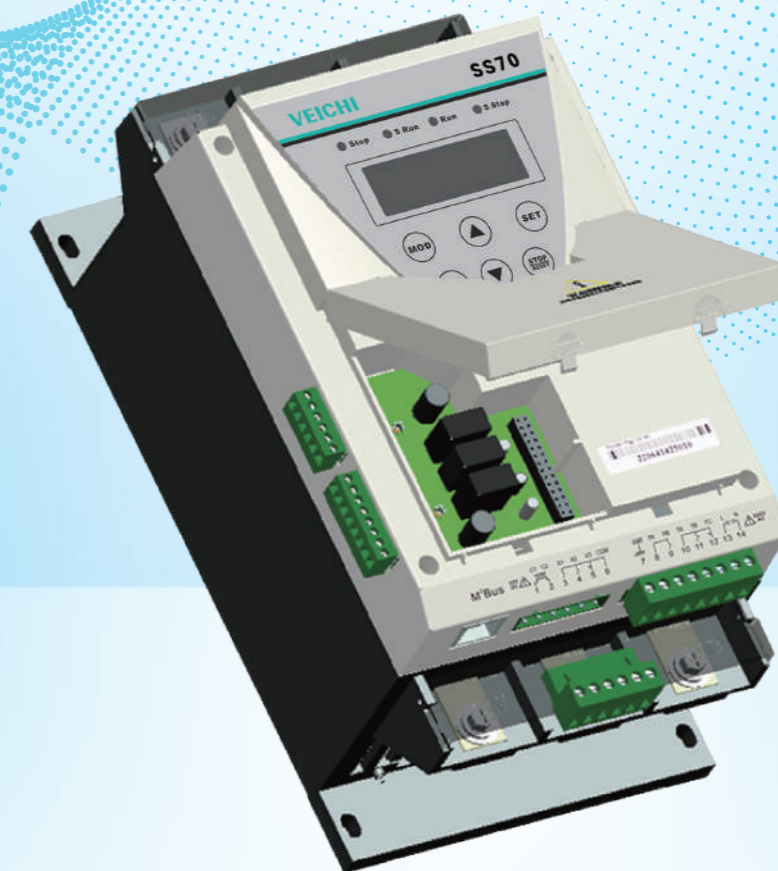


# VEICHI

## SS70 Series

### Intelligent Soft Starter with Built-in Bypass



# VEICHI

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Official Website

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Stock Code: 688698

# About us

VEICHI

VEICHI Electric (stock code: 688698) is a high-tech company focused on electrical drive and industrial control, offering a full range of industrial automation products. With facilities in Suzhou, Shenzhen, Xi'an, and a subsidiary in India, VEICHI serves customers worldwide with reliable and competitive offerings.

