BCM ULP Breaker Communication Module

BCM ULP Firmware Release Notes

Schneider Electric

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Introduction

BCM ULP Breaker Communication Module

Supplied with the circuit breaker, the BCM ULP module is installed behind the MicroLogic trip unit for MasterPact NT/NW, ComPact NS, and PowerPact P- and R-frame circuit breakers and is wired to the microswitches:

- For manually operated devices:
  - OF, SDE, and SD contacts
- For electrically operated devices:
  - OF, SDE, PF, and CH contacts
  - Connection kit to the MX1 and XF communicating voltage releases

The BCM ULP module is independent of the trip unit. It communicates two-way with:

- ULP system via the circuit breaker ULP cord
- MicroLogic trip unit via an infra-red link
- Modbus network

Firmware Release History

Date	Firmware version	Availability
October 2020	004.002.003	Release for manufacturing
May 2020	004.002.000	Obsolete
December 2017	004.001.009	Obsolete
July 2017	004.001.007	Obsolete
June 2016	004.001.005	Obsolete
March 2016	004.001.004	Obsolete
November 2015	004.001.003	Obsolete
May 2015	004.000.009	Obsolete

Firmware Update Policy

Firmware update is recommended to benefit from the latest features and potential bug fixes. Do not update the firmware to the latest version, if the latest features are not required for your application and no bug fixes are provided.

Use this release note to confirm if an update to the latest version of the BCM ULP firmware is relevant for your application.

For more information on the firmware update policy and the firmware compatibility between devices, refer to DOCA0155EN MicroLogic Trip and Control Units - Firmware History.

Firmware Update with EcoStruxure Power Commission Software

Use the latest version of EcoStruxure Power Commission software to:

- Check the firmware compatibility of the devices in the IMU
- Update the devices with the latest firmware version available

After updating the firmware of one device, use EcoStruxure Power Commission software to check the firmware compatibility between IMU devices.

The Firmware Update table helps the user to diagnose and identify all discrepancy issues between IMU devices. This table also provides the recommended actions for each discrepancy issue.

The latest version of EcoStruxure Power Commission software is available at www.se.com.

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

IO Module Synchronization after BCM ULP Firmware Update

⚠ **WARNING**
LOSS OF IO MODULE CONTROL FUNCTIONS
After updating the BCM ULP firmware, restart each IO module, either by pressing the IO Test/Reset button for 10–12 seconds or by switching Off/On the power to the IO module.
Failure to follow these instructions can result in death, serious injury, or equipment damage.

Firmware Versions

Firmware Version 004.002.003

New Features

Optimized the log recording for MicroLogic Time Set events (Event 14/15).

Bugs Fixed

- The BCM ULP module, which has recovered from Degraded mode was not listed in the IMU information webpage of IFE interface.

  NOTE: In the Degraded mode, there will be no communication with the trip unit for >60 s.
- FC20 command was unable to read file30 records (event log of circuit breaker manager) when there was large number of records (≥8000 records).
- Increments were inconsistent for the reset counter registers.

Firmware Version 004.002.000

New Features

- Improved the data availability, retry mechanism, and error handling in case of communication errors.
- Improved the availability of BCM ULP module and synchronization in ULP network.
- Improved the Modbus function code 100 – request handling.

Bugs Fixed

Communication between BCM ULP module and Modbus Interface (IFE or IFM interface) was lost, resulting in communication loss with Modbus master. The error was shown as slave address 99 or incorrect IP address.

Firmware Version 004.001.009

New Features

- Improved the efficiency of handling multiple requests in BCM ULP module when requesting event log using FC20 or Protection command 63178.
- Optimized the drift on reporting the trip cause and trip status.
- Improved the functionality of Energy Reduction Maintenance Setting (ERMS) feature.

Firmware Version 004.001.007

New Features

- Optimized the ULP bus load management for the ULP metering services when communicating with the IFE interface.
- Resolved an internal reset issue that sometimes sent **Breaker status not available** to a supervisory system (for example, SCADA).

Firmware Version 004.001.005

New Features

In BCM ULP module with firmware version 004.001.004, added a reset feature for connecting to a MicroLogic type D trip unit.

Bugs Fixed

- BCM ULP module with MicroLogic P or H trip units generated spurious alarms without tripping the BCM ULP system.
- Ground-fault alarm and earth-leakage alarm were not displayed correctly for MicroLogic 6P, H, and MicroLogic 7P, H trip units.

Firmware Version 004.001.004

New Features

- BCM ULP module shares the earth-leakage alarm detector when connected to a MicroLogic 7.0 trip unit.
- Improved the breaker status mask data based on the connected circuit breaker.
- Improved the actuator mask data based on the connected circuit breaker.

Bugs Fixed

- The MicroLogic alarm detectors were not shared when MicroLogic trip unit is not connected.
- The ground-fault alarm was indicated when the connected MicroLogic trip unit does not support the feature.

Firmware Version 004.001.003

Bugs Fixed

When connected to a non-communicating trip unit, the degraded message of BCM ULP module was not published.

Firmware Version 004.000.009

New Features

- Changed the maximum value of current in ERMS configuration to 15 x In.
- When Instantaneous Current equals ERMS Current, ERMS mode is turned ON.

Related Documents

The following table lists the documents that are compatible with a BCM ULP module with the latest firmware version:

Title of documentation	Publication date	Reference number
MasterPact NT/NW, Compact NS, PowerPact P- and R-Frame Communication Option – Installation Manual	02/2018	EAV3608000-03
ULP System (IEC Standard) – User Guide	03/2019	DOCA0093EN-04 DOCA0093ES-04 DOCA0093FR-04 DOCA0093ZH-04
ULP System (UL Standard) – User Guide	03/2019	0602IB1503-02 (EN) 0602IB1504-02 (ES) 0602IB1505-02 (FR) 0602IB1506-02 (ZH)

You can download these technical publications and other technical information from the website at https://www.se.com/en/download.

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please ask for confirmation of the information given in this publication.

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