

INOVANCE

Industrial Automation Products



Inovance offers the full range of industrial automation products:

- Low & medium voltage AC drives
- Servo system
- PLCs & HMIs
- Motion controllers and I/O expansion cards
- CNCs
- Industrial robots

CANopen

EtherNet/IP™

EtherCAT®

PROFINET®

Modbus
RTU

Modbus
TCP

STO

CE

UL
LISTED
E467485
IND. CONT. EQ.

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

A brief overview of our best selling products

MD600 - Economical AC Drive



- Open loop
- Single-phase 200 VAC to 240 VAC input, 0.37 - 2.2 kW
- Three-phase 380 VAC to 480 VAC input, 0.37 - 5.5 kW
- Energy saving algorithms with automatic power optimization
- Drive board coated with 100% tri-proof coating
- Support V/F & SVC control function
- Independent air duct + intelligent fan for cooling
- Intelligent fan - customized working system supports forward and reverse rotation

MD800 - Compact AC MultiDrive



- 50% footprint reduction^{*1}
- Common rectifier: 1-8 drives, single and dual drive modules (dual ratings)
- Single drive module^{*2} - 1 ph 200 V (0.2 - 2.2 kW), 3 ph 400 V (0.4 - 7.5 kW)
- Dual drive module^{*2} - 1 ph 200 V (0.2 - 2.2 kW), 3 ph 400 V (0.4 - 3.7 kW)
- Rectifier module^{*2} - 1 ph 200 V (2.2 - 3.7 kW), 3 ph 200 V (3.7 - 7.5 kW), 3 ph 400 V (3.7 - 15 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, Modbus TCP/IP^{*3}, CANopen, CANlink
- EtherCAT (CiA402, EoE), PROFINET, Ethernet/IP (optional)

^{*1} Compared with traditional single drive modules

^{*2} HD rating, for ND rating contact Inovance representative

^{*3} Under development

MD630 - Advanced Compact AC Drive



- 3-Ph, 400 VAC, 0.4 kW - 22 kW
- Dual rated
- STO SIL 3 PL e
- +24Vdc backup control power supply (N variant)
- Built-in EMC filter (Category C3)
- Operating temperature -20°C to 60°C, with derating above 50°C
- Induction, PM and reluctance motion control (Sensorless)
- MD630S: Modbus communication, CAN bus optional
- MD630N: 4 in 1 fieldbus interface (EtherCAT, PROFINET, EtherNet/IP, Modbus TCP)
- Built-in user programmable logic

MD810 - AC MultiDrive



- Common rectifier: 1- N drives
- Single and dual drive modules: 3 ph 400 V
- Inverter unit: 1.5 -160 kW (dual: up to 18.5 kW)
- Rectifier Unit: 22 - 355 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)
- Complies with CE & UL

MD520 - Vector control AC Drive



- Open and closed loop, 1/3 ph 200 V, 3-Ph 400 Vac
- Dual rated
 - 3 ph 380 - 480 VAC, 0.4 - 500 kW
 - 3 ph 200 - 240 VAC, 0.4 - 75 kW
 - 1 ph 200 - 240 VAC, 0.4 - 2.2 kW
- Induction and PM synchronous motor control
- STO SIL 3 PL e, CE and UL Certified
- EtherCAT, PROFINET, Profibus DP, Ethernet/IP, Modbus TCP, Modbus RTU (option cards)
- Application dedicated functions (centre winder, wobble control, brake control, & master-slave)
- Brake control logic
- Application dedicated functions (Torque, speed, position control, textile wobble control)

MD290 - Open loop AC Drive



- Open loop, V/f, 3-Ph 400 Vac, 0.4 - 500 kW
- Dual rated
- Flexible, programmable I/O connection
- CE and UL Certified
- EtherCAT, PROFINET, Profibus DP, Ethernet/IP, Modbus TCP, Modbus RTU (option cards)
- Variable DC injection braking
- Comprehensive trip diagnostics

MD310 - Compact Vector, Economic AC Drive



- Open loop, three phase, 400 VAC, 0.4 - 18.5 kW
- Open loop V/f & sensorless vector control
- Starting torque:
 - 150% at 0.5 Hz (SVC), 100% at 1.00 Hz (V/f)
- Flexible, programmable I/O connection
- Variable DC-injection braking
- Built-in dynamic braking unit
- Complies with CE
- Communications options:
 - Modbus-RTU
 - CANlink

