the same meaning as in the Data Act.

Should you require additional information beyond what is provided in this Notice, please do not hesitate to contact us at [eu-data-act@abb.com](mailto:eu-data-act@abb.com).

## Details on the Connected Product and Product Data

Connected Product

Portfolio of M4M power meters, see at this [link](#).

Information on how to directly access and retrieve Product Data

- Beside device’s display, data on the products can be collected through communication protocol **Modbus RTU, Modbus TCP/IP, BACnet/IP, Profibus DP-V0, Bluetooth:**
- **Modbus RTU** communication in the M4M 20, M4M 30 and M4M 2X power meters is done on a 3-wire (A, B and Common) polarity dependent bus according to the RS-485 standard. Maximum number of meters connected to one physical bus is 247 (which is the same as the individual device address range in Modbus).
- **Modbus TCP/IP** communication in the M4M 20, M4M 30 and M4M 2X power meters is done through RJ45 port and used for communications over TCP/IP networks, typically connecting over port 502.
- **BACnet/IP** communication in the M4M 20 and M4M 30 power meters is done through RJ45 port. BACnet communication follows data communication protocol for Building Automation and Control networks, which is defined by ANSI/ASHRAE135 standard document.
- **Profibus DP-V0** communication in the M4M 20 and M4M 30 power meters is done through RS485 communication interface, and the communication protocol is Profibus with slave DP-V0 function in compliance with IEC 61158/EN 50170 regulations. Up to 127 devices (master + slave) can be connected in a single system.
- **BLE (Bluetooth Low Energy)** in the M4M 20, M4M 30 and M4M 2X power meters is done through Bluetooth module embedded inside the meter. The data can be read through S4M and EPiC mobile apps by ABB.

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<sup>1</sup>

Regulation (EU) 2023/2854 of the European Parliament and of the Council on harmonised rules on fair access to and use of data (Data Act) those terms shall have the same meaning as in that Union legislation.

Information on how to access and retrieve Product Data via a request (indirect access)

How to access and retrieve product data are described in communication manuals or product brochures:

- [Modbus RTU and Modbus TCP/IP communication](#)
- [BACnet/IP communication](#)
- [Profibus communication](#)
- Bluetooth ([S4M](#) and [EPiC](#))

Information on how to delete your User account and the respective data (where a Connected Product requires login via a User account)

Not applicable - The devices do not require a user account, just password to access the display

Type of Product Data

The data are exchanged following Modbus RTU, Modbus TCP/IP, BACnet/IP, Profibus DP-V0 and BLE protocols.

Format of Product Data

- **Modbus** is a master-slave communication protocol that can support up to 247 slaves organized as a multidrop bus. The communication is half duplex. Services on Modbus are specified by function codes. The function codes are used to read or write 16-bit registers. All metering data, such as current, voltage, power, energy, THD, or firmware version, is represented by one or more such registers. For further information about the relation between register number and metering data, refer to “Modbus” map in this [link](#).
- **Modbus TCP/IP** is a master-slave (client-server) communication protocol that operates over Ethernet networks using the TCP/IP stack. It enables communication between devices such as meters, gateways and controllers. Modbus TCP/IP uses the same function codes as traditional Modbus to read or write 16-bit registers. Each device on the network is identified by its unique IP address. All data, including measurements like current, voltage, power, energy, THD, is transmitted using these standardized register structures. For further information about the relation between register number and metering data, refer to “Modbus” map in this [link](#).

## Format of Product Data

- **BACnet/IP** is a client-server communication protocol designed for building automation and control networks, such as HVAC, lighting, and access control. It is defined by the ANSI/ASHRAE 135 standard. BACnet is object-oriented, using standard object types and services to read, write, and interact with device data. The protocol supports device discovery and capability exchange across IP-based networks. BACnet/IP also includes definitions for physical and data link layers, as well as device profiles. M4M BACnet implements the B-ASC (BACnet Application Specific Controller) profile, identifying the device as a controller with limited resources and programmability, capable of providing full information about its BACnet objects and handling communication control messages. For further information, refer to the “BACnet/IP” manual in this link.
- **Profibus DP** is a master-slave communication protocol, and the address space is within the range 1 to 126 decimals. The Instruments provide 4 bytes of output data and 128 bytes of input data. The values measured by the instrument M4M 30 Profibus are divided into 17 pages and the values measured by the instrument M4M 20 Profibus are divided into 7 pages. Each page, for both variants, is mapped into the 128 bytes of input data area. The master must first request the page of interest through the 4 bytes of output. The Profibus telegrams to and from the M4M Profibus instrument are typically composed by 128 input bytes and 4 output bytes. The telegrams basically consist of a 4-bytes header and, in the case of inputs, additional 124 bytes of user data related to the measured values. For further information, refer to the “Profibus” manual in this link.

## Estimated volume of Product Data

Not applicable – Data are not stored, only internal flash memory 32 MB.

## Collection frequency of Product Data

- Collection data frequency over **Modbus RTU** depends on the transmission rate that is settable at the following Baud rate: 9600, 19200, 38400, 57600, 115200

- Collection data frequency over **Modbus TCP/IP** depends on Ethernet network.

- Collection data frequency over **BACnet/IP** depends on Ethernet network.

- Collection data frequency over **Profibus** depends on the transmission rate is between 9.6k - 12 Mbps which is detected automatically.

## Storage place of Product Data

Inside the meter to store configuration and measurement data, no external memory can be used.

## Intended duration of retention of Product Data

M4M allows to store a total of 17520 load profile data entries or 1 year of load profiles with time interval of 30 min. for 25 parameters (25 channels of memory). Time interval can be 1, 2, 5, 10, 15 (default value), 30, 60 minutes. When lower interval times are selected, retention duration reduces accordingly.

