

## Low-voltage General-purpose AC Drives



# VEICHI

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Stock code:688698

# About us



Since its inception, VEICHI Electric (Stock Code: 688698) has been a pioneer in electrical transmission and industrial control, specializing in the research, development, production, and distribution of advanced industrial automation products. It serves a global clientele, delivering competitive, secure, and reliable solutions across multiple regions with R&D centers and production facilities in Suzhou, Shenzhen, and Xi'an, along with a wholly-owned subsidiary in India.

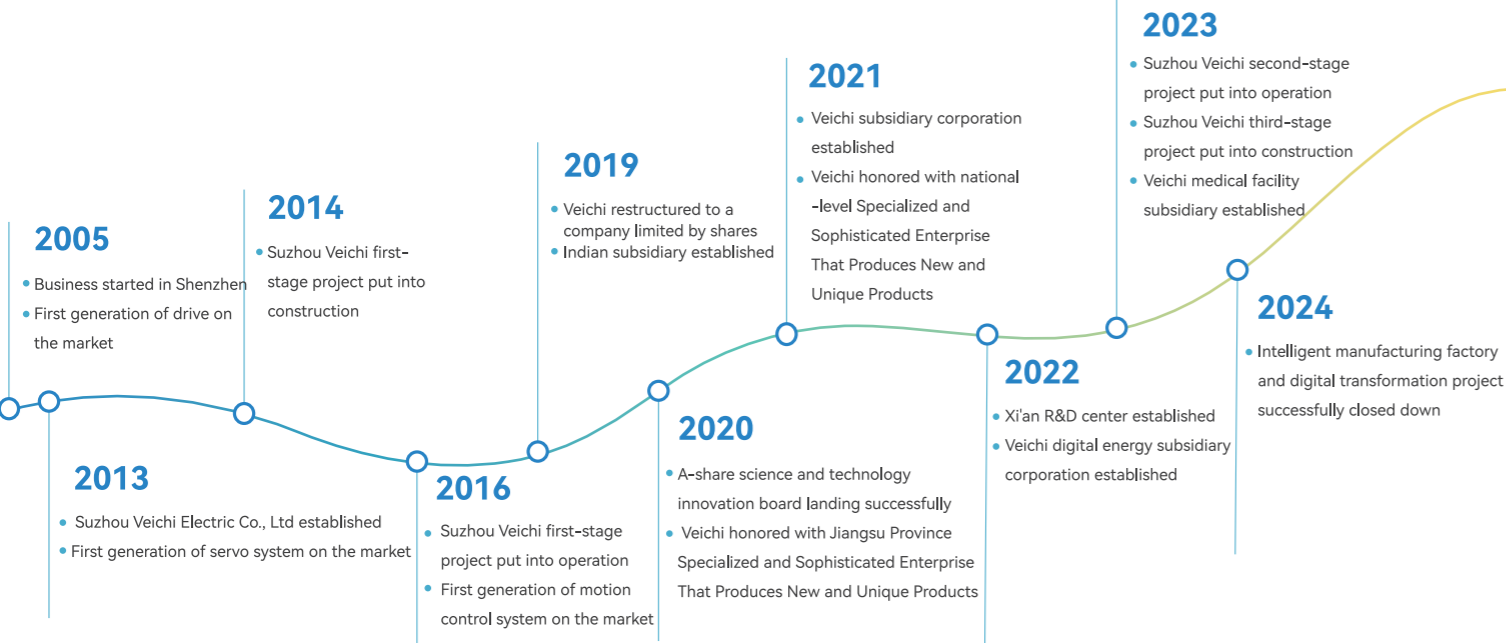
The comprehensive product portfolio, including AC drives, servo systems, and control systems, is widely applied in various industries, providing tailored solutions that drive the digital and intelligent transformation of modern manufacturing. Additionally, we are expanding into emerging fields such as robotics, new energy, and medical technologies, offering innovative products like coreless motors, frameless motors, photovoltaic storage inverters, and surgical power systems.

Along the way, VEICHI has developed a robust suite of proprietary technologies with relentless efforts on motors such as vector control, HF injection control, parameter

auto-tuning, motor protection, start-up fly track, high-speed weak magnet control, scalar V/F control, high-density water-cooled layout, and IGBT protections. As of September 30, 2024, we hold 222 authorized patents, including 54 invention patents.

