EcoStruxure

EcoStruxure Panel Server Universal

Firmware Release Notes

Wireless Devices Concentrator and Modbus Gateway

EcoStruxure offers IoT-enabled architecture and platform.

DOCA0178EN-13
03/2024

Schneider Electric

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Table of Contents

About the Book

Document Scope

This document provides users with the following information about the EcoStruxure™ Panel Server Universal gateway:

- History of previous firmware versions
- List of devices supported

Validity Note

This document applies to the Panel Server Universal gateway with firmware version 001.009.000.

Convention

EcoStruxure Panel Server is hereafter referred to as Panel Server.

Online Information

The information contained in this guide is likely to be updated at any time. Schneider Electric strongly recommends that you have the most recent and up-to-date version available on www.se.com/ww/en/download.

The technical characteristics of the devices described in this guide also appear online. To access the information online, go to the Schneider Electric home page at www.se.com.

Related Documents

Title of documentation	Publication date	Reference number
EcoStruxure Panel Server - User Guide	03/2024	DOCA0172EN
EcoStruxure Panel Server - Modbus File	02/2024	DOCA0241EN

You can download these technical publications and other technical information from our website at www.se.com/ww/en/download.

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Introduction

EcoStruxure Master Range

EcoStruxure is Schneider Electric's IoT-enabled, plug-and-play, open, interoperable architecture and platform, in Homes, Buildings, Data Centers, Infrastructure and Industries. Innovation at Every Level from Connected Products to Edge Control, and Apps, Analytics and Services.

Panel Server Universal Gateway

Panel Server Universal is a high performance, all-in-one gateway used to retrieve data from IEEE 802.15.4 and Modbus devices.

Panel Server Universal is a data concentrator for wireless devices and wired Modbus devices (see detailed list).

Panel Server Universal is available with different power supplies:

- PAS600: 110–277 Vac/Vdc
- PAS600L, PAS600LWD: 24 Vdc
- PAS600T: 110–240 Vac/Vdc
- PAS600PWD: Power over Ethernet (PoE)

Panel Server Universal offers the following features:

- Two 10/100BASE-T Ethernet RJ45 ports
- Upstream Modbus TCP/IP connectivity (edge connection)
- Upstream Wi-Fi connectivity
- Downstream Modbus TCP/IP connectivity
- Downstream IEEE 802.15.4 connectivity
- Downstream Modbus-SL connectivity
- Two digital inputs (PAS600L, PAS600LWD)
- Wi-Fi external antenna
- Data sampling
- Compatible with the following commissioning tools of Panel Server and connected devices:
  ◦ EcoStruxure Power Commission software
  ◦ EcoStruxure Panel Server webpages
- Compatible with the following Schneider Electric cloud applications:
  ◦ EcoStruxure Energy Hub
  ◦ EcoStruxure Facility Expert
  ◦ EcoStruxure Asset Advisor
  ◦ EcoStruxure Resource Advisor

Firmware Release History

Date	Panel Server Universal firmware version	Availability
February 2024	001.009.000	Latest commercial release
November 2023	001.008.000	Obsolete
August 2023	001.007.000	Obsolete

Date	Panel Server Universal firmware version	Availability
May 2023	001.006.000	Obsolete
February 2023	001.005.001	Obsolete
November 2022	001.005.000	Obsolete
August 2022	001.004.000	Obsolete
June 2022	001.003.002	Obsolete
May 2022	001.003.001	Obsolete
October 2021	001.002.000	Obsolete
April 2021	001.001.000	Obsolete

Firmware Update Policy

Firmware update is recommended to benefit from the latest features and potential bug fixes.

Firmware Update with EcoStruxure Power Commission Software

Use the latest version (version 2.30.0 or higher) of EcoStruxure Power Commission software to update Panel Server to the latest firmware version available.

The latest version of EcoStruxure Power Commission software is available here.

For more information about the use of EcoStruxure Power Commission software, refer to *EcoStruxure Power Commission Online Help*.

Firmware Update with EcoStruxure Panel Server Webpages

To update the firmware with the Panel Server webpages, proceed as follows:

1. Make sure that the Panel Server is continuously powered during the firmware update.

2. From your Schneider Electric country website, download the latest version of Panel Server firmware on your PC.

   NOTE: Ensure that you select the firmware update suitable for your Panel Server model.

3. Connect your PC to the Panel Server via an Ethernet cable.

4. Follow the procedure described in DOCA0172EN *EcoStruxure Panel Server - User Guide* to access the Panel Server webpages.

5. From the Panel Server webpages, select **Maintenance > Firmware update > Firmware update**.

6. Import the firmware file and follow the instructions.

7. Reboot the Panel Server to update the firmware.

   NOTE: The Panel Server webpages cannot be accessed while the Panel Server is rebooting.

8. After the reboot, check that the firmware version is the latest to make sure that the update is effective.

   If the firmware version is still the old one, perform the firmware update again.

   If the problem persists, contact your Schneider Electric customer support.

Firmware Versions

Firmware Version 001.009.000

New Features

- When data publication is activated by any method, the last month of sampled data is published by the method selected.

- Introduction of two new Wired by Design models (PAS600LWD and PAS600PWD). These models have no native wireless chipset preventing the use of Wi-Fi communication and connection to IEEE 802.15.4 wireless devices.

- Custom models management improvement: you can update an existing custom model to a new version, and propagate the changes to the associated devices without deleting and rediscovering the associated devices.

    For more information about importing custom model updates, refer to DOCA0172EN *EcoStruxure Panel Server - User Guide*.

- Number of concurrent supported devices increased to 85 for certain devices. For more information, refer to General Features, page 10.

- The communication period of a wireless device can be set either at the family device level (for example, for all sensors) or individually, device by device to provide better granularity. For Energy-related wireless devices, it is possible to individually set 2 seconds as the communication period.

- Output control from cloud: this function allows you to manage remote output control orders from a cloud application to a PowerTag Control IO device paired to the Panel Server. You can enable or disable the function in the Panel Server webpages.

- Modbus Serial settings are available for Modbus registers via Modbus address 255. The following parameters can be consulted:

    ◦ Modbus address: fixed at 255

    ◦ Parity

    ◦ Baud rate

    ◦ Number of stop bits

    For more information, refer to DOCA0241EN *EcoStruxure Panel Server - Modbus File*

- Improvement in handling of incorrect remote configuration. On reception, the remote configuration is pre-parsed and errors are stored in the logs.

    If the Panel Server cannot execute the incorrect configuration, the Panel Server stops data publication to allow the cloud application to check the logs and retrieve the details. The cloud service icon is orange.

- Modbus registers read improvements:

    ◦ Read content of registers of Modbus TCP/IP devices connected downstream from the Panel Server

    ◦ Additional read function code FC01 Read coils status

    ◦ Other formats than hexadecimal are available.

- Panel Server webpage user experience improvements:
  - In the **Monitoring & Control** pages, the following improvements are available:
    - In the **Advanced data** page, after automatic refresh, the table display maintains current view instead of reverting to top of table.
    - In the **Advanced data** page, active energy data is displayed in the first data columns for improved visibility.
    - Column sorting is available by clicking the icon in the header row of each column:

      ⌄ Data in column can be sorted

      ↓ Data in column is sorted in descending alphabetical or numerical order

      ↑ Data in column is sorted in ascending alphabetical or numerical order
  - In **Maintenance > Device communication** status information is available for Input/Output of a wireless PowerTag Control device.
  - In all pages where settings can be changed, the exit popup message offers the choice of continuing with or without saving setting changes.
  - Energy units displayed more consistently:
    - In **Monitoring & Control** overview page and on the widgets page (available by clicking on a device):
      ◊ Active energy is displayed in KWh, with no decimals.
      ◊ Apparent energy is displayed in KVah, with no decimals.
      ◊ Reactive energy is displayed in KVarh, with no decimals.
  - Improvement in screen display: when clicking away from a pre-selected device view, the view is maintained on returning to that screen.

General Features

The following table presents the availability of general features on Panel Server Universal in firmware version 001.009.000.

🟢 Available

🔴 Not available

General features		Availability
Functionality	Separated network topology	🟢
	Switched network topology	🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation,EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	🟢
	Ability to disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) by using Panel Server webpages	🟢
Wi-Fi	2.4 GHz	🟢
	External Wi-Fi antenna (reference: PASA-ANT1)	🟢
IEEE 802.15.4 communication	**Wireless device**	**Maximum concurrent number of devices**	🟢
	PowerTag Energy sensors	85	
	PowerLogic Tag energy sensors	85	
	Acti9 Active devices	85	

General features			Availability
	Wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers	85	
	Wireless CO_2 sensors	85	
	Wireless temperature and humidity sensors	85	
	PowerTag A devices	85	
	PowerTag Ambient sensors	85	
	Easergy TH110/CL110 environmental sensors	85	
	PowerLogic HeatTag sensors	15	
	PowerTag Control devices	10	
	PowerLogic PD100 devices	15	
	Constraints within a mixed configuration: • Any combination of wireless devices listed in the table above must not exceed **40 devices**. • The total number of PowerTag Control, PowerLogic HeatTag, and PowerLogic PD100 should not exceed **20 devices**.		
Modbus TCP/IP communication	128 Modbus TCP/IP devices maximum including devices physically connected to the Panel Server and virtual devices (that is, IEEE 802.15.4 devices connected to a child Panel Server gateway)		🟢
Modbus SL communication	32 Modbus SL devices maximum		🟢
Human Machine Interface (HMI)	FDM128 Ethernet display		🟢
Configuration	User management by single user account		🟢
	User management by multiple users with Role-Based Access Control (RBAC)		🔴

Alarms	• In general, publication of alarms supported by the end devices.
	• Publication of alarms related to the following:
	  ◦ Communication issue between a device and Panel Server when available from the end devices
	  ◦ Alarm associated to ERMS on circuit breaker
	  ◦ The three levels of alarms from HeatTag sensors
	  ◦ Alarms associated to **Breaker I/O** device connected downstream to an I/O Smart Link gateway
	  ◦ Communication loss alarm for wireless device connected downstream to a child gateway.
			🟢

Protocols	Modbus TCP/IP server		🟢
	Modbus TCP/IP client		🟢
	DHCP client		🟢
	DHCP server		🔴
	DPWS server		🟢
	HTTPS		🟢
	SFTP client		🟢
Data export	Panel Server webpages for publication on SFTP server		🟢
	Publication on Schneider Electric cloud by using Panel Server webpages		🟢

Commissioning and Monitoring Features

The following table presents the availability of commissioning and monitoring features on Panel Server Universal in firmware version 001.009.000.

● Available

● Not available

Commissioning and monitoring features		Availability
Modbus serial communication	Commissioning of feature to use the Modbus serial port in reverse mode by using Panel Server webpages	●
Digital inputs (PAS600L, PAS600LWD)	Commissioning by using EcoStruxure Power Commission software	●
	Commissioning by using Panel Server webpages	●
	Monitoring by using EcoStruxure Power Commission software	●
	Monitoring by using Panel Server webpages	●
	Status assignment from a list of predefined values for each generic input/output in the **IO status** setting by using EcoStruxure Power Commission software or Panel Server webpages	●
Firmware update	Applied to one Panel Server gateway by using EcoStruxure Power Commission software	●
	Applied to one Panel Server gateway by using Panel Server webpages	●
	Applied to several Panel Server gateways by using EcoStruxure Power Commission software	●
	Applied to several Panel Server gateways by using Panel Server webpages	●
Backup restore	Backup restore on a Panel Server of the same model by using EcoStruxure Power Commission software	●
	Backup restore on a Panel Server of the same model by using Panel Server webpages	●
Configuration	Configuration by using EcoStruxure Power Commission software	●
	Ethernet configuration for upstream communication by using Panel Server webpages	●
	Modbus configuration of Modbus TCP/IP and Modbus serial devices by using Panel Server webpages	●
	Selective pairing of wireless devices by using EcoStruxure Power Commission software	●
	Selective pairing of wireless devices by using Panel Server webpages	●
	Disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) in the Panel Server by using Panel Server webpages	●
Monitoring	Display of data of I/O Smart Link devices by using Panel Server webpages	●
	Display of data of Panel Server digital inputs by using Panel Server webpages	●
	Display of data of the supported devices (see commercial references in Supported Devices, page 55) by using Panel Server webpages	●
	Diagnostic by using Panel Server webpages	●

Performance and Limitations

General Performance and Limitations

- Web browser Mozilla Firefox not supported

- No manual addition of wireless devices connected to a child/downstream gateway by using EcoStruxure Power Commission software.

- Automatic discovery of wireless devices under a child gateway is limited to 128 devices because wireless devices are seen as Modbus TCP/IP devices.

- Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus serial network is 10 ms.

- Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.

- Some device identification data of the aggregated devices connected downstream from a Smartlink SI B or Smartlink SI D (such as I/O Smart Link or wireless devices) are displayed in the Panel Server webpage if the data is configured and commissioned from the Smartlink SI B or Smartlink SI D webpage.

