

# Release Notes 2.16.20.00

For the following motors

MAC140F and 141F

MAC083L and MAC320L

MAC400, 800, 1000, 1200, 1500, 3000 and 4500.

**Ver 2.26.20**

**29. February 2024**

All Motors except MAC050-141-F and MAC083-L and MAC320-L:

- Improved signal handling for absolute encoders
- adjusted regenerative load estimation
- Improved current control stability for MAC3000G-RM46

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**Ver 2.26.19**

**9. February 2024**

All Motors:

- Fix incorrect hardware version value displayed in reg 205 for motors with hardware version  $\geq 2.0$
- reduce signal noise in measured temperature
- Fix motor overheating issue for MAC800->1200 with HW version  $\geq 2.0$

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**Ver 2.26.18**

**18. January 2024**

All Motors:

- Fix EtherCAT operation mode issue
- Fix Ethernet module Unit scaling issue

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**Ver 2.26.17**

**19. December 2023**

MAC1200

- Fix false overcurrent error issue
- Fix unit scaling with ethernet module issue

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**Ver 2.26.16**

**6. December 2023**

All motors:

- Fix invert direction issue on abs encoder
- Fix abs encoder startup and noise issues
- Fix quad-to-pulse-dir conversion issue on external encoder
- improved noise filtering on external encoder input

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**Ver 2.26.15**

**30. October 2023**

All Motors:

- Fix regenerative load limit issue

MAC320:

- Fix motor error in active mode issue

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**Ver 2.26.14**

**18. October 2023**

MAC1000, MAC3000G

- Add functionality for factory configured torque limits

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**Ver 2.26.13**

**29. August 2023**

All motors:

- Fix ethernet module restart issue
- Improved ethernet/motor communication
- Fixed ethernet save-in-flash issue

Mac400:

- Improved internal power dump handling
- Torque updated in passive mode.

MAC402

- Improved high torque stability
- Improved passive mode handling

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**Ver 2.26.10**

**29 Mar 2023**

MAC140F/320L only:

- Ethernet SPI issue fixed

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**Ver 2.26.09**

**22 Feb 2023**

MAC14xF:

- Fix encoder calibration issue

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**Ver 2.26.07**

**8 Dec 2022**

All motors:

- Fixed invert rotation issue

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**Ver 2.26.06**

**21 Nov 2022**

All motors:

- Allowed for readout of encoder type in reg 283
- Fixed position save to flash issue

MAC400, MAC402, MAC1500, MAC3000, MAC3000G, MAC4500:

- Fixed problem with absolute encoder and inverted direction flag
- Increased noise tolerance on ethernet sync
- Fixed support for 32 bit absolute encoder position
- Fixed absolute encoder issues at high temperatures

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**Ver 2.26.04 - MAC14xF**

**11 Nov 2022**

- Fixed turntable issue when saving parameters to FLASH.
- Added special command 0x105C to perform factory reset on motor
- Fixed absolute position startup drift error
- increased noise tolerance on ethernet sync

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**Ver 2.26.02**

MAC400, MAC402, MAC1500, MAC3000, MAC3000G, MAC4500:

- fixed problem with ePLC program not starting automatically
- fixed problem with incorrect initial encoder position for incremental encoders

MAC400

- adjusted regenerative load cool down time.

MAC140F

- add support for automatic current calibration.

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**Ver 2.26.1**

**7. Sep 2022**

MAC400, MAC402, MAC1500, MAC3000, MAC3000G, MAC4500:

- Support for new RM46 control core.
- Improved motor performance for products using RM46 control core.

MAC140F:

- Fixed problem with register 35 not configuring crossfield.

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**Ver 2.25.05**

**16 May 2022**

All motors:

Prevent outside sources from setting active mode until STO is completely cleared

Fixed High resolution position mode

MAC1500 and MAC3000G:

Efficiency of internal power dump improved (only for 1ms sample time)

MAC3000G:

Power dump threshold voltage reduced.

MAC400:

Optimized I2T.

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**Ver 2.25.2**

**4 Feb 2022**

Fixed EtherCat issue for all MAC motors

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**Ver 2.25.0**

**11 Jan 2022**

MAC140F:

- Initial release

MAC400 / MAC400G / MAC402 / MAC1500 / MAC3000 / MAC3000G / MAC4500 :

- Fixed problem with encoder direction when using gear out on absolute encoder motors

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**Ver 2.24**

**04 June 2021**

Fixes :

- I2T scaling updated to prevent overflow (MAC402)
- Fixed issues with analogue torque mode

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**Ver 2.23**

**14 Jan 2021 AD**

Improvements:

- Added commands 100 and 101 for factory testing.
- Handling of CRC-errors from Absolute encoders improved.
- Support for brake burn-in activation via command.

Fixes:

- Startup issue with abs. encoder flash backup fixed.

V2.23 is more robust against electrical noise, so if you experience false overspeed errors, we recommend that you update from v2.22 to v.2.23.

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