

Industrial Automation Solutions

Inovance's product range overview

Inovance offers the full range of industrial automation products: LV & MV AC drives, servos, PLCs & HMIs, motion controllers & I/Os, CNCs, and industrial robots



ISO 9001 | ISO 14001 | ISO 45001 | ISO 17025 | IATF 16949

**2003**  
founded

**IPO:2010**  
Shenzhen, China

**20k**  
20,256  
employees

**\$3,405 million**  
revenues in 2022

**#5**  
**No.5**  
for servo drives  
globally in 2022\*

**#8**  
**No.8**  
for LV AC drives  
globally in 2022\*

**3.36 million**  
servo drives and  
motors shipped in 2022

**2,248,000**  
EV powertrains  
shipped in 2022

**17,000+**  
industrial robots  
delivered by end of 2022

**13,598**  
MV drives delivered  
by end of 2022

**4.3 million**  
AC drives  
shipped in 2022

**100+**  
Inovance's products are  
in use in 100+ countries

\*According to leading market research company Interact Analysis

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HP800 Series Touch Screen



- Industrial touch screen display
- 15.6" (1366 x 768) and 21.5" (1920 x 1080)
- IP65 front panel
- Capacitive and resistive touch panel models
- HDMI, DP and VGA interfaces
- 16:9 format
- Panel mount and VESA-mount (75 x 75mm)

H5U Motion Controller



- Compact footprint
- Able to control up to 32 EtherCAT axes (72 slaves)
- Up to 16 local expansion modules (GL10)
- Built-in I/Os
  - 16 DIs (with 4 x 200 kHz channels)
  - 14 DOs (with 4 x 200 kHz channels)
- PLCopen-compliant axis control
- Axis group for lineal and circular interpolation, CAM table functionality
- Simulation mode for offline debugging
- Supports function block and function for encapsulation, code reusability, and scalability
- ST, LD, and SFC language support
- Multiple communication protocols:
  - Modbus RTU/TCP
  - CANopen/CANlink
  - PROFINET slave (can be used as gateway)

IT7000 Series HMI



- 7", 10" & 15" display sizes
- IP65 rating (front side)
- Built-in Ethernet and serial ports
- VNC remote access
- Javascript programming
- Canvas control for graphic creation
- Support for OPC UA and Modbus RTU/TCP protocols
- IIoT ready (MQTT)
- Real-time clock

GL10 and GR10 Expansion Modules



- Local & remote I/O expansion for H3U, H5U and AM600; remote for AC700 and AC800 series
- EtherCAT coupler for remote expansion (up to 16 modules)
- Digital input/output modules
- Analog input/ output modules
- Temperature sensing modules
- Encoder/counter and touch probe modules
- Pulse drives position control modules
- EtherCAT switch

AM400/600 Motion Controller



- Able to control up to 32 EtherCAT axes
- Up to 16 local expansion modules (GL10)
- 16 x high-speed inputs
- 8 x high-speed outputs
- Built-in 2 x incremental encoder inputs
- IEC 61131-3 programming environment (CODESYS)
- Multiple communication protocols:
  - Modbus RTU/TCP
  - Ethernet IP
  - CANopen/CANlink
  - OPC UA

# An overview of our advanced products for industrial automation.

## MD800 Compact AC MultiDrive



- 50% footprint reduction\*
- Common rectifier: 1-8 drives
- Single and dual drive modules
- 1/3 ph 200 V, 3 ph 400 V
- 0.2 kW to 11 kW (dual: up to 5.5 kW)
- Individual STO SIL 3 PL e capability on each drive module
- +24 VDC backup control supply
- Induction and PMS motor control (sensorless)
- Built-in Modbus RTU, CANopen
- EtherCAT (CiA402, EoE), PROFINET IO, Ethernet/IP (optional)