- Keep firmware up to date in order to allow the Schneider Electric Customer Care Center to remotely access the Panel Server webpages. Remote access certificate validity is as follows:

  ◦ Panel Server Firmware version 001.007.000: certificate valid until 5 May 2024.

  ◦ Panel Server Firmware version 001.008.000: certificate valid until 23 July 2024

  ◦ Panel Server Firmware version 001.009.000: certificate valid until 16 October 2024

  For more information about Firmware Update, refer to DOCA0172EN *EcoStruxure Panel Server - User Guide*.

Limitations on Publication

- Limitation on SFTP publication - CSV file content not consistent over firmware releases:

  ◦ When using the custom I/O contextualization of a Pulse counter device connected to the embedded input of the Panel Server, the format of the CSV files published through SFTP is not consistent with the format seen with firmware version 001.006.000. To see the data label **IoCountMeasurement** in your CSV scripts, enter *IoCountMeasurement* in the **Consumption meter element name** field on the Panel Server web pages at **Settings > Embedded input management**.

  ◦ The above limitation and work-around also apply to a Pulse counter device connected downstream to the I/O Smart Link device.

- When SFTP publication is enabled, alarms are displayed in the Panel Server webpages but are not published on SFTP Server.

- Limitations on topology publication to the Schneider Electric cloud: all the devices must be connected at least once to the Panel Server to enable the correct topology to be published to the Schneider Electric cloud.

Limitations on Custom Device Models

- Units defined in custom measurement are not published to the Cloud.

- For wireless devices connected under a child gateway, if a custom model uses the same name as a predefined model, and devices are already associated with the predefined model, follow this procedure to load the custom model:

  1. Decommission any device already associated with the predefined model.
  2. Load the custom model in the Panel Server.
  3. Reboot the Panel Server.
  4. Associate the devices with the newly loaded custom model.
  5. Publish the topology in case of use of the Panel Server with a Schneider Electric cloud application such EcoStruxure Asset Advisor or EcoStruxure Resource Advisor.

Limitations on Data Sampling, Data Logging and Alarming

- The number of individual data points that can be sampled simultaneously is limited to 5 000 and limited to a flow of 500 data points per minute.
- The number of individual alarms that can be configured for monitoring and sending an email notification is limited to 100.

Limitations on Specific Devices

Limitations on I/O Smart Link:

- When commissioning an I/O Smart Link (as a replacement for a legacy Acti9 Smartlink Modbus with FW1.3.x) in EcoStruxure Power Commission software, leaving **None** in the **Signal Element** line causes an error when the device is commissioned in the Panel Server. The I/O Smart Link commissioning configuration cannot be saved in the Panel Server.
- Operating time, operation counter, and trip counter not available for **Wired devices** and **Standard I/O**.

Limitations on wireless devices:

- Within a parent-child Panel Server gateway configuration, the modification of a contextualized setting of a device to the child Panel Server (for example, auxiliary position modified from SD to SDE) is not automatically reflected in the parent gateway. A manual update in the parent Panel Server is required to display modifications.
- Wireless indication auxiliary: the Panel Server does not manage alarm notification by email or to Schneider Electric cloud applications.
- PowerTag Control:
  - If a PowerTag Control device is connected to a child gateway:
    – No automatic discovery.
    – No data is published to the parent gateway. To be able to publish at the parent gateway level, a custom model has to be developed for the parent gateway.

Limitations on MasterPact NT/NW, ComPacT NS, and PowerPacT P/R frame circuit breakers. For details about which trip units and interfaces are supported, refer to

- Modbus TCP/IP Devices Circuit Breakers and Associated Trip Units connected via IFE and eIFE interfaces, page 57
- Modbus Serial Devices Circuit Breakers and Associated Trip Units connected via IFM interface, page 60

Firmware Version 001.008.000

New Features

- Improvement of commissioning of Modbus devices to enable reading of Modbus-SL device registers through webpages
- For devices connected downstream to an I/O Smart Link device:
  - Addition of the contextualization of the signal element for standard I/O devices
  - Support of predefined values in the contextualization of pulse counter devices
- **Modbus devices** webpage: additionally displays name and version of custom model used
- Improvement in commissioning of wireless PowerTag Energy devices
- Custom device model: supports units defined in custom measurement in Panel Server webpages (for example, **Modbus devices**, **Trending** menu, **Monitoring and Control** menu)

  NOTE: Units are not published to the Cloud.
- Wireless PowerTag Control devices:
  - Full integration of following devices:
    – PowerTag C IO 230V digital input output module (A9XMC1D3)
    – PowerTag C 2DI 230V digital input module (A9XMC2D3)
  - Support of contactor with feedback loop configuration
  - Support of impulse relay configuration
  - Enable/disable local control from webpages
- Data sampling: popup message is displayed in the webpages when number of sampled data of paired Modbus or wireless devices is close to 90% of or exceeds the system sampling limit. Recommended action is provided.
  - For wireless devices: in the **Wireless devices > Wireless discovery** webpage
  - For Modbus devices in the **Modbus addition** webpage
- Webpage user experience improved:
  - **Monitoring and Control** menu: all digits of energy data values are displayed (scientific notation no longer used)

General Features

The following table presents the availability of general features on Panel Server Universal in firmware version 001.008.000.

🟢 Available

🔴 Not available

General features		Availability
Functionality	Separated network topology	🟢
	Switched network topology	🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation,EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	🟢

General features			Availability
	Ability to disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) by using Panel Server webpages		🟢
Wi-Fi	2.4 GHz		🟢
	External Wi-Fi antenna (reference: PASA-ANT1)		🟢
IEEE 802.15.4 communication	**Wireless device**	**Maximum concurrent number of devices**	🟢
	PowerTag Energy sensors	40	
	PowerLogic Tag energy sensors	40	
	Acti9 Active devices	40	
	Wireless indication auxiliaries	40	
	ComPacT circuit breakers	40	
	PowerPacT circuit breakers	40	
	Wireless CO_2 sensors	40	
	Wireless temperature and humidity sensors	40	
	PowerTag A devices	40	
	PowerTag Ambient sensors	40	
	Easergy TH110/CL110 environmental sensors	85	
	PowerLogic HeatTag sensors	15	
	PowerTag Control devices	10	
	PowerLogic PD100 devices	15	
	Constraints within a mixed configuration: • Any combination of wireless devices listed in the table above must not exceed **40 devices**. • The total number of PowerTag Control, PowerLogic HeatTag, and PowerLogic PD100 should not exceed **20 devices**.		
Modbus TCP/IP communication	128 Modbus TCP/IP devices maximum including devices physically connected to the Panel Server and virtual devices (that is, IEEE 802.15.4 devices connected to a child Panel Server gateway)		🟢
Human Machine Interface (HMI)	FDM128 Ethernet display		🟢
	PowerTag Link display		🔴
Configuration	User management by single user account		🟢
	User management by multiple users with Role-Based Access Control (RBAC)		🔴

Alarms	• In general, publication of alarms supported by the end devices.
	• Publication of alarms related to the following:
	  ◦ Communication issue between a device and Panel Server when available from the end devices
	  ◦ Alarm associated to ERMS on circuit breaker
	  ◦ The three levels of alarms from HeatTag sensors
	  ◦ Alarms associated to **Breaker I/O** device connected downstream to an I/O Smart Link gateway
	  ◦ Communication loss alarm for wireless device connected downstream to a child gateway.
			🟢

Protocols	Modbus TCP/IP server		🟢
	Modbus TCP/IP client		🟢
	DHCP client		🟢
	DHCP server		🔴
	DPWS server		🟢
	HTTPS		🟢
	SFTP client		🟢
Data export	Panel Server webpages for publication on SFTP server		🟢
	Publication on Schneider Electric cloud by using Panel Server webpages		🟢

Commissioning and Monitoring Features

The following table presents the availability of commissioning and monitoring features on Panel Server Universal in firmware version 001.008.000.

🟢 Available

🔴 Not available

Commissioning and monitoring features		Availability
Modbus serial communication	Commissioning of feature to use the Modbus serial port in reverse mode by using Panel Server webpages	🟢
Digital inputs (PAS600L)	Commissioning by using EcoStruxure Power Commission software	🟢
	Commissioning by using Panel Server webpages	🟢
	Monitoring by using EcoStruxure Power Commission software	🟢
	Monitoring by using Panel Server webpages	🟢
	Status assignment from a list of predefined values for each generic input/output in the **IO status** setting by using EcoStruxure Power Commission software or Panel Server webpages	🟢
Firmware update	Applied to one Panel Server gateway by using EcoStruxure Power Commission software	🟢
	Applied to one Panel Server gateway by using Panel Server webpages	🟢
	Applied to several Panel Server gateways by using EcoStruxure Power Commission software	🟢
	Applied to several Panel Server gateways by using Panel Server webpages	🔴
Backup restore	Backup restore on a Panel Server of the same model by using EcoStruxure Power Commission software	🟢
	Backup restore on a Panel Server of the same model by using Panel Server webpages	🟢
Configuration	Configuration by using EcoStruxure Power Commission software	🟢
	Ethernet configuration for upstream communication by using Panel Server webpages	🟢
	Modbus configuration of Modbus TCP/IP and Modbus serial devices by using Panel Server webpages	🟢
	Selective pairing of wireless devices by using EcoStruxure Power Commission software	🟢
	Selective pairing of wireless devices by using Panel Server webpages	🟢
	Disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) in the Panel Server by using Panel Server webpages	🟢
Monitoring	Display of data of I/O Smart Link devices by using Panel Server webpages	🟢
	Display of data of Panel Server digital inputs by using Panel Server webpages	🟢
	Display of data of the supported devices (see commercial references in Supported Devices, page 55) by using Panel Server webpages	🟢
	Diagnostic by using Panel Server webpages	🟢

Performance and Limitations

- Limitation on SFTP publication - CSV file content not consistent over firmware releases:
  - When using the custom I/O contexualization of a Pulse counter device connected to the embedded input of the Panel Server, the format of the CSV files published through SFTP is not consistent with the format seen with firmware version 001.006.000. To see the data label **IoCountMeasurement** in your CSV scripts, enter *IoCountMeasurement* in the **Consumption meter element name** field on the Panel Server web pages at **Settings > Embedded input management**.
  - The above limitation and work-around also apply to a Pulse counter device connected downstream to the I/O Smart Link device.
- Web browser Mozilla Firefox not supported
- General performance and limitations:
  - When SFTP publication is enabled, alarms are displayed in the Panel Server webpages but are not published on SFTP Server.
  - No manual addition of wireless devices connected to a child/downstream gateway by using EcoStruxure Power Commission software.
  - Automatic discovery of wireless devices under a child gateway is limited to 128 devices because wireless devices are seen as Modbus TCP/IP devices.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus serial network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
  - Some device identification data of the aggregated devices connected downstream from a Smartlink SI B or Smartlink SI D (such as I/O Smart Link or wireless devices) are displayed in the Panel Server webpage if the data is configured and commissioned from the Smartlink SI B or Smartlink SI D webpage.
  - Keep firmware up to date in order to allow the Schneider Electric Customer Care Center to remotely access the Panel Server webpages. Remote access certificate validity is as follows:
    - Panel Server Firmware version 001.006.000: certificate valid until 28 January 2024.
    - Panel Server Firmware version 001.007.000: certificate valid until 5 May 2024.
    - Panel Server Firmware version 001.008.000: certificate valid until 23 July 2024

    For more information about Firmware Update, refer to DOCA0172EN *EcoStruxure Panel Server - User Guide*.
- Limitations on logging and alarming:
  - The number of individual data points that can be sampled is limited to 5 000 and limited to a flow of 500 data points per minute.
  - The number of individual alarms that can be configured for monitoring and sending an email notification is limited to 100.
- Limitations on I/O Smart Link:
  - Operating time, operation counter, and trip counter not available for **Wired devices** and **Standard I/O**.
- Limitations on wireless devices:
  - Within a parent-child Panel Server gateway configuration, the modification of a contextualized setting of a device to the child Panel Server (for example, auxiliary position modified from SD to SDE) is not automatically reflected in the parent gateway. A manual update in the parent Panel Server is required to display modifications.

- Wireless indication auxiliary: the Panel Server does not manage alarm notification by email or to Schneider Electric cloud applications.
- PowerTag Control:
  - If a PowerTag Control device is connected to a child gateway:
    - ◊ No automatic discovery.
    - ◊ No data is published to the parent gateway. To be able to publish at the parent gateway level, a custom model has to be developed for the parent gateway.
  - Pairing process to be followed:
    1. Pair the PowerTag Control devices if any in the configuration (all the other wireless devices must be unpowered).
    2. Pair the PowerLogic HeatTag sensors if any in the configuration.
    3. Pair PowerLogic PD100 if any in the configuration.
    4. Pair the other wireless devices.

- Limitations on MasterPact NT/NW, ComPacT NS, and PowerPact P/R frame circuit breakers
  - MicroLogic 2.0 E. is not supported
  - MicroLogic 7.0 E is partially supported.
  - MicroLogic 5.0 E and 6.0 E are supported.
  - All MicroLogic A, P and H are supported
  - Panel Server does not support multiple Modbus/TCP connections to MicroLogic command interface when the MicroLogic is connected under an IFM interface.