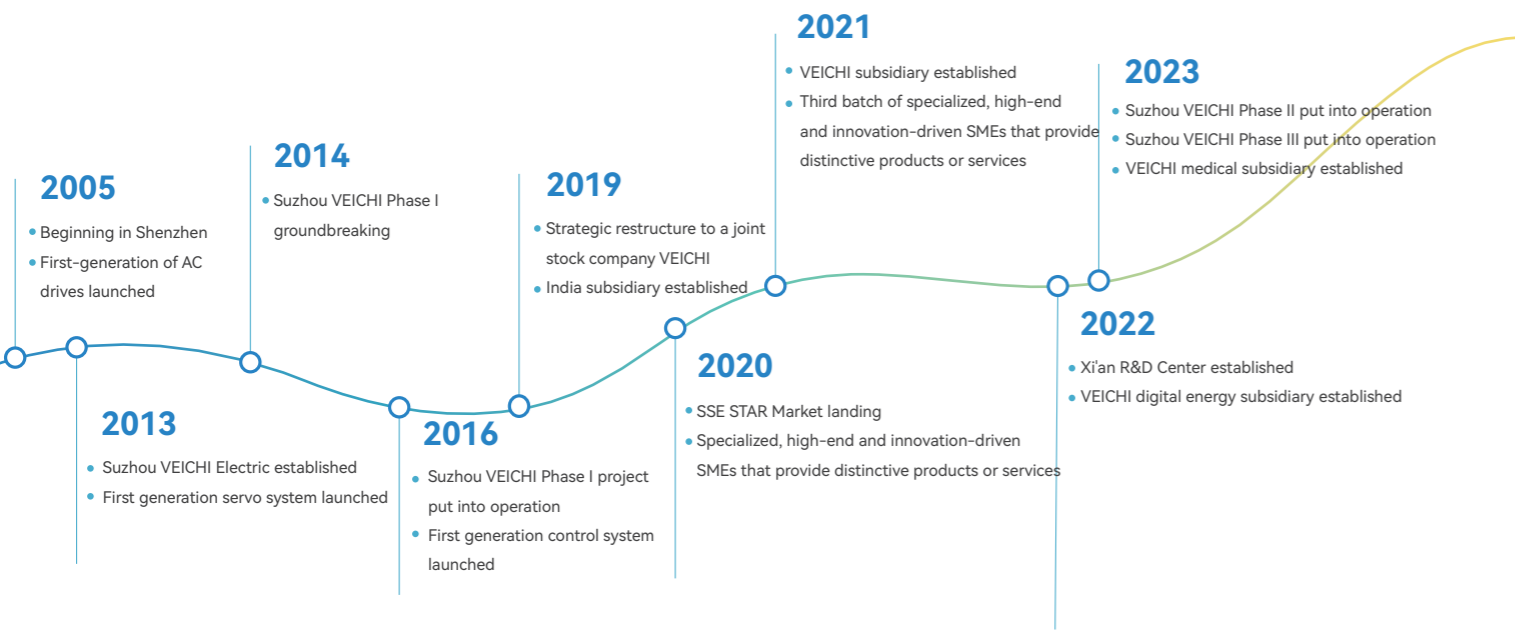
The company boasts an extensive portfolio of products, encompassing AC drives, servo systems, and control systems, which are widely utilized across various sectors such as heavy industry, light industry, and high-end equipment, providing scenario-based solutions that support the digital and intelligent transformation of the manufacturing industry. Moreover, the company is in lockstep with the zeitgeist, expanding its reach into burgeoning fields like robotics, renewable energy, and healthcare with a suite of innovative products, including hollow cup motors, frameless motors, hybrid inverters, and surgical power systems. These cutting-edge offerings significantly enhance the prosperity and advancement of the industries they serve.

Years of R&D efforts have led to mastery in the core technologies of motor control such as vector control of PMSM, V/F control, high-frequency pulse injection control, field-weakening control for higher speed etc, and of silicon carbide application,

motor auto tuning, motor protection and fly track start-up. And it has also successfully cultivated a series of patented technologies with independent intellectual property rights. As of June 30, 2024, a total of 221 patents have been granted, including 51 patents for inventions.

Over the course of 19 years, VEICHI has earned recognition and certifications from national and authoritative bodies like the third batch of specialized, high-end and innovation-driven SMEs that provide distinctive products or services, "high-tech enterprise", "Jiangsu Provincial Engineering Technology Research Center", "Jiangsu Provincial Enterprise Technology Center", and "Jiangsu Industrial Internet Development Demonstration Enterprise (Benchmarking Factory Category)".

Steadfast in its commitment to the business philosophy of "guided by market demand and driven by technological innovation", VEICHI will fortify its research in key core technologies and enhance product iteration to expand relentlessly across the spectrum of high-performance and quality applications. This strategic focus will enable us to make significant contributions to the evolution of electrical drive and industrial control systems, propelling the industry forward with determination and vigor.



## Product Profile



### SS70 Series Intelligent Soft Starter with Built-in Bypass

Harnessing the latest advancements in power electronics and microprocessor technology, SS70 is powered by a high-performance DSP core, which ensures real-time performance, superior control, and enhanced safety for your motor control systems.

