

Release Notes

TE5950 | TC3 Drive Manager 2 Setup Version 1.1.82.0

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TE5950 | TC3 Drive Manager 2 Setup, Version 1.1.82.0

Contained software / firmware

- **NEW:** Drive Manager 2, version 1.1.64.0
- AX8000 Axis module firmware 1.02 build 0012, interface revision -0102
- AX8000 Axis module firmware 1.03 build 0006, interface revision -0103
- AX8000/AMP8000 Axis module firmware 1.04 build 0010, interface revision -0104
- AX8000/AMP8000 Axis module firmware 1.05 build 0012, interface revision -0105
- **NEW:** AX8000/AMP8000 Axis module firmware 1.06 build 0003, interface revision -0106
- AX8yxx boot loader version 1.35
- AX8620 / AX8640 Power supply module firmware 1.03 build 0009, interface revision -0103
- AX8525 / AX8540 / AX8620 / AX8640 Power supply module firmware 1.05 build 0007, interface revision -0105
- AX8810 Capacitor module firmware 1.00 build 0022, interface revision -0100
- AX8810 Capacitor module firmware 1.01 build 0001, interface revision -0101
- AX8830 Coupling module Firmware 2.01 Build 0001, interface revision -0201
- AX8600 DC power supply module firmware 1.01 build 0005, interface revision -0101
- **NEW:** AMP8600/AMP8800 Distributed power supply module / Decentralized distribution module firmware 2.02 build 0002, interface revision -0202
- AX5000 Servo Drive firmware 2.13 build 0010, interface revision -0213
- AX5000 Servo Drive firmware 2.14 build 0006, interface revision -0214
- AX5000 Servo Drive firmware 2.15 build 0001, interface revision -0215
- AX570x Optional encoder card firmware 2.00 build 0009
- AX572x Optional digital encoder card firmware 3.00 build 0020
- AX5021 Brake module firmware 1.02 build 0001

Drive Manager 2, Version 1.1.64.0

Supported devices

AX5000, AX8000, AMI8100, AMP8000, ASI8100, EL72xx, ELM72xx, EL74xx, EL7037, EL7047, EL7062

Changes from version 1.1.62.0 to version 1.1.64.0

- New functions:
 - Support of the EL7062 stepper terminal
 - Support of the ASI8100 compact integrated stepper motor drive
- Optimizations in the area of:
 - Selection of mains voltage
 - Scan AMP-Motor in the first I/O level
- General
 - Adjustments and optimizations of the parameter description, user interface and usability

AX8000 Axis Module Firmware 1.02 Build 0012, I nterface Revision -0102

Supported axis modules:

without safety:	AX8108-00x0, AX8118-00x0, AX8206-00x0
with safety STO / SS1:	AX8108-01x0, AX8118-01x0, AX8206-01x0
with multifeedback:	AX8108-0x10, AX8118-0x10, AX8206-0x10

Changes from Firmware 1.02 Build 0011 to Firmware 1.02 Build 0012:

- Optimization in the area of
 - EtherCAT state change

The axis modules are delivered with bootloader ≥ 1.21 .

AX8000 Axis Module Firmware 1.03 Build 0006, Interface Revision -0103

Supported axis modules:

without safety:	AX8108-00x0, AX8118-00x0, AX8206-00x0
with safety STO / SS1:	AX8108-01x0, AX8118-01x0, AX8206-01x0
with TwinSafe:	AX8108-02x0, AX8118-02x0, AX8206-02x0
without multifeedback:	AX8108-0x00, AX8118-0x00, AX8206-0x00
with multifeedback:	AX8108-0x10, AX8118-0x10, AX8206-0x10

TwinCAT version $\geq v3.1$ 4024.7 is required to support the safety functions

Changes from firmware 1.03 build 0005 to firmware 1.03 build 0006:

