

# INVT Industrial Automation Product Catalog





# / About us

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Shenzhen INVT Electric Co., Ltd. (INVT for short, stock code: 002334) was founded in 2002, focusing on the fields of industrial automation and energy power. It was listed on Shenzhen Stock Exchange (SZSE) and issued A shares in 2010. Adhering to the core values of "Achieve customers, performance orientation, open and win-win cooperation, struggle and innovation" and with the mission of making every effort to offer most valuable products and services to strengthen customer competitiveness, INVT provides differentiated and specialized industry solutions, customized technical services, global localization operations, and digital management models to global customers.

## Core competitiveness

**Company scale:** In 2023, the total operating revenue was approximately RMB 4.59 billion, a year-on-year increase of 12.03%. The net profit was approximately 371 million Yuan, a year-on-year increase of 35.06%. The total assets reached 5.186 billion Yuan, a year-on-year increase of 6.13%. INVT has 4 large bases of production and research, 15 holding subsidiaries, and over 5000 employees.

**R&D capability:** INVT is a national key high-tech enterprise in China's Torch Program and a drafting unit for the national standard of low-voltage VFDs. It has established a strict quality management system and passed CNAS certification. The R&D testing laboratory has been awarded the Acceptance of Client Testing (ACT) accreditation by TUV-SUD in Germany, and the main products are CE-compliant. INVT has also been recognized as the National Enterprise Technology Center, and Guangdong Engineering Technology Research Center, and has undertaken a number of national, provincial and municipal science and technology projects. By the end of 2023, INVT has 1538 patents and 283 computer software copyrights.

**Marketing and service network:** INVT has set up dozens of branches and hundreds of joint warranty centers around the world, and has established strong cooperative relationships with many domestic and international channel partners. This comprehensive sales and service network enables INVT to respond quickly to global market demands and provide immediate technical support and quality after-sales service.

## Business segments

**Industrial automation:** Offering VFDs, servo systems, motors, controllers, human-machine interfaces, sensors, elevator drive systems, industrial internet, and other products and integrated solutions, which are widely used in compressors, cranes, solar pumps, printing and packaging machinery, 3C electronics, lithium-ion battery equipment, semiconductor equipment, offshore equipment, iron and steel, petroleum, chemical industry, and other fields.

**Network power:** Offering micro module data centers, power supply and distribution products, intelligent temperature control products, intelligent monitoring products, and integrated solutions, which are widely used in cloud data centers, finance, communication, medical, energy, and other fields.

**New energy vehicle:** Offering comprehensive products such as main motor controllers, auxiliary motor controllers, vehicle controllers, and onboard power supplies, covering the full range of solutions for commercial vehicles and passenger cars.

**PV energy storage:** Offering grid-tie inverters, energy storage inverters, off-grid inverters, monitoring accessories, which have been applied in many scenarios at home and abroad.

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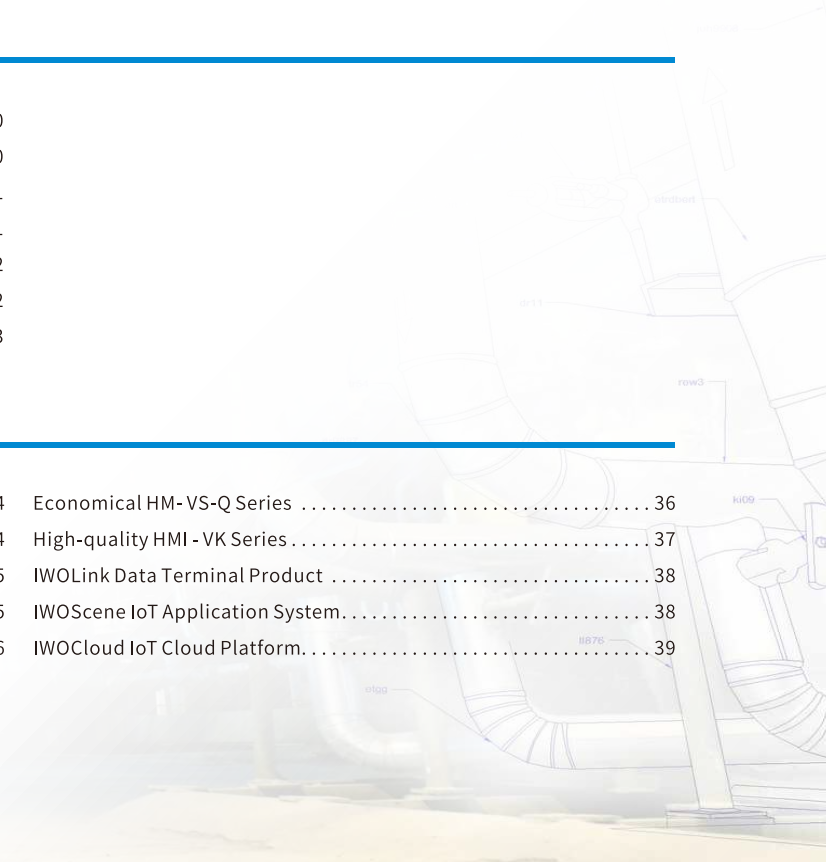
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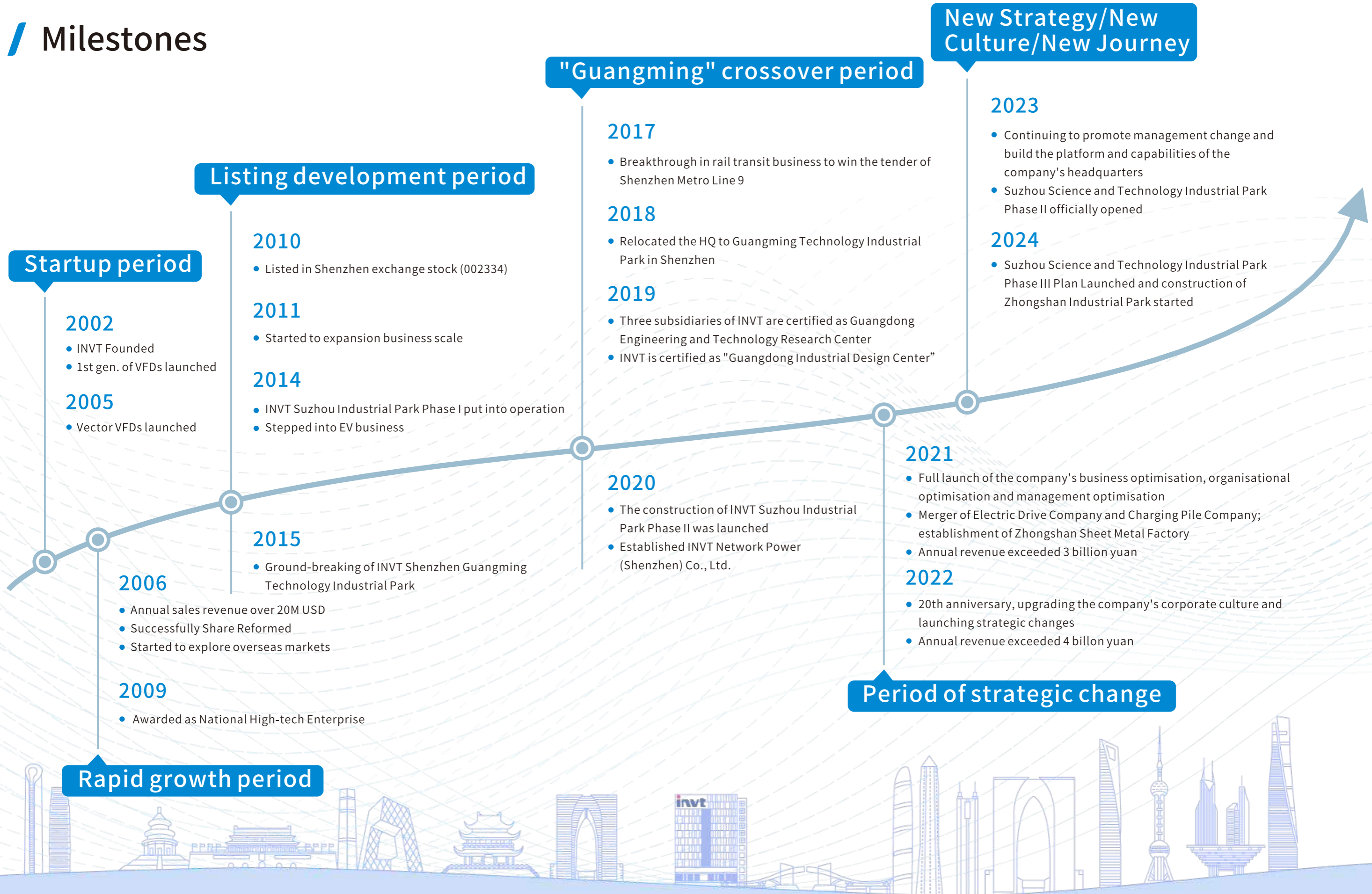
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# Milestones



## GD10 Series Mini VFD

GD10 series mini economical VFDs are designed for common applications of small power OEM market, with various functions of PID, multi-step speed, DC braking, Modbus communication and others.