- Limitations on topology publication to the Schneider Electric cloud: all the devices must be connected at least once to the Panel Server to enable the correct topology to be published to the Schneider Electric cloud.

- Limitations on custom model for wireless devices connected under a child gateway: if a custom model uses the same name as a predefined model and devices are already associated with the predefined model, follow this procedure to load the custom model:
  1. Decommission any device already associated with the predefined model.
  2. Load the custom model in the Panel Server.
  3. Reboot the Panel Server.
  4. Associate the devices with the newly loaded custom model.
  5. Publish the topology in case of use of the Panel Server with a Schneider Electric cloud application such EcoStruxure Asset Advisor or EcoStruxure Resource Advisor.

Firmware Version 001.007.000

New Features

- Enhancement of number of supported Modbus/TCP devices from 64 to 128
- Improved support of wireless indication auxiliary (LV429453, LV429454) through Panel Server webpages:
  - Contextualization
  - Accurate monitoring
- Addition of support for wired device **Breaker I/O**, connected downstream to I/O Smart Link device.
- Automatic discovery in the parent gateway of the wireless indication auxiliary devices connected to the child gateway..

  > **NOTE:** To benefit from this feature, on the parent Panel Server, delete the current child configuration before updating to firmware version 001.007.000 or greater. Then select **Discover** to automatically discover the wireless indication auxiliary devices connected to the child gateway. Check that the child Panel Server gateway is also updated to firmware version 001.007.000 or greater.

- Custom device model: version of imported custom model displayed in custom models table.
- Webpages improved:
  - Responsive display of **General** pages
  - Addition of warning messages and tool-tips

General Features

The following table presents the availability of general features on Panel Server Advanced in firmware version 001.007.000.

🟢 Available

🔴 Not available

General features			Availability
Functionality	Separated network topology		🟢
	Switched network topology		🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation,EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)		🟢
	Ability to disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) by using Panel Server webpages		🟢
Wi-Fi	2.4 GHz		🟢
	External Wi-Fi antenna (reference: PASA-ANT1)		🟢
IEEE 802.15.4 communication	**Wireless device**	**Maximum concurrent number of devices**	🟢
	PowerTag Energy sensors	40	
	PowerLogic Tag energy sensors	40	
	Acti9 Active devices	40	
	Wireless indication auxiliaries	40	
	ComPacT circuit breakers	40	
	PowerPacT circuit breakers	40	
	Wireless CO_2 sensors	40	

General features			Availability
	Wireless temperature and humidity sensors	40	
	PowerTag A devices	40	
	PowerTag Ambient sensors	40	
	Easergy TH110/CL110 environmental sensors	85	
	PowerLogic HeatTag sensors	15	
	PowerTag Control devices	10	
	PowerLogic PD100 devices	15	
	Constraints within a mixed configuration: • Any combination of wireless devices listed in the table above must not exceed **40 devices**. • The total number of PowerTag Control, PowerLogic HeatTag, and PowerLogic PD100 should not exceed **20 devices**.		
Modbus TCP/IP communication	128 Modbus TCP/IP devices maximum including devices physically connected to the Panel Server and virtual devices (that is, IEEE 802.15.4 devices connected to a child Panel Server gateway)		🟢
Human Machine Interface (HMI)	FDM128 Ethernet display		🟢
	PowerTag Link display		🔴
Configuration	User management by single user account		🟢
	User management by multiple users with Role-Based Access Control (RBAC)		🔴

Alarms	• In general, publication of alarms supported by the end devices.
	• Publication of alarms related to the following:
	  ◦ Communication issue between a device and Panel Server when available from the end devices
	  ◦ Alarm associated to ERMS on circuit breaker
	  ◦ The three levels of alarms from HeatTag sensors
	  ◦ Alarms associated to **Breaker I/O** device connected downstream to an I/O Smart Link gateway
	  ◦ Communication loss alarm for wireless device connected downstream to a child gateway.
			🟢

Protocols	Modbus TCP/IP server		🟢
	Modbus TCP/IP client		🟢
	DHCP client		🟢
	DHCP server		🔴
	DPWS server		🟢
	HTTPS		🟢
	SFTP client		🟢
Data export	Panel Server webpages for publication on SFTP server		🟢
	Publication on Schneider Electric cloud by using Panel Server webpages		🟢

Commissioning and Monitoring Features

The following table presents the availability of commissioning and monitoring features on Panel Server Advanced in firmware version 001.007.000.

● Available

● Not available

Commissioning and monitoring features		Availability
Modbus serial communication	Commissioning of feature to use the Modbus serial port in reverse mode by using Panel Server webpages	●
Digital inputs (PAS600L)	Commissioning by using EcoStruxure Power Commission software	●
	Commissioning by using Panel Server webpages	●
	Monitoring by using EcoStruxure Power Commission software	●
	Monitoring by using Panel Server webpages	●
	Status assignment from a list of predefined values for each generic input/output in the **IO status** setting by using EcoStruxure Power Commission software or Panel Server webpages	●
Firmware update	Applied to one Panel Server gateway by using EcoStruxure Power Commission software	●
	Applied to one Panel Server gateway by using Panel Server webpages	●
	Applied to several Panel Server gateways by using EcoStruxure Power Commission software	●
	Applied to several Panel Server gateways by using Panel Server webpages	●
Backup restore	Backup restore on a Panel Server of the same model by using EcoStruxure Power Commission software	●
	Backup restore on a Panel Server of the same model by using Panel Server webpages	●
Configuration	Configuration by using EcoStruxure Power Commission software	●
	Ethernet configuration for upstream communication by using Panel Server webpages	●
	Modbus configuration of Modbus TCP/IP and Modbus serial devices by using Panel Server webpages	●
	Selective pairing of wireless devices by using EcoStruxure Power Commission software	●
	Selective pairing of wireless devices by using Panel Server webpages	●
	Disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) in the Panel Server by using Panel Server webpages	●
Monitoring	Display of data of I/O Smart Link devices by using Panel Server webpages	●
	Display of data of Panel Server digital inputs by using Panel Server webpages	●
	Display of data of the supported devices (see commercial references in Supported Devices, page 55) by using Panel Server webpages	●
	Diagnostic by using Panel Server webpages	●

Performance and Limitations

- Performance and limitations on Panel Server Universal:
  - When SFTP publication is enabled, alarms are displayed in the Panel Server webpages but are not published on SFTP Server.
  - No manual addition of wireless devices connected to a child/downstream gateway by using EcoStruxure Power Commission software.
  - Automatic discovery of wireless devices under a child gateway is limited to 128 devices because wireless devices are seen as Modbus TCP/IP devices.
  - The typical response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 30 ms.
  - The maximum response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 1 s, set up Modbus/TCP client timeout accordingly.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus serial network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
  - A few device identification data of the aggregated devices connected downstream a Smartlink SI B or Smartlink SI D (such as I/O Smart Link or wireless devices) are displayed in the Panel Server webpage if those data are configured and commissioned from the Smartlink SI B or Smartlink SI D webpage.
  - Keep firmware up to date in order to allow the Schneider Electric Customer Care Center to remotely access the Panel Server webpages. Remote access certificate validity is as follows:
    - Panel Server Firmware versions 001.004.000, 001.005.000, 001.005.001: certificate expired.
    - Panel Server Firmware version 001.006.000: certificate valid until 28 January 2024.

    For more information about Firmware Update, refer to DOCA0172EN *EcoStruxure Panel Server - User Guide*.

- Limitations on sampling and publishing for Schneider Electric cloud applications:
  - The number of individual data points that can be sampled is limited to 2,000 and limited to a flow of 500 data points per minute.
  - The number of individual alarms that can be configured for monitoring is limited to 100.

- Limitations on I/O Smart Link:
  - I/O contextualization (**IO status** setting in EcoStruxure Power Commission software or Panel Server webpages) is not available.
  - Circuit breaker status is not published in case of selection of **Wired Devices** family.
  - **Signal Element** as predefined **Standard I/O** is not available.
  - No predefined configuration is available for Schneider Electric pulse counters.
  - Neither operating time, nor operation counter, nor trip counter for **Wired devices** and **Standard I/O**.

- Limitations on wireless devices:
  - Within a parent-child Panel Server gateway configuration, the modification of a contextualized setting of a device to the child Panel Server (for example, auxiliary position modified from SD to SDE) is not automatically reflected in the parent gateway. A manual update in the parent Panel Server is required to display modifications.
  - Wireless indication auxiliary: the Panel Server does not manage alarm notification by email or to Schneider Electric cloud applications.
  - PowerTag Control:
    - Feedback loop in contactor mode is not supported.
    - Configuration in impulse relay mode is not supported.
    - If a PowerTag Control device is connected to a child gateway:
      ◊ No automatic discovery.
      ◊ No data is published to the parent gateway. To be able to publish at the parent gateway level, a custom model has to be developed for the parent gateway.
      ◊ No control function is available through the Panel Server webpages.
      ◊ Pairing process to be followed:
        1. Pair the PowerTag Control devices if any in the configuration (all the other wireless devices must be unpowered).
        2. Pair the PowerLogic HeatTag sensors if any in the configuration.
        3. Pair PowerLogic PD100 if any in the configuration.
        4. Pair the other wireless devices.
  - PowerTag Display: not supported by Panel Server Universal.
- Limitations on Modbus circuit breakers
  - Panel Server does not support MicroLogic 2.0 E.

    MicroLogic 7.0 E is partially supported.

    MicroLogic 5.0 E and 6.0 E are supported.
  - Panel Server does not support multiple Modbus/TCP connections to MicroLogic command interface when the MicroLogic is connected under an IFM interface.
- Limitations on topology publication to the Schneider Electric cloud: all the devices must be connected at least once to the Panel Server to enable the correct topology to be published to the Schneider Electric cloud.

  NOTE: If the Panel Server is rebooted before sending the topology, all devices should be connected while rebooting to enable the correct topology publication. In the case of a parent/child configuration, devices should have connected status on the parent device.
- Limitations on custom model for wireless devices connected under a child gateway: if a custom model uses the same name as a predefined model and devices are already associated with the predefined model, follow this procedure to load the custom model:
  1. Decommission any device already associated with the predefined model.
  2. Load the custom model in the Panel Server.
  3. Reboot the Panel Server.
  4. Associate the devices with the newly loaded custom model.
  5. Publish the topology in case of use of the Panel Server with a Schneider Electric cloud application such EcoStruxure Asset Advisor or EcoStruxure Resource Advisor.

Firmware Version 001.006.000

New Features

- Addition of wireless devices:
  - PowerTag Control: commissioning by using Panel Server webpages or EcoStruxure Power Commission software.
  - PowerLogic PD100 partial discharge monitoring sensor: commissioning by using Panel Server webpages.

- PowerTag Control digital input settings: predefined contextualization values. For example, **Fan status** is available when configuring the status of an IO device connected to either one of the input of the PowerTag Control 2DI wireless device, or the input or output of a PowerTag Control IO wireless device.

- Enhancement of Panel Server features for EcoStruxure Asset Advisor and EcoStruxure Resource Advisor:
  - Panel Server supports additional enhancements for custom model properties, by using EPC-Web software:
    – Additional option for properties: LogicCode.
    – Byte ordering at measurement level.
  - PowerLogic HeatTag enhancements.
  - Modbus TCP/IP and Modbus serial devices on unit ID 248 to 254.
  - Panel Server supports custom alarms in custom models created in EPC-Web software.

General Features

The following table presents the availability of general features on Panel Server Universal in firmware version 001.006.000.

🟢 Available

🔴 Not available

General features		Availability
Functionality	Separated network topology	🟢
	Switched network topology	🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation,EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	🟢
	Ability to disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) by using Panel Server webpages	🟢
Wi-Fi	2.4 GHz	🟢
	External Wi-Fi antenna (reference: PASA-ANT1)	🟢
IEEE 802.15.4 communication	Maximum number of wireless devices: • Up to 40 wireless devices as combination of PowerTag Energy sensors, PowerLogic Tag energy sensors, Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers, wireless CO_2 sensors, wireless temperature and humidity sensors, PowerTag A, PowerTag Ambient, Easergy TH110/CL110 environmental sensors, and PowerLogic HeatTag sensors, PowerTag Control, and PowerLogic PD100 with maximum 10 PowerTag Control devices, maximum 15 PowerLogic HeatTag, and maximum 15 PowerLogic PD100 sensors • or up to 85 Easergy TH110/CL110 environmental sensors **NOTE:** Total number of PowerTag Control, PowerLogic HeatTag, and PowerLogic PD100 should not exceed 20 devices.	🟢
Modbus TCP/IP communication	64 Modbus TCP/IP devices maximum including devices physically connected to the Panel Server and virtual devices (that is, IEEE 802.15.4 devices connected to a child Panel Server gateway)	🟢
Human Machine Interface (HMI)	FDM128 Ethernet display	🟢
	PowerTag Link display	🔴
Backup restore	Backup and Panel Server configuration restore by using Panel Server webpages and EcoStruxure Power Commission software	🟢
Configuration	User management by single user account	🟢
	User management by multiple users with Role-Based Access Control (RBAC)	🔴

Alarms	• In general, publication of alarms supported by the end devices.
	 • Publication of alarms related to:
	    ◦ Communication issue between a device and Panel Server when available from the end devices
	    ◦ ERMS on circuit breaker
	    ◦ The three levels of alarms from HeatTag sensors
		🟢

Protocols	Modbus TCP/IP server	🟢
	Modbus TCP/IP client	🟢
	DHCP client	🟢
	DHCP server	🔴
	DPWS server	🟢
	HTTPS	🟢
	SFTP client	🟢
Data export	Panel Server webpages for publication on SFTP server	🟢
	Publication on Schneider Electric cloud by using Panel Server webpages	🟢

Commissioning and Monitoring Features

The following table presents the availability of commissioning and monitoring features on Panel Server Universal in firmware version 001.006.000.

