



# Industrial Automation Product Catalogue

**inv**t  
www.inv.t.com

# Corporate Brief

Shenzhen INVT Electric Co., Ltd. (stock code: 002334, hereinafter referred to as INVT) was founded in Shenzhen in 2002. With over two decades of development, INVT has built a diversified business portfolio spanning four major sectors: **Industrial Automation, Network Power, E-Mobility, and PV & ESS.**

As a benchmark of intelligent manufacturing in China, INVT delivers state-of-the-art products and solutions to customers worldwide. By deeply integrating technological innovation with application knowhow, INVT leverages its strong R&D capabilities and extensive industry experience to help customers achieve sustainable development.



**TOP 2**

Top 2 Chinese Brand in LV & Medium Voltage Drives

**TOP 2**

Modular UPS Brand in China

**TOP 5**

Row-level Precision Air Conditioner Brand in China

**TOP 3**

Commercial EV Controller in China

**TOP 2**

EV Controller for Light Truck

## Major Breakthroughs

- First Chinese drive brand got UL and TUV certification
- First to deliver AFE four-quadrant VFDs to the steel industry
- Won the world's largest 2 million-ton CCUS project in Baogang Group
- Launched the world's first solar pump inverter
- First Chinese brand main drive systems installed for electric drilling rigs
- World's first continuous heat treatment production of ultra-thin, ultra-high-strength hot-rolled steel

## Manufacturing Honor

- **2023 Digital Transformation Contribution Award**
- **2023 Excellent Service Provider in Intelligent Manufacturing in Suzhou**
- **2024 3A-Level Green Factory in Suzhou**
- **2025 Advanced Intelligent Manufacturing Factory in Jiangsu Province**

# Global Footprint



Global Markets

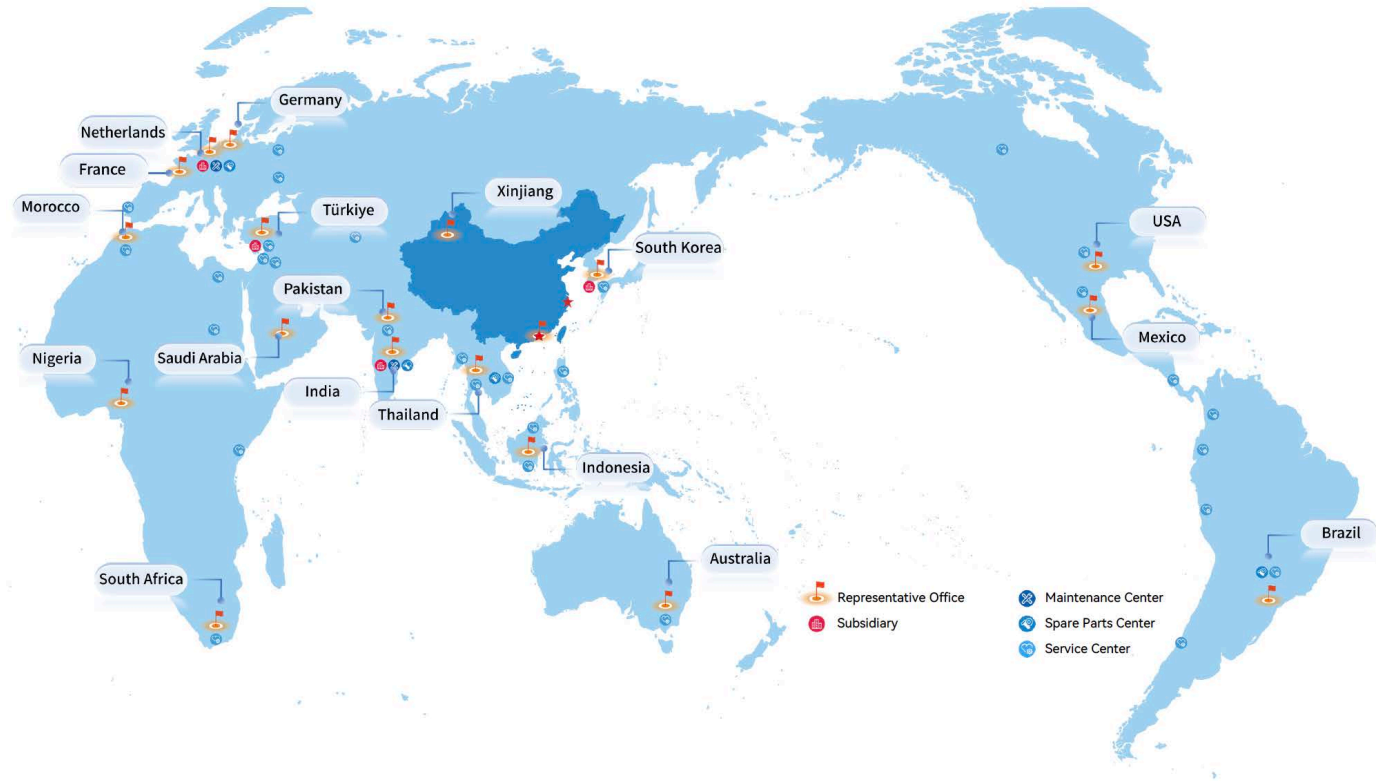


Channel Partners



Service Centers

China	400+	135
Asia Pacific	90+	13
India	120+	11
Middle East	50+	4
Africa	60+	3
Central Asia	60+	2
Europe	110+	4
Americas	120+	14



120+	1000+	18	5	40+	4	180+
Countries and Regions	Channel Partners	Overseas Representative Offices	Overseas Subsidiaries	Domestic Offices	Bases	Service Centers

**23** years of

Technological Experience

**25%**

of Employees in R&D

**10%**

R&D Investment

**5**

R&D centers

**1800+**

Granted Patents

**480+**

Granted Invention Patents

## Hardware Development Library

Component Library

Preferred Device Library

CBB Library

Material Failure Database

Technical Specification Library

Test Specification Library

Expertise Library

Corporate Standards Library ...