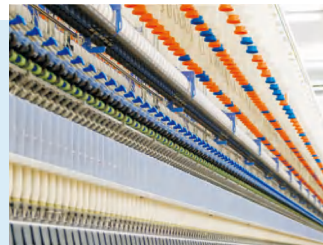


AC 1PH 220V (-15%)- 240V (+10%) 0.2- 2.2kW  
 AC 3PH 220V (-15%)- 240V (+10%) 0.2- 2.2kW  
 AC 3PH 380V (-15%)- 440V (+10%) 0.75- 2.2kW

- SVPWM control
- 1PH and 3PH 220V VFDs adopt natural cooling
- Standard potentiometer and external LED keypad

### Production application

Packaging machinery, food machinery, glass equipment, and conveying equipment.



## GD18 Series Two-in-One VFD

GD18 series simple two-in-one VFDs are composed of one rectifier unit and two inverter units. With semi-book type structure, they can be used in scenarios where two or more VFDs of the same power or similar power are required.

AC 3PH 380V (-15%)- 440V (+10%) 0.75- 7.5kW



- Enhanced protection performance and wide voltage design
- Upgraded structure and user-friendly wiring to save the labor time
- Dual-axis drive to save 50% of the volume and reduce cabinet cost
- Excellent control performance to support V/F and SVC control

### Production application

Textile machinery, stone machinery, music fountains, and packaging equipment.



## GD27 Series Smart VFD

GD27 is a newly designed smart VFD, in compact structure, with excellent performance and rich functions, simple and easy to use.

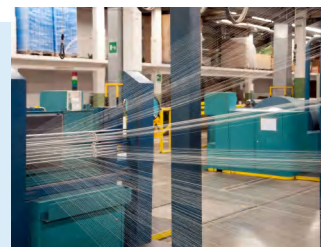


AC 1PH 200V-240V 0.4kW-2.2kW  
 AC 3PH 200V-240V 0.4kW-4kW  
 AC 3PH 380V-480V 0.75kW-7.5kW

- -10-50°C, without derating
- Book-type design to support side-by-side installation
- Push-in spring loaded control terminals, tool-free wiring
- The EU models are equipped with built-in C3 and STO functions
- Support sensorless vector control and permanent-magnet synchronous motor control

### Production application

Widely used in woodworking, textiles, food, printing and packaging, plastics, logistics and transportation equipment.



## GD20 Series Compact VFD

GD20 series VFDs have excellent drive and control performance for using of sensorless vector control technology. 18.5kW and higher VFD models comes standard with built-in DC reactor and up to 110kW VFD models are configured with optional built-in braking units. Meeting different industrial control applications.



AC 1PH 220V (-15%)-240V (+10%) 0.4-2.2kW  
 AC 3PH 220V (-15%)-240V (+10%) 0.4-7.5kW  
 AC 3PH 380V (-15%)-440V (+10%) 0.75-110kW

- Multi-function and easy to use
- Adopt the SVC mode
- Mini design for VFDs, abreast multiple installation methods

### Production application

Food machinery, plastic machinery, ceramic equipment, petroleum machinery, cable equipment, air compressors, machine tools, woodworking machinery, textile machinery, printing and packaging equipment, chemical equipment, environmental protection equipment, conveying equipment, washing equipment, small machine tools, etc.



## GD20-EU Series Compact VFD

GD20-EU is a vector VFD developed for the European market, which is equipped with built-in STO function.



AC 1PH 220V (-15%)- 240V (+10%) 0.4- 2.2kW  
 AC 3PH 220V (-15%)- 240V (+10%) 0.4- 7.5kW  
 AC 3PH 380V (-15%)- 440V (+10%) 0.75- 110kW

- Adopt the SVC control mode
- External keypad for parameter copying
- Equipped with built-in DC reactor as standard configuration for  $\geq 18.5$ kW VFDs
- Equipped with built-in braking unit (standard configuration for  $\leq 37$ kW VFDs, optional configuration for  $\geq 45$ kW VFDs)
- Equipped with C3 filter (380V  $\geq 4$ kW VFDs) as standard configuration, optional external C3 (for 380V  $\leq 2.2$ kW VFDs) and C2 filters

### Production application

Widely used in small and medium power applications, such as food machinery, plastic machinery, ceramic equipment, petroleum machinery, cable equipment, air compressors, machine tool equipment, woodworking machinery, textile machinery, printing and packaging equipment, chemical equipment, environmental protection equipment, conveying equipment, etc.



## GD270 Series VFD for Fan and Pump

GD270 series VFD is a VFD for fan and pump, which is optimized according to fluid load characteristics, with powerful special functions, making it easier to use and better performance.



AC 3PH 380V- 480V 1.5- 500kW

- Integrated with new ECO energy-saving algorithm
- EU version standard built-in STO function
- Support the driving of synchronous and asynchronous motors
- Support communication expansion of various mainstream industrial buses
- Integrated with constant-pressure water supply and HVAC-specific functions
- Circuit boards meet the protection requirements of IEC 60721-3-3:1994 3C3

### Production application

Central air conditioning, municipal water supply, sewage treatment, municipal heating, transfer pumps, irrigation pumps and other fan and pump industry applications.



## GD200A Series General VFD

GD200A series VFD uses DSP control system as the platform, adopts the sensorless vector control technology, and is equipped with various protection methods, which can be used for asynchronous motors to provide excellent drive performance.



AC 3PH 380V (-15%)- 440V (+10%) 0.75- 500kW

- Support the shared DC bus solution
- 0.75–30kW VFDs carry built-in braking units
- Semi-book type structure and independent air duct design
- Rivet-type structure design and built-in optional C3 filter

### Production application

Ceramic machinery, building material equipment, building municipalities, municipal water supply, municipal heating, environmental protection equipment, agricultural irrigation, woodworking machinery, textile machinery, air compressors, plastic machinery, petroleum machinery, mining equipment, glass machinery, fan pumps, etc.



## GD350 Series High-performance Multifunction VFD

GD350 is a high-performance and multi-function VFD, which integrates position, speed and torque control, supports various motor drives, and provides strong expansion capability, supporting customers' secondary development and remote operation of mobile APP and the IoT. With the expansion design, the VFD can meet customized and industrial requirements flexibly and quickly, make the application more flexible, and optimize the performance.



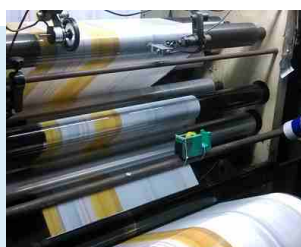
AC 3PH 380V (-15%)- 440V (+10%) 1.5- 500kW

AC 3PH 520V (-15%)- 690V (+10%) 22- 630kW

- Equipped with multi-function LCD keypad as standard configuration
- Equipped with the safe torque off (STO) function as standard configuration
- Strong expansion capability to support 3 expansion cards at most
- Integrate position control, speed control and torque control, and support various motor drives
- Support communication bus, encoder, IO, PLC and other expansion cards

### Production application

Textile machinery, metal processing, woodworking machinery, paper tissue machinery, printing and packaging machinery, petroleum machinery, plastics machinery, lifting machinery, permanent magnet synchronous motors, electric spindles, and drives of various automated production equipment.





## GD350A Series Enhanced Multifunction VFD

GD350A is a high-performance and multi-function VFD, which integrates position, speed and torque control, supports various motor drives, and provides strong expansion capability, supporting customers' secondary development and remote operation of mobile APP and the IoT. With the expansion design, the VFD can meet customized and industrial requirements flexibly and quickly, make the application more flexible, and optimize the performance.



AC 3PH 380V (-15%) - 440V (+10%) 1.5- 500kW

- G/P-in-one VFD
- Equipped with multi-function LCD keypad as standard configuration
- Equipped with the STO function as standard configuration
- Rich expansion card types to support 3 expansion cards at most
- Integrate position control, speed control and torque control, and support various motor drives

### Production application

Textile machinery, metal processing, woodworking machinery, paper tissue machinery, printing and packaging machinery, petroleum machinery, plastics machinery, lifting machinery, permanent magnet synchronous motors, electric spindles, and drives of various automated production equipment.



## GD350-UL Series High-performance Multifunction VFD

GD350-UL is a high-performance and multi-function VFD, which passes the UL certification for the entire series, integrates speed, torque and position control, supports various motor drives, and provides strong expansion capability, supporting customers' secondary development and remote operation of mobile APP and the IoT.



AC 3PH 200V- 240V 0.75- 55kW  
 AC 3PH 380V- 480V 1.5- 500kW  
 AC 3PH 520V- 600V 0.75- 110kW

- Equipped with the multi-function LCD keypad as standard configuration
- Built-in STO (SIL2) function, safe and reliable
- Three card slots, meeting enriched expansion requirements
- Integrate torque control, speed control and position control, and support various motor drives

### Production application

Widely used in plastics, textiles, machine tools, food packaging, chemicals, printing, building materials, etc.



## GD350-IP55 Series High protection Multifunction VFD

GD350-IP55 is the latest high protection multifunction VFD developed by INVT, which provides the best protection experience for the worst outdoor applications and incorporates features such as ease of use, excellent performance and high scalability.