🟢 Available

🔴 Not available

Commissioning and monitoring features		Availability
Modbus serial communication	Commissioning of feature to use the Modbus serial port in reverse mode by using Panel Server webpages	🟢
Digital inputs (PAS600L)	Commissioning by using EcoStruxure Power Commission software	🟢
	Commissioning by using Panel Server webpages	🟢
	Monitoring by using EcoStruxure Power Commission software	🟢
	Monitoring by using Panel Server webpages	🟢
	Status assignment from a list of predefined values for each generic input/output in the **IO status** setting by using EcoStruxure Power Commission software or Panel Server webpages	🟢
Firmware update	Applied to one Panel Server gateway by using EcoStruxure Power Commission software	🟢
	Applied to one Panel Server gateway by using Panel Server webpages	🟢
	Applied to several Panel Server gateways by using EcoStruxure Power Commission software	🟢
	Applied to several Panel Server gateways by using Panel Server webpages	🔴
Backup restore	Backup restore on a Panel Server of the same model by using EcoStruxure Power Commission software	🟢
	Backup restore on a Panel Server of the same model by using Panel Server webpages	🟢
Configuration	Configuration by using EcoStruxure Power Commission software	🟢
	Ethernet configuration for upstream communication by using Panel Server webpages	🟢
	Modbus configuration of Modbus TCP/IP and Modbus serial devices by using Panel Server webpages	🟢
	Selective pairing of wireless devices by using EcoStruxure Power Commission software	🟢
	Selective pairing of wireless devices by using Panel Server webpages	🟢
	Disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) in the Panel Server by using Panel Server webpages	🟢
Monitoring	Display of data of I/O Smart Link devices by using Panel Server webpages	🟢
	Display of data of Panel Server digital inputs by using Panel Server webpages	🟢
	Display of data of the supported devices (see commercial references in Supported Devices, page 55) by using Panel Server webpages	🟢
	Diagnostic by using Panel Server webpages	🟢

Performance and Limitations

- Performance and limitations on Panel Server Universal:
  - When SFTP publication is enabled, alarms are displayed in the Panel Server webpages but are not published on SFTP Server.
  - No manual addition of wireless devices connected to a child/downstream gateway by using EcoStruxure Power Commission software.
  - Automatic discovery of wireless devices under a child gateway is limited to 64 devices because wireless devices are seen as Modbus TCP/IP devices.
  - The typical response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 30 ms.
  - The maximum response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 1 s, set up Modbus/TCP client timeout accordingly.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus serial network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
- Limitations on sampling and publishing for Schneider Electric cloud applications:
  - The number of individual data points that can be sampled is limited to 2,000 and limited to a flow of 500 data points per minute.
  - The number of individual alarms that can be configured for monitoring is limited to 100.
- Limitations on I/O Smart Link:
  - I/O contextualization (**IO status** setting in EcoStruxure Power Commission software or Panel Server webpages) is not available.
  - Circuit breaker status is not published in case of selection of **Wired Devices** family.
  - **Signal Element** as predefined **Standard I/O** is not available.
  - No predefined configuration is available for Schneider Electric pulse counters.
  - Neither operating time, nor operation counter, nor trip counter for **Wired devices** and **Standard I/O**.
- Limitations on wireless devices:
  - PowerTag Control:
    – Feedback loop in contactor mode is not supported.
    – Configuration in impulse relay mode is not supported.
    – If a PowerTag Control device is connected to a child gateway:
      ◊ No automatic discovery.
      ◊ No data is published to the parent gateway. To be able to publish at the parent gateway level, a custom model has to be developed for the parent gateway.
      ◊ No control function is available through the Panel Server webpages.
      ◊ Pairing process to be followed:
        1. Pair the PowerTag Control devices if any in the configuration (all the other wireless devices must be unpowered).
        2. Pair the PowerLogic HeatTag sensors if any in the configuration.
        3. Pair PowerLogic PD100 if any in the configuration.
        4. Pair the other wireless devices.
  - PowerTag Display: not supported by Panel Server Universal.

- Limitations on topology publication to the Schneider Electric cloud: all the devices must be connected at least once to the Panel Server to enable the correct topology to be published to the Schneider Electric cloud.

- Limitations on custom model for wireless devices connected under a child gateway: if a custom model uses the same name as a predefined model and devices are already associated with the predefined model, follow this procedure to load the custom model:

   1. Decommission any device already associated with the predefined model.

   2. Load the custom model in the Panel Server.

   3. Reboot the Panel Server.

   4. Associate the devices with the newly loaded custom model.

   5. Publish the topology in case of use of the Panel Server with a Schneider Electric cloud application such EcoStruxure Asset Advisor or EcoStruxure Resource Advisor.

Firmware Version 001.005.001

New Features

- Automatic discovery of wireless devices connected under a child gateway (Panel Server, PowerTag Link, or Smartlink SIB).

- Smartlink SIB gateway natively supported as a child gateway of Panel Server.

- Defining end-device energy by using the Panel Server webpages (**Commodity** field in the end-device details, field not published in Schneider Electric cloud services).

- For any type of PowerTag wireless devices, delivered and received energy available in Modbus registers (upload the most recent version of DOCA0241EN *EcoStruxure Panel Server - Modbus File*).

- Publication to SFTP server of data sampled on devices connected to the Panel Server, including authentication to SFTP server with either user name and password or user name and SSH key.

- Setting of the pulse counter type digital inputs by using the Panel Server webpages.

General Features

The following table presents the availability of general features on EcoStruxure Panel Server Universal in firmware version 001.005.001.

🟢 Available

🔴 Not available

General features		Availability
Functionality	Separated network topology	🟢
	Switched network topology	🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation, EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	🟢
	Ability to disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) by using Panel Server webpages	🟢
Wi-Fi	2.4 GHz	🟢
	External Wi-Fi antenna (reference: PASA-ANT1)	🟢
IEEE 802.15.4 communication	Maximum number of wireless devices: • Up to 40 wireless devices as combination of PowerTag Energy sensors, PowerLogic Tag energy sensors, Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers, wireless CO_2 sensors, wireless temperature and humidity sensors, PowerTag A, PowerTag Ambient, Easergy TH110/CL110 environmental sensors, and PowerLogic HeatTag sensors • or up to 65 Easergy TH110/CL110 environmental sensors	🟢
Modbus TCP/IP communication	64 Modbus TCP/IP devices maximum including devices physically connected to the Panel Server and virtual devices (that is, IEEE 802.15.4 devices connected to a child Panel Server gateway)	🟢
Human Machine Interface (HMI)	FDM128 Ethernet display	🟢
	PowerTag Link display	🔴
Backup restore	Backup and Panel Server configuration restore by using Panel Server webpages and EcoStruxure Power Commission software	🟢
Configuration	User management by single user account	🟢
	User management by multiple users with Role-Based Access Control (RBAC)	🔴
Alarms	Publication of alarms related to: • Communication issue between a device and Panel Server when available from the end devices • ERMS on circuit breaker • The three levels of alarms from HeatTag sensors	🟢
Protocols	Modbus TCP/IP server	🟢
	Modbus TCP/IP client	🟢
	DHCP client	🟢
	DHCP server	🔴
	DPWS server	🟢
	HTTPS	🟢
	SFTP client	🟢

| Data export | Panel Server webpages for publication on SFTP server | 🟢 |
| | Publication on Schneider Electric cloud by using Panel Server webpages | 🟢 |

Commissioning and Monitoring Features

The following table presents the availability of commissioning and monitoring features on EcoStruxure Panel Server Universal in firmware version 001.005.001.

🟢 Available

🔴 Not available

| Commissioning and monitoring features		Availability
Modbus serial communication	Commissioning of feature to use the Modbus serial port in reverse mode by using Panel Server webpages	🟢
Digital inputs (PAS600L)	Commissioning by using EcoStruxure Power Commission software	🟢
	Commissioning by using Panel Server webpages	🟢
	Monitoring by using EcoStruxure Power Commission software	🟢
	Monitoring by using Panel Server webpages	🟢
Firmware update	Applied to one Panel Server gateway by using EcoStruxure Power Commission software	🟢
	Applied to one Panel Server gateway by using Panel Server webpages	🟢
	Applied to several Panel Server gateways by using EcoStruxure Power Commission software	🟢
	Applied to several Panel Server gateways by using Panel Server webpages	🔴
Backup restore	Backup restore on a Panel Server of the same model by using EcoStruxure Power Commission software	🟢
	Backup restore on a Panel Server of the same model by using Panel Server webpages	🟢
Configuration	Configuration by using EcoStruxure Power Commission software	🟢
	Ethernet configuration for upstream communication by using Panel Server webpages	🟢
	Modbus configuration of Modbus TCP/IP and Modbus serial devices by using Panel Server webpages	🟢
	Selective pairing of wireless devices by using EcoStruxure Power Commission software	🟢
	Selective pairing of wireless devices by using Panel Server webpages	🟢
	Disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) in the Panel Server by using Panel Server webpages	🟢
Monitoring	Display of data of Smartlink Modbus devices by using Panel Server webpages	🟢
	Display of data of Panel Server digital inputs by using Panel Server webpages	🟢
	Display of data of the supported devices (see commercial references in Supported Devices, page 55) by using Panel Server webpages	🟢
	Diagnostic by using Panel Server webpages	🟢

Performance and Limitations

- Performance and limitations on Panel Server Universal:
  - When SFTP publication is enabled, alarms are displayed in the Panel Server webpages but are not published on SFTP Server.
  - No manual addition of wireless devices connected to a child/downstream gateway by using EcoStruxure Power Commission software.
  - Automatic discovery of wireless devices under a child gateway is limited to 64 devices because wireless devices are seen as Modbus TCP/IP devices.
  - The typical response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 30 ms.
  - The maximum response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 1 s, set up Modbus/TCP client timeout accordingly.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus serial network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
- Limitations on sampling and publishing for cloud applications:
  - The number of individual data points that can be sampled is limited to 2,000 and limited to a flow of 500 data points per minute.
  - The number of individual alarms that can be configured for monitoring is limited to 100.
- Limitations on Smartlink Modbus:
  - Commissioning by using EcoStruxure Power Commission software only (not available through Panel Server webpages).
  - Control of Smartlink Modbus output(s) by using Panel Server webpages is not available.
- Limitations on wireless devices: PowerTag Control and PowerTag Display are not supported by Panel Server Universal.

Firmware Version 001.005.000

New Features

- Backup and restore of Panel Server configuration on a Panel Server of the same model, by using Panel Server webpages or EcoStruxure Power Commission software.

- Wireless networks (Wi-Fi and IEEE 802.15.4) can be concurrently and permanently deactivated in the Panel Server by using the Panel Server webpages.

- Panel Server Modbus serial port can be configured in reverse mode on Panel Server to allow any Modbus client connected to the RS485 port, to access data from devices connected to **ETH1** and/or **ETH2** Ethernet port.
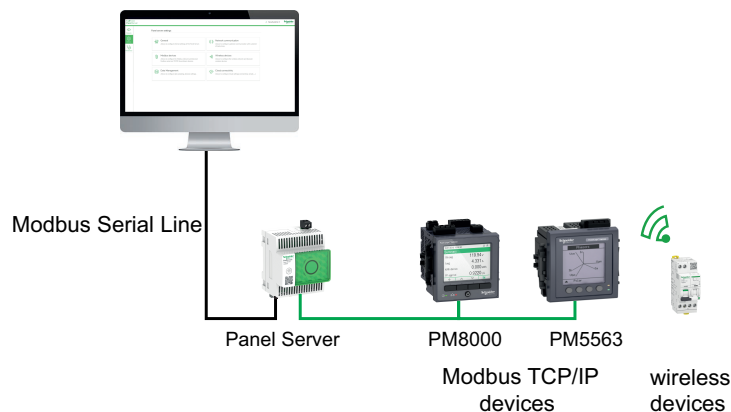
- Selective pairing with wireless devices by using EcoStruxure Power Commission software.

- Display in the Panel Server webpages, of data related to Panel Server digital inputs.

- For Smartlink Modbus:
  - Data related to the device displayed in Panel Server webpages.
  - Predefined alarms (circuit breaker opened, circuit breaker trip, generic input status) displayed in Panel Server webpages.