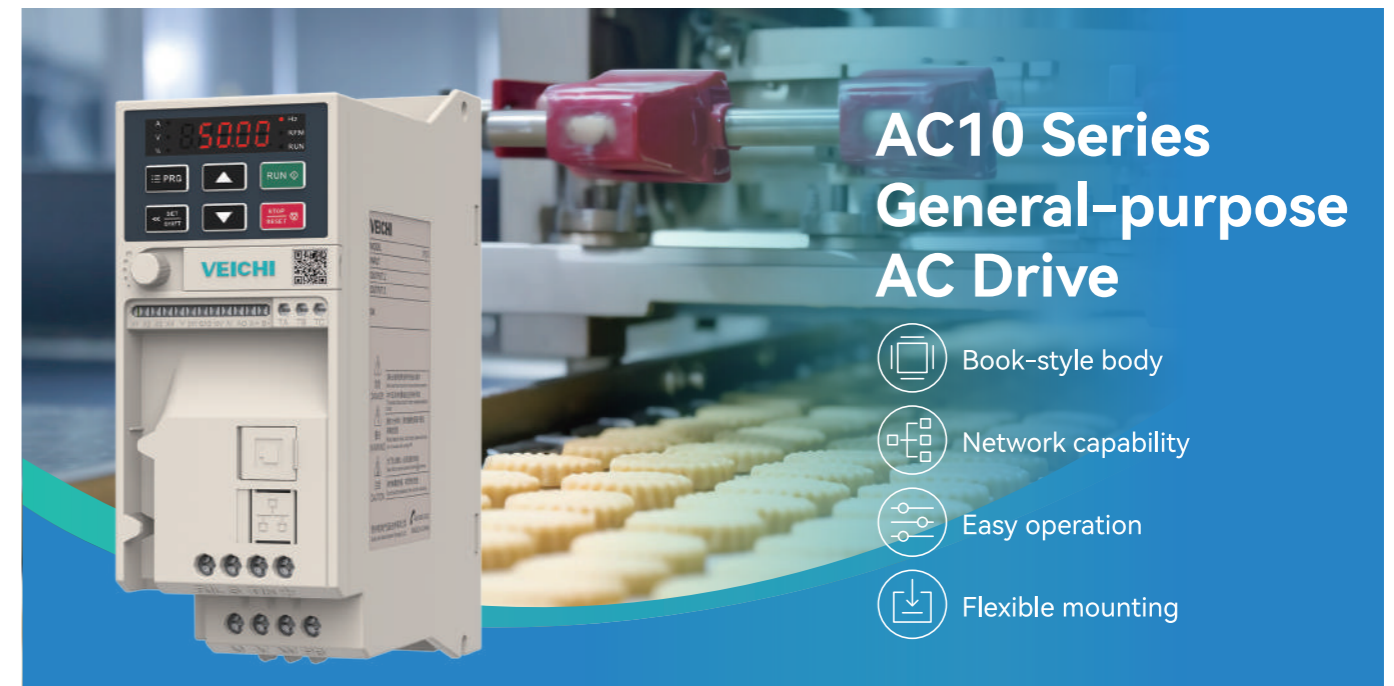
And in consequence, it has reaped prestigious accolades, including the third batch of "Specialized, Elaborative, Characteristic, and Emerging 'Little Giant' Enterprise", "High-Tech Enterprise", "High and New Technology Enterprise", "Jiangsu Provincial Engineering Technology Research Center", "Jiangsu Provincial Enterprise Technology Center", and "Jiangsu Province Industrial Internet Development Demonstration".

Looking ahead, VEICHI remains unwavering in its commitment to a market-driven and cutting-edge technological innovation. By prioritizing breakthroughs in core technologies, it aims to expand into high-performance, high-quality, and high-reliability applications and drives transformative progress that shapes the future of the electrical transmission and industrial control.