AC 3PH 380V (-15%)- 440V (+10%) 4- 10kW



- All series meet the IP55 rating
- Optional AC switch for safe control
- Strong expansion capability to support 3 expansion cards at most
- Integrate position control, speed control and torque control, and support various motor drives
- Support communication bus, encoder, IO, PLC and other expansion cards

### Production application

Textile machinery, metal processing, woodworking machinery, paper tissue machinery, printing and packaging machinery, petroleum machinery, plastics machinery, lifting machinery, permanent magnet synchronous motors, electric spindles, and drives of various automated production equipment.



## GD600 Series High-performance Multi-drive VFD

GD600 series high-performance multi-drive VFD is a common DC bus drive system that consists of rectifier and inverter units, which can realize multi-point driving.

Rectifier module AC 3PH 380V(-15%)- 440V(+10%) 45- 355kW

Inverter module DC 350Vdc- 800Vdc 1.5- 75kW



- Equipped with 2 expansion interfaces as standard configuration
- Support various communication networking methods
- Shared DC bus solution to save 5-30% of the energy
- Book-type design with equal height and depth to save 30-60% of the space
- Built-in DC busbar with optional DC external terminals, to complete the system construction in 15 minutes

### Production application

Continuous production line matching consisted of multi-motor drive single equipment/multiple equipment such as metal processing, printing and packaging, textile machinery, tissue machinery and small paper making.



## GD170-PV Series Economical Solar Pump Inverter

GD170-PV is an inverter special for solar pump applications.



AC 1PH (IN/OUT) 220V (-15%)- 240 (+10%) 1.5- 2.2kW

AC 1PH 220V (-15%)- 240 (+10%) 1.5- 2.2kW

AC 3PH 220V (-15%)- 240 (+10%) 1.5- 7.5kW

AC 3PH 380V (-15%)- 440 (+10%) 2.2- 200kW

- Support optional GPRS module
- Optional booster module for <4kW VFDs
- Maximum power point tracking (MPPT) up to 99%
- The power-off frequency drop function is to protect the VFD at transient power-off
- Automatic startup and sleep, 24-hour unattended work

### Production application

Urban water supply, desert control, grassland animal husbandry, agricultural forest irrigation, etc.



## BPD Series High Protection Solar Pump Inverter

BPD series high protection solar pump inverter is a inverter for outdoor PV pumps, which is applicable to a variety of AC pumps.



AC 1PH 220V (-15%)- 240 (+10%) 0.75- 4kW

AC 3PH 380V (-15%)- 440 (+10%) 2.2- 5.5kW

- Fanless design
- Optional water level monitoring function
- All series meet the IP65 rating
- Support soft start to avoid water hammer effect
- Wide operating voltage range to save PV modules

### Production application

Outdoor pumps, agricultural irrigation, and animal husbandry.



## GD100-PV Series Solar Pump Inverter

GD100-PV is an inverter special for solar pump applications.



AC 1PH 220V (-15%)- 240V (+10%) 0.4- 2.2kW  
 AC 3PH 220V (-15%)- 240V (+10%) 4- 7.5kW  
 AC 3PH 380V (-15%)- 440V (+10%) 0.75- 500kW

- Automatic startup and sleep
- Support optional GPRS module
- Extend product life effectively
- 24-hour unattended operation
- Maximum power point tracking (MPPT) up to 99%

### Production application

Urban water supply, desert control, grassland animal husbandry, agricultural forest irrigation, etc.



## GD300-01A-RT Series Single-VFD Integrated Machine for Air Compressor

GD300-01A-RT series single-VFD integrated machine for air compressor is a comprehensively upgraded and designed product based on GD300-01A-CT VFD, which can be used in synchronous or asynchronous air compressor to achieve better control.



AC 3PH 380V (-15%)- 440V (+10%) 7.5- 37kW



- High-density integration, small-sized design
- Built-in control logic for air compressors
- Dedicated terminal design to directly drive solenoid valves
- Built-in power-frequency fan output control relay assembly
- High reliability and overload capability, supporting 120% long-term overload

### Production application

Permanent magnet synchronous screw air compressors and AC asynchronous screw air compressors.



## GD300-21 Series Dual-VFD Integrated Machine for Air Compressor

GD300-21 series dual-inverter integrated machine for air compressor is developed according to the application features of synchronous/asynchronous twin screw air compressor, which can be used in combination with the INVT HMI touch screen to improve the installation and commissioning efficiency by more than 70% and perfectly realize the drive, control and maintenance of air compressor master and fan dual inverters.



AC 3PH 220V (-15%)- 240V (+10%) 7.5- 45 kW

AC 3PH 380V (-15%)- 440V (+10%) 15- 90 kW

- Intelligent IoT, remote real-time monitoring
- Highly integrated, reducing electrical design investment
- Industry-specific, dual-inverter drive for the master and fan
- Compact and easy to use, improving installation and wiring efficiency

### Production application

Permanent magnet synchronous screw air compressors and AC asynchronous screw air compressors.



## GD300-01A Series VFD for Air Compressor

GD300-01A series VFD for air compressor is developed according to the application features of air compressor industry, which features excellent control of synchronous/asynchronous air compressor.



AC 3PH 220V (-15%)- 240V (+10%) 7.5- 185 kW

AC 3PH 380V (-15%)- 440V (+10%) 7.5- 500 kW

AC 3PH 520V (-15%)- 690V (+10%) 22- 630 kW

- Dedicated operator interface
- Powerful extension ability
- Built-in with the control logic for air compressors
- Integrated with the functions for air compressors

### Production application

Permanent magnet synchronous screw air compressors and AC asynchronous screw air compressors.



## GD300-01A-EH Series VFD for High-speed Fan

GD300-01A-EH series VFD for high-speed fan is a high-performance product that INVT develops according to the application characteristics of the high-speed centrifugal fans, air levitation, magnetic levitation and other high-speed fan loads, which adopts a new generation of high-speed control-specific DSP and control algorithms, with the computing speed greatly increased.



AC 3PH 220V (-15%)-240V (+10%) 7.5-185 kW  
 AC 3PH 380V (-15%)-440V (+10%) 7.5-500 kW  
 AC 3PH 520V (-15%)-690V (+10%) 22-630 kW

- Parameter autotuning to reduce the commissioning difficulty
- Support the carrier frequency up to 12kHz
- Realize motor drive control of 1200Hz
- Reduce high-frequency current oscillation, high speed and stable
- Integrated with harmonic optimization algorithms to meet the driving needs of high-speed synchronous motors

### Production application

High-speed centrifugal fans, air levitation blowers, magnetic levitation blowers, and high-speed turbine fans.



## GD20-09 Series VFD for Hoisting

GD20-09 series VFD for hoisting is a VFD that INVT develops based on the load characteristics and control requirements of hoisting machinery, which is integrated with hoisting-oriented brake logic and conical motor control logic, and equipped with torque verifying, brake feedback, zero position detection, travel limit, overload protection, light-load speed boost, motor overtemperature, and other crane-specific functions.

AC 3PH 380V (-15%)-440V (+10%) 0.75-37KW



- Compact structure to save the installation space
- Integrated with hoist-specific functions, excellent performance
- Dedicated terminal design to provide diverse choices
- Application macros special for cranes, simplify the commissioning operations

### Production application

Electric hoists, European-style cranes, small-tonnage gantry, and bridge cranes.



## GD350-19 Series High-performance VFD for Crane

GD350-19 series new generation high-performance VFD for crane integrates various special functions, including brake control, zero servo, quick stop, master/slave control, switchover between three sets of motor parameters, pre-magnetizing, light-load speed boost, loose rope detection, and travel limit.



AC 3PH 380V (-15%)- 440V (+10%) 1.5- 500kW

AC 3PH 520V (-15%)- 690V (+10%) 22- 630kW

- Compatible with mainstream bus protocols in the market
- Closed-loop vector control with 0Hz/200% torque output
- Perfect brake logic integration to prolong the life of the brake
- Integrated with master-slave control in flexible and rigid connections
- Equipped with braking units as standard configuration for  $\leq 110$ kW VFDs to reduce costs

### Production application

Drives of lifting, pitching, luffing, cross traveling, long traveling, slewing and grabbing mechanisms for hoisting equipment such as bridge cranes, RTG/RMG, quay cranes, portal cranes, gantry cranes, European-style cranes, tower cranes, winches, and mine hoists.



## GD350-39 Series Construction Hoist Integrated Machine

GD350-39 is an all-in-one product that integrates the electrical, control and brake circuits in the existing electric control cabinet of the construction hoists, strengthens safety and industry application adaptability, and provides functions such as voice broadcast, automatic floor leveling, weighing protection, 4G remote monitoring, etc. It is professionally applied to the all-in-one products of the construction hoists.



AC 3PH 380V (-15%)- 440( +10%) 37- 45kW

- IoT-Cloud platform-OTA to realize intelligent IoT
- Wide range of voltage fluctuations to meet the complex grid environment
- Intelligent voice announcement and visual interface, more suitable for the usage needs
- Leading IF control mode, low-frequency and high-torque output, and no slipping during start and stop
- Electrical intelligent terminal for hoist system, highly integrated design, easy to use for customers

### Production application

Construction hoists.



