

Altivar Process ATV600

V4.6IE47

1. Safety information

You can Download and install **EcoStruxure Automation Device Maintenance** here:

- <https://www.se.com/ww/en/download/document/EADM/>

Carefully read the instructions contained in the

Altivar User Manual for EcoStruxure Automation Device Maintenance,

- available here: <https://www.se.com/ww/en/download/document/JYT50472/>
- or available on *Windows Start Menu > EcoStruxure Automation Device Maintenance > Documents*.

2. Software enhancements in this version

- Expanded the allowable range of **PHS [Syn. EMF constant]** to support selected PM motors.
- Refined the behavior of **Synchronous Reluctance Motors [SRVC]** Control Law.
- Enhanced the configuration process for the I/O scanner.
- Improved RTC handling at power-on after extended storage periods to avoid INFL issues.
- Refined the behavior of analog input intermediate points (**Alx**) at range boundaries.
- Enhanced **undervoltage handling functions** when **AEMC [Adv. Motor Control]** = Yes
- Implemented additional cybersecurity enhancements.

3. Notes

- To ensure that the new parameters and menus are correctly displayed, the Altivar Graphic Display Terminal labels can be updated. Refer to the instructions inside https://www.se.com/ww/en/download/document/Languages_Drives_VW3A1111/

4. Software enhancements history

Version V4.5IE46

- Extended setting range for fluxing high power motors
- Support of VW3A3530D ATV dPAC Module
- Ability to configure I/O scanner from Graphic Display Terminal
- [Master / Slave] Improved behavior at Power ON
- Improved Undervoltage handling function
- [Energy Monitoring] Improved accuracy of displayed values for 110kW (and above) drives
- [Drive System] Improved Cabinet I/O functions
- [HMI] Improved refresh of Operating points for Pump curve
- Cybersecurity enhancements with the embedded Ethernet V2.5IE41

Version V4.3IE45

- Supports ATV Predict feature:
ATV Predict brings ****Embedded analytics**** directly to your ****Variable Speed Drive****
 - no extra sensors needed, only the available sensors for the application that VSD controls.
 - No Learning phases
 - It helps you to:
 - Monitor pump health & detect stress factors
 - Spot potential damage or dysfunctions early
 - Maximize equipment lifespan with predictive insights

Requires a subscription and activation of a license on the ****ATV600**** series for seamless, real-time diagnostics.

- [Multi pumps] Improves alternation FIFO mode behavior.
- [DC bus maintain] Extends operating range.
- [DC bus management] CRDR parameter is now available at HMI to set the Damping ratio of the current loop controller.
- [Ethernet] Cybersecurity enhancements with the embedded Ethernet V2.5IE39B3
Cybersecurity enhancement

Version V4.2IE44

- [Ethernet] Cybersecurity enhancements with the embedded Ethernet V2.3IE37B1
- Cybersecurity enhancements
- Enhance the DC bus management by automatically activating the DC Bus Ripple monitoring
- Improve Torque Control behavior with long [Torque ramp time]
- Improve the internal errors description by displaying subcode on Error History
- Improve the Reference Copy on Channel switch to manage the bidirectional copy
- Extend the maximum Relay Holding time
- Improve the configuration save result on keypad when using more than 16 files

Version V4.1IE43

- Added TTOB and TOUT timeout parameters to the Graphic Display Terminal menus.
- Improvement of Gain & offset management of measured voltage & current when PHR=ACB
- Ability to reset Electrical Energy counters.
- Improved PID behavior when switching from Manu to Auto
- [Ethernet] Improved handling of ETHF alarm when switching the command channel.
- [Ethernet] Cybersecurity enhancements with the embedded Ethernet V2.3IE36B1

Version V3.8IE42

- Support of the new Profinet module VW3A3647
- Ethernet cybersecurity enhancements with the embedded Ethernet V2.3IE35B1
- New parameters CRB (Current loop configured gain) and CRBA (Current loop default gain) now available to enhance the motor speed stability.
- PID behavior enhancement when the LSP (Low Speed) is different from 0.
- Improvement of the synchronous motor setting to avoid CFF in some specific cases.

Version V3.7IE40

- New possible setting [STO fct status] STOS is now available on drive outputs (digital outputs and relays). It allows to show the status of the Safe Torque Off STO function.
- In the menu [Motor monitoring] MOP, new parameter [Torque Filter Time] TPFV has been added to define a filter time constant applicable on the non-filtered output torque and power.
- Setting the date and time through the display terminal is now possible with version V3.7IE40

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