- Publication of alarms related to:
  - Communication issue between a device and Panel Server when available from the end devices (see DOCA0241EN *EcoStruxure Panel Server - Modbus File*).
  - Energy Reduction Maintenance Settings (ERMS) on circuit breaker.
  - The three levels of alarms from HeatTag sensor.

- Additional supported wireless devices: Acti9 Active Vigi.

Known Issues

The Earth leakage protection trip alarm is not managed by the Panel Server for ComPacT NS trip units that do not offer this alarm.

General Features

The following table presents the availability of general features on EcoStruxure Panel Server Universal in firmware version 001.005.000.

● Available

● Not available

General features		Availability
Functionality	Separated network topology	●
	Switched network topology	●
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation, EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	●
	Panel Server webpages to disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4)	●
Wi-Fi	2.4 GHz	●
	External Wi-Fi antenna (reference: PASA-ANT1)	●
IEEE 802.15.4 communication	Maximum number of wireless devices: • Up to 40 wireless devices as combination of PowerTag Energy sensors, PowerLogic Tag energy sensors, Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers, wireless CO_2 sensors, wireless temperature and humidity sensors, PowerTag A, PowerTag Ambient, Easergy TH110/CL110 environmental sensors, and PowerLogic HeatTag sensors, with a maximum of 3 HeatTag sensors • or up to 65 Easergy TH110/CL110 environmental sensors	●
Modbus TCP/IP communication	64 Modbus TCP/IP devices maximum including devices physically connected to the Panel Server and virtual devices (that is, IEEE 802.15.4 devices connected to a child Panel Server gateway)	●
Human Machine Interface (HMI)	FDM128 Ethernet display	●
	PowerTag Link display	●
Backup restore	Backup and Panel Server configuration restore by using Panel Server webpages and EcoStruxure Power Commission software	●
Configuration	User management by single user account	●
	User management by multiple users with Role-Based Access Control (RBAC)	●
Alarms	Publication of alarms related to: • Communication issue between a device and Panel Server when available from the end devices • ERMS on circuit breaker • The three levels of alarms from HeatTag sensors	●
Protocols	Modbus TCP/IP server	●
	Modbus TCP/IP client	●
	DHCP client	●
	DHCP server	●
	DPWS server	●
	HTTPS	●

Commissioning and Monitoring Features

The following table presents the availability of commissioning and monitoring features on EcoStruxure Panel Server Universal in firmware version 001.005.000.

🟢 Available

🔴 Not available

| Commissioning and monitoring features		Availability
Modbus serial communication	Commissioning of feature to use the Modbus serial port in reverse mode by using Panel Server webpages	🟢
Digital inputs (PAS600L)	Commissioning by using EcoStruxure Power Commission software	🟢
	Commissioning by using Panel Server webpages	🔴
	Monitoring by using EcoStruxure Power Commission software	🟢
	Monitoring by using Panel Server webpages	🟢
Firmware update	Applied to one Panel Server gateway by using EcoStruxure Power Commission software	🟢
	Applied to one Panel Server gateway by using Panel Server webpages	🟢
	Applied to several Panel Server gateways by using EcoStruxure Power Commission software	🟢
	Applied to several Panel Server gateways by using Panel Server webpages	🔴
Backup restore	Backup restore on a Panel Server of the same model by using EcoStruxure Power Commission software	🟢
	Backup restore on a Panel Server of the same model by using Panel Server webpages	🟢
Configuration	Configuration by using EcoStruxure Power Commission software	🟢
	Ethernet configuration for upstream communication by using Panel Server webpages	🟢
	Modbus configuration of Modbus TCP/IP and Modbus serial devices by using Panel Server webpages	🟢
	Selective pairing of wireless devices by using EcoStruxure Power Commission software	🟢
	Selective pairing of wireless devices by using Panel Server webpages	🟢
	Disable concurrently and permanently the wireless networks (Wi-Fi and IEEE 802.15.4) in the Panel Server by using Panel Server webpages	🟢
Monitoring	Display of data of Smartlink Modbus devices by using Panel Server webpages	🟢
	Display of data of Panel Server digital inputs by using Panel Server webpages	🟢
	Display of data of the supported devices (see commercial references in Supported Devices, page 55) by using Panel Server webpages	🟢
	Diagnostic by using Panel Server webpages	🟢
Data export	Publication on Schneider Electric cloud by using Panel Server webpages	🟢

Performance and Limitations

- Performance and limitations on Panel Server Universal:
  - No data publication on an SFTP server.
  - No manual addition of wireless devices connected to a child/downstream gateway by using EcoStruxure Power Commission software.
  - The typical response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 30 ms.
  - The maximum response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 1 s, set up Modbus/TCP client timeout accordingly.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus serial network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
- Limitations on sampling and publishing for cloud applications:
  - The number of individual data points that can be sampled is limited to 2,000 and limited to a flow of 500 data points per minute.
  - The number of individual alarms that can be configured for monitoring is limited to 100.
- Limitations on Smartlink Modbus:
  - Commissioning by using EcoStruxure Power Commission software only, not by using Panel Server webpages.
  - Status of Smartlink Modbus output not displayed on Panel Server webpages.
  - No control of Smartlink Modbus by using Panel Server webpages.
  - No publication of Smartlink Modbus data to the cloud applications.
- Limitations on wireless devices: PowerTag Control and PowerTag Display are not supported by Panel Server Universal.

Firmware Version 001.004.000

New Features

- Connection to EcoStruxure cloud applications:
  - EcoStruxure Facility Expert Energy
  - EcoStruxure Energy Hub
- Manual addition of wireless devices connected to a child/downstream gateway through the Panel Server webpages (not available with EcoStruxure Power Commission software). For example, child/downstream gateways can be a Panel Server or PowerTag Link.

  Example: Two wireless devices are connected to a child/downstream Panel Server in a separate topology. The child/downstream Panel Server (PAS#2) is connected to one Ethernet port of the parent/upstream gateway. For more information, refer to DOCA0172EN *EcoStruxure Panel Server - User Guide*.

  Parent gateway   Child gateway
  PAS#1
  HeatTag   Acti9 Active   Wireless devices
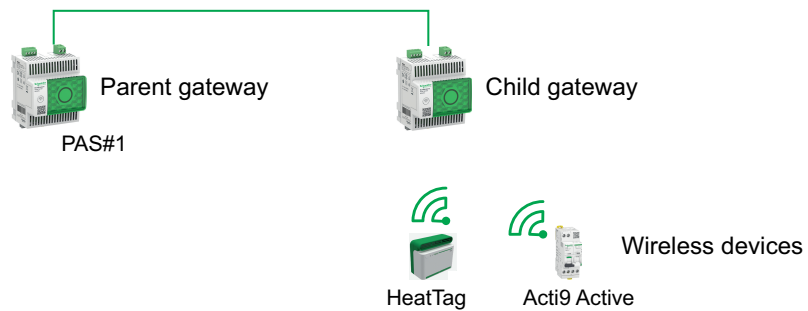
- Additional supported Modbus Serial devices: Power Factor controllers VarPlus Logic VL6 and VL12.

Known Issues

No known issues.

Features

The following table presents the availability of features on EcoStruxure Panel Server Universal in firmware version 001.004.000.

● Available

● Not available

Features		Availability
Functionality	Separated network topology	●
	Switched network topology	●
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation, EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	●
	Embedded webpages for diagnostic	●
	Embedded webpages for monitoring all the supported devices (see commercial references in Supported Devices, page 55).	●
Wi-Fi	2.4 GHz	●
	External Wi-Fi antenna (reference: PASA-ANT1)	●
IEEE 802.15.4 communication	Maximum number of wireless devices: • Up to 30 wireless devices as combination of PowerTag Energy sensors, PowerLogic Tag energy sensors, Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers, wireless CO_2 sensors, wireless temperature and humidity sensors, PowerTag A, PowerTag Ambient, environmental sensors Easergy TH110/CL110, and PowerLogic HeatTag sensors, with a maximum of 3 PowerLogic HeatTag. • or up to 65 environmental sensors Easergy TH110/CL110	●
Digital inputs (PAS600L)	Commissioning with EcoStruxure Power Commission software	●
	Commissioning with Panel Server webpages	●
	Monitoring with EcoStruxure Power Commission software and EcoStruxure Panel Server webpages	●
Human Machine Interface (HMI)	FDM128 Ethernet display	●
	PowerTag Link display	●
Firmware update	Applied to one Panel Server gateway with EcoStruxure Power Commission software	●
	Applied to one Panel Server gateway with Panel Server webpages	●
	Applied to several Panel Server gateways with EcoStruxure Power Commission software	●
	Applied to several Panel Server gateways with Panel Server webpages	●
Configuration	EcoStruxure Power Commission software	●
	Embedded webpages for Ethernet settings for upstream communication	●
	Embedded webpages for Modbus settings of Modbus TCP/IP and Modbus Serial devices	●
	User management by single user account	●
	User management by multiple users with Role-Based Access Control (RBAC)	●

Features		Availability
Protocols	Modbus TCP/IP server	🟢
	Modbus TCP/IP client	🟢
	DHCP client	🟢
	DHCP server	🔴
	DPWS	🟢
	HTTPS	🟢

Performance and Limitations

- Performance and limitations on Panel Server Universal:
  - No connection to EcoStruxure Facility Expert Operations.
  - No manual addition of wireless devices connected to a child/downstream gateway through EcoStruxure Power Commission software.
  - Function to backup and restore Panel Server configuration not available.
  - Alarms not set in EcoStruxure Panel Server webpages.
  - The typical response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 30 ms.
  - The maximum response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 1 s, set up Modbus/TCP client time-out accordingly.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus RS485 network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
- Limitations on sampling and publishing for cloud applications:
  - The number of individual data points that can be sampled is limited to 2000.
- Limitations on Smartlink Modbus:
  - Commissioning through EcoStruxure Power Commission software, not through EcoStruxure Panel Server webpages.
  - Status of Smartlink Modbus inputs/outputs or counter available from the Modbus registers, not displayed on Panel Server webpages.
  - Alarms not displayed in Panel Server webpages.
  - No control of Smartlink Modbus through Panel Server webpages.
- Limitations on wireless devices: PowerTag Control are not supported by Panel Server Universal.

Firmware Version 001.003.002

New Features

Active predefined alarms from any device connected to the Panel Server are displayed in the Panel Server webpages.

Known Issues

- EcoStruxure Power Commission software version 2.24.1 does not use virtual server ID to access Modbus Serial devices.

  When a *virtual server ID* different from the *physical Modbus address / server ID* is allocated to a Modbus Serial device, EcoStruxure Power Commission software version 2.24.1 uses the physical Modbus address / server ID to access the Modbus Serial device.

  To avoid any issue during commissioning of Modbus Serial devices in EcoStruxure Power Commission software, ensure that the physical Modbus address / server ID and the virtual server ID of each downstream Modbus device under the Panel Server gateway are unique and have not been previously assigned as a physical Modbus address or virtual server ID to any wireless, Modbus Serial, or Modbus TCP/IP device.

  To solve this issue, proceed as follows:

  ◦ Option 1 - Change the physical Modbus address of the device on the Modbus Serial network as follows:

    1. Set the physical Modbus address of the device to a value not assigned as virtual server ID to any other wireless, Modbus Serial, or Modbus TCP/IP device.

    2. Login to the Panel Server webpages and update accordingly the physical Modbus address / server ID of the device in the Panel Server.

  ◦ Option 2 - Change the virtual server ID of the device in the Panel Server as follows:

    Login to the Panel Server webpages and change the virtual server ID of the device to a value different from the physical Modbus address / server ID of any other device on the Modbus Serial network.

- Webpages freeze when several Modbus Serial devices are missing.

  When several Modbus Serial devices are being disconnected (4 devices or more) at the same time, the Panel Server webpages can become frozen while the Panel Server is still attempting to communicate with the missing devices.

  Webpages operation recovers:

  ◦ When, after several retries, the Panel Server detects that the devices are disconnected.

  ◦ After reconnecting the missing devices.

Features

The following table presents the availability of features on EcoStruxure Panel Server Universal in firmware version 001.003.002.