They are widely used and adaptable, not only for all kinds of general-purpose machines, such as fans and pumps, but also for conveyor belts, compressors, crushers, and other occasions with heavy loads that require fast response. It also reduces energy consumption through intelligent control to lower long-term operating costs.

## Product Feature

### Built-in components

No additional bypass contactor required

### Compact structure

Advanced integration technology to greatly optimize the spatial layout

### Various starting methods

Three starting methods of current limit, current ramp, and voltage ramp available for different applications

### Perfect motor protection

Phase loss, over-voltage, under-voltage, overload, over-heat, over-current, current imbalance, start-up timeout, etc. to ensure all-round motor protection

### Multi-language interaction

User-friendly interface with multiple language options, and more for customization

### Eacy installation

Three-in-three-out main circuit wiring to save installation time and cost to a great extent

### IOT communication

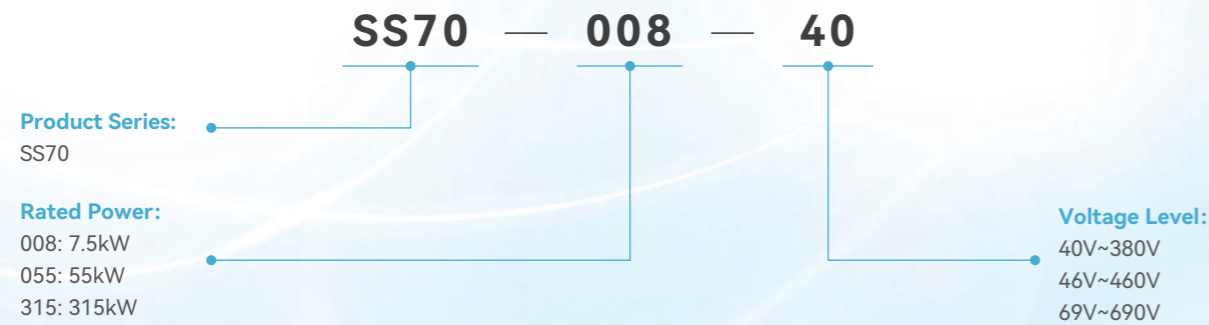
Communication function to the upper computer control system with the optional IOT cloud box to realize the icould equipment management

### Special soft stopping

Dramatic improvement of motor operating performance, maintenance costs, and motor life extension, and "water hammer" and mechanical shock in water treatment



## Naming Rules



## Typical Application

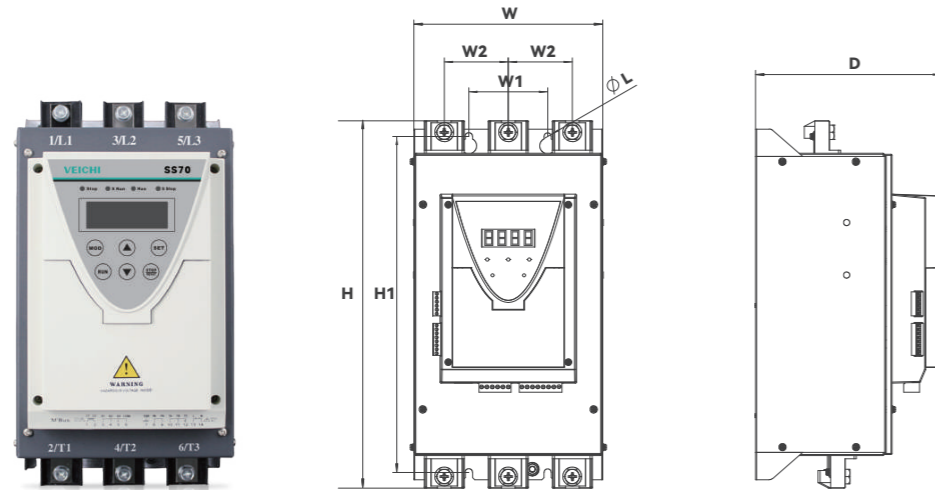
It is widely used in three-phase asynchronous motors in the fields of municipal engineering, mining, metallurgy, petroleum, chemical industry, electric power, construction, papermaking, water conservancy and so on.



