GE
Vernova Grid Solutions

Multilin 8 Series Protection and Control Relay Platform

8 Series Firmware Version 4.14

Release Notes

Summary

GE Grid Solutions releases the 8 Series Firmware Version 4.14 for the Multilin 8 Series Protection Relays. Highlights of this release include the following:

Multilin 8 Series Firmware Version 4.14

Changes

- Relay Freezes on Power-up
- 869 Thermal Model incorrectly calculating Thermal Capacity
- Overvoltage
- RTD Trip/Alarm Pickup Time Delay
- Digital Input Time Stamp Accuracy
- ACB Phase Rotation
- 850 Synchrocheck
- Compatibility Mode

Release Date: Dec 12, 2024

- Multilin 8 Series firmware versions 1.2x and below cannot be upgraded to firmware version 1.3x and above. Please contact us to upgrade the product.
- Multilin 8 Series firmware versions 3.x and below cannot be upgraded to firmware version 4.x. Please contact us to upgrade the product.
- Upgrade the firmware to version 4.10 by downloading the file directly from GE website: 850 Feeder Protection System
- The latest EnerVista 8 Series Setup software is available at the same location. The software supports Windows 7, 8.1, 10 and 11.

Note: Please contact your local Multilin sales representative or Multilin Customer Service Department for any questions regarding this upgrade.

Release details

In the following descriptions, a category letter is placed to the left of the title. See the table at the end of this document for descriptions of the categories.

U   Relay Freezes on Power-up

Corrected the file handling routine added in firmware version 4.13 which may occasionally disrupt a power up sequence in relays with RTD cards. The RTD cards are designated with option "S" in the order code located in 13th or 14th character of the 8Series product i.e. 8**-********SS.

P   869 Thermal Model incorrectly calculating Thermal Capacity

Corrected a mistake in firmware which affected products using FlexCurve OL and Voltage Dependent (VD) functionality. Firmware incorrectly used TDM (Time Dial Multiplier) setting intended for Standard Motor curve instead of TDM for FlexCurve OL when the VD functionality was enabled.

P   Overvoltage

Corrected logical reset functionality of a timer used for OverVoltage pickup time delay. Timer was not being reset after first activation, resulting in subsequent instantaneous operation of the protection element.

P   RTD Trip/Alarm Pickup Time Delay

Corrected logical reset functionality of a timer used for RTD pickup time delay. Timer was not being reset after first activation, resulting in subsequent instantaneous operation of the protection element.

R   Digital Input Time Stamp Accuracy

Improved time stamp accuracy for digital inputs when the clock is synchronized by IRIG-B or SNTP.

P   ACB Phase Rotation

Corrected Phase Rotation setting issue where the ACB rotation would only be used till a power cycle was executed. The setting would remain ACB, but internally relay used ABC rotation for calculations resulting in incorrect Sequence component measurements (Ex: Negative Sequence).

M   850 Synchrocheck

Corrected actual value pages to update Synchrocheck operand status correctly on both the HMI and Setup software.

C   Compatibility Mode

Compatibility Mode enhancements and bug fixes
- Corrected 745-845 energy values to scale correctly when in flexmap mode.
- Corrected 745-845 actual power quantities when in compatibility mode.

- o Real Power
- o Reactive Power
- o Apparent Power
- o Power Factor
- Support added for the following parameters on 745-845 compatibility mode
  - o Watt-Hour
  - o Var-Hour
  - o CB TRIPPED/ ALARM
  - o LOCKOUT RESET LOCALLY
  - o RELAY FAULT
- Support added for the following parameters on 750-850 compatibility mode.
  - o Watt-Hour
  - o Var-Hour
  - o CB TRIPPED/ ALARM
  - o LOCKOUT RESET LOCALLY
  - o RELAY FAULT
- Support added for the following parameters on 469-869 on compatibility mode.
  - o Pre-Trip Vab
  - o Pre-Trip Vbc
  - o Pre-Trip Vca
  - o Pre-Trip Frequency
- Corrected 750-850 Synch 1 parameters to correctly update actual values
  - o Line Volts Magnitude
  - o Frequency
  - o Angle
- Corrected Modbus Function code 10H to support commands on Flexmap mode
- Corrected 469/489-869/889 unbalance status when on compatibility mode
  - o Not Enabled,
  - o Inactive,
  - o Timing out,
  - o Active trip
  - o Latched trip
- Support added for 745-845 compatibility mode to map the output relays logic aligning them with the 845-retrofit kit

Categories

This document uses the following categories to classify changes.

Code	Category	Description
A	Hardware change	This change may require hardware to be updated and/or replaced
N	New feature	A separate feature added to the relay. Changes to existing features even if they significantly expand the functionality are not in this category.
G	Change	A neutral change that does not add new value and is not correcting any known problem
E	Enhancement	Modification of an existing feature bringing extra value to the application
D	Changed, incomplete, or false faceplate indications	Changes to, or problems with text messages, LEDs, and user pushbuttons
R	Changed, incomplete, or false relay records	Changes to, or problems with relay records (oscillography, demand, fault reports, and so on)
C	Protocols and communications	Changes to, or problems with protocols or communication features
M	Metering	Metering out of specification or other metering problems
P	Protection out of specification	Protection operates correctly but does not meet published specifications (example: delayed trip)
U	Unavailability of protection	Protection not available in a self-demonstrating way so that corrective actions can be taken immediately
H	Hidden failure to trip	Protection does not operate when appropriate
F	False trip	Protection operates when it is not appropriate
B	Unexpected restart	Relay restarts unexpectedly

For further assistance

For product support, contact the information and call center as follows:

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