🟢 Available

🔴 Not available

Features		Availability
Functionality	Separated network topology	🟢
	Switched network topology	🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation, EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	🟢
	Embedded webpages for diagnostic	🟢
	Embedded webpages for monitoring all the supported devices (see commercial references in Supported Devices, page 55).	🟢
Wi-Fi	2.4 GHz	🟢
	External Wi-Fi antenna (reference: PASA-ANT1)	🟢

IEEE 802.15.4 communication	Maximum number of wireless devices:
	
	• Up to 30 wireless devices as combination of PowerTag Energy sensors, PowerLogic Tag energy sensors, Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers, wireless CO_2 sensors, wireless temperature and humidity sensors, PowerTag A, PowerTag Ambient, environmental sensors Easergy TH110/CL110, and PowerLogic HeatTag sensors, with a maximum of:
	  ◦ 20 PowerTag or PowerLogic Tag energy sensors, or Acti9 Active
	  ◦ 3 PowerLogic HeatTag
	  ◦ 6 wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers
	• or up to 65 environmental sensors Easergy TH110/CL110
		🟢

Digital inputs (PAS600L)	Commissioning with EcoStruxure Power Commission software	🟢
	Commissioning with Panel Server webpages	🔴
	Monitoring with EcoStruxure Power Commission software and EcoStruxure Panel Server webpages	🟢
Human Machine Interface (HMI)	FDM128 Ethernet display	🟢
	PowerTag Link display	🔴
Firmware update	Applied to one Panel Server gateway with EcoStruxure Power Commission software	🟢
	Applied to one Panel Server gateway with Panel Server webpages	🟢
	Applied to several Panel Server gateways with EcoStruxure Power Commission software	🟢
	Applied to several Panel Server gateways with Panel Server webpages	🔴

Features		Availability
Configuration	EcoStruxure Power Commission software	🟢
	Embedded webpages for Ethernet settings for upstream communication	🟢
	Embedded webpages for Modbus settings of Modbus TCP/IP and Modbus Serial devices	🟢
	User management by single user account	🟢
	User management by multiple users with Role-Based Access Control (RBAC)	🔴
Protocols	Modbus TCP/IP server	🟢
	Modbus TCP/IP client	🟢
	DHCP client	🟢
	DHCP server	🔴
	DPWS	🟢
	HTTPS	🟢

Performance and Limitations

- Performance and limitations on Panel Server Universal:
  - Function to backup and restore Panel Server configuration not available.
  - Alarms not set in EcoStruxure Panel Server webpages.
  - No capability to collect data from a wireless end device connected to a child/downstream gateway of the Panel Server such as another Panel Server, a PowerTag Link, or a Smartlink SIB gateway).
  - The typical response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 30 ms.
  - The maximum response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 1 s, set up Modbus/TCP client time-out accordingly.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus RS485 network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
- Limitations on Smartlink Modbus:
  - Commissioning through EcoStruxure Power Commission software, not through EcoStruxure Panel Server webpages.
  - Status of Smartlink Modbus inputs/outputs or counter available from the Modbus registers, not displayed on Panel Server webpages.
  - Alarms not displayed in Panel Server webpages.
  - No control of Smartlink Modbus through Panel Server webpages.
- Limitations on wireless devices: PowerTag Control are not supported by Panel Server Universal.

Firmware Version 001.003.001

New Features

- Addition of EcoStruxure Panel Server webpages for monitoring

- Enhancement of response time to Modbus TCP/IP request and operation for a wireless IEEE 802.15.4 device

- Addition of alarms for PowerTag and PowerLogic Tag wireless energy sensors:
  - 45% rated current alarm
  - 50% rated current alarm
  - 80% rated current alarm
  - Zero current alarm

- Wi-Fi infrastructure mode using internal antenna or external antenna (reference PASA-ANT1).

- Manual addition of Modbus Serial devices connected to a child/downstream gateway. For example, child/downstream gateways can be Panel Server, Link150 or third-party gateways.

  Example: Two Modbus Serial devices are connected to a child/downstream Panel Server in a separate topology. The child/downstream Panel Server (PAS#2) is connected to one Ethernet port of the parent/upstream Panel Server (PAS#1). For more information, refer to DOCA0172EN *EcoStruxure Panel Server - User Guide*.
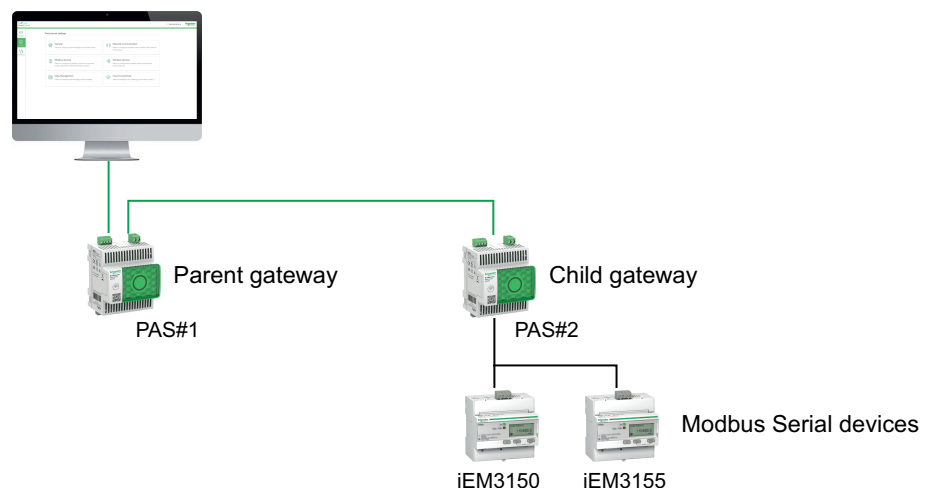
- Integration with Schneider Electric cloud applications EcoStruxure Asset Advisor, EcoStruxure Resource Advisor, and EcoStruxure Energy Hub with limited features. For more information, contact your local Schneider Electric representative.

- Ethernet diagnostics to help with validating the Panel Server integration into upstream communication.

- New languages supported in EcoStruxure Panel Server webpages: Italian, Spanish, German, Russian.

- For wireless devices, configuration of communication period per family (energy, ambient, control) on EcoStruxure Panel Server webpages and EcoStruxure Power Commission software.

- FDM128 display supported but need to update to last version of FDM128 firmware (version 8.0.30 or higher). For detailed information about supported wireless devices, refer to DOCA0151EN *Enerlin'X FDM128– Ethernet Display for Eight Devices– Firmware Release Notes*.

  Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT, and PowerLogic Tag are not displayed.

- Remote access (a local action is required to enable remote access to the EcoStruxure Panel Server webpages).

Known Issues

EcoStruxure Power Commission software version 2.24 does not use virtual server ID to access Modbus Serial devices.

When a *virtual server ID* different from the *physical Modbus address / server ID* is allocated to a Modbus Serial device, EcoStruxure Power Commission software version 2.24 uses the physical Modbus address / server ID to access the Modbus Serial device.

To avoid any issue during commissioning of Modbus Serial devices in EcoStruxure Power Commission software, ensure that the physical Modbus address / server ID and the virtual server ID of each downstream Modbus device under the Panel Server gateway are unique and have not been previously assigned as a physical Modbus address or virtual server ID to any wireless, Modbus Serial, or Modbus TCP/IP device.

To solve this issue, proceed as follows:

- Option 1 - Change the physical Modbus address of the device on the Modbus Serial network as follows:
  1. Set the physical Modbus address of the device to a value not assigned as virtual server ID to any other wireless, Modbus Serial, or Modbus TCP/IP device.
  2. Login to the Panel Server webpages and update accordingly the physical Modbus address / server ID of the device in the Panel Server.
- Option 2 - Change the virtual server ID of the device in the Panel Server as follows:

  Login to the Panel Server webpages and change the virtual server ID of the device to a value different from the physical Modbus address / server ID of any other device on the Modbus Serial network.

Issues Fixed

All known issues in firmware version 001.002.000 are fixed.

Features

The following table presents the availability of features on EcoStruxure Panel Server Universal in firmware version 001.003.001.

🟢 Available

🔴 Not available

Features		Availability
Functionality	Separated network topology	🟢
	Switched network topology	🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation, EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	🟢
	Embedded webpages for diagnostic	🟢
	Embedded webpages for monitoring all the supported devices (see commercial references in Supported Devices, page 55).	🟢
Wi-Fi	2.4 GHz	🟢
	External Wi-Fi antenna (reference: PASA-ANT1)	🟢
IEEE 802.15.4 communication	Maximum number of wireless devices: • Up to 30 wireless devices as combination of PowerTag Energy sensors, PowerLogic Tag energy sensors, Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers, wireless CO_2 sensors, wireless temperature and humidity sensors, PowerTag A, PowerTag Ambient, environmental sensors Easergy TH110/CL110, and PowerLogic HeatTag sensors, with a maximum of: ◦ 20 PowerTag or PowerLogic Tag energy sensors, or Acti9 Active ◦ 3 PowerLogic HeatTag ◦ 6 wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers • or up to 65 environmental sensors Easergy TH110/CL110	🟢
Digital inputs (PAS600L)	Commissioning with EcoStruxure Power Commission software	🟢
	Commissioning with EcoStruxure Panel Server webpages	🔴
	Monitoring with EcoStruxure Power Commission software and EcoStruxure Panel Server webpages	🟢
Human Machine Interface (HMI)	FDM128 Ethernet display	🟢
	PowerTag Link display	🔴
Configuration	EcoStruxure Power Commission software	🟢
	Embedded webpages for Ethernet settings for upstream communication	🟢
	Embedded webpages for Modbus settings of Modbus TCP/IP and Modbus Serial devices	🟢
	User management by single user account	🟢
	User management by multiple users with Role-Based Access Control (RBAC)	🔴

Features		Availability
Protocols	Modbus TCP/IP server	🟢
	Modbus TCP/IP client	🟢
	DHCP client	🟢
	DHCP server	🔴
	DPWS	🟢
	HTTPS	🟢

Performance and Limitations

- Performance and limitations on EcoStruxure Panel Server Universal:
  - Function to backup and restore Panel Server configuration not available.
  - Alarms not set and not displayed in EcoStruxure Panel Server webpages.
  - No capability to collect data from a wireless end device connected to a child/downstream gateway of the Panel Server such as another Panel Server, a PowerTag Link, or a Smartlink SIB gateway).
  - The typical response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 30 ms.
  - The maximum response time to Modbus TCP/IP request for a wireless IEEE 802.15.4 device is 1 s, set up Modbus/TCP client time-out accordingly.
  - Typical Panel Server latency between Modbus TCP/IP request forwarded to the Modbus RS485 network is 10 ms.
  - Wi-Fi function available through a connection to a Wi-Fi infrastructure only. Access point function not available.
- Limitations on Smartlink Modbus:
  - Commissioning through EcoStruxure Power Commission software, not through EcoStruxure Panel Server webpages.
  - Status of Smartlink Modbus inputs/outputs or counter available from the Modbus registers, not displayed on EcoStruxure Panel Server webpages.
  - Alarms not displayed in EcoStruxure Panel Server webpages.
  - No control of Smartlink Modbus through EcoStruxure Panel Server webpages.
- Limitations on wireless devices: PowerTag Control are not supported by EcoStruxure Panel Server Universal.

Firmware Version 001.002.000

New Features

- Addition of supported devices:
  - HeatTag sensors
  - Wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers
  - PowerLogic Tag 2P energy sensors
  - Wireless CO_2 sensors
  - Wireless temperature and humidity sensors
  - PowerTag A (EwSenseTemp) sensor
  - PowerTag Ambient wireless temperature sensors
- Addition of separated network topology
- Addition of Modbus TCP/IP client protocol
- Addition of digital inputs to monitor the state of external contacts or as pulse counter
- Addition of EcoStruxure Panel Server webpages for monitoring
- Enhancement of typical response time to Modbus/TCP IP request for a wireless IEEE 802.15.4 device
- Enhancement of maximum response time to Modbus/TCP IP request for a wireless IEEE 802.15.4 device

Known Issues

- The separated mode is configured to segregate downstream Modbus TCP/IP devices connected on **ETH1** port from upstream communication systems connected on **ETH2** port. With the current firmware version, it is only possible to access the downstream Modbus TCP/IP devices data from the EcoStruxure Panel Server embedded webpages. A monitoring software connected on **ETH1** port using Modbus TCP/IP will not be able to access the Modbus TCP/IP devices connected on **ETH2** port. For such applications, use only the switched mode.

- When an active alarm is present (as reported in the Modbus register) for a PowerTag Energy M250/M630 for ComPacT NSX 3-pole circuit breaker, a PowerTag Energy F160, a PowerTag Rope, or a PowerLogic Tag Rope (see commercial references in the table below), the alarm is still active although the value of the **ENVT** (External Neutral Voltage Tap) setting is changed by using the EcoStruxure Panel Server webpages or EcoStruxure Power Commission software.

  To work around this issue, restart the EcoStruxure Panel Server Universal (see DOCA0172EN *EcoStruxure Panel Server - User Guide* for detailed procedure).

  The alarm for phase-to-neutral voltage protection is one of the following:

  ◦ 80% Undervoltage on phase-to-neutral

  ◦ 120% Overvoltage on phase-to-neutral

  The following table lists the devices concerned by the issue:

Devices	Commercial reference
PowerTag M250 3P 250A	LV434020
PowerTag M250 3P+N 250A	LV434021
PowerTag M630 3P 630A	LV434022
PowerTag M630 3P+N 630A	LV434023
PowerTag F160 3P/3P+N	A9MEM1580
PowerTag Rope 200 A 3P/3P+N	A9MEM1590
PowerTag Rope 600 A 3P/3P+N	A9MEM1591
PowerTag Rope 1000 A 3P/3P+N	A9MEM1592
PowerTag Rope 2000 A 3P/3P+N	A9MEM1593
PowerLogic Tag Rope 120A 3P	PLTR1203P
PowerLogic Tag Rope 600A 3P	PLTR6003P
PowerLogic Tag Rope 1000A 3P	PLTR10003P
PowerLogic Tag Rope 2000A 3P	PLTR20003P

- When an active alarm is present (as reported in the Modbus register) for a PowerTag Energy 1P+N , a PowerLogic Tag 1 P or 2P, or an Acti9 Active iC40 or iC60, the alarm is still active although the value of the **Phase Sequence** setting is changed by using the EcoStruxure Panel Server webpages or EcoStruxure Power Commission software.