## General-purpose AC Drive Product Series

Product Series	AC01	AC10	AC200	AC310	AC320	LC320	AC330	AC600	IN320
Basic Positioning	Network type	Standard type	Standard type	Flagship type	High-speed type	Liquid-cooled high-speed type	Specialized type	Global type	All-in-one type
Power/voltage	S2: 0.4kW~2.2kW T3: 0.75kW~7.5kW	S2: 0.75kW~2.2kW T2: 0.75kW~2.2kW T3: 0.75kW~2.2kW	S2: 0.75kW~15kW T2: 0.75kW~15kW T3: 0.75kW~560kW	S2: 0.75kW~15kW T2: 0.75kW~220kW T3: 0.75kW~1120kW T6: 22kW~1120kW	T3: 0.75kW~560kW T6: 22kW~560kW	T3: 90kW~800kW T6: 315kW~1000kW More low-power/high-power models to be developed	S2: 0.75kW~15kW T2: 0.75kW~220kW T3: 0.75kW~1120kW T6: 22kW~1120kW	S2: 0.75kW~15kW T2: 0.75kW~220kW T4: 0.75kW~1120kW T6: 22kW~1120kW	S2: 1.5kW T3: 1.5kW~2.2kW
Overload capacity	Heavy duty : T3: 150% 8s, 180% 10s, 200% 3s S2: 150% 24s, 180% 3.4s	Heavy duty : T3: 150% 90s, 180% 10s, 200% 3s S2: 150% 24s, 180% 3s	Heavy duty : 150% 60s, 180% 10s, 200% 0.5s Normal duty : 120% 60s	Heavy duty : T3/T6: 150% 90s, 180% 10s, 200% 3s T2/S2: 136% 90s, 163% 10s, 181% 3s Normal duty : T3/T6: 120% 35s, 140% 7s, 150% 3s	110% 60s	110% 60s	Heavy duty : T3/T6: 150% 90s, 180% 10s, 200% 3s T2/S2: 136% 90s, 163% 10s, 181% 3s Normal duty : T3/T6: 120% 35s, 140% 7s, 150% 3s	Heavy duty : 150% 90s, 180% 10s, 200% 3s Normal duty : 120% 35s, 140% 7s, 150% 3s	Heavy duty : T3 : 150% 8s, 180% 10s, 200% 3s S2 : 150% 24s, 180% 3.4s
Control mode	AM-VF	YES	YES	YES	YES	YES	YES	YES	YES
	AM-SVC	YES	YES	YES	YES	YES	YES	YES	YES
	AM-FVC	/	/	YES	YES	YES	YES	YES	Underway
	PM-SVC	YES	YES	YES	YES	YES	YES	YES	YES
	PM-FVC	/	/	YES	YES	YES	YES	YES	Underway
	SynRM-SVC	/	/	/	/	/	/	YES	YES
I/O terminal	DI	3	4	7	5	5	5	6	3
	DO	1	1	1	1	1	1	1	0
	Relay output	1	1	2	1	1	1	1	2
	AI	2	1	3	2	2	2	2	1
	AO	0	1	2	1	1	1	1	2
	Communication	Modbus RTU	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Modbus TCP	/	/	/	Optional	Optional	Optional	Optional	Optional	/
Profinet	/	/	/	Optional	Optional	Optional	Optional	Optional	/
EtherCAT	/	/	/	Optional	Optional	Optional	Optional	Optional	/
EtherNET/IP	/	/	/	Optional	Optional	Optional	Optional	Optional	/
Profibus-DP	/	/	/	Optional	Optional	Optional	Optional	Optional	/
CANopen	/	Optional (T3 0.75-5.5kW)	Optional	Optional	Optional	Optional	Optional	Optional	/
BACnet	/	/	/	/	/	/	/	Optional	/
Others	STO	/	/	/	Optional, SIL3 supported	NO, alike functions available	NO, alike functions available	/	Optional, SIL3 supported
	LCD keypad	/	/	/	Optional	NO, alike functions available	NO, alike functions available	/	Optional
	EMC filter	EMC C3 optional	EMC C3 optional	/	EMC C3 optional	/	/	EMC C3 optional	EMC C3 standard T4: 0.75-37kW, built-in EMC C2 optional
	DC reactor	/	/	T3: Built-in, optional for 160kW~400kW, Built-in, standard for 450kW~560kW	T3: Built-in, optional for 45kW~110kW, built-in, standard for 132kW and above	T3: Built-in, standard for 132kW and above	Built-in, standard	T3: Built-in, optional for 45kW~110kW, built-in reactor standard for 132kW and above	Built-in, standard
	Brake unit	Built-in, standard	Built-in, standard	T3: Built-in, standard for 22kW and below	T3: Built-in, standard for 0.75kW~22kW Built-in, optional for 45kW~110kW, Built-in, optional for 132kW and above	/	/	T3: Built-in, standard for 0.75kW~22kW Built-in, optional for 30kW~110kW, Built-in, optional for 132kW and above	T4: Built-in, standard for 0.75kW~22kW Built-in, optional for 30kW~110kW, Built-in, optional for 132kW and above
	GPRS	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Encoder type	/	/	Optional for incremental encoders	Optional for incremental differential/open-collector encoders and resolvers	Optional for incremental differential/open-collector encoders and resolvers	Optional for incremental differential/open-collector encoders and resolvers	Optional for incremental differential/open-collector encoders and resolvers	Optional for incremental differential/open-collector/absolute/sine/cosine encoders and resolvers	Optional(underway) for incremental differential/open-collector encoders and resolvers
Protection level	IP20	IP20	IP20	IP20, T4:IP54 for 0.75kW~75kW	IP20	IP00	IP20	IP20, T4:IP54 for 0.75kW~75kW	IP54
Certification	CE	CE, EAC	CE	CE, EAC	CE	CE	CE	CE, UL	CE