## GD200L Series VFD for Simple Elevator

GD200L is an elevator VFD for asynchronous motors that developed by INVT based on years of experience in motor drive and elevator drive industry. It adopts the advanced non-weighting sensor vector control technology and optimized DSP control algorithm, which provides excellent reliability and performance.



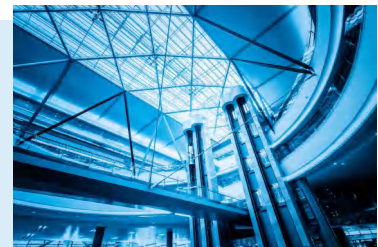
AC 1PH 220V (-15%)- 240 (+10%) 1.5- 2.2kW

AC 3PH 380V (-15%)- 440 (+10%) 4- 30kW

- Applicable to asynchronous motors, supporting both open-loop and closed-loop control
- Emergency rescue mode to support 1PH UPS light-load judgment
- Optimized DC braking and S-curve algorithms for smoother operation and start/stop
- With compact structure design, the control board is integrated with asynchronous PG card and terminals, easy installation and low cost

### Production application

Asynchronous motor elevators.



## GD300L Series VFD for Elevator

GD300L series new generation VFD for elevator uses the TI 28-series DSP and advanced variable-frequency vector control technology.



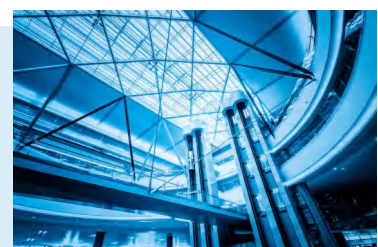
AC 1PH 220V (-15%)- 240V (+10%) 1.5- 2.2kW

AC 3PH 380V (-15%)- 440V (+10%) 4- 30kW

- Support multiple types of encoders
- Achieve the starting torque compensation function
- Equipped with the STO function
- Static identification on the initial pole angle of a synchronous motor
- Support open-loop control mode without encoder and closed-loop control mode with encoder

### Production application

Widely used in passenger and freight elevators, escalators, etc.





## GD380L Series VFD for Elevator

GD380L series VFD for elevator is developed by using the new INVT control platform. It adopts advanced variable-frequency vector control technology, and has made modular and customizable innovations on the basis of traditional VFDs to meet complex individual needs. INVT integrates many years of industry experience and equips it with various motors and encoders to meet more precise usage requirements and provide more competitive solutions.



AC 1PH 220V (-15%)- 240V (+10%) 2.2kW  
 AC 3PH 220V (-15%)- 240V (+10%) 2.2- 4kW  
 AC 3PH 380V (-15%)- 440V (+10%) 4- 7.5kW

- Removable terminals
- Equipped with built-in CANopen networking communication as standard configuration
- Equipped with built-in SIL3 STO function as standard configuration
- Equipped with LCD keypad display as standard configuration, with built-in C2 filters
- Ultra-thin flat design

### Production application

Widely used in freight elevators, passenger elevators, etc.



## EC160A Intelligent Elevator Integrated Machine

EC160A intelligent elevator integrated machine is a new generation of intelligent elevator control system integrating the drive technology, control technology and network communication technology as a whole design concept.

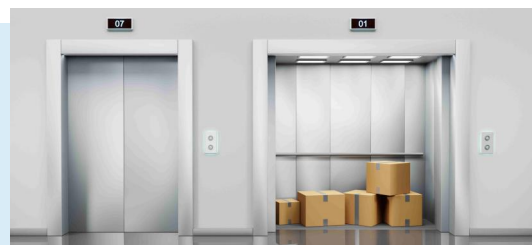


AC 1PH 220V ( $\pm 15\%$ ) 2.2kW  
 AC 3PH 400V ( $\pm 15\%$ ) 4- 55kW

- Integrated with synchronous and asynchronous PG cards
- Input phase sequence hardware detection function
- Safety hardware enabling monitoring, hardware and software redundancy
- Distance-based direct stop technology, N curves generated

### Production application

Residential elevators, commercial elevators, medical elevators, sightseeing elevators, and freight elevators.



## EC160K Intelligent Elevator Integrated Machine

EC160K intelligent elevator integrated machine adopts advanced variable-frequency vector drive technology, and organically combines elevator drive, control and management into one. With the assembled modular design, the product is optimized and improved in the aspects such as ease of installation and personalized design.



AC 1PH 220V ( $\pm 15\%$ ) 2.2kW  
AC 3PH 400V ( $\pm 15\%$ ) 4- 55kW

- Support the voice call function
- Input phase sequence hardware detection function
- The interface board supports customization
- Independent detection for front and rear hall doors and car doors
- Equipped with the IOT module to realize the management of one elevator and one file
- Assembled and modularized design to improve the production efficiency of control cabinet

### Production application

Residential elevators, commercial elevators, medical elevators, sightseeing elevators, and freight elevators.



## EC300 Four-quadrant Elevator Integrated Machine

EC300 four-quadrant elevator integrated machine is a new generation of intelligent elevator control system integrating the drive technology, control technology and feedback technology as a whole design concept.



AC 3PH 400V ( $\pm 15\%$ ) 5.5- 55kW

- Highly efficient grid feedback
- Direct stop technology, N curves automatically generated
- Motor and floor intelligent learning and brake force intelligent detection
- Highly integrated power modules and compact structure to realize the design of mini-machine-room control cabinets

### Production application

Residential elevators, commercial elevators, medical elevators, sightseeing elevators, and freight elevators.



## EC160A-V Cqint Home Elevator Control Cabinet

For the home elevator market, we developed the "Cqint" series home elevator integrated control cabinet based on the concept of creating new products and interpreting the beauty of technology.



- No contactor control: STO solution, SBC solution, and star-delta card
- Support CAN and MODBUS communication, making the whole system wiring flexible
- Automatic rescue device (ARD) upon power failure, manual rescue (electrical brake release) and battery self-protection function
- Two-way rescue solution: One-key extrication and one-key call (IoT), more secure and reliable

### Production application

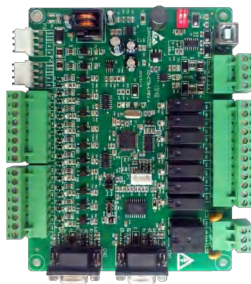
Home elevator market.



## EC-CTB Car-top Control Board

### EC-CTB-A car-top control board

EC-CTB-A is a simple car-top control board.



- Support single door and double door control
- Support floor control below 64 floors
- Support RS485 communication output, communicating with the third-party controller
- Support two modes: analog weighing input and digital weighing

### Production application

Elevator car-top maintenance box.



## EC-CTB-C car-top control board

EC-CTB-C is an elevator car-top control board, which is a derivative product based on EC-CTB-A. Compared with EC-CTB-A, EC-CTB-C adds 4 input points and 3 output points.



- Support single door and double door control
- Support floor control below 64 floors
- Support RS485 communication output, communicating with the third-party controller
- Support two modes: analog weighing input and digital weighing
- Support the function requirements of EN81-20:2020 and EN81-50:2020

### Production application

Residential elevators, commercial elevators, medical elevators, sightseeing elevators, and freight elevators.



## EC-CCB Car Command Board

EC-CCB is car button board.



- 24 digital inputs
- Support driver, independent, non-stop switch, driver change direction, door opening delay button input, etc.
- Each elevator is equipped with at least one car command board, the first car command board supports 16 floors, and every 20 floors above 16 floors is equipped with one car command board

### Production application

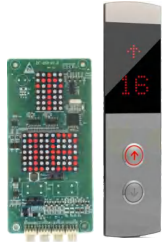
Elevator components-operation box.



## DC Series Display

### DC-03B ultra-thin car call and display

DC-03B is one of the important interfaces for the interaction between the EC series intelligent integrated machine controller and the user. It is an ultra-thin lattice display and configured on a hall to receive calling and display information such as the current floor and running direction of the elevator.



- CAN serial communication
- Display all ASC code characters
- Red circular dot matrix with scrolling display
- 10mm ultra-thin design, applicable to various wall-mounted hall call button boxes

### DC-03I ultra-thin car call and display

The call display DC-03I is one of the important interfaces for the interaction between the main board controller and the user. It is configured on a hall to receive calling and display information such as the current floor and running direction of the elevator. The floor display panel can also be used as an in-car display panel. DC-03I is a white lattice display.



- CAN serial communication
- Display all ASC code characters
- White circular dot matrix with scrolling display
- 10mm ultra-thin design, applicable to various wall-mounted hall call button boxes

### DC-07S segment vertical LCD

The segment vertical LCD DC-07S is one of the important interfaces for the interaction between the main board controller and the user. It is configured in the car to receive calling and display information such as the current floor and running direction of the elevator. DC-07S is a display of white character with black background.



- T U6: 7 communication
- Display common ASC code characters
- 806-inch segment vertical LCD display, white characters with black background
- Display the current floor, running direction, maintenance, fire control, and overload

### DC-07P-D3 segment vertical display

The call display panel DC-07P-D3 is one of the important interfaces for the interaction between the main board controller and the user. It is configured on a hall to receive calling and display information such as the current floor and running direction of the elevator. The floor display panel can also be used as an in-car display panel. DC-07PD3 is a white segment display.