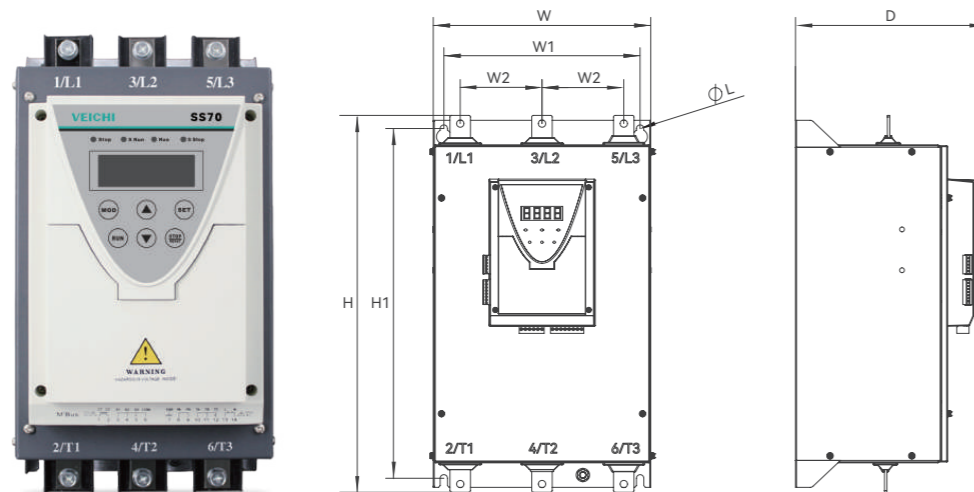
## Technical Specifications

Standards	GB14048.6-2016 (IEC947-4-2)	
Motor type	Three-phase asynchronous motor	
Motor power	11A ~ 1260A(5.5kW~630kW)	
Input	Control voltage	AC220V±15%, 50Hz/60Hz; AC110V±15%
	Rated voltage	AC380V±15%, 50Hz/60Hz; AC660V±15%; AC460V±15%
Start time	1s~120s	
Stop time	1s~120s	
Control mode	Voltage ramp, current ramp and current limit	
I/O	DI	3(X1~X3)
	AO	1 (4mA~20mA/0V~10V)
	RO	2
	Command source	Keypad, terminals and RS485 communication
Communication	Communication protocol	1×standard Modbus protocol
Display	LCD display	Display current, voltage, alarm and other motor parameters
Protection and Monitoring	Short-circuit, over-voltage, overload, under-voltage, phase loss, over-current, and overheat	
Environment	Working environment	Indoors without corrosive gases that destroy metals and insulating materials No direct sunlight, no combustible gas, oil mist, dripping water, salt, etc.
	Altitude	Derate 0.5% of the rated current for every 100m increase when above 1000m
	Working temperature	-10°C ~ +40°C. Derate 2% of the rated current for every 1°C increase when above 40°C
	Humidity	<95%RH, no condensation
	Vibration	<5.9m/s <sup>2</sup> (0.6g)
Storage temperature	-40°C ~ 70°C	
Structure	Protection level	IP20
	Cooling method	Radiator, natural cooling
Installation method	Vertical mounting in cabinet	

## Installation Dimensions



Type	Power	H	W	D	W1	H1	W2	L
M-SG-01	22kW	278	150	143	127	259	45	Φ7
M-SG-02	30-45kW	350	180	177	75	320	61	Φ7
M-SG-03	55-75kW	380	224	193	200	353	71	Φ7



Type	Power	H	W	D	W1	H1	W2	L
M-SG-04	90-110kW	461	266	233	240	428	100	Φ9
M-SG-05	132-250kW	790	320	309	260	745	100	Φ11
M-SG-06	280-630kW	939	330	379	270	850	82	Φ11