Naming Rules

AC01-S2-R75G-B-W

① ②③ ④ ⑤ ⑥

- ① Product Series: AC01 series
- ② Voltage Type: T: Three-Phase, S: Single-phase
- ③ Voltage Level: 2: 220V, 3: 380V
- ④ Motor Power: R40: 0.4kW, R75: 0.75kW, 1R5: 1.5kW, 2R2: 2.2kW
- ⑤ Load Type: G: Heavy duty
- ⑥ Accessory: B: Brake unit, W: Self-securing keypad

Power

Single-/three-phase, 220VAC, 50Hz/60Hz, 0.4kW~2.2kW  
 Three-phase, 380VAC, 50Hz/60Hz, 0.75kW~7.5kW

Brief

AC01 series network-based drives address the driving needs 7.5kW and below. It features a compact structure and an optimized alarm logic to reduce false alarms and maintain stable operation. Automated production with tri-proof processing lowers its failure rate, making it a booster to finer production for the customers.

Feature

- 1.Plug-and-play keypad, external LED keypad, and indicators for flexible control
- 2.Side-by-side installation for efficient space utilization
- 3.VF control and open-loop vector control compatible with asynchronous and permanent magnet synchronous motors
- 4.Isolated air ducts and a three-proof coating
- 5.Tailored alarm protection logic for small and medium power applications
- 6.High integration of smaller structure and enhanced performance
- 7.Standard DI terminals with built-in 24V NPN configuration, while PNP-configured DI terminals available as specialized models

Application

Food processing, logistics transmission, photovoltaic machines, looms, kitchen appliances, woodworking machines.

Naming Rules

AC10-T3-1R5G-B

① ②③ ④ ⑤ ⑥

- ① Product Series: AC10 series
- ② Voltage Type: T: Three-Phase, S: Single-phase
- ③ Voltage Level: 2: 220V, 3: 380V
- ④ Motor Power: R75: 0.75kW, 1R5: 1.5kW, 2R2: 2.2kW, 004: 4kW
- ⑤ Load Type: G: Heavy duty
- ⑥ Accessory: B: Brake unit, VC: T/S2 level, with vector control

Power

Single-/three-phase, 220VAC, 50Hz/60Hz, 0.75kW~2.2kW  
 Three-phase, 380VAC, 50Hz/60Hz, 0.75kW~22kW

Brief

The AC10 series products, with a power rating of 22kW and below, are meticulously crafted to meet the market demand for compact, reliable, and cost-effective drives. It boasts a multitude of advantages, including easy installation and small footprint due to its slim body, and low temperature rise, robust protection features, and powerful software capabilities.