- **Bootloader version ≥ 1.21 is required.**
If necessary, the boot loader must be updated before updating the axis module firmware.
- Optimizations in the area of:
 - Maximum permitted speed for asynchronous motors
 - Calculating the maximum speed for linear motors
 - Error reaction in the event of EtherCAT communication loss
 - Position control with second encoder

AX8000/AMP8000 Axis Module Firmware 1.04 Build 0010, Interface Revision -0104

Supported AX8000 axis modules:

without safety:	AX8108-00x0, AX8118-00x0, AX8206-00x0
with safety STO / SS1:	AX8108-01x0, AX8118-01x0, AX8206-01x0
with TwinSafe:	AX8108-02x0, AX8118-02x0, AX8206-02x0
without multifeedback:	AX8108-0x00, AX8118-0x00, AX8206-0x00
with multifeedback:	AX8108-0x10, AX8118-0x10, AX8206-0x10

Supported distributed servo drive AMP8000:

AMP803x, AMP804x, AMP805x
AMP853x, AMP854x, AMP855x

TwinCAT version \geq v3.1 4024.15 is required to support all functions.

Changes from firmware 1.04 build 0008 to firmware 1.04 build 0010:

- **AX8000: Bootloader version \geq 1.26 is required.**
If necessary, the boot loader must be updated before updating the axis module firmware.
- Optimizations in the area of:
 - cogging compensation
 - emergency messages
 - holding brake as emergency brake
 - position offset

AX8000/AMP8000 Axis Module Firmware 1.05 Build 0012, Interface Revision -0105

Supported AX8000 axis modules:

without safety:	AX8108-00x0, AX8118-00x0, AX8206-00x0
with safety STO / SS1:	AX8108-01x0, AX8118-01x0, AX8206-01x0, AX8525-01x0, AX8540-01x0
with TwinSafe:	AX8108-02x0, AX8118-02x0, AX8206-02x0, AX8525-02x0, AX8540-02x0
without multifeedback:	AX8108-0x00, AX8118-0x00, AX8206-0x00, AX8525-0x00, AX8540-0x00
with multifeedback:	AX8108-0x10, AX8118-0x10, AX8206-0x10, AX8525-0x20, AX8540-0x20

Supported distributed servo drives AMP8000:

AMP803x, AMP804x, AMP805x
AMP853x, AMP854x, AMP855x

TwinCAT version \geq v3.1 4024.15 is required to support all functions.

Changes from firmware 1.05 build 0011 to firmware 1.05 build 0012:

- **AX8000: Bootloader version \geq 1.26 is required.**
If necessary, the boot loader must be updated before updating the axis module firmware.
- Optimizations in the area of:
 - Modulo

AX8000/AMP8000 Axis Module Firmware 1.06 Build 0003

Interface Revision -0106

Supported AX8000 axis modules:

without safety:	AX8108-00x0, AX8118-00x0, AX8128-00x0, AX8206-00x0
with safety STO / SS1:	AX8108-01x0, AX8118-01x0, AX8128-01x0, AX8206-01x0, AX8525-01x0, AX8540-01x0
with TwinSafe:	AX8108-02x0, AX8118-02x0, AX8128-02x0, AX8206-02x0, AX8525-02x0, AX8540-02x0
without multifeedback:	AX8108-0x00, AX8118-0x00, AX8128-0x00, AX8206-0x00, AX8525-0x00, AX8540-0x00
with multifeedback:	AX8108-0x10, AX8118-0x20, AX8128-0x20, AX8206-0x10, AX8525-0x20, AX8540-0x20

Supported distributed servo drives AMP8000:

AMP803x-xxxx-1001, AMP804x, AMP805x
AMP853x-xxxx-1001, AMP854x, AMP855x
AMP8040

TwinCAT version \geq v3.1 4024.15 is required to support all functions

Changes from firmware 1.06 build 0002 to firmware 1.06 build 0003:

