ennexOS Data Manager M Version Notes

Publishing date: May 03, 2021

Versions affected: EDMM-10, EDMM-US-10, Version1.12.07.R

Differences between the previous version 1.10.6.R and 1.12.07.R

New or changed functions in 1.12.07.R

Add-ons

1. Support of SMAData1 devices via the RS-485 interface
2. New Modbus profile "STPS-60 (IM-package >= 2.01.000)" for operation with STPS-60 (via Inverter Manager) with its firmware package >= 2.1.0.R (higher resolution of the energy values)
3. Expanded Core2 support (Smart Connected support)
4. Grid management services
   a. Support of AR-N 4110 2018
   b. Support of AR-N 4105 $P_{AV,E}$ 2018
   c. Provision of maximum available active and reactive power via Modbus, as long as the system is equipped with the corresponding sensors (solar irradiation, temperature)
5. Support of a further I/O module from Moxa: E1214 (6 x DigIn, 6 x Relay out 230V/5A max). Available as order no. 124179-00.01 from SMA

Functions of the previous release (1.10.6.R):

- Backup and restore of Data Manager configurations
- Voltage limit signaling during Q(V) operation at the point of interconnection via digital outputs
- Setting country data sets on the connected Speedwire inverters at a later time
- The cos phi setpoint and actual value can be output on an external analog output

General information

1. Grid management services

a. After the update, the settings of the grid management service should be checked. In rare cases, these are no longer displayed and the display of the energy balance is also missing in this case. If these functions are no longer displayed, a problem was detected during the update when the previous configuration was applied and the settings were deactivated as a precaution. After the grid management service settings are reconfigured, the system works again as required.

b. If GMS setpoints are sent via the Modbus server interface, there must be an interval of at least 1 second between 2 commands for the system to work correctly. In the Modbus documentation, an interval of 10

seconds is required.

c. The meter configuration currently does not prevent identical channels from being selected for grid feed-in and grid-supplied power.

d. Although no grid management services are configured, it may occur that the GMS widget is shown in Sunny Portal. In this case, the user is able to hide the GMS widget via Widget configuration.

e. If a current > 20 mA or < 4 mA is applied to the analog input, this input cannot be assigned to the GMS configuration. An error message appears that the input is not configured. If the current is between 4 mA and 20 mA, an input assignment is possible.

2. Network
   a. During operation of the Wi-Fi access point, the DNS name resolution is not supported. The user must use the static IP address 192.168.12.3 to access the login page.

   b. If the user changes the IP address, the user interface is not automatically redirected to the new address. The user must close the browser window. The EDMM-xx-10 must then be opened again in a new browser window.

   c. It may happen that it takes some time (30 to 60 seconds) to display the revision of device names when a Speedwire device is being registered.

3. Setting inverter parameters
   a. In some cases, the array parameters of an inverter cannot be changed via the EDMM-xx-10. In this case, the parameter must be changed via the inverter's WebUI.

   b. Parameters for setting times only works if a UTC value in seconds is entered (if necessary, convert with the help of an online service, e.g., https://www.epochconverter.com).

   c. After the country standard has been changed in the inverter, it may happen that some inverter parameters can no longer be displayed because the inverter does not provide them since the setting methods have been altered. In such cases, please consult the SMA document "GridGuard 10.0" available in the SMA download area.

4. SunSpec Modbus devices
   As of version 1.6.x, the EDMM-xx-10 can **always** communicate with SunSpec Modbus compliant devices. Only the data that the specification regards as mandatory data is collected from the devices. No device-specific data is supported. It is assumed that Modbus devices fulfill SunSpec requirements

and deliver mandatory data. If the devices do not completely fulfill the SunSpec requirements, not all data can be collected from the device. This can lead to the fact that not all data required for the displays in EDMM-xx-10 and Sunny Portal powered by ennexOS are available. This is no SMA system error.

The following deviations are known:

- Fronius: No events/messages are delivered.
- ABB: No energy values are delivered. This means that no monthly, annual or total energy graphs can be displayed.
- ABB: Not all parameters can be set.
- The SMA Core2 inverter also communicates with the Data Manager via Modbus/TCP Sunspec. There is a wide range of extensions to the Sunspec profile here to provide enhanced diagnostics (SMA Smart Connected). Data Manager M supports a maximum of 20 Core2 inverters. If there are more Core2 devices in the system, these must be distributed to additional Data Manager M slaves. The maximum system size of 2.5 MVA still applies.

