

Specifications

Item	AC801-0221-U0R0-INT	AC802-0222-U0R0-INT	AC810-0122-U0R0-INT
Processor	Intel Celeron, 1.6 GHz	Intel Celeron, 1.6 GHz	Intel core, i5, 2.5 GHz
Memory	4G DDR4, 64G M.2(M key) SSD, 64M SPI Flash	4G DDR4, 128G M.2(M key) SSD, 64M SPI Flash	
Display	Built-in system status display module, 128 × 64 dot matrix, 4 buttons		
RJ45	1×EtherCAT master	2 x EtherCAT master redundancy supported LAN	
Serial	1×RS485, 1×RS232		
DI/DO	For power failure retention trigger/ system alarm signal output		
Power supply	24V DC (-20%~20%)		
Backup	UPS buffer option fe shut down (GA10-UPS12)		
System software	Full support for PLCopen		
	Inovance InoProShop based on CODESYS®		
	PLCopen/SoftMotion with CODESYS Runtime, supporting all motion control functions such as PLCopen/CAM/CNC/ROBOT		
Motion control performance	32 axes at 1 ms period		32 axes at 500 μs period
	Max. 48 axes	Max. 64 axes, 64 slaves	Max. 128 axes, 128 slaves
Bit command execution time	4.4ns	4.4ns	3.0ns
Word command execution time	3.8ns	3.8ns	2.6ns
Float command execution time	3.8ns	3.8ns	2.6ns
Integer arithmetic(average)	5.1ns	5.1ns	3.6ns
Float arithmetic(average)	5.7ns	5.7ns	4.0ns
Ethernet protocol	EtherNet/IP (scanner and adapter), OPC UA (server), Modbus TCP (master/slave)		
Cooling fan	Fanless natural cooling		2 long-life fans
EMC standard	EN61131-2 Zone B, EN61000-6-2, EN61000-6-4		
Ambient temperature	Operation: -5°C to 55°C Transportation and storage: -40°C to 70°C		
IP rating	IP20		
Dimensions (W x H x D)	65mm×265mm×164mm		
Mass	2.5kg		



Scan the QR code for more information of AC800;  
For more information, please contact our local offices.



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INOVANCE

AC800 Series  
X86 Motion Controller

Precision control for demanding industrial applications



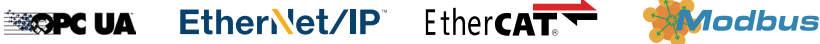
X86 architecture powered  
by CORE I5 series CPU



Codesys-based platform



Remote commissioning  
& industrial IoT





# Product features

## Comprehensive functionality

- Remote commissioning and industrial IoT capabilities
- Embedded Webvisu server (AC810)
- EoE support with Inovance SV660N drives

## Flexible communications

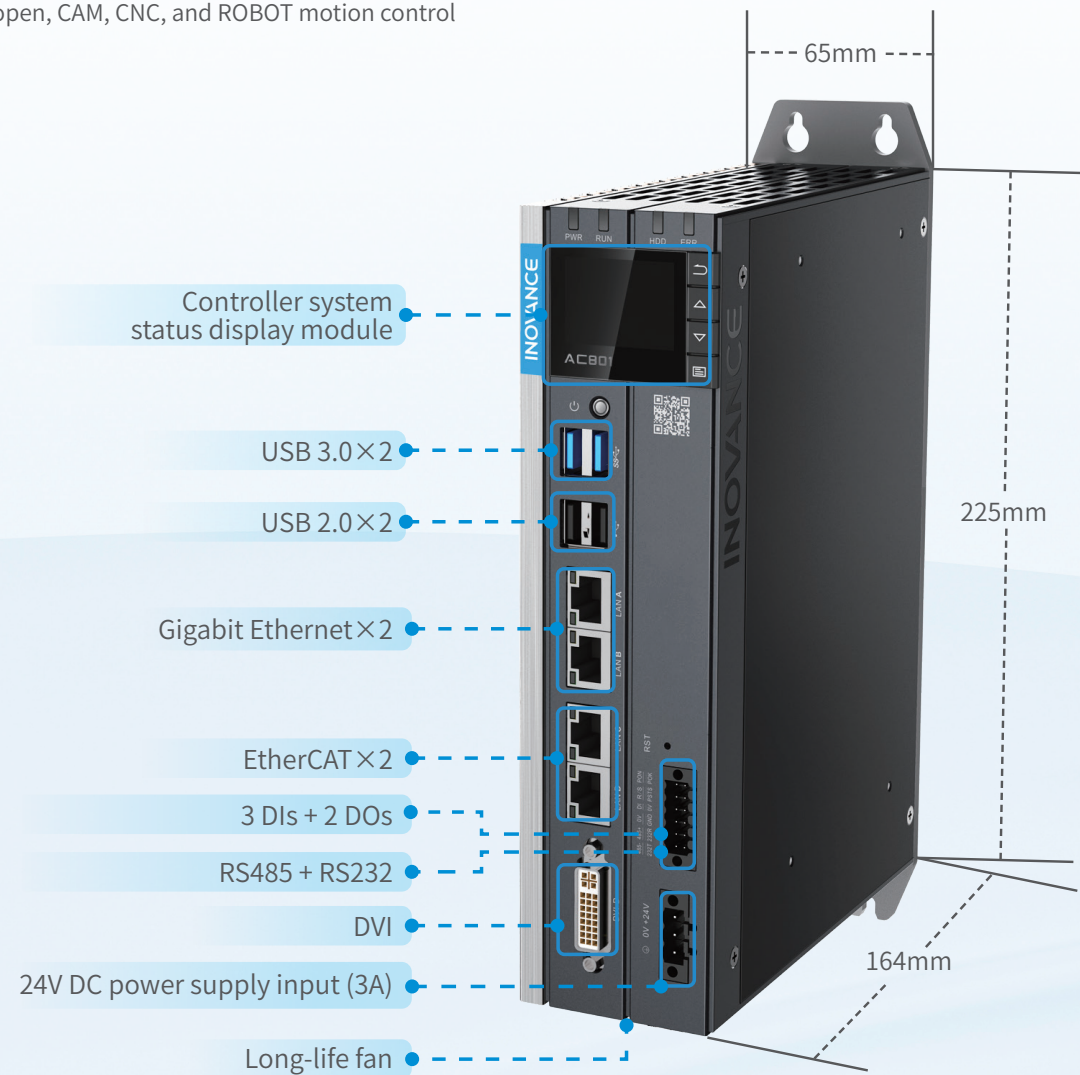
- Multi-layer networking due to support for multiple communication protocols including:  
OPC UA EtherNet/IP EtherCAT Modbus TCP
- Built-in RS485/232 serial communication, compatible with legacy equipment

## Standard programming

- Fully standard IEC 61131-3 programming:  
• ST, LD, SFC, CFC
- Codesys based components:  
• PLCopen, CAM, CNC, and ROBOT motion control

## High performance

- 32 axes at 500  $\mu$ s EtherCAT period (AC810)
- 256 axes at 4 ms EtherCAT period (AC810)
- Dual EtherCAT ports (AC802 & AC810):
  - Creation of two separate EtherCAT networks
  - Communication redundancy within the same network
- EtherCAT I/O expansion support:
  - Up to 128 EtherCAT remote I/O modules per port\*1
  - GR & GL series I/O expansion modules can be supported
- AC800 series support EtherCAT ring topology to realize communication redundancy



# System overview

