AC500-eCo V3 Basic, Standard and Pro CPUs
More modularity, connectivity and scalability

Eight new AC500-eCo V3 CPUs with different performance levels for small applications. For digital and analog I/O or communication extension, option boards can be used. Locally, AC500-eCo V3 Standard and Pro CPUs can be extended with up to 10 I/O modules.

AC500-eCo V3 CPU features
- Three performance classes CPU (Basic, Standard and Pro) with large memory
- For low-entry cost optimized to large complex applications
- One or two independent Ethernet interfaces with integrated switch functionality
- Up to three RS232 or RS485 serial interfaces using option boards
- Micro memory card slot for data storage and program backup
- Real time clock for Standard and Pro CPU, optional for Basic
- Web server functionality with HTML5 Web visualization for Standard and Pro CPU
- Minimum cycle time per instruction: Bit 0.02 μs, Word 0.02 μs, Floating point 0.6 μs.
- High amount of onboard I/Os with relay or transistor outputs
- Onboard high-speed I/Os with motion control function for up to 4 axis PTO
- Can be extended with up to three digital or analog option boards
- Standard and Pro version locally extendable with up to 10 I/O modules (S500 and/or S500-eCo modules can be mixed)
- 24 V DC power supply.

Applications
Basic CPUs are recommended for extremely cost-sensitive simple applications and a small number of I/Os.
Standard CPUs are suitable for cost-effective small applications which require e.g.
- a large number of onboard I/Os
- effective modularity with option boards
- less-complex communication on Ethernet-based industrial fieldbus
- simple motion capability with high-speed onboard I/Os
- connectivity via web server, MQTT or OPC UA.
Pro CPUs are the ideal choice for small applications which require e.g.
- large program/data memory
- medium-complex communication via Ethernet-based industrial fieldbus
- IoT capability with MQTT and OPC UA
- building control applications with KNX
- simple or coordinated motion.
More AC500-eCo features but the same footprint

**Standard**
For modular and distributed applications
- Powerful processor with integrated Floating Point Unit for fast calculation
- Ethernet interface on all the products for all-purpose communication (e.g. Modbus TCP, Ethernet/IP (1)(2))
- Web server with HTML5 web visualization
- IoT-enabled with OPC UA server
- MQTT protocol
- High modularity with up to 3 option boards for I/O extension and communication
- High-speed onboard I/Os with simple motion capability
- Larger number of I/Os with modular extension
- Reuse of existing S500/S500-eCo I/O modules

(1) Runtime license per CPU required. (2) In preparation

**Pro**
For demanding logic, motion and IoT-ready applications
- Powerful CPU for communication, gateway to IoT applications or motion control
- Larger memory for big applications and web capability
- 2 independent Ethernet interfaces with switch function
- A variety of Ethernet-based protocols
  - For building applications (KNX (1)/BACnet (1)(2))
  - Telecontrol (IEC 60870-5-104)
  - Energy management (IEC 61850 (1))
  - Motion control (EtherCAT (1)(2))
  - SCADA connection
- Coordinated motion with PLCopen library (1)(2) and EtherCAT (1)(2)

Basic
Basic and compact applications
- For extremely cost-sensitive and simple applications
- Few I/O channels only
- Ethernet communication
- Easy onboard extension with one option board, no I/O bus
- Adequate performance
- Benefits from the ABB Ability™ Automation Builder software platform

Please watch our videos on our ABB PLC YouTube channel:

[www.youtube.com/user/abbplc](http://www.youtube.com/user/abbplc)

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