- CAN serial communication
- Display common ASC code characters
- Segment vertical LED display, white characters with black background
- Delicate 6.5mm design, applicable to thin wall-mounted hall call button boxes

## DC-07K-B3 segment vertical LCD

DC-07K-B3 is an ultra-thin LCD display with white characters on a blue background, which provides the functions of displaying floor, running direction, full load marking, car locking marking, and other special states displayed by the floor display area, and has 4 button inputs for up call, down call, car locking and fire control. The K1 address, H1 and H2 function parameters of the hall call panel can be set by shorting J2 or turning on the online setting function of the main board.



- CAN serial communication
- Display common ASC code characters
- Segment vertical LCD display, white characters with blue background
- Equipped with hall arrival indicator/chime optocoupler output ports as standard configuration

## DC-03HS-A car call and display

The call display panel DC-03HS-A is one of the important interfaces for the interaction between the main board controller and the user. It is configured on a hall to receive calling and display information such as the current floor and running direction of the elevator. The floor display panel can also be used as an in-car display panel. DC-03HS-A is a red lattice display.



- CAN serial communication
- Display common ASC code characters
- Red square dot matrix in horizontal display, with scrolling display
- Equipped with hall arrival indicator/chime optocoupler output ports as standard configuration

## DC-03BS-A car call and display

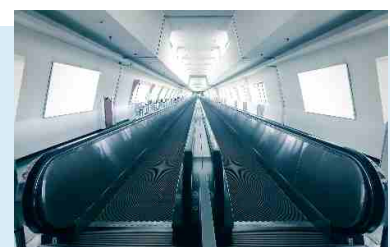
The call display panel DC-03BS-A is one of the important interfaces for the interaction between the main board controller and the user. It is configured on a hall to receive calling and display information such as the current floor and running direction of the elevator. The floor display panel can also be used as an in-car display panel. DC-03BS-A is a red lattice display.



- CAN serial communication
- Display common ASC code characters
- Red square dot matrix in vertical display, with scrolling display
- Equipped with hall arrival indicator/chime optocoupler output ports as standard configuration

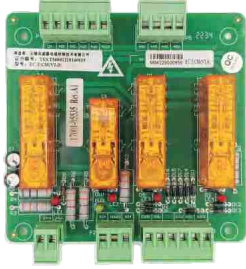
## Production application

DC series displays can be widely used in explosion-proof elevators, hydraulic elevators, passenger elevators, freight elevators, home elevators, dining elevators and other industries for the car/hall display.



## UCM Control Board EC-UCMV2.0

EC-UCM V2.0 controller is an accidental movement detection device for elevator cars.



- Support the advance door opening and creeping leveling function
- Support the synchronized UCMP function of GB7588-2020
- EC-UCMV2.0 adopts safety relay with high reliability design

### Production application

Control cabinets of passenger and freight elevators.



## GD200A-02 Series Super-start VFD

GD200A-02 series super-start VFD is an industry-specific product for weaving process in the textile industry, meeting various operation needs such as fast start, speed adjustment, slow jogging and variable-speed weaving. GD200A-02 is divided into built-in type and external type according to different installation requirements.

AC 3PH 380V (-15%)- 440V (+10%) 22- 55kW



- Enhanced coating, stable and reliable
- Variable-frequency super-start, effectively preventing stop gear
- Slow jogging to prevent operators from hitting hands, more reliable
- Stepless speed regulation, without belt pulley replacement, reducing the proportion of machines to be stopped
- Start in variable-frequency mode with small surge to the grid, and the service life of the input contactor is longer

### Production application

Supporting and modification of water jet looms, air jet looms and other permanent-magnet synchronous direct drive spindle drives.



## GD300-02 Series Through-the-Wall VFD

GD300-02 series through-the-wall VFD is a through-the-wall special machine developed for avoiding cotton fiber, dust and oil causing secondary pollution, improving the product reliability and environment adaptability.



AC 3PH 380V (-15%)- 440V (+10%) 7.5- 55kW

- All series support the shared bus solution
- Through-the-wall installation to prevent secondary pollution
- Long-term and reliable operation at 50° ambient temperature
- Powerful drive performance, compatible with synchronous and asynchronous drives

### Production application

High-speed centrifugal fans, air levitation blowers, magnetic levitation blowers, and high-speed turbine fans.



## GD350-12 Series VFD for Loom Spindles

GD350-12 series spindle VFD is a permanent-magnet synchronous direct drive special machine for new air jet looms and water jet looms, which is used with the INVT's energy saving algorithm in the motor control field and synchronous direct drive motor, saving the overall energy of the loom by 20-30%.

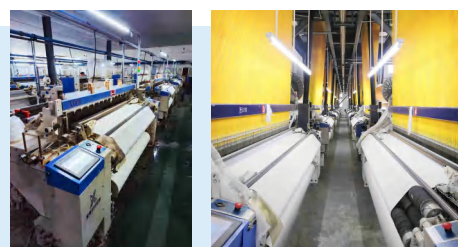


AC 3PH 380V (-15%)- 440V (+10%) 11- 15kW

- Synchronized direct drive, power saving and energy saving
- Support open-loop and closed-loop switching mode
- Slow jogging to prevent operators from hitting hands
- Built-in process algorithm and excellent starting braking performance

### Production application

Supporting and modification of water jet looms, air jet looms and other permanent-magnet synchronous direct drive spindle drives.





## GD350-13 Series VFD for Oil Pumping Machine

GD350-13 series VFD realizes the integration of synchronous and asynchronous motor drives, and integrates the control of different types of oil pumping machines such as tower, beam and direct drive progressive cavity pumps, while strengthening the product reliability and environmental adaptability as well as the customized and industrial design, featuring more optimized functions, better control performance and more flexible applications.

AC 3PH 380V (-15%)- 440V (+10%) 11- 75kW

AC 3PH 520V (-15%)- 690V (+10%) 22- 75kW



- Strong expansion capability to support 3 expansion interfaces
- Integrated with control functions special for various types of pumping units
- Equipped with built-in braking units as standard configuration for 380V products
- Energy saving and improving efficiency, saving more than 20% of power compared with the previous generation of products

### Production application

Widely used in various types of oil pumping machines such as beam, tower and direct drive progressive cavity pumps.



## GD350-CCS Series VFD for Marine Industry

GD350-CCS series VFD is a VFD for marine industry based on GD350 platform and developed for marine application environment, which integrates special functions for fans, pumps and hoists, strengthens the product reliability and environmental adaptability to meet the requirements of salt mist, vibration, humidity, temperature and grid electric dazzling for ships, and features strong expansion capability, rich safety protection functions and excellent control performance to meet diversified application requirements.

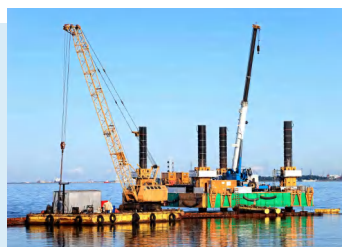


AC 3PH 380V (-15%)- 440 (+10%) 30- 500kW

- Equipped with the STO function as standard configuration
- Integrated with functions special for fans, pumps and cranes
- Enhance the marine application environment adaptability such as salt spray and vibration
- Three card slots, supporting mains power synchronization card and a variety of common expansion cards
- Integrate torque control, speed control and position control, and support various motor drives

### Production application

Floating cranes, floating pile drivers, windcarrier vessels, dredging ships, dredging vessels, pipelaying vessels, container carriers, fishery administration vessels, etc.



## MF100 Series Medium-frequency Power Supply

MF100 is a product developed for medium frequency power supply applications.



AC 1PH 220V (-15%)- 240V (+10%) 1.1- 2.2KW  
AC 3PH 380V (-15%)- 440V (+10%) 2.2- 500KW

- Temperature control function
- Automatic frequency detection function
- Automatic voltage adjustment function
- Constant voltage and constant current dual working mode
- Output frequency up to 6000Hz

### Production application

Ozone generator, pumping rod heating and other induction heating applications.



## DSV200 Series Servo Spindle Drive

DSV200 series simple servo drive adopts the high-performance closed-loop vector control, which can provide more stable, reliable, and accurate position control, speed control and torque control, and realize the driving of asynchronous servo motors and synchronous motors. It supports incremental encoders, single-turn 17bit absolute encoders, and two-way incremental encoders. The modular design of PG card makes it easy to choose. With the strengthened environmental adaptability, customized and industrialized design, and more industry-specific functions, the product can be applied more flexibly.



AC 3PH 380V (-15%)- 440V (+10%) 2.2- 15kW

- Support EtherCAT bus communication
- Semi-book type structure design, servo appearance
- Adopt pluggable terminals, facilitating on-site wiring and maintenance
- Equipped with spindle positioning, rigid tapping and other specialized functions
- Support a variety of encoders (incremental, single-turn 17bit absolute)

### Production application

Machining centers, high-speed tapping machines, CNC lathes, CNC milling machines, lathe-milling machines, vertical lathes, woodworking rotary lathes, and other applications where low speed drilling, position positioning, high-speed tapping, rigid tapping and C-axis control are required.