- **AX8000: Bootloader version \geq 1.26 is required.**
If necessary, the boot loader must be updated before updating the axis module firmware.
- New function:
 - Support linear measuring system with one overflow in the travel range
- Optimizations in the area of:
 - i*t current limits
 - ESI
 - feed-forward acceleration
 - cyclic synchronous position mode with additional feedback CSPAF
 - AMP8000: Set position offset
 - cogging compensation
 - thermal motor model
 - error reaction NC-handling
 - position offset in encoder
 - TouchProbe
 - gain scheduling

AX8yxx Bootloader Version 1.35

Supported axis modules:

without safety:	AX8108-00x0, AX8118-00x0, AX8128-00x0, AX8206-00x0
with safety STO / SS1:	AX8108-01x0, AX8118-01x0, AX8128-01x0, AX8206-01x0, AX8525-01x0, AX8540-01x0
with TwinSafe:	AX8108-02x0, AX8118-02x0, AX8128-02x0, AX8206-02x0, AX8525-02x0, AX8540-02x0
without multifeedback:	AX8108-0x00, AX8118-0x00, AX8128-0x00, AX8206-0x00, AX8525-0x00, AX8540-0x00
with multifeedback:	AX8108-0x10, AX8118-0x20, AX8128-0x20, AX8206-0x10, AX8525-0x20, AX8540-0x20

Changes from Bootloader 1.26 to Bootloader 1.35:

- Optimizations in the area of:
 - Flash handling

AX8620/AX8640 Power Supply Module Firmware 1.03 Build 0009, Interface Revision -0103

Supported Power Supply Modules

AX8620-0000, AX8640-0000

Changes from firmware 1.03 build 0008 to firmware 1.03 build 0009:

- Optimization in the area of
 - Mains voltage calibration

AX8525 / AX8540 / AX8620 / AX8640 Power Supply Module Firmware 1.05 Build 0007, Interface Revision -0105

Supported Power Supply Modules

AX8620-0000, AX8640-0000, AX8525, AX8540

Changes from firmware 1.05 build 0006 to firmware 1.05 build 0007:

- Optimizations in the area of:
 - Mains voltage calibration
 - Mains voltage state machine

The power supply modules AX8620 and AX8640 are delivered with bootloader version 2.31 build 0000.
The power supply modules AX8525 and AX8540 are delivered with bootloader version 2.31 build 0001.

AX8810 Capacitor Module Firmware 1.00 Build 0022, Interface Revision -0100

Supported capacitor modules

AX8810-0000

Changes from firmware 1.00 build 0021 to firmware 1.00 build 0022:

- Optimizations in the area of operating hour counters

The capacitor module is delivered with bootloader version 2.31 build 0000

AX8810 Capacitor Module Firmware 1.01 Build 0001, Interface Revision -0101

Supported capacitor modules

AX8810-0000

Changes from firmware 1.00 build 0022 to firmware 1.01 build 0001:

- New function:
 - BIC (Beckhoff Identification Code) support
- Optimizations in the area of
 - MDP profile number

The capacitor module is delivered with bootloader version 2.31 build 0000

AX883x Coupling module Firmware 2.01 Build 0001, Interface Revision -0201

Supported AX883x Coupling modules

AX8831-0000-0000

AX8832-0000-0000

Changes from firmware 2.00 Build 0003 to firmware 2.01 Build 0001:

- Optimizations in the area of:
 - Error messages, warnings and status
 - Permitted DC-link voltage

AX8600 DC power supply module Firmware 1.01 Build 0005, Interface Revision -0101

Supported AX8600 DC power supply module

AX8600-0000-0000

Changes from Firmware 1.01 Build 0002 to Firmware 1.01 Build 0005:

- Optimization in the area of
 - warning and status
 - diagnostic and error messages
 - load and overload calculation
 - firmware update

AMP8600 Distributed power supply modules, AMP8800 Decentralized distribution module Firmware 2.02 Build 0002, Interface Revision -0202