## Supporting Testing Facilities



**Quality Management System Certifications:** IATF 16949:2016 | ISO 9001:2015 | ISO/IEC 17025:2017 | ISO/TS 22163:2017

**Environmental Management System Certification:** ISO14001:2015

**Occupational Health and Safety Management System Certification:** ISO 45001:2018

**Laboratory Accreditation :** CNAS Certificate | TUV ACT Certificate | UL Laboratory Certificate | CE Certification

## Suzhou Industrial Park



- Site area: 120,000 square meters
- Usable area: 400,000 square meters
- R&D centre of Industrial Automation business in East China
- Advanced manufacturing base for Industrial Automation products including LVD, MVD, Servo system, Elevator integrated drive, PLC, HMI

### Low-Voltage VFD & Motion Controller

Planned annual capacity:

**3.6+ million units**

### Medium-voltage Drive

Planned annual capacity:

**30,000+ units**

### Servo Motor

Planned annual capacity:

**600,000+ axes**

## Zhongshan Industrial Park



- Site area: 93,000 square meters
- Usable area: 330,000 square meters
- Advanced manufacturing base of network power and renewable energy products including UPS, Precision air conditioner, Grid-tied inverter, Hybrid inverter, EV controller, Powertrain system

### Network Power

Planned annual capacity:

**270,000+ units**

### PV & ESS

Planned annual capacity :

**240,000+ units**

### E-Mobility

Planned annual capacity :

**400,000+ units**

# Industrial Automation Products

- VFD
- Servo System
- PLC & HMI
- Elevator Control System

# Industrial Automation Products



Solutions	<p><b>Process Automation</b></p> Petroleum & Refining              Chemical              Mining              Offshore & Marine              Metallurgy					<p><b>Discrete Automation</b></p> Printing & Packaging              Compressor              Rubber & Plastics              Machine Tool              Advanced Manufacturing              Semiconductor              Logistics              Elevator									
IT & OT	<p><b>IoT Data Transmission Terminal</b></p> EC-IC502 Expansion Card              ICA Data Acquisition Terminal              Tbox Data Terminal			<p><b>Certification</b></p>		<p><b>Cloud Platform</b></p>		<p><b>Application Platform</b></p> Remote OTA              Equipment Joint Control              Life Prediction              Predictive Maintenance              Virtual Private Data Network              Electronic Fence              Virtual Network Control							
Controller	<p><b>PLC</b></p> IVC1L PLC              TS600 Arm-based Compact PLC              TM700 Arm-based Motion Controller              TP6000 PC-based Large-scale PLC              TP2000 PC-based Motion Controller					<p><b>Remote I/O</b></p> FL Series              FE Series              FP Series			<p><b>HMI</b></p> VS-Q Touch Screen              VI-Q High Performance HMI						
Fieldbus															
Drive	<p><b>Medium-Voltage Drive</b></p> GD5000-L Series Integrated Type              GD5000-D Series Split-Type              GD5000-SR Four-Quadrant              GD9000 Series High-Performance (Cabinet or unit)              GD3000 Series Oil Fracturing Equipment Cabinet Unit              GD2000 Series Mining-Specific VFD              GD1000 Series Shearer-Specific VFD				<p><b>Dedicated VFD</b></p> GD350-3P Crane VFD              GD100-PV Solar Pump Inverter              SP100 IP66 Solar Pump Inverter              GD170-PV Solar Pump Inverter              GD350-21 2in1 VFD for Compressor              GD350-01H VFD for High-speed Motor              GD350-01 Liquid-cooled VFD              MHR60C Electro-hydraulic Servo Drive              EC140A Integrated Elevator Drive              GD390L High-performance Lift Drive              GD300L Lift Drive              GD350-19 VFD for Crane				<p><b>High-performance VFD &amp; General-purpose VFD</b></p> GD880 Engineering Drive              GD400A High-performance MLC-drive              GD350A High-performance General VFD              GD270 VFD for Pump & Fan              GD200A General-purpose VFD              GD290 Universal VFD			<p><b>Economical VFD</b></p> GD28 Smart Compact VFD              GD27 Compact VFD              GD20 Compact VFD		<p><b>Servo Drive</b></p> DA180A Servo System              DA200A General-purpose Servo Drive              DA340 High-performance Servo Drive	
Motor	Asynchronous Motor              Synchronous Machine              Synchronous Reluctance Motor              IMS20B AC Servo Motor              IMF PM Synchronous Motor              IMS20B High Speed Motor              Linear Motor              Electric Spindle              Water Pump              High-speed Motor              Brake Motor              Door Operator Motor              Encoder														

# Highlights of INVT Industrial Automation Technology

## Advanced Control Algorithm

## Ultra-high Power Conversion

## Functional Safety and Reliability

Functional Safety Design  
Industrial Bus Safety  
Hot Backup Redundant Operation

Wide Bandgap Semiconductor Applications  
High Power Density Design Technology

Ultra Low Speed  
Heavy Load

- **Zero-Speed Ripple Suppression Algorithm:** Achieves speed ripple <0.01% and torque ripple <0.35%
- **Sensorless Zero-Speed Hovering Breakthrough:** Delivers 150% holding torque at zero speed for IM/PM motors, expanding the scope for sensorless substitution
- **Unified Motor Control Model:** Supports Induction, PMSM, SynRM, and Axial Flux Motor control within a single algorithm structure