## DSV110 Series Drive for Flying Shears

DSV110 drive for flying shears can be used to drive asynchronous motors and permanent-magnet synchronous motors, which can support multiple types of encoders, equipped with built-in flying shear cam curve, support cutting based on fixed lengths and color codes, provide cam profiles with smooth Sine curves, and thus can implement smooth cutting on materials. DSV110 supports dual motor driving for cutters and 1:1 direct driving of motors for cutter shafts. When direct driving is adopted, the Z-pulse signals of the motor encoder serve as the cutting point signals for the flying shear, which has high cutting precision.



AC 3PH 380V (-15%)- 440 (+10%) 4- 315kW

- Built-in color code function
- Fast and accurate positioning
- High flying shear accuracy  $\pm 1\text{mm}$
- Built-in flying shear algorithm and simple debugging

### Production application

Widely used in the industries such as wire cutting based on fixed lengths and color codes (bag making machines and food packaging machines), thin plate cutting, corrugated paper cross-cutting, cardboard paper cross-cutting, and cultural paper cross-cutting.



## IPE300 Series Engineering Single-drive VFD

IPE300 series engineering VFD is a high-performance vector single-drive VFD oriented to engineering applications, which can drive permanent magnet synchronous motors and three-phase asynchronous motors, and support a variety of control modes, such as closed-loop vector, open-loop vector, space voltage vector, and torque control.



AC 3PH 380V (-15%)- 440V (+10%) 1.5- 500kW

AC 3PH 520V (-15%)- 690V (+10%) 22- 630kW

- Powerful communication function
- Support the mainstream control system
- Integrated with energy-saving control algorithm to reduce the operating costs
- Meet the 3C3 environmental requirements of IEC60721-3-3
- Support the built-in DC reactor, with high power utilization rate

### Production application

Equipment driving with high reliability and performance requirements in the non-ferrous, metallurgy, paper making, petroleum, chemical, HVAC water supply, municipal engineering, electric power, building material and power source industries.



## GD880 Series High-performance Engineering VFD

GD880 series engineering VFD is divided into two topologies: single drive and multi-drive, which is a drive product positioned in high-end applications. Through performing the modular design based on the DFX concept and adopting advanced control algorithms, the product features the advantages of excellent speed and torque control performance, high reliability, high power density, convenient installation, debugging, maintenance and comprehensive protection, facilitating the localization upgrade of process industry and continuous production equipment.

### Power range

GD880-41 (3PH braking unit)	GD880-71 (basic rectifier unit)	GD880-91 (active rectifier unit)
400V 500kW- 750kW	400V 475kW- 3616kW	400V 64kW- 3167kW
690V 870kW- 1300kW	690V 650kW- 5183kW	690V 437kW- 6070kW
GD880-51 (inverter unit)	GD880-81 (regenerative rectifier unit)	GD880-16 (two-quadrant cabinet)
400V 4kW- 3000kW	400V 76kW- 3513kW	400V 355kW- 1000kW
690V 55kW- 6300kW	690V 64kW- 6057kW	690V 400kW- 1300kW

### CCS

400V:380V (-15%)- 480V (+10%)  
690V:500V (-15%)- 690V (+10%)



- Excellent speed and torque control performance
- Ergonomic design to make installation and maintenance easier
- Enriched expansion capability to support various protection options
- Modular design, as flexible as building blocks, which makes the project integration simple and efficient
- Long-life component selection and fast fault recovery design to ensure efficient process control

### Production application

Metallurgy, port machinery, lifting, shore power, petroleum, petrochemical, municipal engineering, chemical, electric power, building material, mining, shipbuilding, paper making, dynamometer, EPS, etc.



## GD1000 Series VFD for Coal Cutters

GD1000 series VFD for coal cutters is a variable-frequency drive unit with delicate structure and excellent performance.

AC 3PH 380V $\pm$ 15% 75kW- 110kW  
AC 3PH 1140V $\pm$ 15% 75kW- 110kW



- Labeling structure to make installation easy and quick
- Integrated design to save the space
- Professional drive solution with unbalance  $\leq$ 3%
- Professional and severe vibration test and superior seismic performance

### Production application

Coal mining equipment such as coal cutters, continuous mining machines, alpine bolter miners and shuttle cars in mining industry.



## GD2000 Series VFD for Mines

GD2000 series VFD is a high-performance vector VFD movement product.



AC 3PH 660V  $\pm 15\%$  22kW- 500kW

- Wide voltage input range
- Modular design to make maintenance easier
- Multi-machine synchronous operation with function equilibrium
- Compatible with synchronous/asynchronous motor drive control

### Production application

Belt conveyors, hoisters, winches, emulsion pumps, electric submersible pumps, mine fans, pumps, etc.



## GD3000 Series Three-level Medium Voltage VFD

GD3000 series VFD is a high-performance vector VFD, which uses the three-level topological structure and supports both two-quadrant and four-quadrant modes.



AC 3PH 660V  $\pm 15\%$  800kW- 1600kW

AC 3PH 1140V  $\pm 15\%$  55kW- 1000kW

AC 3PH 3300V  $\pm 15\%$  800kW- 2500kW

- Three-level topology and control technology
- Equipped with AFE rectification technology to realize energy feedback
- Integrated with synchronous and asynchronous motor drives, with high usability
- Modular design and compact structure to facilitate system integration
- Excellent master-slave control to realize multi-motor power balance

### Production application

Belt conveyors, scrapers, hoisters, emulsion pumps and mine fan in mining industry; electric submersible pumps, pumping units, drilling rigs, fracturing plunger pumps in petroleum industry.



## GD5000 Series Medium Voltage VFD

GD5000 series second-generation medium voltage variable-frequency speed regulation device adopts the mainstream power unit series connection technology with the DSP + ARM + FPGA triple-core processor as the control core, achieving high control accuracy, fast response speed, and low frequency and large torque.



Two-quadrant:	AC 3PH 10kV 400- 10000kW
AC 3PH 3kV 220- 2800kW	AC 3PH 11kV 400- 10800kW
AC 3PH 3.3kV 220- 3150kW	
AC 3PH 4.16kV 250- 4000kW	Four-quadrant:
AC 3PH 6kV 315- 6000kW	AC 3PH 6kV 250- 1400kW
AC 3PH 6.6kV 315- 6300kW	AC 3PH 10kV 315- 2500kW

- Energy feedback four-quadrant operation capability
- Magnetic flux and dual-frequency fast motor braking technology
- Closed-loop vector, open-loop vector and vectorized VF control technology
- Support the neutral-point drifting unit bypass protection technology
- Master-slave control technology to achieve power balancing among up to 16 motors

### Production application

Fans, pumps, air compressors, belt conveyors and rolling mill loads in the electric power, metallurgy, cement, chemical, mining, municipal engineering, petrochemical, sugar, paper making, pharmaceutical and other industries.



## iSVG Series High-voltage Static Var Generator

iSVG series high-voltage static var generator is a static high-voltage dynamic reactive compensation equipment developed and produced by INVT, which can compensate reactive power as well as harmonics.



AC 3PH 6KV 1- 16MVA
AC 3PH 10KV 1- 25MVA
AC 3PH 35KV 1- 25MVA

- Suppress voltage fluctuation and flicker
- Suppress the grid 3PH imbalance
- Reduce the line loss to improve the line transmission capacity
- Harmonic dynamic compensation to improve power quality
- Compensate system reactive power to improve power factor
- Maintain the voltage at the receiving end to enhance the system voltage stability

### Production application

Mainly used in electric power industry, new energy power plants, electric arc furnaces, rolling mills, rail transportation, coal mining and port industries.



## MH860A Series Electro-hydraulic Servo Drive

Designed for hydraulic equipment such as injection molding machine, die-casting machine, and hydraulic press, the MH860A series hydraulic servo drive features energy saving, high accuracy, high efficiency and durability for adopting high-performance vector control. The drive has rich external expansion and CAN communication interfaces, helping to form a multi-pump parallel system to realize the hydraulic control on large flow equipment.



- Achieve pressure-release control with mini. reverse amount
- Simple gain adjustment and gain switching function
- Easy to use: Pluggable terminals for easier maintenance and on-site wiring
- High reliability: Built-in C3 filter, the core circuit board is equipped with a thickened protective coating as standard configuration
- Optional expansion cards, supporting Modbus, EtherCAT, PROFINET and other bus communication protocols

### Production application

Widely used in injection molding machines, die-casting machines, hydraulic presses, bending machines, etc.



## DA180A Series General Servo Drive

DA180A series AC servo drive is a new generation of INVT servo platform product, which adopts the modular design and supports various functions such as online/offline inertia identification, gain switching, automatic/manual notch filter, automatic/manual vibration control filter, medium-frequency vibration suppression, internal point-to-point (PTP) control and dynamic braking.