## Models and Specifications

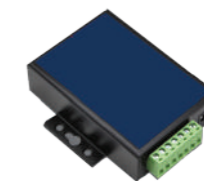
Model	Rated Power (kW)	Rated Current (A)	Case Model	Outer Dimensions		
				H	W	D
SS70-008-40	7.5	22	M-SS-01	278	150	143
SS70-011-40	11	27	M-SS-01	278	150	143
SS70-015-40	15	30	M-SS-01	278	150	143
SS70-018-40	18.5	34	M-SS-01	278	150	143
SS70-022-40	22	38	M-SS-01	278	150	143
SS70-030-40	30	65	M-SS-02	350	180	177
SS70-037-40	37	70	M-SS-02	350	180	177
SS70-045-40	45	88	M-SS-02	350	180	177
SS70-055-40	55	110	M-SS-03	380	224	193
SS70-075-40	75	140	M-SS-03	380	224	193
SS70-090-40	90	172	M-SS-04	461	266	233
SS70-110-40	110	200	M-SS-04	461	266	233
SS70-132-40	132	280	M-SS-05	790	320	309
SS70-160-40	160	320	M-SS-05	790	320	309
SS70-185-40	185	355	M-SS-05	790	320	309
SS70-200-40	200	380	M-SS-05	790	320	309
SS70-220-40	220	440	M-SS-05	790	320	309
SS70-250-40	250	480	M-SS-05	790	320	309
SS70-280-40	280	560	M-SS-06	939	330	379
SS70-315-40	315	600	M-SS-06	939	330	379
SS70-355-40	355	700	M-SS-06	939	330	379
SS70-400-40	400	780	M-SS-06	939	330	379
SS70-450-40	450	820	M-SS-06	939	330	379
SS70-500-40	500	1000	M-SS-06	939	330	379
SS70-630-40	630	1100	M-SS-06	939	330	379