Ultra-high Speed  
and Efficiency

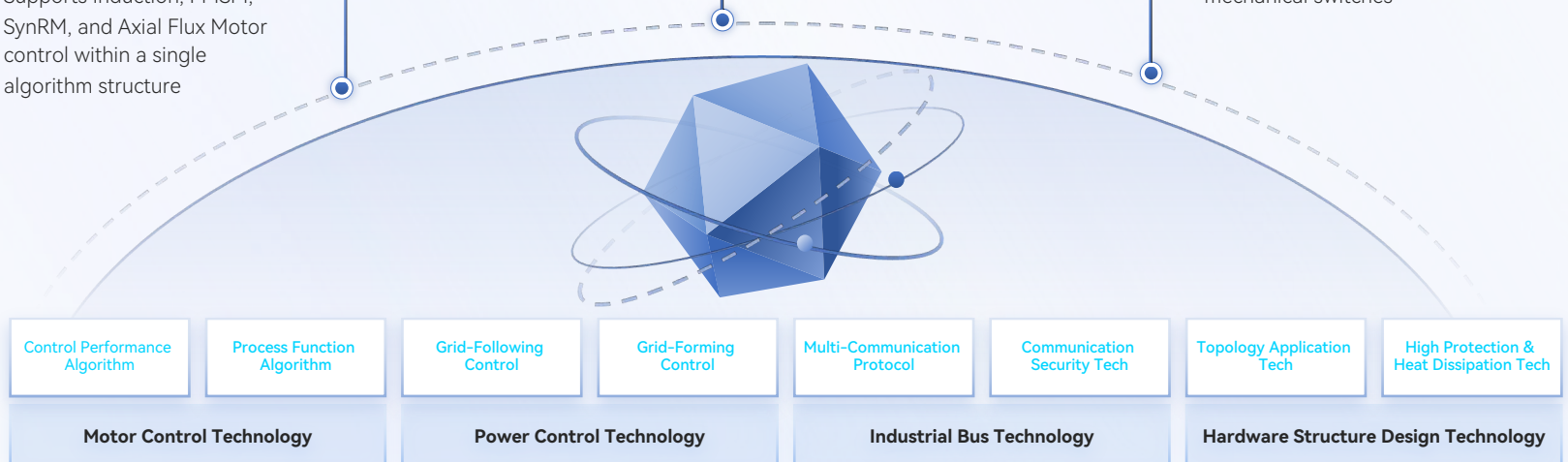
- **AC/DC Hybrid Grid:** Integrates shaft gen & DC storage, cutting fuel by 30% with voltage harmonics <1.5%
- **Multi-Energy Synergistic Control:** Enables rapid integration of diesel, shaft gen, PV, battery storage, and waste heat recovery

Stricter Safety  
Standards

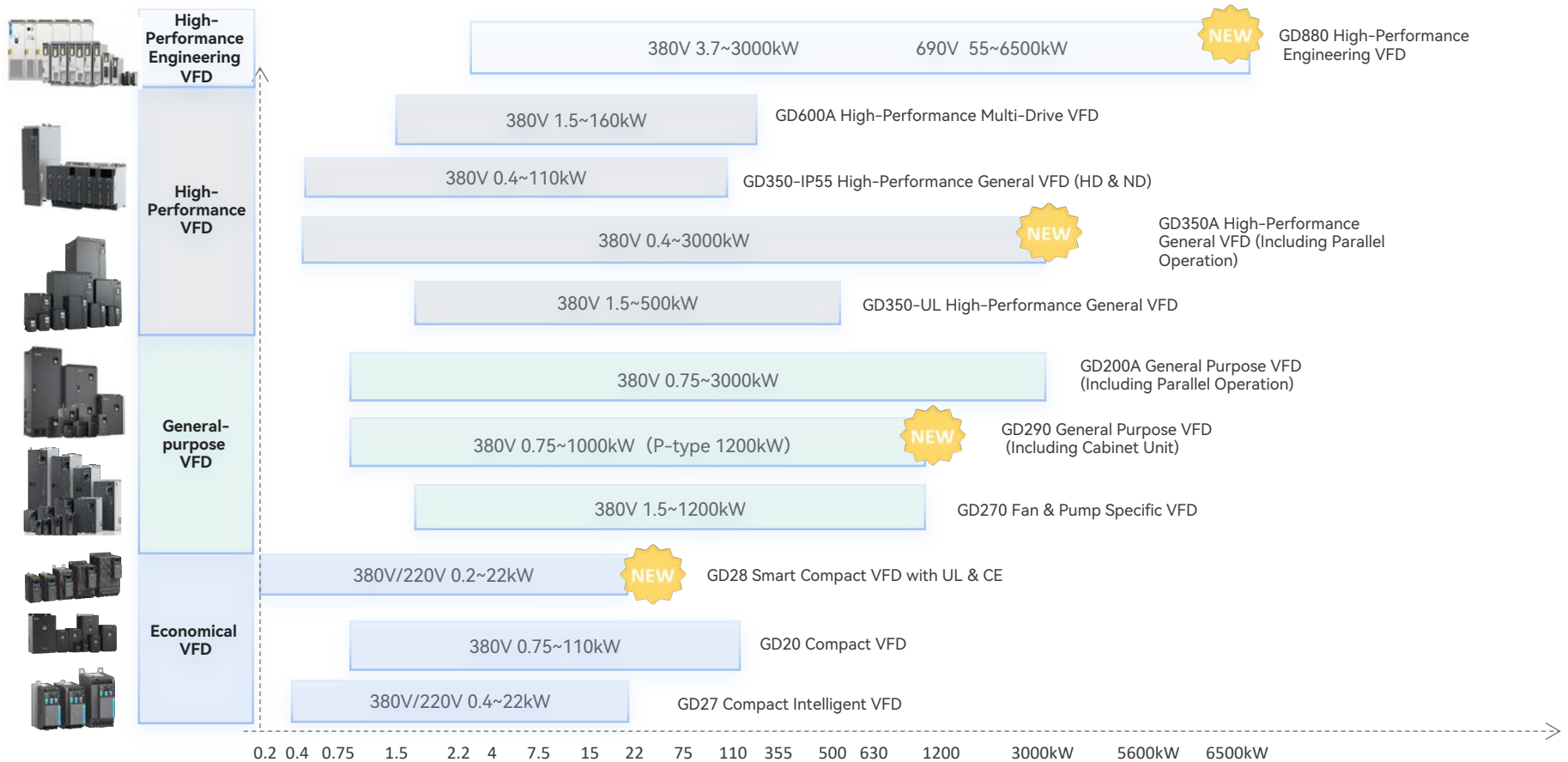
- **Multi-Master Adaptability:** One card supports 6 protocols, compatible with all mainstream PLCs
- **Seamless Replacement:** Supports PROFINET industry protocols
- **Topology Reliability:** Ring network auto-reconfigures, ensuring uninterrupted communication
- **International Certifications:** Achieved PROFINET class C and EtherCat conformance certifications