\*Compared to traditional single drive modules

## MD810 AC MultiDrive



- Common rectifier: 1-N drives
- Single and dual drive modules
- 3 ph 400 V
- 1.5 kW to 160 kW (dual: up to 18.5 kW)
- STO SIL 3 PL e
- +24 VDC backup control supply
- Induction and PMS motor control (open and closed loop)
- Built-in Modbus RTU, CANopen
- EtherCAT, PROFIBUS-DP, & PROFINET variants
- Application dedicated functions (centre winder, wobble control, & master-slave)

## MD520 High Performance AC Drive



- 1/3 ph 200 V, 3 ph 400 V
- 0.4 kW to 500 kW
- Dual rated
- STO SIL 3 PL e
- Built-in LED colour display
- Induction, PMS and synchronous reluctance motor control (open and closed loop)
- Application dedicated functions (centre winder, wobble control, brake control, & master-slave)
- Built-in user programmable logic
- EtherCAT, PROFINET, Ethernet/IP, & Modbus TCP (option cards)

### Wide range of MD520 Option Cards

- Feedback: MD38PGMD (incremental quadrature encoder, HTL/line driver), MD38PG4 (resolver), ES510-PG-CT1 (serial encoder), & MD520-PG-S1 (sincos)
- I/O extension: MD38IO1 (5 DI, 1 AI, 1 RO, 1 DO, 1 AO, 1 RS485 and 1 CANlink), MD38IO2 (3 DI), & MD38IO3 (3 DI, 1 RO, 1 RS485)
- Communication: MD38TX1 (RS485, Modbus RTU), MD38CAN1 (CANopen, CANlink), MD-SI-DP1 (PROFIBUS-DP), MD500-ECAT (EtherCAT), MD500-PN1 (PROFINET), MD500-EN1 (Ethernet/IP), & MD500-EM1 (Modbus TCP)

## MS1 Servo Motors



- 23 and 26 bit serial encoders
- Rated power: 50 W – 7.5 kW
- MS1H1, MS1H4 (3,000 rpm):
  - Frames: 40, 60, 80
  - Rated torque: 0.16 – 3.18 N·m
- MS1H2 (3,000 rpm):
  - Frames: 100, 130
  - Rated torque: 3.18 – 15.8 N·m
- MS1H3 (1,500 rpm):
  - Frames: 130, 180
  - Rated torque: 5.39 – 48 N·m

## SV660 Single-Axis Servo Drive



- 1/3 ph 200 V, 3 ph 400 V
- 0.1 kW to 7.5 kW
- STO SIL 3 PL e (-FS EtherCAT variant)
- Ultra-fast 4.5 kHz current loop (EtherCAT)
- Easy set-up and tuning
- EtherCAT, pulse, & CANopen variants available

## SV670 Single-Axis Servo Drive



- 1/3 ph 200 V, 3 ph 400 V
- 0.1 kW to 7.5 kW
- STO SIL 3 PL e
- Ultra-fast 4.5 kHz current loop
- Easy set-up and tuning
- Feedback encoder interface: serial (Weton), Nikona, Tamagawa and Harmonic
- EtherCAT & pulse/CANopen variants available
- Second encoder interface (full closed loop): incremental quadrature
- Linear motor control

## SV680 Single-Axis Servo Drive



- 1/3 ph 200 V, 3 ph 400 V
- 0.1 kW to 7.5 kW
- STO SIL 3 PL e
- SS1, SS2, SLS, SBC, SOS, SSM, SDI SIL 3 PL e (optional)
- Ultra-fast 4.5 kHz current loop
- Easy set-up and tuning
- Feedback encoder interface: serial (Weton), BiSS-C, Endat 2.2 and SSI
- Second encoder interface (full closed loop): incremental quadrature, serial (Weton), BiSS-C, Endat 2.2 and SSI
- EtherCAT & pulse variants available
- Linear motor control
- +24 VDC backup control supply (optional)

## IS810N Multi-Axis Servo Drive



- 3 ph 400 V
- Single and dual axes modules
- 0.85 kW to 75 kW (dual: up to 18.5 kW)
- STO SIL 3 PL e
- Ultra-fast 4.5 kHz current loop
- Feedback encoder interfaces: serial (Weton) and Endat 2.2
- Second encoder interface: incremental quadrature
- EtherCAT CoE (CiA 402)
- +24 VDC backup control supply
- PMS and asynchronous motor control (closed loop)