  To work around this issue, restart the EcoStruxure Panel Server Universal (see DOCA0172EN *EcoStruxure Panel Server - User Guide* for detailed procedure).

  The alarm about phase sequence is one of the following:

  - 80% Undervoltage
  - 120% Overvoltage
  - Overcurrent over 45%, 50%, or 80% of nominal current
  - Load current is 0 A

  The following table lists the devices concerned by the issue:

Devices	Commercial reference
PowerTag A9 P63 1P+N Top	A9MEM1560
PowerTag A9 P63 1P+N Top	A9MEM1561
PowerTag A9 P63 1P+N Bottom	A9MEM1562
PowerTag A9 P63 1P+N Bottom RCBO	A9MEM1563
PowerTag A9 F63 1P+N 110V	A9MEM1564
PowerLogic Tag QO 10-30A 1P+N	PLTQO301P
PowerLogic Tag QO 35-60A 1P+N	PLTQO601P
PowerLogic Tag E-Frame 10-60A 1P+N	PLTE601P
PowerLogic Tag QO 10-30A 2P	PLTQO302P
PowerLogic Tag QO 35-60A 2P	PLTQO602P
PowerLogic Tag E-Frame 10-60A 2P	PLTE602P
Acti9 Active iC40 and iC60	A9TAA●●●●, A9TAB●●●●, A9TDEC●●●, A9TDFC●●●, A9TDFD●●●, A9TPDD●●●, A9TPED●●●, A9TYAE●●●, A9TYBE●●●

- On systems with both Modbus devices and wireless devices, the table view of measurements may display in some rare cases the same measurements value for the wireless devices as for the Modbus device as shown below:

This issue is only within this page and does not affect the measurements reported on the Modbus register to the upstream system nor the measurements reported in the single device webpage.

This issue does not affect systems with only wireless devices or only Modbus devices.

Follow this procedure to resolve the issue:

- For systems with more wireless devices than Modbus devices (for example, 10 wireless devices and 5 Modbus devices):

  1. Remove all devices from the project.

  2. Add all Modbus devices.

  3. Add all wireless devices.

  4. Remove the wireless devices only again.

  5. Add all the wireless devices again.

- For systems with more Modbus devices than wireless devices (for example, 10 Modbus devices and 5 wireless devices):

  1. Remove all devices from the project.

  2. Add all wireless devices.

  3. Add all Modbus devices.

  4. Remove the Modbus devices only again.

  5. Add all the Modbus devices.

- For systems with same number of Modbus devices as wireless devices (for example, 5 Modbus devices and 5 wireless devices):

  1. Remove all devices from the project.

  2. Add all wireless devices.

  3. Add all Modbus devices.

  4. Remove the Modbus devices only again.

  5. Add all the Modbus devices.

Features

The following table presents the availability of features on EcoStruxure Panel Server Universal in firmware version 001.002.000.

🟢 Available

🔴 Not available

Features		Availability
Functionality	Separated network topology	🟢
	Switched network topology	🟢
	Connection to Edge Control (EcoStruxure Power Monitoring Expert, EcoStruxure Power Operation, EcoStruxure Building Operation, any Building Management System, or third-party monitoring or supervision system)	🟢
	Embedded webpages for diagnostic	🟢
	Embedded webpages for monitoring all the supported devices (see commercial references in chapter Supported Devices, page 55).	🟢
Wi-Fi	2.4 GHz	🔴
	5 GHz	🔴
	External Wi-Fi antenna	🔴
IEEE 802.15.4 communication	Maximum number of wireless devices: • Up to 30 wireless devices as combination of PowerTag Energy sensors, PowerLogic Tag energy sensors, Acti9 Active, wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers, wireless CO_2 sensors, wireless temperature and humidity sensors, PowerTag A, PowerTag Ambient, environmental sensors Easergy TH110/CL110, and PowerLogic HeatTag sensors, with a maximum of: ◦ 20 PowerTag or PowerLogic Tag energy sensors, or Acti9 Active ◦ 3 PowerLogic HeatTag ◦ 6 wireless indication auxiliaries for ComPacT and PowerPacT circuit breakers • or up to 65 environmental sensors Easergy TH110/CL110	🟢
Digital inputs		🟢
Configuration	EcoStruxure Power Commission software	🟢
	Embedded webpages for configuration of Ethernet and Modbus settings	🟢
	User management: single user	🟢
Protocols	Modbus TCP/IP server	🟢
	Modbus TCP/IP client	🟢
	DHCP client	🟢
	DHCP server	🔴
	DPWS	🟢
	HTTPS	🟢

Performances and Limitations

- The typical response time to Modbus/TCP IP request for a wireless IEEE 802.15.4 device is 30 ms.

- The maximum response time to Modbus/TCP IP request for a wireless IEEE 802.15.4 device is 1 s, set-up Modbus/TCP client time-out accordingly.

- Typical EcoStruxure Panel Server latency between Modbus TCP/IP request forwarded to the Modbus RS485 network is 10 ms.

- The maximum number of Modbus/TCP concurrent connections is 32.

Firmware Version 001.001.000

Description

Firmware initial version for EcoStruxure Panel Server Universal.

Supported Devices

Wireless Devices

The following table shows the minimum Panel Server Universal firmware version and the minimum firmware version of the wireless device required to enable communication with wireless devices.

Device family	Device		Minimum Panel Server Universal firmware version	Minimum firmware version of wireless device
Power meter	PowerTag A9 M63 1P+N Bottom	A9MEM1522	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 M63 3P	A9MEM1540	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 M63 3P+N Top	A9MEM1541	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 M63 3P+N Bottom	A9MEM1542	001.003.002	004.000.424 [1]
Power meter	PowerTag A9MEM 1543	A9MEM1543	001.003.002	004.000.424 [1]
Power meter	PowerTag M250 3P 250A	LV434020	001.003.002	001.003.002 [1]
Power meter	PowerTag M630 3P 630A	LV434022	001.003.002	001.003.002 [1]
Power meter	PowerTag M250 3P+N 250A	LV434021	001.003.002	001.003.002 [1]
Power meter	PowerTag M630 3P+N 630A	LV434023	001.003.002	001.003.002 [1]
Power meter	PowerTag A9 M63 1P+W	A9MEM1520	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 M63 1P+N Top	A9MEM1521	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 P63 1P+N Top	A9MEM1560	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 P63 1P+N Top	A9MEM1561	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 P63 1P+N Bottom	A9MEM1562	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 P63 1P+N Bottom RCBO	A9MEM1563	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 F63 1P+N 110V	A9MEM1564	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 F63 3P+N	A9MEM1570	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 P63 3P+N Top	A9MEM1571	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 P63 3P+N Bottom	A9MEM1572	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 F63 3P	A9MEM1573	001.003.002	004.000.424 [1]
Power meter	PowerTag A9 F63 3P+N 110/230V	A9MEM1574	001.003.002	004.000.424 [1]
Power meter	PowerTag F160 3P/3P+N	A9MEM1580	001.003.002	001.001.000 [1]
Power meter	PowerTag Rope 200 A 3P/3P+N	A9MEM1590	001.003.002	001.001.000
Power meter	PowerTag Rope 600 A 3P/3P+N	A9MEM1591	001.003.002	001.001.000
Power meter	PowerTag Rope 1000 A 3P/3P+N	A9MEM1592	001.003.002	001.001.000
Power meter	PowerTag Rope 2000 A 3P/3P+N	A9MEM1593	001.003.002	001.001.000
Power meter	PowerLogic Tag E-Frame 10-60A 1P+N	PLTE601P	001.003.002	004.000.424 [1]
Power meter	PowerLogic Tag E-Frame 10-60A 2P	PLTE602P	001.003.002	004.000.424 [1]
Power meter	PowerLogic Tag E-Frame 10-60A 3P	PLTE603P	001.003.002	004.000.424 [1]
Power meter	PowerLogic Tag QO 10-30A 1P+N	PLTQO301P	001.003.002	004.000.424 [1]
Power meter	PowerLogic Tag QO 35-60A 1P+N	PLTQO601P	001.003.002	004.000.424 [1]
Power meter	PowerLogic Tag QO 10-30A 3P	PLTQO303P	001.003.002	004.000.424 [1]

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1. Modbus mapping identical to PowerTag Link

Device family	Device		Minimum Panel Server Universal firmware version	Minimum firmware version of wireless device
Power meter	PowerLogic Tag QO 35-60A 3P	PLTQO603P	001.003.002	004.000.424 [2]
Power meter	PowerLogic Tag QO 10-30A 2P	PLTQO302P	001.003.002	004.000.424 [2]
Power meter	PowerLogic Tag QO 35-60A 2P	PLTQO602P	001.003.002	004.000.424 [2]
Power meter	PowerLogic Tag Rope 120A 3P	PLTR1203P	001.003.002	001.001.000
Power meter	PowerLogic Tag Rope 600A 3P	PLTR6003P	001.003.002	001.001.000
Power meter	PowerLogic Tag Rope 1000A 3P	PLTR10003P	001.003.002	001.001.00
Power meter	PowerLogic Tag Rope 2000A 3P	PLTR20003P	001.003.002	001.001.000
Ambient sensor	Easergy TH110 wireless thermal sensor	EMS59440	001.003.002	001.000.003 [2]
Ambient sensor	Easergy CL110 wireless environmental sensor	EMS59443	001.003.002	002.001.003 [2]
Ambient sensor	ZBRTT1 wireless environmental sensor	ZBRTT1	001.003.002	002.001.003 [2]
Ambient sensor	Wireless CO_2 sensor	SED-CO2-G-5045	001.003.002	001.001.004
Ambient sensor	Wireless temperature and humidity sensor	SED-TRH-G-5045	001.003.002	001.001.004
Ambient sensor	PowerTag A (EwSenseTemp)	ESST010B0400	001.003.002	001.001.004
Ambient sensor	PowerTag Ambient wireless temperature sensor	A9XST114	001.003.002	001.001.005
Ambient sensor	PowerLogic HeatTag	SMT10020	001.003.002	002.002.009
Circuit breaker	Wireless indication auxiliary for ComPacT NSX and PowerPacT B-frame	LV429453	001.003.002	001.000.000
Circuit breaker	Wireless indication auxiliary for ComPacT NSX, PowerPacT H-, J-, and L-frame, ComPacT NS, and PowerPacT M-, P-frame	LV429454	001.003.002	001.000.000
Circuit breaker	Acti9 Active iC40 and iC60	A9TAA●●●●	001.003.002	001.000.001
		A9TAB●●●●	001.003.002	001.000.001
		A9TDEC●●●	001.003.002	001.000.001
		A9TDFC●●●	001.003.002	001.000.001
		A9TDFD●●●	001.003.002	001.000.001
		A9TPDD●●●	001.003.002	001.000.001
		A9TPED●●●	001.003.002	001.000.001
		A9TYAE●●●	001.003.002	001.000.001
		A9TYBE●●●	001.003.002	001.000.001
Circuit breaker	Acti9 Vigi iDT40 25 A 1P+N	A9Y6E625	001.005.000	001.000.001
Circuit breaker	Acti9 Vigi iDT40 40 A 1P+N	A9Y6E640	001.005.000	001.000.001
Circuit breaker	Acti9 Vigi iC40 25 A 1P+N	A9Y8E625	001.005.000	001.000.001
Circuit breaker	Acti9 Vigi iC40 40 A 1P+N	A9Y8E640	001.005.000	001.000.001
Circuit breaker	Acti9 Vigi iC60 25 A 2P	A9V6E225	001.005.000	001.000.001
Circuit breaker	Acti9 Vigi iC60 40 A 2P	A9V6E240	001.005.000	001.000.001
Circuit breaker	Acti9 Vigi iC60 25 A 2P	A9V8E225	001.005.000	001.000.001
Circuit breaker	Acti9 Vigi iC60 40 A 2P	A9V8E240	001.005.000	001.000.001
IO module	PowerTag C IO 230V digital input output module	A9XMC1D3	001.006.000	002.000.000
IO module	PowerTag C 2DI 230V digital input module	A9XMC2D3	001.006.000	002.000.000
Condition monitoring	PowerLogic PD100 Partial discharge monitoring sensor	PD100X001	001.006.000	002.000.000

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2. Modbus mapping identical to PowerTag Link

Modbus TCP/IP Devices

The following table shows the minimum Panel Server Universal firmware version required to enable Ethernet communication with devices for real-time measurement monitoring in Panel Server webpages.