- **International Certification Compliance:** Meets cyber security, MR, CRA, and IEC/EN 61508, 13849, 61800, 62061 standards...
- **Safety Integrated Functions:** STO SIL2/3, SS1, SS2, SBC, SOS, SLS, SDI, SSM, FSOE
- **Electronic Safety Protection:** STO (Safe Torque Off) and electronic star-delta shutdown (compliant with PESSRAL certification) replace mechanical switches

Industrial AC/DC  
Grid



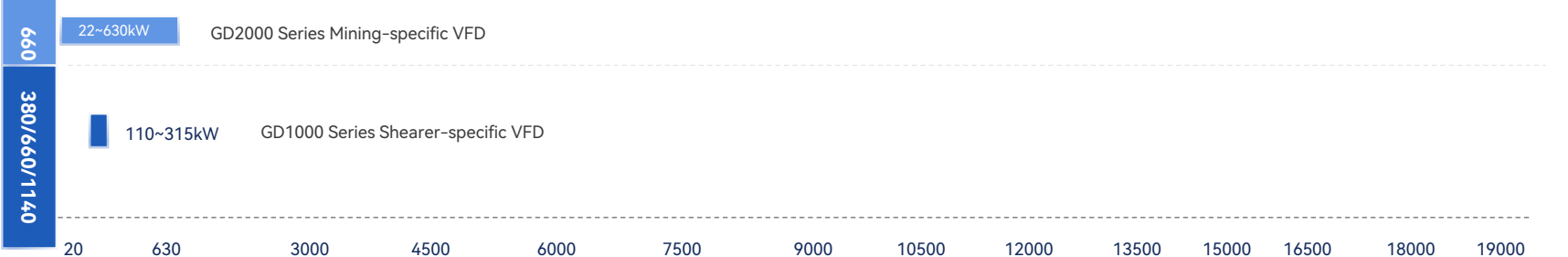
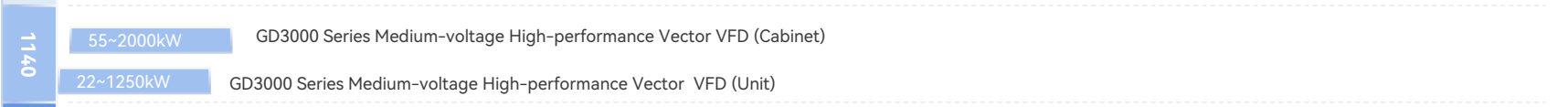
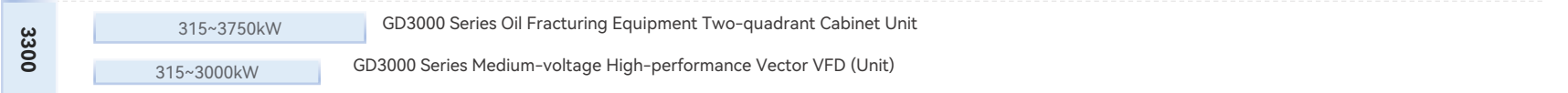
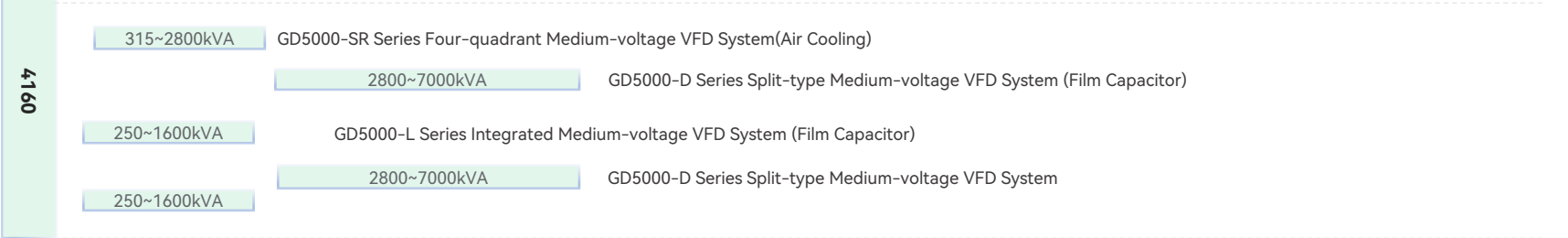
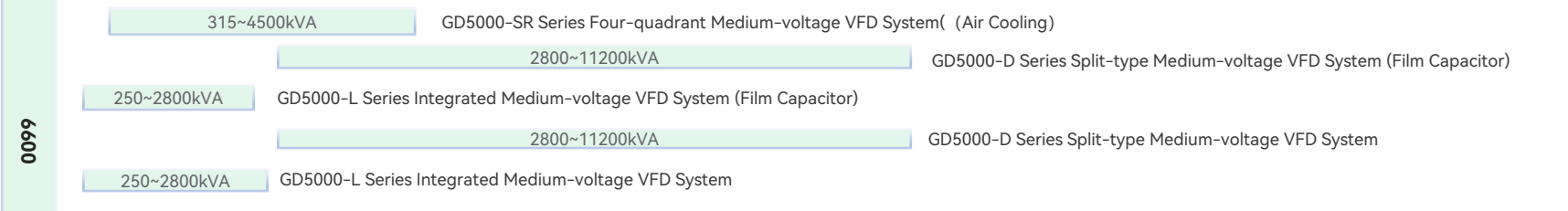
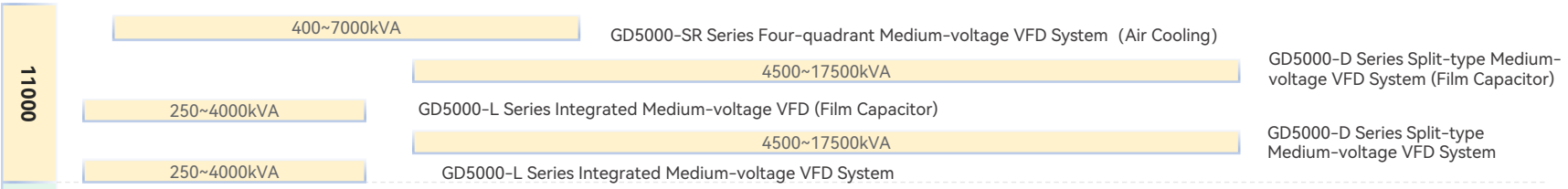
# Low-Voltage VFD