MD200 - General Purpose, Economic Drive



- Open loop, 1-Ph 200 Vac, 0.4 - 2.2 kW
- 3-Ph 400Vac, 0.4 to 3.7 kW
- Open loop V/f control & sensorless vector control, PM motor control*
- Starting torque of 150% at 3 Hz
- Automatic torque boost
- Slip compensation
- Communications options:
 - Modbus RTU (standard version)
 - CANlink (variant)
- Built-in dynamic braking unit
- Complies with CE and UL

*Contact Inovance representative

IS810 - Multi-axis Servo Drive



- 3-Ph 400 Vac
- 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 (Wetón) and Endat 2.2
- Second encoder interface: incremental quadrature
- EtherCAT CoE (CiA 402)
- +24 VDC backup control supply
- PMS and asynchronous motor control (close loop)

SV630 - Economic Servo Drive



- 1/3-Ph 200 Vac, 3-Ph 380 Vac
- Power range: 50 W - 7.5 kW
- Pulse control variant
- 2 kHz speed loop bandwidth
- Supports 18-bit high-precision encoder
- Easy tuning, convenient and simple wiring

SV660/670 - High Performance Servo Drive



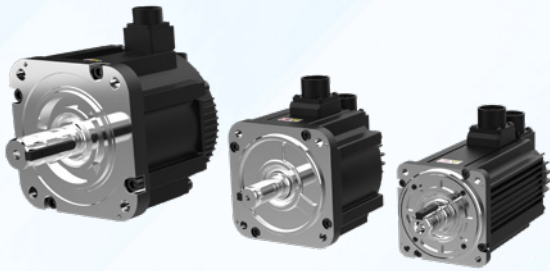
- 1/3 ph 220 V, 3 ph 380 V
- 0.1 kW to 7.5 kW
- STO SIL 3 PL e (-FS EtherCAT variant)
- Ultra-fast 4.5 kHz current loop (EtherCAT)
- Easy set-up and tuning
- EtherCAT, Pulse, PROFINET (SV660F) & CANopen variants available
- Second encoder interface (full close loop) - SV670
- All in one (Pulse type, Analog IO, CANopen/CANlink) - SV670P

SV680 - Flagship Servo Drive



- 1/3-Ph 200 Vac, 3-Ph 380Vac
- 0.05 kW to 7.5 kW
- STO SIL 3 PL e
- 8 functional safeties: SS1/SS2/SLS/SBC/SDI/SOS/SSM, FSOE bus, SDI SIL 3 PL e (optional)
- 3.5KHz speed loop bandwidth
- 26-bit high-precision encoder
- Feedback encoder interface: Serial (Wetón), BiSS-C, Endat 2.2 and SSI
- Second encoder interface (full closed loop): Incremental quadrature, Serial (Wetón), BiSS-C, Endat 2.2, Nikon, Tamawaga, Harmonic and SSI
- EtherCAT & pulse variants available
- Linear motor control
- +24 VDC backup control supply (optional)

MS1-R Series - Universal low-power servo motor



- Rated power - 50 W to 7.5 kW
- Frame size: 40, 60, 80, 100, 130 and 180
- Rated torque: 0.16 - 48 Nm
- Rated speed: MS1H1/H4/H2 (3000 RPM) and MS1H3 (1500 RPM)
- Options: 18-bit, 23-bit and 26-bit multi-turn absolute encoder, brake motors
- High stiffness, ultra-low inertia and low temperature rise

LMC Series - Linear Motor



- 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

MV21 Series - Low-Voltage Permanent Magnet Servo Motor



- Shaft height: Sh124, Sh160 mm
- S1 duty, 155(F) insulation class
- Power and Speed Range
 - 5.5-90 kW Rated/Max 2000/2400 RPM
 - 5.5-75 kW Rated/Max 1500/1800 RPM
 - 4-45 kW Rated/Max 1000/1200 RPM
- 23bit encoder as standard
- Built-in PTC temperature detection sensor

MV33 Series - Low-Voltage Permanent Magnet Synchronous Motor



- Shaft height - 180, 200, 225, 250 mm
- PM Synchronous motor with Vplus-pin Hairpin winding technology
- IE5 & IE6 efficiency level
- Rated power: 18.5 kW to 315 kW
- Rated speed: 750, 1000, 1500 and 3000 RPM
- S1 duty, IP55, CE and UL/cUL certified
- Built-in PTC temperature detection sensor, Optional encoder feedback

Easy Series PLC - Compact PLC



- Compact footprint
- 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)
- 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 communications protocols:
 - Modbus RTU/TCP
 - CANopen (optional)
 - Ethernet/IP (scanner)