5. Speedwire Encrypted Communication (SEC)

a. As of version 1.6.x, the Speedwire Encrypted Communication function for communication with SMA Speedwire devices cannot be enabled.

b. The function can only be enabled if all SMA devices (except SMA Energy Meter devices) support the Speedwire Encrypted Communication function.

c. In a network, the function may only be enabled in exactly 1 system with exactly 1 EDMM-xx-10. If the function is enabled with several EDMM-xx-10 in the network, it may not be possible to add devices to the system or communication may be disturbed during operation.

d. If the Speedwire Encrypted Communication function was enabled in the EDMM-10 and the EDMM-10 is now reset to default settings, all inverters of the system must first be decrypted again with Sunny Explorer (with installer PUK) before the devices can be registered again in the EDMM-10 (encrypted or unencrypted).

6. Sensor configuration

a. To be able to use the sensors for the performance ratio function, the sensors must be assigned in the Sunny Portal using the sensor assignment for performance ratio menu item. Likewise, the meteorology values are only available on the local Modbus interface of the Data Manager M after the sensors have been assigned in Sunny Portal.

7. Miscellaneous

a. If the device reset button is pressed at the same time as the user has the user interface open, it may be that the user interface is not updated and therefore displays incorrect data. This can be because there is still data stored in the browser cache. In this case, restart the web browser and empty the

web browser cache if required (F5 on Windows PCs).

b. If the administrator account is reset via the WebUI, it may happen that after restarting the device, the login page is displayed instead of the start page of the installation assistant. Only after some time the home page of the installation assistant will be displayed. When resetting the administrator account via the device button, the home page of the installation assistant is displayed directly.

c. SB xxxx—SE-10 devices are not currently supported properly. The graphs for energy, power and energy balance are displayed incorrectly. A special solution has to be implemented into the EDMM-xx-10 to rectify this error.

d. If the buffer battery in the EDMM-xx-10 is completely discharged and the device is then put into operation, it is possible that the installation assistant will not run through from step 4 onwards. In this case, the device must be disconnected from all voltage sources and restarted.

e. When operating with a STPS-60 battery inverter (connected via an inverter manager), a peak might occur once in the energy display after updating from a 1.4 version to a later version. This is due to the fact that up to now an unsuitable conversion factor was used for this data point. This error correction will cause the said energy peak in charge/discharge energy to occur once. In this context, it should be pointed out again that since version 1.4.19.R there has been a Janitza Modbus profile ("JanitzaUMG604STPS60") specially provided for this application, which corrects the reverse energy flow direction for the Data Manager necessary for STPS-60 operation. The improved interface is also available in the Data Manager version 1.12.5.R and the Inverter Manager version 2.1.0.R and higher.

f. For some user interface texts related to SMAData1 support, translations into the other supported languages still need to be provided (partly only DE and EN).

g. SMA sensor boxes (SENS700) are currently only partially supported (no solar irradiation values)

Known irregularities

1. **Completion of missing data**

   a. In very large installations, it may take several minutes to fill in missing data. The amount of time depends on the number of inverters and duration of the missing data (up to 7 days). While this action is in progress, the response speed to user interactions via the web interface is reduced.

2. **Grid management services**

   a. In rare cases, it may happen that the GMS configuration is not saved completely. The user must correct the configuration and save it again in this case.

   b. After an update and an automatically triggered restart of the EDMM-xx-10, it may happen that the last setpoint value received via Modbus is not used. The Modbus setpoint of external control devices must

be sent cyclically.

c. Setting of the country standard during commissioning
In the commissioning assistant of the EDMM-xx-10, the country data set can be selected for all inverters connected. The country data set selected is transferred to the inverter. Settings for the point of interconnection previously set on the inverter are overwritten. If individual settings are subsequently changed, "Special setting" is displayed as the country data set. Subsequently, it is not possible to set the country data set simultaneously for all inverters using the "Parameter comparison" function. The value can only be set via the parameter list of each individual inverter. Also in this case the special settings are overwritten, but can be set in a second step via the "Parameter adjustment". If the settings are made from Sunny Portal, note that it takes at least 5 minutes until the new settings are transferred to the inverters. It may take another 5 minutes to receive feedback on the success or failure of this action.

d. Web UI language
If the web browser language (on the PC) and the user language (in the EDMM) are different, the displayed language might change unintentionally. The language can be corrected at any time in the user settings.

e. Active power limitation P via digital inputs
In rare cases, it may happen that when active power limitation is configured via digital inputs (ripple control receiver interface) and the fallback time is activated at the same time, the fallback is applied even though nothing has changed at the digital inputs. If this behavior occurs, please delete the active power limitation and reconfigure it without activating the fallback behavior. We are working on a solution to the problem.