Feature

- 1.Unique cooling channels for full capacity at 50°C
- 2.Hidden cable ducts for easy wiring
- 3.Adaptive design for a variety of application environments
- 4.Comprehensive fault protection
- 5.Simple appearance with strong, durable construction
6. Rail, side, vertical installation for different models
- 7.Standard DI terminals with built-in 24V NPN configuration, while PNP-configured DI terminals available as specialized models

Application

Fans and pumps, automated production lines, food packaging lines, logistics equipment, vehicle drives.



Naming Rules

AC200-T3-055-G

① ②③ ④ ⑤

- ① Product Series: AC200 series
- ② Voltage Type: T: Three-Phase
- ③ Voltage Level: 3: 380V
- ④ Motor Power: 055: 55kW, 1R5: 1.5kW
- ⑤ Load Type: G: Heavy duty

Power

Single-phase, 220VAC, 50Hz/60Hz, 0.75kW~15kW  
 Three-phase, 220VAC, 50Hz/60Hz, 0.75kW~15kW  
 Three-phase, 380VAC, 50Hz/60Hz, 0.75kW~560kW

Brief

AC200 series is a high-performance drive designed for general purposes. Compatibility to open-loop and closed-loop vector control of asynchronous motors and permanent magnet synchronous motors, with the Hamburg-style hardware layout, allows higher applicability to different scenarios industries.

Feature

- Stronger protection and adaptability to various environments due to the superimposed layout
- Dual motor control for permanent magnet synchronous and asynchronous motor
- High starting torque of 1.5 times of the rating at 0.5Hz under SVC while of 2 times at 0Hz under FVC
- Standard with Modbus RTU, and CANopen and Profibus-DP available
- User-friendly debugging software available

Application

Fans, pumps, compressors, chemical processing, metallurgy machines, petroleum and petrochemical machines, municipal engineering, plastic machines, harbor equipment etc.

Naming Rules

AC310-T3-045G/055P-B-L-I

① ②③ ④ ⑤ ⑥

- ① Product Series: AC310 series
- ② Voltage Type: T: Three-Phase, S: Single-phase
- ③ Voltage Level: 2: 220V, 3: 380V, 6: 660V
- ④ Motor Power: 7R5: 7.5kW, 011: 11kW, 018: 18.5kW, 132: 132kW
- ⑤ Load Type: G: Heavy duty, P: Normal duty
- ⑥ Accessory: B: Brake unit, L: Built-in DC reactor, I: Built-in STO

Power

Single-phase, 220VAC, 50Hz/60Hz, 0.75kW~15kW  
 Three-phase, 380VAC, 50Hz/60Hz, 0.75kW~1120kW  
 Three-phase, 220VAC, 50Hz/60Hz, 0.75kW~220kW  
 Three-phase, 660VAC, 50Hz/60Hz, 22kW~1120kW

Brief

The AC310 series of general-purpose drives is available in three voltage classes: 220VAC, 380VAC, and 660VAC, with power ratings ranging from 0.75kW to 1120kW. The book-style structure with up to 2 extensions and the abundant software functions make it highly adaptive to diverse industrial applications.

Feature

- Compatible to both synchronous/asynchronous motors and open-loop/closed-loop control
- Maximized space savings for installation
- Dual SPI ports for GPRS, communication, PG, I/O extensions
- Compatible with random carrier functionality for improved noise reduction
- Industry-specific function blocks like tension and power balance and address mapping
- User-friendly and quick commissioning with the upper computer

Application

Fans, pumps, conveyor belts, mining machines, chemical processing, plastics production, printing and dyeing machines, hoists, paper-making machines, etc.



Naming Rules

AC320-T3-132 H-L

- ① Product Series: AC320 series
- ② Voltage Type: T: Three-Phase, S: Single-phase
- ③ Voltage Level: 2: 220V, 3: 380V
- ④ Motor Power: 132: 132kW
- ⑤ Load Type: H: High speed
- ⑥ Accessory: B: Brake unit, L: DC reactor

Power

Three-phase, 380VAC, 50Hz/60Hz, 0.75kW~560kW  
 Three-phase, 660VAC, 50Hz/60Hz, 22kW~560kW

Brief

AC320 series drives provide high speed and high carrier motor rotation with excellent performance of high voltage resistance, high temperature resistance and low loss, and at the same time, it excels in efficiency and dimensions and weight for simple power electronic systems. Now, it has been steadily applied to the high-speed permanent magnet synchronous motors in industrial power supply and high-speed air compressor.