Supported AMP8600 power supply modules and AMP8800 distribution module

AMP8620-2005-0000
AMP8620-2005-0010
AMP8620-2005-0100
AMP8620-2005-0110
AMP8620-2005-0200
AMP8620-2005-0210
AMP8805-1000-0000
AMP8805-1000-0010
AMP8805-1010-0000

Changes from Firmware 2.01 Build 0006 to Firmware 2.02 Build 0002:

- New function:
 - Support for power supply module AMP8620-2005-0x10
 - Support for distribution module AMP8805-1010-0000
 - New parameter: DC link out configuration
 - New parameter: Actual charge resistor load utilization
- Optimization in the area of
 - current measurement
 - overload calculation
 - overload monitoring
 - input voltage monitoring
 - DC link monitoring
 - DC link state machine
 - EtherCAT state machine
 - diagnostic messages
 - ESI device description files

AX5000 Servo Drive Firmware 2.13 Build 0010, Interface Revision -0213

Supported Servo Drive

AX5xxx-xxxx-02xx HW2 (Serial number \geq 100 000)

Changes from firmware 2.13 build 0009 to firmware 2.13 build 0010:

- Optimizations in the area of:
 - Initialization of HIPERFACE encoder

This firmware already includes the firmware for the encoder option cards. If an encoder card is connected to the drive during the update process, this card will be updated automatically

AX5000 Servo Drive Firmware 2.14 Build 0006, Interface Revision -0214

Supported Servo Drive

AX5xxx-xxxx-02xx HW2 (Serial number \geq 100 000)

Changes from firmware 2.14 build 0004 to firmware 2.14 build 0006:

- New function:
 - Support of new hardware due to procurement problems, serial number \geq 500000000
 - For rotary motors, the number of supported pole pairs has been increased to 125
 - DC-Link fast discharge
- Optimizations in the area of:
 - Initialization of HIPERFACE TTK70 encoders
 - Initialization of HIPERFACE encoders
 - AX5805/AX5806 and gear ratio
 - Position setpoint interpolation
 - Online operation mode switching

This firmware already includes the firmware for the encoder option cards. If an encoder card is connected to the drive during the update process, this card will be updated automatically

AX5000 Servo Drive Firmware 2.15 Build 0001, Interface Revision -0215

Supported Servo Drive

AX5xxx-xxxx-02xx HW2 (Serial number \geq 100 000)

Changes from firmware 2.14 build 0006 to firmware 2.15 build 0001:

- New function:
 - Fast resolver motor exchange support
 - New modified U/f curve for sensorless U/f control of asynchronous motors
 - Voice coil motor: current control without feedback
 - Voltage controller for energy storage applications
 - Extended value range P-0-0279 Modulo value remainder: maximum value \pm 2048
 - OCT: Extend electronic name plate
 - Extended velocity observer modes
 - Parameter for max. positive and negative position error P-0-0563, P-0-0564
 - Torque command value P-0-0480 with high resolution (\pm 16000 increments)
 - Additional torque command value P-0-0481 with high resolution (\pm 16000 increments)
 - Support of the electric cylinder AA3000 with end position monitoring
 - Max. value for the number of pole pairs P-0-0051 increased to 250
 - Toggling lifebit
- Optimizations in the area of:
 - U/f-control of asynchronous motors
 - E-Stop ramp

This firmware already includes the firmware for the encoder option cards. If an encoder card is connected to the drive during the update process, this card will be updated automatically

AX570x Optional encoder card firmware 2.00 Build 0009

Changes from Firmware 2.00 build 0008 to Firmware 2.00 build 0009:

- Optimizations in the area of:
 - error reaction

AX572x Optional digital encoder card firmware 3.00 build 0020

Changes from Firmware 3 build 0019 to Firmware 3 build 0030:

- Optimizations in the area of:
 - Initialization BiSS C encoder

AX5021 Brake module firmware 1.02 Build 0001, Interface Revision -0002

No changes

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