Device family	Device		Panel Server Universal firmware version
Power meter	PowerLogic CM3250 circuit monitor		001.003.002
Power meter	PowerLogic CM3350 circuit monitor		001.003.002
Power meter	PowerLogic CM4000 circuit monitor		001.003.002
Power meter	PowerLogic PM5320 power meter	METSEPM5320	001.003.002
Power meter	PowerLogic PM5340 power meter	METSEPM5340	001.003.002
Power meter	PowerLogic PM5341 power meter	METSEPM5341	001.003.002
Power meter	PowerLogic PM5560 power meter	METSEPM5560	001.003.002
Power meter	PowerLogic PM5561 power meter	METSEPM5561	001.003.002
Power meter	PowerLogic PM5563 power meter	METSEPM5563	001.003.002
Power meter	PowerLogic PM5570 power meter	METSEPM5570	001.003.002
Power meter	PowerLogic PM5580 power meter	METSEPM5580	001.003.002
Power meter	PowerLogic PM5650 power meter	METSEPM5650	001.003.002
Power meter	PowerLogic PM5660 power meter	METSEPM5660	001.003.002
Power meter	PowerLogic PM5661 power meter	METSEPM5661	001.003.002
Power meter	PowerLogic PM5760 power meter	METSEPM5760	001.003.002
Power meter	PowerLogic PM5761 power meter	METSEPM5761	001.003.002
Power meter	PowerLogic PM810 power meter		001.003.002
Power meter	PowerLogic PM820 power meter		001.003.002
Power meter	PowerLogic PM850 power meter		001.003.002
Power meter	PowerLogic PM870 power meter		001.003.002
Power meter	PowerLogic PM8000 power meter	METSEPM8240	001.003.002
		METSEPM8243	001.003.002
		METSEPM8244	001.003.002
		METSEPM8210	001.003.002
		METSEPM8213	001.003.002
		METSEPM8214	001.003.002
		METSEPM82101	001.003.002
		METSEPM82103	001.003.002
		METSEPM82104	001.003.002
		METSEPM82143	001.003.002
		METSEPM82144	001.003.002
		METSEPM82401	001.003.002
		METSEPM82403	001.003.002
		METSEPM82404	001.003.002
		METSEPM82443	001.003.002
		METSEPM82444	001.003.002
Transformer monitoring	NT935 ETH		001.003.002

Circuit Breakers and Associated Trip Units

The following table shows the circuit breaker devices supported by Panel Server Universal for real-time measurement monitoring in Panel Server webpages.

Y: the device is supported by Panel Server

N: the device is not yet supported by Panel Server

N/A: not applicable

Circuit breaker	Trip unit	Connected to				
		IFE Ethernet interface		IFE Ethernet switchboard server		eIFE embedded Ethernet interface
		LV434010	LV434001	LV434011	LV434002	LV851001
MasterPact MTZ	MicroLogic 2.0 X	Y	Y	Y	Y	Y
	MicroLogic 3.0 X	N	N	N	N	Y
	MicroLogic 5.0 X	N	N	N	N	Y
	MicroLogic 6.0 X	Y	Y	Y	Y	Y
	MicroLogic 7.0 X	N	N	N	N	Y
	MicroLogic 5.0 Xi	Y	Y	Y	Y	Y
MasterPact NT/NW	MicroLogic 2.0 A	Y	Y	Y	Y	N/A
	MicroLogic 3.0 A	Y	Y	Y	Y	N/A
	MicroLogic 5.0 A	Y	Y	Y	Y	N/A
	MicroLogic 6.0 A	Y	Y	Y	Y	N/A
	MicroLogic 7.0 A	Y	Y	Y	Y	N/A
	MicroLogic 2.0 E	Y	Y	Y	Y	N/A
	MicroLogic 5.0 E	Y	Y	Y	Y	N/A
	MicroLogic 6.0 E	Y	Y	Y	Y	N/A
	MicroLogic 5.0 P	Y	Y	Y	Y	N/A
	MicroLogic 6.0 P	Y	Y	Y	Y	N/A
ComPacT NS	MicroLogic 7.0 A	N	N	N	N	N/A
	MicroLogic 7.0 H	Y	Y	Y	Y	N/A
ComPacT NSX	MicroLogic 5.2 A	Y	Y	Y	Y	N/A
	MicroLogic 6.2 A	Y	Y	Y	Y	N/A
	MicroLogic 5.2 E	Y	Y	Y	Y	N/A
	MicroLogic 6.2 E	Y	Y	Y	Y	N/A
	MicroLogic 7.2 E	Y	Y	Y	Y	N/A
	MicroLogic 5.3 E	Y	Y	Y	Y	N/A
	MicroLogic 6.3 E	Y	Y	Y	Y	N/A
	MicroLogic 7.3 E	Y	Y	Y	Y	N/A
PowerPacT H-, J-, and L-frame	MicroLogic 5.3 A	Y	Y	Y	Y	N/A

Modbus Serial Devices

The following table shows the minimum Panel Server Universal firmware version required to enable Modbus communication with devices for real-time measurement monitoring in Panel Server webpages.

For third-party devices not listed in the table, data of the device can be accessed by reading the different Modbus registers. All data available from the Modbus registers will not be accessible and displayed in the Panel Server webpages.

Device family	Device		Minimum Panel Server Universal firmware version
Power meter	PowerLogic CM3250 circuit monitor		001.003.002
Power meter	PowerLogic CM3350 circuit monitor		001.003.002
Power meter	PowerLogic CM4000 circuit monitor		001.003.002
Power meter	PowerLogic EM3550 energy meter		001.003.002
Power meter	PowerLogic EM3550A energy meter		001.003.002
Power meter	PowerLogic EM3555 power and energy meter		001.003.002
Power meter	PowerLogic EM3555A energy meter		001.003.002
Power meter	PowerLogic EM4200 Enercept power and energy meter		001.003.002
Power meter	PowerLogic EM6400NG energy meter	METSEEM6400NGRSCL2	001.003.002
Power meter		METSEEM6400NGRSCL5	001.003.002
Power meter		METSEEM6400NGRSCL1	001.003.002
Power meter	PowerLogic EM6433H energy meter	METSEEM6433HCL10RS	001.003.002
Power meter		METSEEM6433HCL05RS	001.003.002
Power meter	PowerLogic EM6436H energy meter	METSEEM6436HCL10RS	001.003.002
Power meter		METSEEM6436HCL05RS	001.003.002
Power meter	PowerLogic EM7200 power and energy	30002055	001.003.002
		30002198	001.003.002
		30002975	001.003.002
Power meter	EasyLogic PM1130H meter	METSEPM1130HCL05RS	001.003.002
Power meter		METSEPM1130HCL05RD	001.003.002
Power meter	EasyLogic PM2130 meter	METSEPM2130D	001.003.002
Power meter	EasyLogic PM2220 meter	METSEPM2220D	001.003.002
Power meter	EasyLogic PM2230 meter	METSEPM2230D	001.003.002
Power meter	Acti9 iEM2050 energy meter	A9MEM2050	001.003.002
Power meter	Acti9 iEM2055 energy meter	A9MEM2055	001.003.002
Power meter	Acti9 iEM2150 energy meter	A9MEM2150	001.003.002
Power meter	Acti9 iEM2155 energy meter	A9MEM2155	001.003.002
Power meter	Acti9 iEM3150 energy meter	A9MEM3150	001.003.002
Power meter	Acti9 iEM3155 energy meter	A9MEM3155	001.003.002
Power meter	Acti9 iEM3250 energy meter	A9MEM3250	001.003.002
Power meter	Acti9 iEM3255 energy meter	A9MEM3255	001.003.002
Power meter	Acti9 iEM3350 energy meter	A9MEM3350	001.003.002
Power meter	Acti9 iEM3355 energy meter	A9MEM3355	001.003.002
Power meter	Acti9 iEM3455 energy meter	A9MEM3455	001.003.002
Power meter	Acti9 iEM3555 energy meter	A9MEM3555	001.003.002
Power meter	PowerLogic PM3250 power meter		001.003.002
Power meter	PowerLogic PM3255 power meter		001.003.002
Power meter	PowerLogic PM5110 power meter		001.003.002
Power meter	PowerLogic PM5111 power meter		001.003.002
Power meter	PowerLogic PM5310 power meter		001.003.002

Device family	Device		Minimum Panel Server Universal firmware version
Power meter	PowerLogic PM5330 power meter		001.003.002
Power meter	PowerLogic PM5331 power meter		001.003.002
Power meter	PowerLogic PM5560 power meter		001.003.002
Power meter	PowerLogic PM5561 power meter		001.003.002
Power meter	PowerLogic PM5563 power meter		001.003.002
Power meter	PowerLogic PM5570 power meter	METSEPM5570	001.003.002
Power meter	PowerLogic PM5580 power meter	METSEPM5580	001.003.002
Power meter	PowerLogic PM5650 power meter	METSEPM5650	001.003.002
Power meter	PowerLogic PM5660 power meter	METSEPM5660	001.003.002
Power meter	PowerLogic PM5661 power meter	METSEPM5661	001.003.002
Power meter	PowerLogic PM5760 power meter	METSEPM5760	001.003.002
Power meter	PowerLogic PM5761 power meter	METSEPM5761	001.003.002
Power meter	PowerLogic PM810 power meter		001.003.002
Power meter	PowerLogic PM820 power meter		001.003.002
Power meter	PowerLogic PM850 power meter		001.003.002
Power meter	PowerLogic PM870 power meter		001.003.002
Power meter	PowerLogic PM8000 power meter		001.003.002
I/O module	Acti 9 Smartlink Modbus	A9XMSB11 with FW v001.003.007	001.003.002
I/O module	I/O Smart Link	A9XMSB11 with FW v003.00X.00Y	001.007.000
Protection relay	Easergy Sepam Series 20 BSTM protection relay		001.003.002
Protection relay	Easergy Sepam Series 40 protection relay		001.003.002
Transformer monitoring	NT935		001.003.002
Passive power correction	PowerLogic power factor controller VarPlus Logic VL6		001.004.000
Passive power correction	PowerLogic power factor controller VarPlus Logic VL12		001.004.000
Insulation monitoring	Vigilohm IM20 insulation monitoring device[3]	IMD-IM20	001.005.001
Insulation monitoring	Vigilohm IM20H insulation monitoring device[3]	IMD-IM20–H	001.005.001
Insulation monitoring	Vigilohm IM400 insulation monitoring device[3]	IMD-IM400	001.005.001
Insulation monitoring	Vigilohm IM400C insulation monitoring device[3]	IMD-IM400C	001.005.001
Insulation monitoring	Vigilohm IM400L insulation monitoring device[3]	IMDIM400L	001.005.001
Insulation monitoring	Vigilohm IM400N insulation monitoring device[3]	IMDIM400N	001.005.001
Insulation monitoring	Vigilohm IM400LTHR insulation monitoring device[3]	IMDIM400LTHR	001.005.001
Insulation monitoring	Vigilohm IM400THR insulation monitoring device[3]	IMDIM400THR	001.005.001
Insulation monitoring	Vigilohm IM400THRN insulation monitoring device[3]	IMDIM400THRN	001.005.001
Insulation monitoring	Vigilohm IMDIFL12MCT insulation fault locator[3]		001.005.001

Circuit Breakers and Associated Trip Units

The following table shows the Modbus-SL circuit breaker devices supported by Panel Server Universal for real-time measurement monitoring in Panel Server webpages.

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3. Device integrated only for data publication not for alarms

Y: the device is supported by Panel Server

N: the device is not yet supported by Panel Server

N/A: not applicable

Circuit breaker	Trip unit	Connected to	
		IFM Modbus-SL interface	
		TVR00210	LV434000
MasterPact MTZ	MicroLogic 2.0 X	N/A	Y
	MicroLogic 3.0 X	N/A	Y
	MicroLogic 5.0 X	N/A	Y
	MicroLogic 6.0 X	N/A	Y
	MicroLogic 7.0 X	N/A	Y
	MicroLogic 5.0 Xi	N/A	N
MasterPact NT/NW	MicroLogic 2.0 A	N	N
	MicroLogic 3.0 A	N	N
	MicroLogic 5.0 A	N	N
	MicroLogic 6.0 A	N	N
	MicroLogic 7.0 A	Y	Y
	MicroLogic 2.0 E	N	N
	MicroLogic 5.0 E	N	N
	MicroLogic 6.0 E	N	N
	MicroLogic 5.0 P	Y	Y
	MicroLogic 6.0 P	Y	Y
ComPacT NS	MicroLogic 7.0 A	Y	Y
	MicroLogic 7.0 H	N	N
ComPacT NSX	MicroLogic 5.2 A	N	N
	MicroLogic 6.2 A	Y	Y
	MicroLogic 5.2 E	Y	Y
	MicroLogic 6.2 E	Y	Y
	MicroLogic 7.2 E	Y	Y
	MicroLogic 5.3 E	N	N
	MicroLogic 6.3 E	N	N
	MicroLogic 7.3 E	Y	Y
PowerPacT H-, J-, and L-frame	MicroLogic 5.3 A	N	N

As standards, specifications, and design change from time to time,
please ask for confirmation of the information given in this publication.

DOCA0178EN-13