Feature

1. Vector control up to 2000Hz and V/F control up to 3000Hz for high-speed motor operation
2. High carrier frequencies up to 16kHz
3. Bus voltage maintenance with energy information feed-forward
4. Special three-proof coating on the PCB board against acid and alkali corrosion
5. Higher EMC circuit configuration with stronger anti-interference capabilities
6. Narrow body structure for easy cabinet formation
7. New algorithms for efficient high-speed motor control
8. Derating necessary for product selection under high carrier conditions

Application

Special machines, refrigeration system, chemical devices, pharmaceutical devices, aeration and oxygenation, air compressors, HVACR, etc.

Naming Rules

LC320-T3-132 N-L

- ① Product Series: Liquid-cooling AC drive series
- ② Voltage Type: T: Three-phase
- ③ Voltage Level: 3: 380V, 6: 660V
- ④ Motor Power: 132: 132kW
- ⑤ IP: N: IP00
- ⑥ Accessory: B: Brake unit, L: DC reactor

Power

Three-phase, 380V, 90kW~800kW  
 Three-phase, 660V, 0.85kW~1000kW

Brief

The LC320 series water-cooled drive is a high-performance drive solution specifically designed for high-speed industrial equipment such as centrifugal compressors and vacuum pumps. Engineered with an advanced water-cooling system, this specialized product delivers exceptional thermal management, reliable operation and superior high-frequency motor control capability for demanding high-speed applications.

Feature

1. High-frequency operation with 8kHz carrier wave (no derating) and output frequency up to 1000Hz
2. 40%~70% smaller volume than standard air-cooled units
3. Universal voltage compatibility: 310V~480VAC
4. Active harmonic suppression for longer motor lifespan
5. Built-in power failure ride-through
6. IP54 models for option

Application

Aeration and oxygenation machines, air compressors, HVACR, vacuum dryers, air separation machines.



**Naming Rules**

**AC330-T3-011G/015P-B**

① Product Series AC330 series	② Voltage Type T: Three-Phase S: Single-phase	③ Voltage Level 2: 220V 3: 380V 6: 660V 11: 1140V	④ Motor Power 7R5: 7.5kW 011: 11kW 018: 18.5kW 132: 132kW	⑤ Load Type H: High speed P: Normal duty	⑥ Accessory B: Brake unit
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**Power**

Single-phase, 220VAC, 50Hz/60Hz, 0.75kW~15kW  
 Three-phase, 220VAC, 50Hz/60Hz, 0.75kW~220kW  
 Three-phase, 380VAC, 50Hz/60Hz, 0.75kW~1120kW  
 Three-phase, 660VAC, 50Hz/60Hz, 22kW~1120kW

**Brief**

The AC330 series drives features a compact book-style design, with an integrated algorithm platform for driving both pure and assisted synchronous reluctance motors. Specifically engineered for synchronous reluctance motor applications, it delivers dedicated, stable, and reliable performance.

**Feature**

1. New high-performance vector algorithm platform specifically designed for synchronous reluctance motors
2. Precise torque excitation decoupling for dynamic response
3. Thermal simulation design for optimized hardware layout
4. Maximized space savings for installation
5. User-friendly and quick commissioning and online firmware upgrade
6. Overall three-proof coating on the casing and PCBs

**Application**

Light industrial applications such as fans, pumps, plastic machinery, air compressors, machine tool spindles, textile machinery, pharmaceutical equipment, etc., and also heavy-duty equipment such as petroleum, chemical, and paper-making machines.

**Naming Rules**

**IN320-T3-IR5-U-N**

① Product Series IN320 series	② Voltage Type T: Three-Phase S: Single-phase	③ Voltage Level 2: 220V 3: 380V	④ Motor Power IR5: 1.5kW 2R2: 2.2kW	⑤ Wiring type U: Top inlet P: Bottom inlet	⑥ Accessory N: No accessories A: Remote control module S: IOT module
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**Power**

Single-phase, 220VAC, 50Hz/60Hz, 1.5kW  
 Three-phase, 380VAC, 50Hz/60Hz, 1.5kW~2.2kW

**Brief**

The high-performance IN320 series integrates the AC drive, relay switch, and LCD screen. With its compact size, user-friendly operation, and energy efficiency, it demonstrates strong competitiveness and substitution potential in replacing electrical cabinets for low-power applications.