External display panel/  
extension control cable



RJ45  
communication module



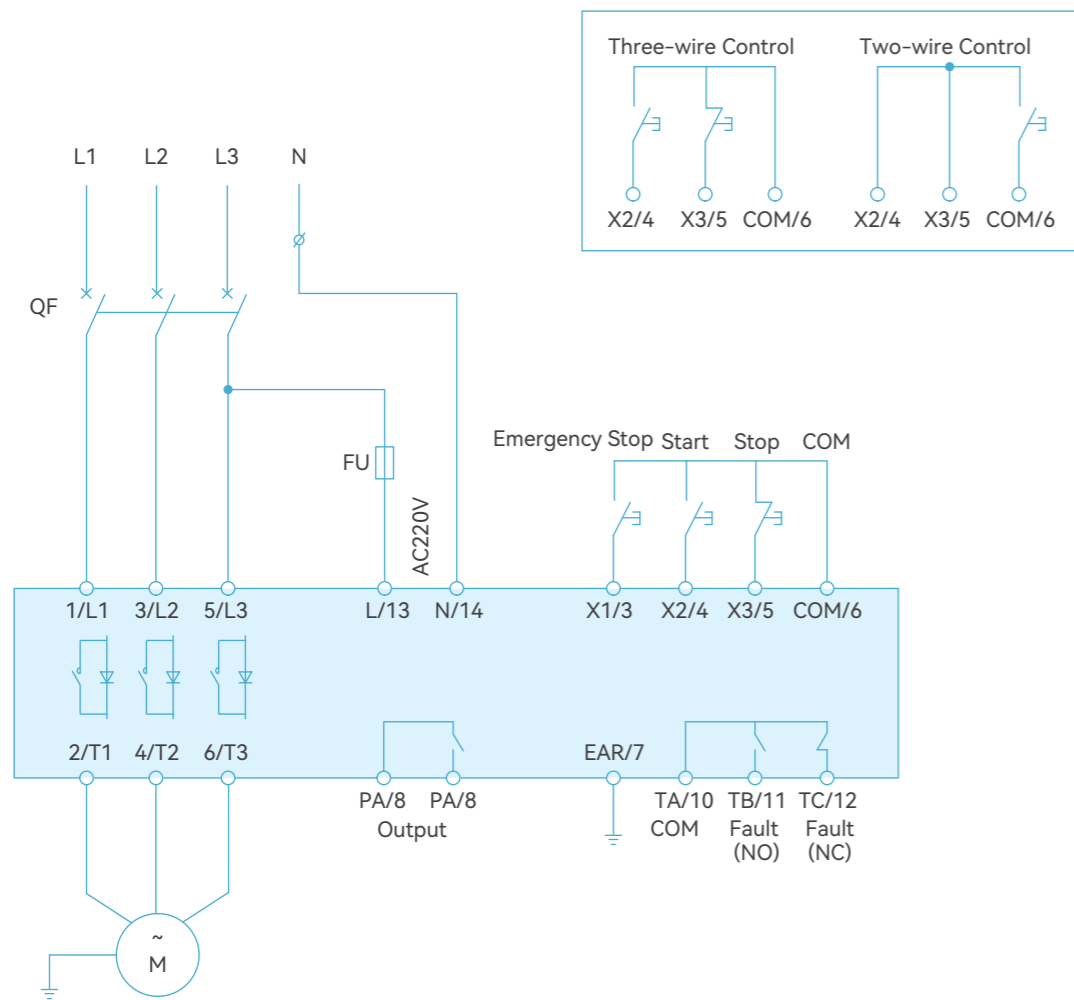
Ethernet  
communication module



IOT communication module

## Wiring

### SS70 Series Intelligent Soft Starter with Built-in Bypass



Note:

- SS70 built-in bypass intelligent soft starter adopts two kinds of start-stop control methods from the keypad and terminals (two-wire and three-wire). 1. Two-wire control is a holding signal and three-wire control is a trigger signal.
1. The keypad is invalid with 2-wire control.
  2. The keypad is valid with 3-wire control.
  3. X3 and COM must be kept closed when the keypad is valid.
  4. Terminal signal valid when >200ms

## R&D and Manufacturing

### R&D Capacity

- > Excellent professional and technical talents in the field of industrial control in China have gathered in VEICHI with R&D personnel accounting for 37.16% of the total employees, while technical personals with bachelor's degrees or above for 75.19%.
- > VEICHI is always committed to providing customers with stable and trustworthy products and technical services in accordance to the research and development concept of "strive for excellence by innovating technologies".
- > Annual R&D investment of accounts for about 10% of the whole revenue. EMC laboratory, safety laboratory, reliability laboratory, product performance testing laboratory and a number of experimental platforms for multiple industrial applications are established successively.
- > 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" set up successively.

### Intelligent Automation Production

- > Products are based on digital technologies from the beginning of product development, to production programming and then production, that is the whole production cycle, with an annual output up to 914,600 units.
- > 5 fully imported MT high-speed chip mounting lines, 5 automatic coating lines, 4 DIP testing lines, 1 automated line equipped with robotic arms, 12 production lines ensure production of all of the VEICHI products.
- > All of the products are checked by the quality management mode of 3 (tri-inspection system)+ 1 (proportional inspection) during the whole process, and all of them are carried out automatically so as to ensure the 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.