EASY321/511 - Modular PLC



- Dual-core processor
- 40, 60 IO's with relay/NPN/PNP output
- Up to 15 local expansion modules (GL20) with power supply module
- ST, LD, SFC programming language support
- Supports Modbus TCP, OPC UA (server), Ethernet IP, PN (slave)
- Easy511 (EtherCAT) 12 axes (72 slaves)

AM300/500 Motion Controllers



- Quad-core processor, IEC 61131-3 programming environment (CODESYS)
- 2 expansion slots - left side (GE20)
- 4 (AM320) pulse, 8 (AM521) or 16 (AM522) EtherCAT synchronized axes
- AM521/2 - Up to 127 EtherCAT slaves
- 30 CANopen axes for PTP movements (optional card required)
- 4 pulse axes (AM521 & AM522)
- Axis group for linear and circular interpolation
- 4 encoder inputs (8x high speed inputs, up to 200 kHz)
- Supports up to 16 GL20 local expansion
- Supports up to 8 (AM521) or 16 (AM522) EtherCAT axes
- AM521/2, I/O can be expanded by using EtherCAT bus coupler GL20-RTU-ECT
- AM320 dual network port with independent IP address
- Multiple communications protocols:
 - Modbus RTU/TCP
 - CANopen (optional)
 - Ethernet/IP (scanner)
 - OPC UA

AC Series - High Performance Intelligent 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)

IT7000 Series HMI



- 7", 10" & 15" display sizes
- IP65 rating (front side), IP20 panel
- 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

HP800 Series – Industrial Touch Monitor



- 15.6" and 21.5" display sizes
- IP65 front panel
- Touch type options: 5-Wire Resistive Touch and P-cap multi-touch
- VGA/HDMI/DVI-D interfaces supported
- Touch with rubber gloves, medical gloves, and work gloves supported

GL20 Expansion Modules



- Local & remote I/O expansion for Easy series PLC; remote I/O expansion for AC700, AC800, H5U & AM600
- EtherCAT, PROFINET, Ethernet/IP and I/O-Link couplers for remote expansion (up to 16 modules)
- Min EtherCAT cycle 125 μ s
- DI/DO hardware response time within 100 μ s. AI/AO capture cycle up to 62.5 μ s
- Digital I/O modules
- Analog I/O modules
- Temperature sensing modules

GS20 Series - IO-Link expansion modules



- IP67 (IEC-61131-2), installation & operation outside the cabinet
- IO-Link communication (IEC61131-9), V1.1
- Ambient temperature range: -25°C ~70°C
- Over 20 types of diagnostic information*, ID recognition function for quick error, Real time faults visualization
- Alloy material shell body

*Note: system requirements Codesys-based PLC

Annual Report

2024


5206M^{USD}
 Revenue


22%
 Growth

General
Industrial
Automation



41%
of group sales

2137M

Elevator &
E-Package



13%
of group sales

689M

Electric
Vehicles



43%
of group sales

2249M

Rail
Transit



2%
of group sales

79M



R&D
Investment

R&D
Spend

442M^{USD}

8.5% of Revenue

www.inovance.eu
 Enquires: info@inovance.ind.in

Advancing industrial technology, for a better world

Shenzhen Inovance Technology Co., Ltd.
 Suzhou Inovance Technology Co. Ltd.

 4000-300124
 info@inovance.com
 service@inovance.com

Hong Kong SAR
 International Export Office

 +852 2751 6080
 info@inovance.eu

INOVANCE

FOLLOW US



Germany-Stuttgart

 +49 (0) 7144 8990
 sales.de@inovance.eu

France-Bordeaux

 +33 (0) 5594 01050
 sales.fr@inovance.eu

Spain-Barcelona

 +34 93 504 94 48
 sales.es@inovance.eu

Italy-Milano

 +39 (0) 2268 22318
 sales.it@inovance.eu

Turkey-Istanbul

 +90 (216) 466 7600
 sales.tr@inovance.eu

South Korea-Seoul

 +82 (0) 10 7428 5732
 sales.kr@inovance.eu

India

 Head Office Chennai | +91 (0) 44 4380 0201
 Ahmedabad | +91 (0) 79 40034274
 Mumbai | +91 (0) 22 4516 6255
 Noida | +91 (0) 120 402 8235
 Hyderabad | +91 (0) 40 4951 6431
 Surat | +91 93846 65692

Sales Network

Kolkata, Bengaluru, Pune, Coimbatore, Visakhapatnam, Vadodara, Jaipur

 info@inovance.ind.in