**Feature**

1. Drive, circuit breaker, and cabinet integrated for plug-and-play operation
2. IP54 for high reliability in harsh environments
3. User-friendly operation ideal for basic speed regulation applications
4. Modular distributed design for flexible near-end installation
5. Dual-motor software compatibility for both asynchronous and PMSM control
6. Remote keypad, IoT extension, standard with LCD screen, and 15kHz carrier noise reduction

**Application**

Cold chain logistics, express delivery logistics, automated production lines, warehouse drying equipment, outdoor water pumps, etc.



## AC600 Series High-performance AC Drive

-  Multiple certifications
-  High IP
-  Multi-motor compatibility
-  Various extensions

### Naming Rules

## AC600-T4-011G/015P-BLIV-XX

①      ②③      ④      ⑤      ⑥

① <b>Product Series</b> AC600 series	② <b>Voltage Type</b> T: Three-Phase S: Single-phase	③ <b>Voltage Level</b> 2: 220V 3: 380V 6: 660V	④ <b>Motor Power</b> Type: G: Constant-torque load P: Variable-torque load Power: 011: 11kW 015: 15kW 1R5: 1.5kW	⑤ <b>Accessory</b> B: Brake unit L: Built-in DC reactor I: Built-in STO V: IP54, otherwise IP20	⑥ <b>EMC Level</b> E3: Built-in EMC C3 E2: Built-in EMC C2
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### Power

Single-phase, 220VAC, 50Hz/60Hz, 0.75kW~15kW  
 Three-phase, 220VAC, 50Hz/60Hz, 0.75kW~220kW  
 Three-phase, 380V~480VAC, 50Hz/60Hz, 0.75kW~1120kW  
 Three-phase, 660VAC, 50Hz/60Hz, 22kW~1120kW

### Brief

The AC600 series is a universal high-performance motor driving product compatible with the leading energy-saving technology in accordance with international standards and requirements of TUV, CE, and UL. And automated manufacturing management ensures its quality consistency.

### Feature

1. TUV, CE, UL certificated and IP20/IP54 optional
2. Standard with built-in DC reactors for full series, and EMC C3 or EMC C2 configuration optional or standard for certain models
3. Up to 10 groups of function blocks, with each group supporting up to 3 input signals for user DIY computing
4. Compatible with asynchronous/permanent magnet synchronous/reluctance/direct drive/torque motors, etc.
5. Optional STO, black box, Profinet, EtherCAT, EtherNet/IP, CANopen, Modbus TCP, BACnet, and 4G extensions available and external 24V power supply supported

### Application

Chemical processing, offshore vessels, iron and steel production, port machines, automotive equipment, metal-lurgy machines, paper-making machines, etc.

## R&D AND MANUFACTURING

### R&D and Technology

- > Consolidating a dynamic force of top-tier professionals and technical experts in domestic industrial control, our R&D team represents 37.16% of our workforce, with 74.62% of our technical staff boasting bachelor's degrees or higher.
- > Guided by philosophy of "Innovate with technology and strive for excellence," VEICHI is deeply customer-centric by providing stable and reliable products and technologies designed to the evolving needs of our clients.
- > Investing 10% of our revenue into R&D, VEICHI has crafted advanced labs for EMC, safety, reliability, and performance testing to ensure product quality.
- > In-depth cooperation with many famous universities and research institutions in China has been established and "Jiangsu Postdoctoral Innovation Practice Base" and "Jiangsu Postgraduate Workstation" are set up successively.