ISO9001:2015  
ISO14001:2015  
ISO45001:2018



Full series with  
CE certification



Dedicated  
products with  
3C certification



Customized  
products with  
RoHS2.0  
certification



Measurement  
Management  
System AAA  
certification

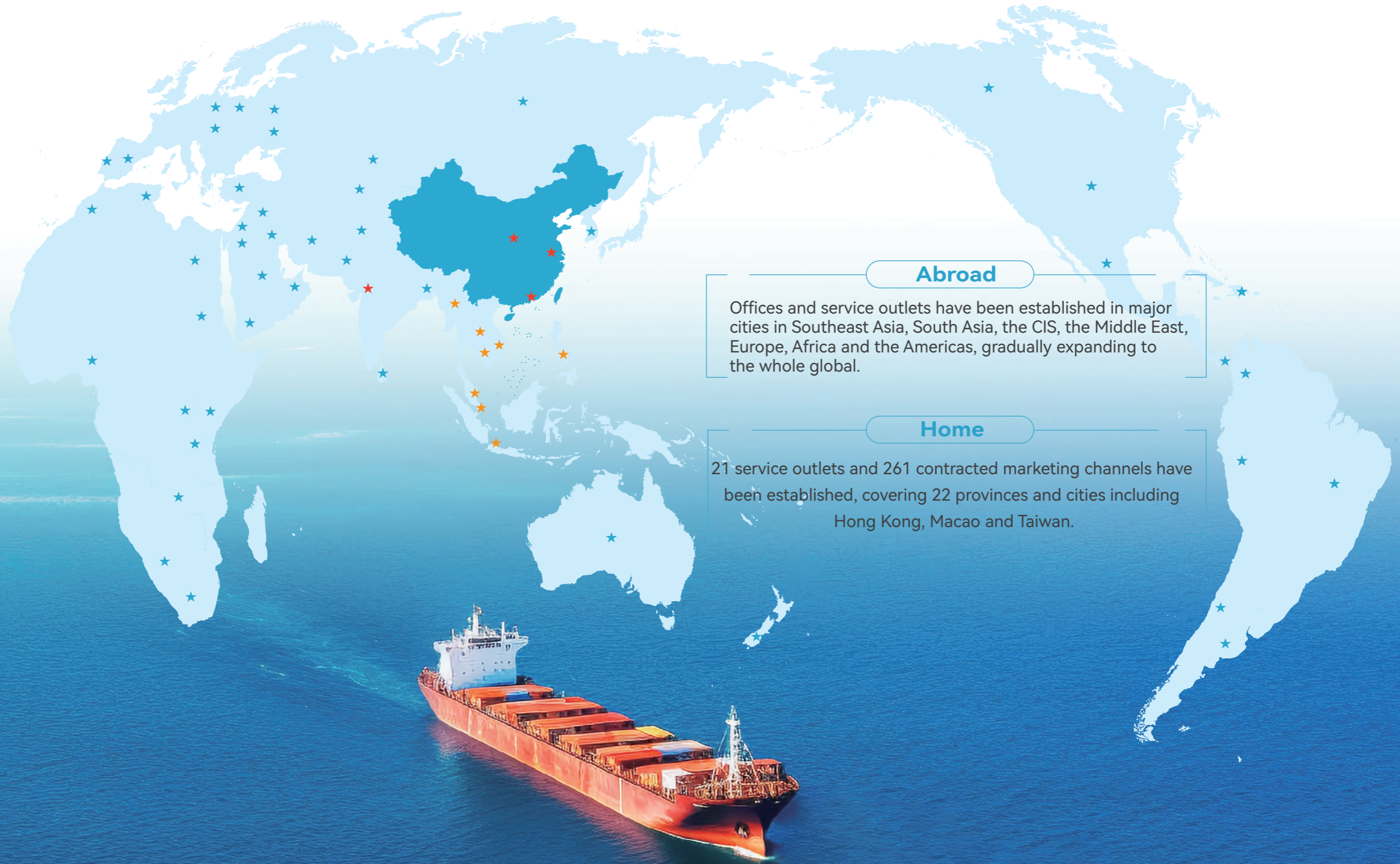


5-star after-sales  
service certification



QC080000  
Management  
System





### Abroad

Offices and service outlets have been established in major cities in Southeast Asia, South Asia, the CIS, the Middle East, Europe, Africa and the Americas, gradually expanding to the whole global.

### Home

21 service outlets and 261 contracted marketing channels have been established, covering 22 provinces and cities including Hong Kong, Macao and Taiwan.