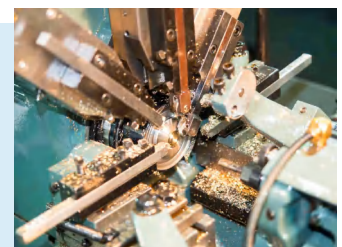
AC 3PH 220V (-15%)- 240 (+10%) 0.2- 1kW



- Triple overload, power surge
- Internal point, return to the original point
- Independent air duct used for multi-environment
- Support Modbus, CANopen and EtherCAT
- Single-board design, overall mold, ultra-high cost-effective

### Production application

Widely used in printing and packaging, textile machinery, warehousing and logistics, electronic processing and manufacturing, metal cutting, woodworking machinery, and other general equipment.



## DA180 Series General Servo Drive

DA180 series general servo drive is a new generation of INVT simplified single-axis servo product, which retains the main functions and advantages of DA200 high-performance AC servo drives while reducing the volume and cost. It provides efficient and competitive solutions for the intelligence, simplification, networking and high efficiency of general-purpose equipment.

AC 220V ( $\pm 15\%$ ) 0.1- 2kW

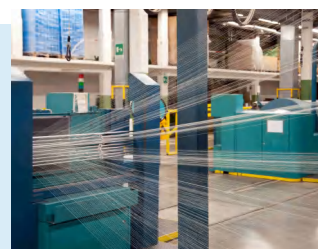
AC 380V ( $\pm 15\%$ ) 1.5- 2kW



- Speed response up to 2.0kHz
- Fully closed-loop control and internal position control
- Small shape to achieve equipment miniaturization
- Support CANopen, Modbus and EtherCAT fieldbus technology
- Low-frequency vibration suppression, disturbance suppression, friction torque compensation, and automatic/manual notch design

### Production application

Widely used in printing and packaging, textile machinery, warehousing and logistics, electronic processing and manufacturing, metal cutting, woodworking machinery, and other general equipment.



## DA200 Series High-performance Servo Drive

DA200 servo drive series products adopt the modular structure with abundant functions and powerful performance. The upper computer software adopts USB communication, uses a variety of bus communication, digital pulse and analog inputs, and supports safety terminals for matching multiple types of encoders. With powerful adaptive software, high-precision control and reliable EMC design, it can be applicable to most of the market equipment and environmental applications.

1P/3P AC 220V (-15%)- 240V (+10%) 0.1- 4.4kW

3P AC 380V (-15%)- 440V (+10%) 1- 55kW



- Speed response up to 2.0kHz
- Support multiple bus technologies
- Fully closed-loop control and internal position control
- Support a variety of transformers such as second encoder
- Low-frequency vibration suppression, disturbance suppression, friction torque compensation, and automatic/manual notch design

### Production application

Widely used in robotics, CNC machine tools, lithium battery equipment, high-speed die-cutting machines, LED processing equipment, laser equipment, printing and packaging, woodworking machinery, and other general machinery equipment.





## DA200A Series Servo Drive

To enhance the servo system competitiveness and better meet the needs of customers in niche industries, we launch DA200A series AC servo drive—a new servo product series based on a stable technology platform. This series further improves system performance, robustness, and ease of use, integrating control algorithms for linear and direct drive motors, and offering a wide range of product configurations. When working with the IMS20B series motors, it significantly enhances the servo system cost-performance ratio.



1P / 3P AC 220V (-15%) - 240V (+10%): 2.8A- 13A

3P AC 380 (-15%)- 440V (+10%): 1.6- 21A

- Support for rotary servo motors, linear motors, and torque motors
- Support for STO (Safe Torque Off) function
- Integrated brake control relay
- Standard with dynamic braking function
- UL certification for export (in preparation)

### Production application

Suitable for general machinery such as 3C electronics manufacturing equipment, laser equipment, woodworking machinery, printing and packaging machines, and high-speed die-cutting machines.



## IMS20A Series Servo Motor

IMS20A series motor is a new generation of INVT high-performance permanent-magnet synchronous motor product whose power range is 0.1kW~90kW. With the advanced electromagnetic design and installation of high-precision encoder, the product can match with all series of servo drive products, and feature fast response, accurate positioning, low temperature rise and wide load range.



- Absolute positioning accuracy within  $\pm 15$  arc seconds
- Improve the short-term overload capacity by 2.5 to 3.0 times at rated speed
- Anti-vibration design to meet most industrial applications

### Production application

Widely used in robotics, CNC machine tools, lithium battery equipment, high-speed die-cutting machines, LED processing equipment, laser equipment, printing and packaging, woodworking machinery, and other general machinery equipment.

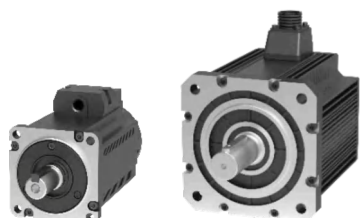


## IMS20B Series Motor

IMS20B series motor is INVT latest generation of permanent magnet synchronous servo motor. This series features strong overload capacity, a wide speed range, low temperature rise at running, and compact dimensions.

AC 220V 0.5- 3kW

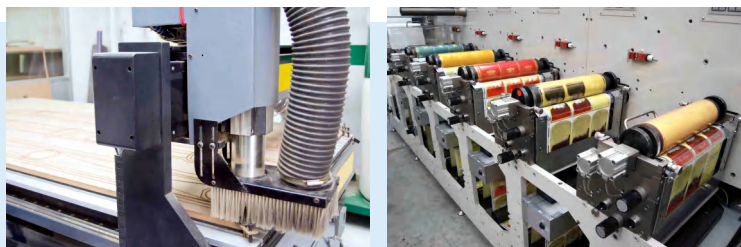
AC 380V 0.2- 79kW



- Frame sizes 40, 60, 80: Rated for 3.5 times overload capacity, with a maximum speed of 7000 rpm (in preparation)
- Frame sizes 130, 180: Rated for 2.5 to 3 times overload capacity, with a maximum speed of 4500 rpm
- Compliant with Class 1 energy efficiency standards
- High absolute positioning accuracy, within  $\pm 15$  arcseconds

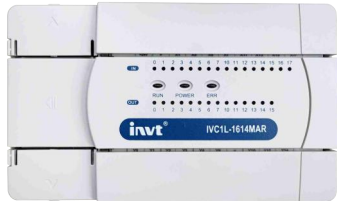
### Production application

Suitable for general machinery such as 3C electronics manufacturing equipment, laser equipment, woodworking machinery, printing and packaging machines, and high-speed die-cutting machines.



## Small Economical PLC-IVC1L

IVC1L is a small general-purpose PLC product with compact structure, rich models, complete functions and flexible I/O configurations, which can be widely used in mid-low end and small-scale points as well as simple positioning applications.



- 16K step program space
- Two 50K + 4 10K high speed inputs
- Three 100K high-speed outputs (transistor type)
- The max. number of I/O points is 60 points, supporting 7 expansion modules
- One RS232, Two RS485, supporting MODBUS master/slave communication

### Production application

Widely used in textile machinery, lifting machinery, building material machinery, food packaging equipment and other industry equipment.



## Small Motion Control PLC-TS600 Series

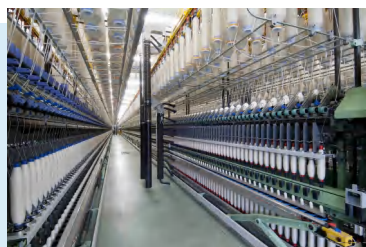
INVT TS600 series small PLC integrates the high-performance embedded technology, integrating four major types of automation control, such as sequence, process, information, and motion and control, into the same system based on the high-speed bus system architecture. The software and hardware real-time system with high reliability conducts real-time control and complex computing, and provides open communication interfaces, IoT network and distributed module system architecture.



- High performance: 1G basic frequency, bitwise operation 0.01us
- Cloud coordination: Support IoT operation and maintenance, 4G, expansion
- Strong motion control: EtherCAT bus, 32 axes at most, synchronization cycle of 2ms
- Easy programming: PLCopen specification, pulse axis, bus axis compatible with a set of axis control instructions

### Production application

Widely used in printing and packaging, textile, woodworking, lithium, 3C electronics, logistics, machine tools and other automation industries.



## Medium Motion Control PLC-AX Series

AX series programmable controllers are high-performance generic controllers for medium and large-scale control systems, which is equipped with advanced built-in functions and rich expandability, highly integrates diverse motion control communication buses, and connects with drive products to provide customers with optimal automation control systems, improving productivity and product quality and cutting development and maintenance costs.



- Strong networking capability
- Advanced motion control
- Large-scale distributed expansion
- Various interpolation functions, supporting S-curve smooth ACC/DEC and T-curve quick ACC/DEC
- The CPU module supports 32 bus servo axes at most, and the synchronization period supports 1/2/4/8ms

### Production application

Packaging, printing, electronic manufacturing and nonstandard automation, lithium, woodworking and other industry equipment or small and medium-sized production lines.



## Medium-sized high-performance PLC – TM700 series

TM700 series high-performance programmable controller is mainly used in scenarios with high motion control requirements and complex control networks. It has significant improvements in control performance, communication capabilities, and programming efficiency, allowing you to flexibly build control networks. Through OPC UA, it easily achieves data interaction with the information layer, further enhancing equipment cycle times, shortening development cycles, and providing an outstanding experience.