### Intelligent automation production

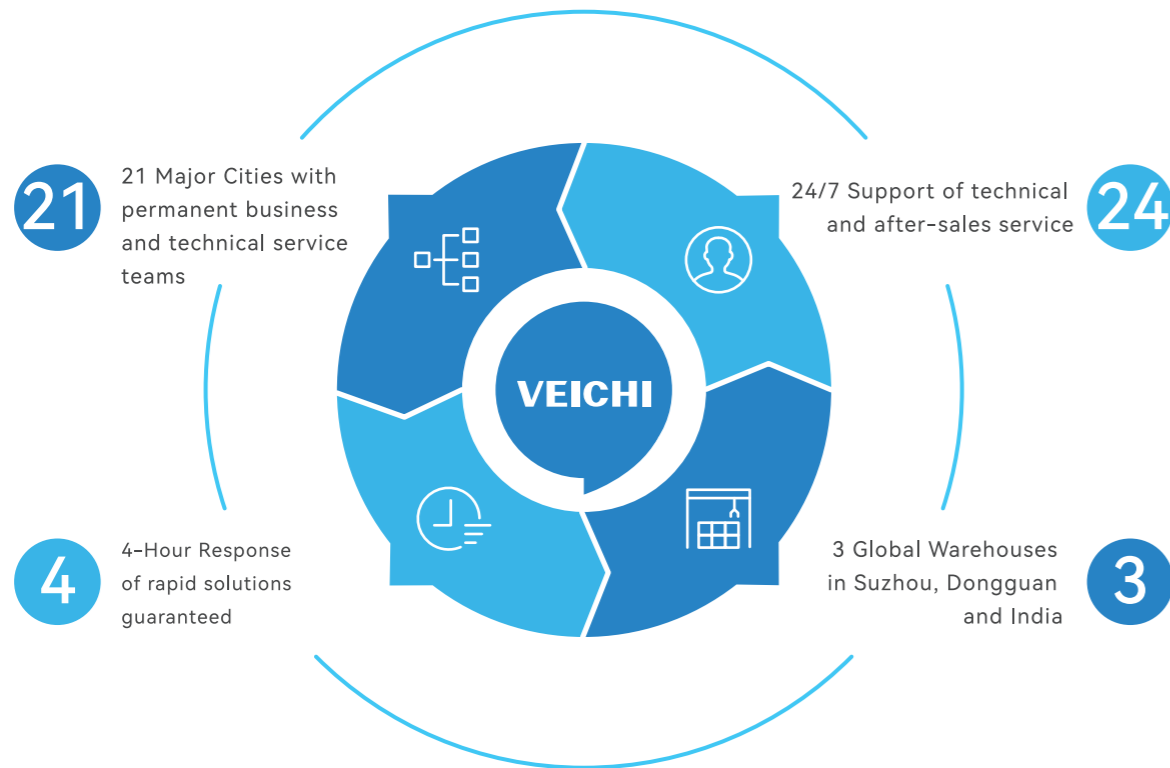
- > Digitally driven from inception to production, VEICHI boasts an annual capacity of 914,600 units with streamlined efficiency.
- > 5 imported SMT placement lines, 5 automated coating lines, 4 DIP test lines, a robotic arm-equipped automated line, and 12 production lines are equipped with the latest intelligent manufacturing tools.
- > All of the product checks are carried out automatically by the management mode of 3 (tri-inspection system)+ 1 (proportional inspection) during the whole process for standard performance.
- > Three major production management system WMS, MES and ERP together ensure that the unique code of each product is traceable in the system to manage product quality.



## SERVICE & SUPPORT

### Innovation Leads, Service Accelerates

- Customer-Centric Philosophy – Implementing "Five Hearts" service excellence system
- Dual-Channel Support – 24/7 network & telephone platforms with real-time monitoring
- Professional Care – Delivering attentive, patient and dedicated service at every touchpoint
- Worry-Free Experience – Ensuring customers purchase with complete confidence and satisfaction



## PIONEERING TECHNOLOGY UNMATCHED SERVICE

### Pioneering Technology , Unmatched Service

VEICHI Electric has established an integrated global service network through its innovative "Region + Industry" marketing strategy, which synergizes cross-sector resources and distribution channels to deliver comprehensive solutions. With permanent business and technical support teams strategically located across 21 major Chinese cities and overseas operations including Indian subsidiaries, the company is supported by an extensive network of 313 domestic and international distributors that ensure seamless market coverage. By consistently delivering superior product quality backed by professional technical support and service excellence, VEICHI Electric continues to enhance its global brand reputation while driving sustainable international growth through reliable, customer-centric solutions.