# Medium-Voltage VFD



Unit: V



20 630 3000 4500 6000 7500 9000 10500 12000 13500 15000 16500 18000 19000

# Dedicated VFD



Compressor



7.5~500kW

GD350-01 Series  
Air Compressor VFD



7.5~37kW

GD350-01-FT Series Single-VFD  
Integrated Machine for Air Compressor



7.5~500kW

GD350-01H Series VFD for High-  
speed Motor



15~90kW

GD350-21 Series Dual-VFD Integrated  
System for Air Compressor

## Application

Compressors

Tower Crane

Factory Crane

Injection Molding  
Machine

Elevator

Solar Pump

Crane & Hoist



380V 1.5~500kW  
660V 22~630kW

GD350-19 Series  
VFD for Crane



0.75~37kW

GD20-09 Series  
VFD for Crane



37~45kW

GD350-39 Series Integrated  
Construction Hoist VFD



37~45kW

GD350-39H Series Intelligent & High-  
efficiency Integrated Construction Hoist VFD

Solar Pumping  
Inverter



220V 0.4~7.5kW  
400V 0.75~ 500kW

GD100-PV Series  
Solar Pump Inverter



1.5~500kW

GD170-PV Series  
Solar Pump Inverter



220V 0.75~2.2kW  
380V 2.2~18.5kW

SP100 Series  
Solar Pump Inverter

# Servo System





Auto Station Pro



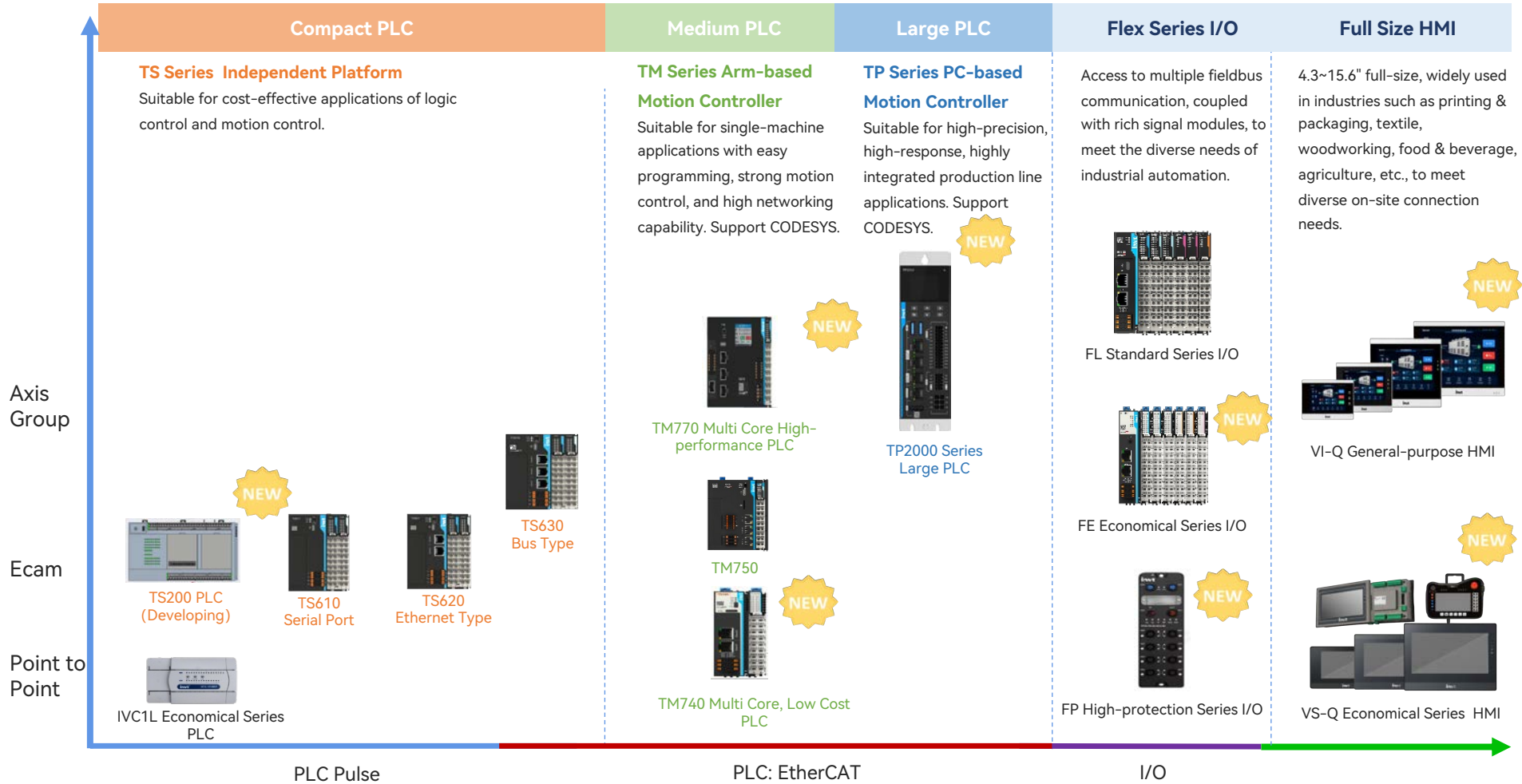
Invtrmatic Studio



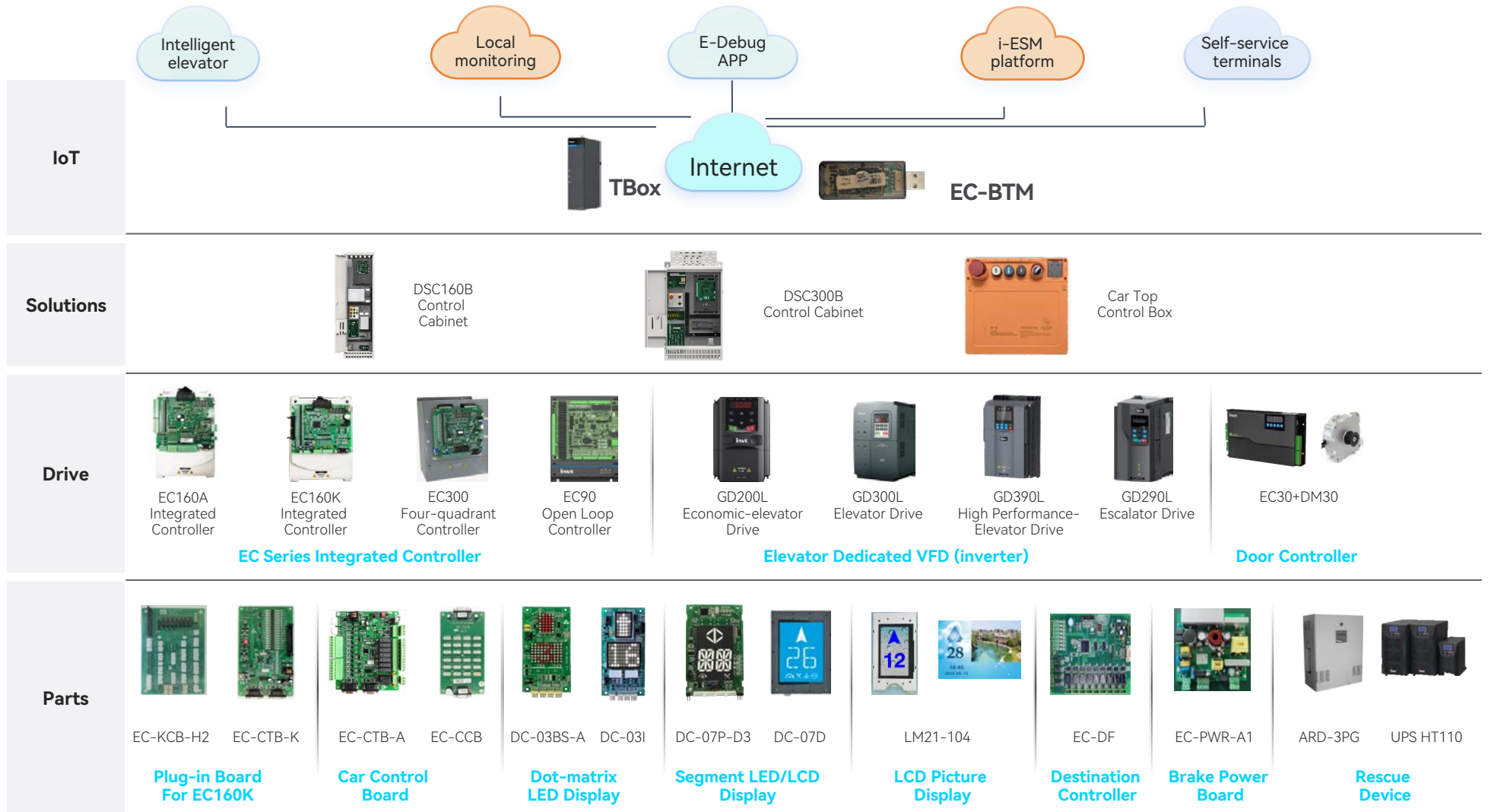
Tools-IO



HMI



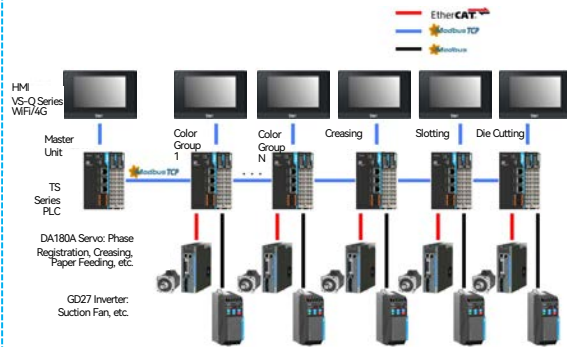
# Elevator Control System



# Application Scenarios



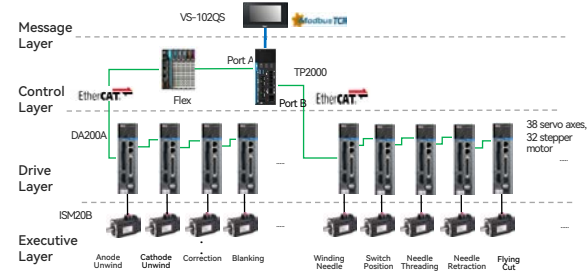
## Printing and Packaging Machinery - Flexo Printer Solution



A flexographic printer is used for surface printing on corrugated cardboard. Based on the CMYK printing principle, customized patterns are formed on the cardboard after it passes through the flexographic printing process.



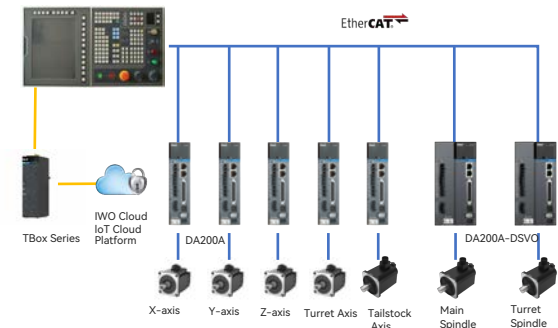
## Advanced Manufacturing - Lithium Cylindrical Winding Machine Solution



A lithium battery winding machine is core equipment used in the manufacturing of lithium-ion battery cells. Its main function is to wind die-cut electrode sheets into a lithium-ion battery cell.