- 1ms@16-axis EtherCAT bus motion control
- With buffermode function for smoother command transitions
- OPC UA and tag communication for more efficient data interaction
- Expansion cards of multiple specifications for flexible system solutions
- Integrated with various kinematic models for easy control of various robotic arms

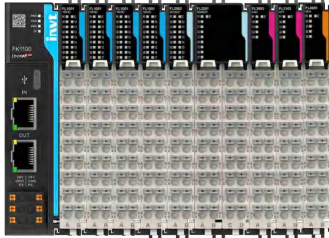
### Production application

Packaging, printing, logistics and warehousing, photovoltaics, 3C, woodworking, and other industrial equipment and small and medium-sized production lines.



## Remote I/O-Flex Series

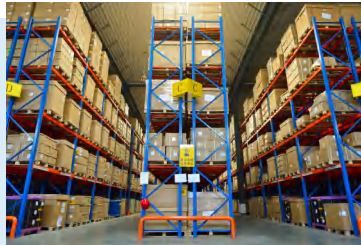
Flex series I/O system is a flexible, reliable and efficient signal transmission system. The system is able to access to multiple standard communication networks, respond in microseconds, and equipped with rich signal modules to meet various industrial automation needs while saving the cabinet space, helping you develop more competitive personalized solutions.



- Channel-level diagnostics, color-blocked marking, and self-contained wiring diagrams
- 12mm slim design to save the space in the electrical cabinet greatly
- Push-in in-line technology to increase the wiring efficiency by 70%
- Equipped with 100Mbps F-BUS internal bus for microsecond response
- Multi-protocol communication coupler with rich I/O modules, flexible configuration

### Production application

Equipment, production lines and factory automation in discrete automation and process automation.



## Economical HMI-VS-Q Series

VS-Q series is a high-quality HMI featuring rich display, huge performance, flexible configuration, easy to use and more cost-effective, which can easily realize the HMI function in various fields of industrial automation.



- Full-sized coverage with 4.3/7/10/15 inches
- Support IoT remote operation and maintenance (4G/WIFI version)
- Dual-core CPU, main frequency up to 1.2GHz
- Rich configuration controls to support C language macro instruction programming

### Production application

Widely used in manufacturing, water treatment, textile, packaging, woodworking, medical, food, agricultural and other industries.



# High-quality HMI-VK Series

CE



- 3 serial ports
- Support macro instructions
- Backlight life of 20,000hr
- Regular size of 4.3/7.0/10.1 inches

## Production application

Widely used in textile industry, electronic manufacturing, packaging, woodworking, medical, food, printing, wind power and other industries.



## IWOLink Data Terminal Product

To flexibly adapt to the data collection needs of various industrial equipment and different network scenarios, INVT has launched a series of data collection products to provide fast, easy, and secure IoT data connection solutions.

### TBox series



- APP Bluetooth debugging: APN service, Wi-Fi hotspot, communication parameter settings
- Remote programming: VPN virtual network, serial port transparent transmission
- Remote OTA: Networking configuration, program upgrades, status monitoring, data collection strategies
- Precise flow control: Modbus collection, MQTT upload, customizable reporting strategies: active upload/change upload/traffic saving/custom rules

### ICA417 series



- Plenty network ports: 2\*LAN ports supporting routing + 1\*WAN port supporting mobile network
- Mobile hotspot + switch: Built-in routing and switching functions
- PLC/HMI program debugging: VPN virtual network, serial port transparent transmission
- Edge computing: Local protocol parsing, 10M data caching, offline data continuation

## IWoScene IoT Application System

The IWoScene industrial IoT application platform from INVT is an IoT system that can be remotely monitored, managed, analyzed, and maintained. It features a user-friendly interface and simple operation, allowing you to quickly get started. Through lifecycle management, users can quickly understand equipment usage history and always know the equipment's operational status through data analysis and predictive maintenance. The platform processes data to remind about equipment maintenance and send fault alarms. It also supports real-time monitoring, remote control, and remote upgrades. IWoScene addresses the issues of inconvenient equipment management and maintenance, making work more efficient.



- Universal access: Supports data access for devices of various brands and protocols
- Easy to use: Simple operation and user-friendly interface
- Multiple displays: Supports PC, mobile app (Android, iOS), and large screen display
- Powerful functions: Data cockpit, remote OTA, predictive maintenance, black box data, equipment lifecycle management

# IWOCloud IoT Cloud Platform

INVT has developed an industrial IoT data processing platform, providing a stable, secure, and efficient foundation for various IoT industries and application scenarios. As the brain of the IoT system, IWOCloud provides the capability to connect a large number of data terminal nodes and handle high concurrent terminal access. It processes uploaded data from various devices, including data reception, cleaning, sorting, distribution, and storage. Additionally, it offers database interface with standardized data format for external use, meeting the evolving needs of enterprise informatization.



- Stability and security: Combines software and hardware firewalls to prevent external intrusion and malicious requests; data encryption and real-time data backup
- Remote disaster recovery: Enhances data security through cross-region data copying
- Distributed architecture: Improves data flow control capabilities
- Powerful data processing mechanism: Abstracts business data from all industries into a unified data format, serving all industries as a big data cloud platform
- Privatization: Supports local private deployment to meet customer demands for data security and customized business applications
- Multi-device access: Supports the connection of a large number of devices and high concurrency
- Standardized interface: Provides standard API data interfaces for third-party business systems to call

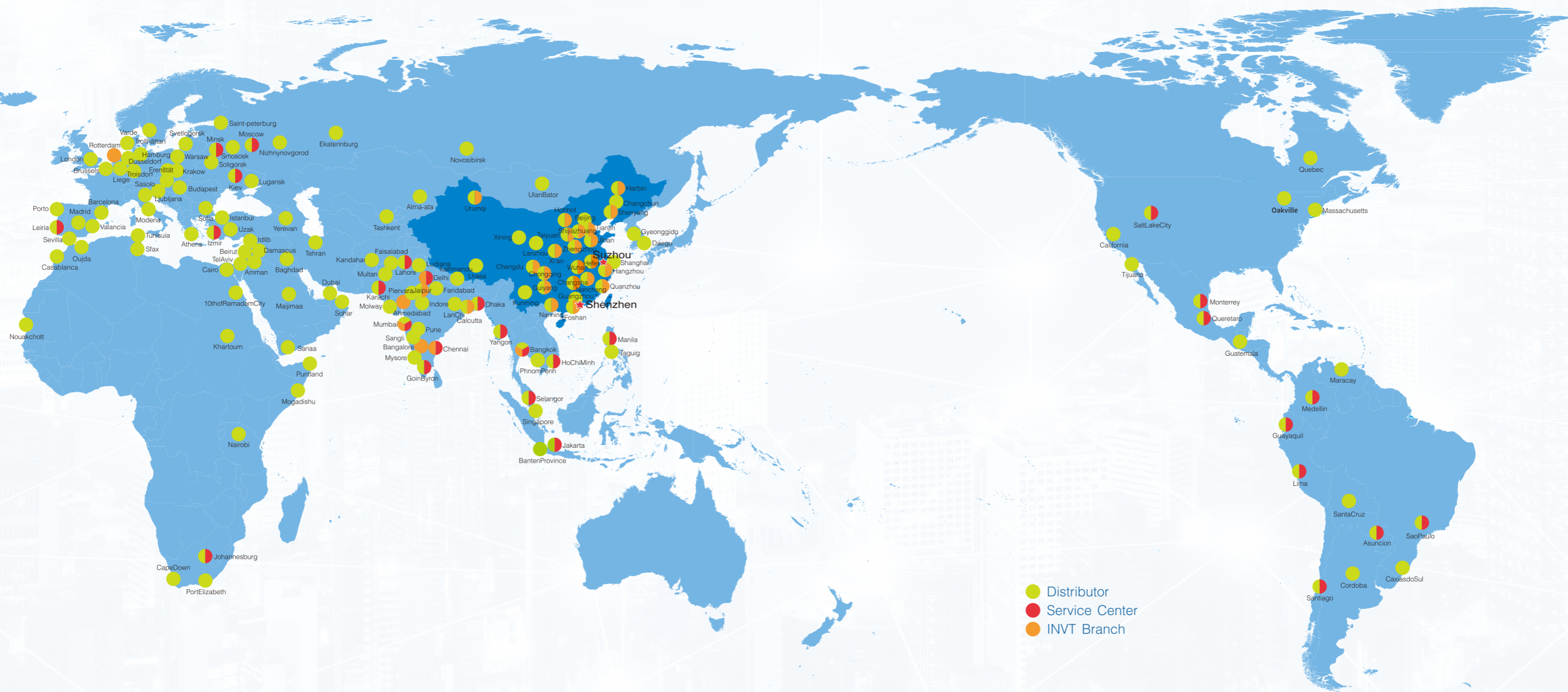
## Production application

Widely used in IoT application scenarios in various industries.





# INVT marketing service network



Factories\* **3**  
 Headquarter in Shenzhen  
 Overseas subsidiaries and offices\* **8**  
 More than **100** overseas partners

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  - PLC
  - VFD
  - Servo System
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  - Rail Transit Traction System
- Electric Power:**
- UPS
  - DCIM
  - Solar Inverter
  - New Energy Vehicle Powertrain System
  - New Energy Vehicle Charging System
  - New Energy Vehicle Motor

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