## LMC Linear motors



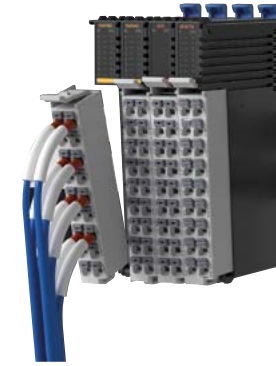
- Available sizes: 88, 118, 168, 188, 218 mm
- Rated force from 51 to 1235 N
- Peak force from 99 to 2717 N
- Speed up to 5 m/s
- Acceleration up to 5 g
- Effective stroke up to 6000 mm (LMC118)
- Position repeatability of  $\pm 2 \mu\text{m}$
- Low cogging, silent operation

## SVD60 Extra Low Voltage Servo



- Supply voltage: 24 to 72 VDC
- STO SIL 3 PL e (-FS variant)
- Ultra-fast 4.5 kHz current loop
- EtherCAT and CANopen variants available
- 23 bit serial encoder
- MS1H4 motors (3000 rpm):
  - Frames: 60, 80
  - Rated torque: 1.27, 2.39 N·m

## GL20 expansion modules



- Local & remote I/O expansion for Easy and AM300/500 series, remote for AC700, AC800, H5U & AM series
- EtherCAT, PROFINET, and Ethernet/IP couplers for remote expansion (up to 16 expansion modules)
- Min EtherCAT cycle 125µs
- DI/DO hardware response time within 100µs. AI/AO capture cycle up to 62.5 µs
- Digital I/O modules
- Analog I/O modules
- Temperature sensing modules

## Easy Series PLC



- Compact footprint
- Able to control up to 32 EtherCAT axes (72 slaves)
- Up to 16 local expansion modules (GL20)
- Built-in I/Os
  - 8 high speed inputs (200 kHz)
  - 8 DO (with 4 x 200 kHz channels & PWM support)
- 2 expansion slots (GE20)
- PLCopen-compliant axis control
- Axis group for lineal and circular interpolation, CAM table functionality
- Simulation mode for offline debugging
- Supports function block and function for encapsulation, code reusability, and scalability
- ST, LD, SFC language support
- Multiple communication protocols:
  - Modbus RTU/TCP
  - CANopen (optional)
  - Ethernet/IP (scanner/adaptor)
  - PROFINET slave (can be used as gateway)

## AM320/521/522/523 CODESYS Controllers



- Compact footprint
- Quad-core processor
- Up to 8 (AM521), 16 (AM522) or 32 (AM523) EtherCAT axes
- Dual network port (in AM320 with independent IP address)
- Up to 16 local expansion modules (GL20)
- 4 encoder inputs (8x high speed inputs, up to 200 kHz)
- 2 expansion slots (GE20)
- IEC 61131-3 programming environment (CODESYS)
- Multiple communication protocols: Modbus RTU/TCP, Ethernet/IP, OPC UA, CANopen (optional card)

## AC700 & AC800 Series IPC Motion Controllers



- CPU: Celeron series (AC703) or Intel i5 (AC810)
- Dual EtherCAT ports with redundancy support (AC802, AC810)
- Up to 256 EtherCAT axes
- Multiple communication protocols:
  - Modbus RTU/TCP
  - Ethernet IP
  - OPC UA
- Remote commissioning and IIoT capabilities
- IEC 61131-3 programming environment (CODESYS)
- Webvisu functionality (AC703, AC810)

## Flex<sup>®</sup> CNC



- CPU: Celeron series J6413 or Intel i3
- 8GB RAM, 128GB SSD
- Integrated Security Chip
- Protocols: EtherCAT, Modbus TCP, Ethernet/IP, OPC UA
- Fast commissioning with Engineering tool, Backup, logic analyzer
- Integrated axis optimization tools
- Integrated CAD/CAM with nesting
- Ready to use solutions: cutting (laser, plasma, waterjet) and milling