

Scope of the Release

New version of the ACS850 Standard control program. Latest version is now UIF2100.

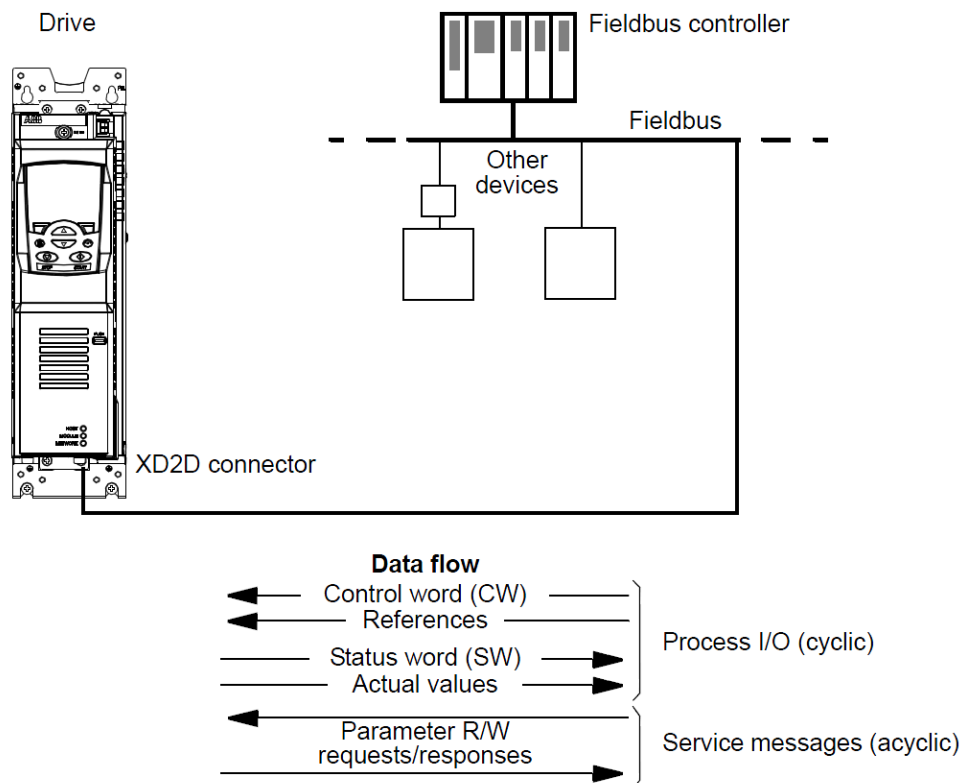
New features

Embedded modbus

Added support for embedded modbus :

The drive can be connected to an external control system through a serial communication link using either a fieldbus adapter or an embedded fieldbus interface. The embedded fieldbus interface supports the Modbus RTU protocol. The drive control program can receive and send cyclic data from and to the Modbus master on 10 ms time level. The actual communication speed depends on other factors as well, such as the baud rate (a parameter setting in the drive).

The drive can be set to receive all of its control information through the fieldbus interface, or the control can be distributed between the fieldbus interface and other available sources, for example, digital and analogue inputs.



New group 58: Embedded modbus (Configuration parameters for the embedded fieldbus (EFB) interface.)

Detailed description of the functionality can be found from the ACS850 Firmware manual "ACS850 Standard control program" chapter 9.

Flux braking

Added support for flux braking

The drive can provide greater deceleration by raising the level of magnetization in the motor. By increasing the motor flux, the energy generated by the motor during braking can be converted to motor thermal energy.

Two braking power levels are available:

- Moderate braking provides faster deceleration compared to a situation where flux braking is disabled. The flux level of the motor is limited to prevent excessive heating of the motor.
- Full braking exploits almost all available current to convert the mechanical braking energy to motor thermal energy. Braking time is shorter compared to moderate braking. In cyclic use, motor heating may be significant.

Added support for 230V supply voltage

Supports following new types: 03A0_2, 03A6_2, 04A8_2, 06A0_2, 08A0_2, 010A_2, 014A_2, 018A_2, 025A_2, 030A_2, 035A_2, 044A_2, 050A_2, 061A_2, 078A_2, 094A_2

Added support for CO2 conversion factor

New parameter: 45.07 CO2 Conv factor. Conversion factor for converting saved energy into CO2 emissions (kg/kWh or tn/MWh).
 $01.37 \text{ Saved CO2} = 01.35 \text{ Saved energy (MWh)} \times 45.07 \text{ CO2 Conv factor (tn/MWh)}$.

Added support for extended run time function of mechanical brake

New parameter 42.14 Extend run time. Defines an extended run time for the brake control function at stop. During the delay, the motor is kept magnetized (modulating) and ready for an immediate restart.

Added support for flux reference pointer parameter

New parameter 38.16 Flux ref pointer. Selects the source of the flux reference.

Added support for monitoring estimated speed signal with closed loop control

Value is updated to signal 1.14 Motor speed est.

Inverted maximum torque limit defined by parameter 20.09

New selection to parameter 20.10 Minimum torque 2 : "Neg max torque". With this selection it is possible to set the torque limits e.g. with one analog input.

Updated Russian and Turkish languages

Improvements:

- AOx accuracy with FIO-11 analog I/O extension module.
- Motor Id run behavior if wrong nominal data has been given.

Availability

This version has been in production from week 41.

User documentation

ACS850 Standard control program firmware manual is updated – latest version is 3AUA0000045497 Rev E (EFFECTIVE: 2010-10-12).

Software updates

Existing ACS850 drive memory units can be updated to version UIF12100 from Software downloading portal. It is also possible to download ACS850 democase specific firmware from the portal.

ACS850 Update



Please enter the Memory Unit serial number and optional checksum ID

Serial Number Checksum ID

[Import from file](#)

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Serial number list

Update Type Serial Number CHK ID FW SP TL i Device S/N