## Machine Tool Industry - Turning-Milling Machine Solution

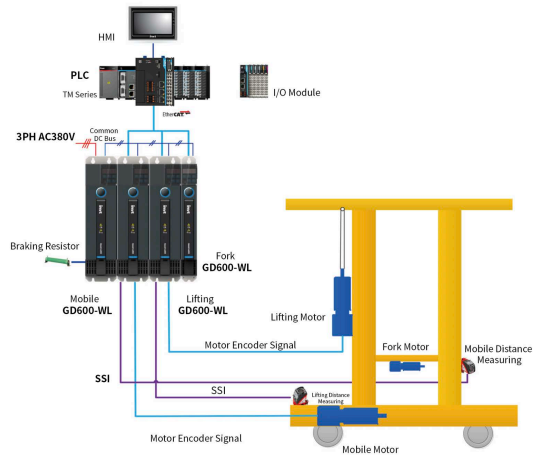


A turning-milling compound machine tool combines turning, milling, drilling, and tapping in a single setup. This reduces clamping time and boosts efficiency, making it ideal for precision machining of complex polyhedral and ring-shaped parts.



# OEM Industry Solutions and Applications

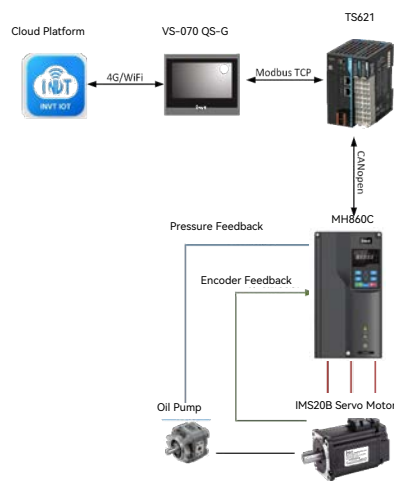
## Logistics and Warehousing - Pallet Stacker Crane Solution



A stacker crane is the core equipment in automated warehouses, handling storage and retrieval through travel, lifting, and fork mechanisms. It features high speed, frequent acceleration, large load inertia, and demands precise positioning.



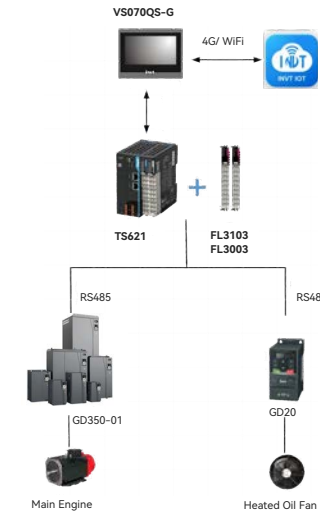
## Electro-Hydraulic System - Hydraulic Press Solution



A hydraulic press uses hydraulic oil and a pump to drive cylinders/pistons for mechanical work. And it is a type of press that utilizes immense static pressure to form, assemble, or disassemble workpieces.



## Fluid Machinery - Dry Oil-free Screw Air Compressor Solution

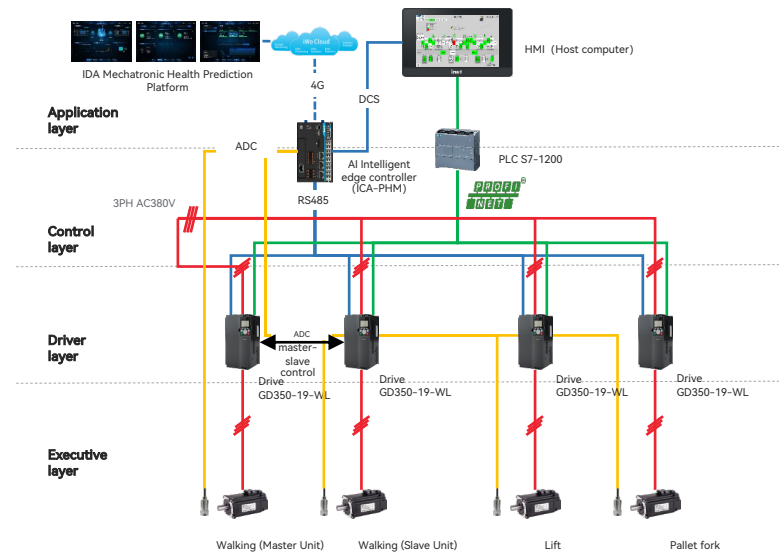


Dry oil-free screw air compressor is an efficient and reliable compression device. Advanced oil-free design eliminates oil contamination and reduces maintenance.



## Digitalization

### - AI Intelligent Health Prediction Solution

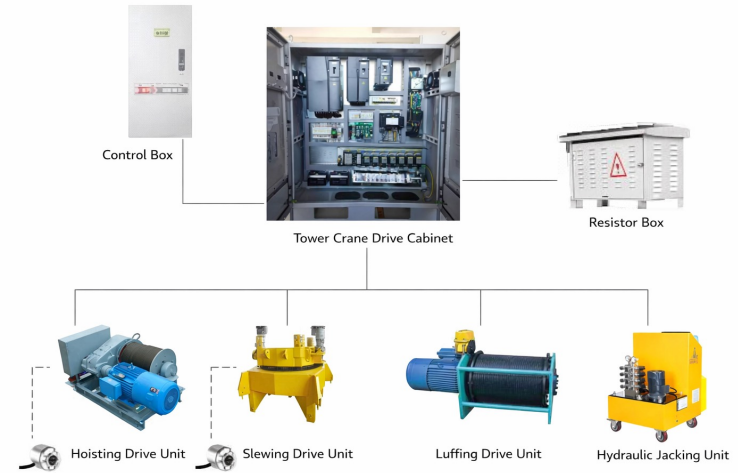


#### Stacker Crane Health Monitoring Process

- Drive analysis- Collect drive data to generate a health score.
- Motor analysis - Monitor X/Y/Z axes and temperature to assess motor health.
- Data transmission- Send health scores to WCS via DCS.
- Platform upload - Transmit drive, motor, and health data to IDA platform via ICA-PHM's 4G module.

## Cranes and Hoisting Machinery

### - Tower Crane Solution



A rotating crane with a jib atop a tall tower. Offers a large working range for vertical transport and component installation in multi-story and high-rise construction.



# Project Solutions and Applications

## Crude Oil Extraction Industry

The equipment widely used in crude oil exploitation are: beam pumping unit, tower pumping unit, electric submersible pump(ESP), etc.

Since the G9 series inverter entered the oil industry in 2004, it has provided users with 20,000 + pumping units, and the market share of direct drive screw pump is as high as 80%.

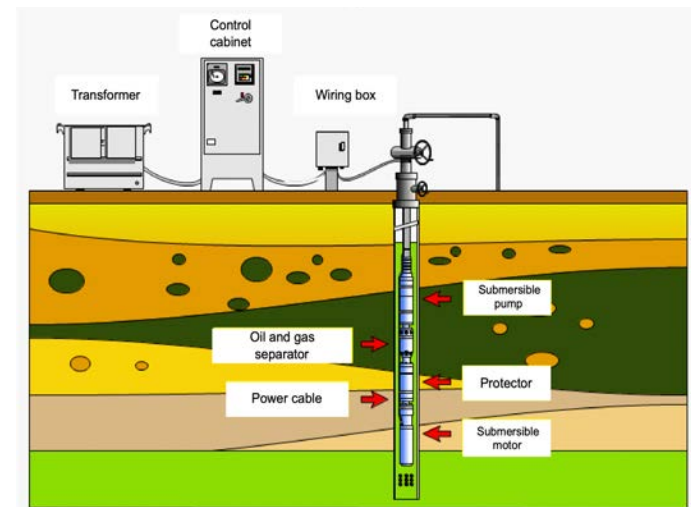
PetroChina, Sinopec, CNOOC and other oil fields have been applied.



Beam Pumping Unit



Tower Pumping Unit



ESP

## Steel Industry - Steel Conveying



INVT's solutions are used in 80% of steel production lines, covering laminar cooling, straightening machines, cooling beds, and shearing zones. They provide drive and processing support for the steel industry.

## Coal Mining Industry - Coal Shearer



Core equipment in longwall mining for breaking and loading coal. Essential to fully mechanized faces, its technology directly affects production, efficiency, and safety. High-power electric traction shearers are key to modern high-yield mines.

## Ports Industry - Rail Mounted Container Gantry Crane (RMG)



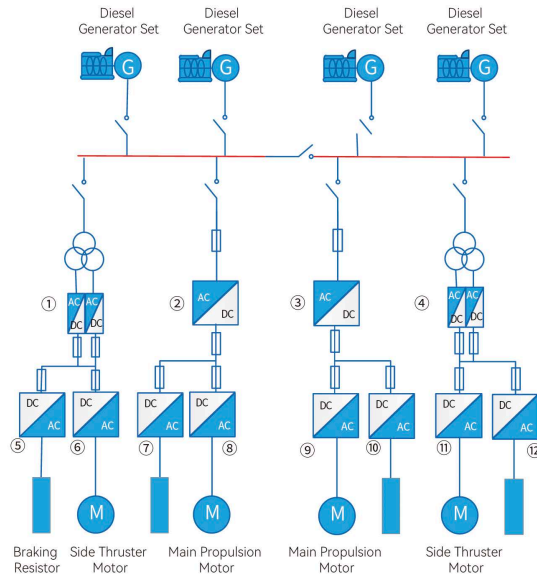
A rail-mounted gantry crane for efficient container handling in ports, rail yards, and logistics centers. It travels on fixed rails and uses a moving trolley for precise lifting, stacking, and transfer.

## Cement Industry - Separator for the New Dry Process Cement



A core device in cement production that separates mixed coarse and fine powder. It quickly and efficiently sorts qualified fine powder from unqualified coarse powder based on process particle size standards.

## Marine Electric Propulsion System



Operates on a "power generation–transmission–propulsion" model. A prime mover drives a generator, sending power to the propulsion motor, which turns the propeller. This eliminates long drive shafts, improving design flexibility and efficiency.

## Marine Floating Crane System Products



A waterborne lifting unit for hoisting and transferring heavy materials in rivers, lakes, and seas. It overcomes land-based limits like dock space and ground capacity, extending lifting reach across open water.

# CONTACT INFORMATION

## South Korea Office

Tel: +82 10 8496 3270  
Email: darren@invt.com.cn

## Central Asia Office

Tel: +86 135 7181 6797  
Email: volodya@invt.com.cn

## Morocco Office

Tel: +212 665 090 344  
Email: lajjinri@invt.com.cn

## Mexico Office

Tel: +52 811 905 2345  
Email: cuiqingsong@invt.com.cn

## Thailand Office

Tel: +66 98 924 2281  
Email: realchen@invt.com.cn

## Netherlands Office

Tel: +31 40 798 3034  
Email: ailinchang@invt.com.cn

## South Africa Office

Tel: +27 76 447 8002  
Email: randimag@invt.com.cn

## Brazil Office

Tel: + 55 11 98874 0054  
Email: marcussilva@invt.com.cn

## Indonesia Office

Tel: +62 817 0588 188  
Email: poncobaguswaskito@invt.com.cn

## Türkiye Office

Tel: +90 552 134 4234  
Email: nealchen@invt.com.cn

## Nigeria Office

Tel: +234 803 447 1955  
Email: jonathanjayijuo@invt.com.cn

## India Office

Tel: +91 72084 11845 +86 180 0256 8798  
Email: zhangzhijun@invt.com.cn

## Saudi Arabia Office

Tel: +966 59 712 5050  
Email: lili5770@invt.com.cn

SHENZHEN INVT ELECTRIC CO.,LTD.

 [overseas@invt.com.cn](mailto:overseas@invt.com.cn)  [www.invt.com](http://www.invt.com)

 INVT Guangming Technology Building, Songbai Road, Matian, Guangming District, Shenzhen, China



@invtelectric