VEICHI

AC01 Series
Network AC Drive



Stock code: 688698

VEICHI

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ABOUT VEICHI

VEICHI Electric (Stock Code: 688698) has been dedicated to electric drives and industrial control since its establishment. As a high-tech enterprise integrating R&D, manufacturing, and sales of industrial automation products, VEICHI is committed to becoming a leading global provider of smart industry and green energy solutions. With R&D centers in Suzhou, Shenzhen, and Xi`an, manufacturing bases in Suzhou, Changzhou, and Jiujiang, and wholly owned subsidiaries overseas, VEICHI serves customers in multiple countries and regions by delivering competitive, safe, and reliable products and services.

Guided by its “One Core, Two New Drivers” strategy, VEICHI takes industrial automation as its core business, with a product portfolio covering AC drives, servo systems, and control systems. Its solutions are widely used in heavy industry, light industry, high-end equipment, and other sectors, helping manufacturers accelerate digital and intelligent transformation with scenario-based solutions. At the same time, VEICHI is actively developing two new growth drivers: embodied intelligence and green energy. In embodied intelligence, the company provides competitive, self-developed core actuator solutions for humanoid robots, collaborative robots, and mobile robots. In green energy, VEICHI is deepening its presence in photovoltaics, energy storage, hydrogen energy, and other application scenarios, committed to “connecting every device to green power.” This creates a synergistic growth model in which its core business and new growth drivers reinforce each other.

Through long-term independent R&D and continuous innovation, VEICHI has built a strong portfolio of proprietary technologies and patents. Its core capabilities include motor vector control, silicon carbide applications, high-frequency injection control, motor parameter identification, motor protection, flying-start control, high-speed field weakening, V/F scalar control, high-density water-cooling design, and IGBT drive protection. As of December 31, 2025, VEICHI had been granted 239 patents, including 70 invention patents.

Over more than two decades of steady development, VEICHI has earned recognition from national and industry authorities, including honors such as High-Tech Enterprise, Postdoctoral Research Workstation, Jiangsu Engineering Technology Research Center, Jiangsu Provincial Enterprise Technology Center, and Jiangsu Industrial Internet Development Demonstration Enterprise — Benchmark Factory.

Looking ahead, VEICHI will continue to uphold its mission of “Driving Smart Industry, Co-creating a Green Future.” The company will further advance key core technologies, accelerate product innovation, and expand into high-performance, high-quality, and high-reliability applications, contributing to the development of smart industry and green energy worldwide.

239 Patents

3 R&D centers
Suzhou, Shenzhen, Xi`an

3 Manufacturing sites
Suzhou, Changzhou, Jiujiang

20+ Development history

CORPORATE VISION

Driving Global Progress in Smart Manufacturing & Renewable Energy.

CORPORATE MISSION

Driving Industrial Intelligence,
Forging Greener Tomorrow.

CORE VALUES

Fulfill Customers, Value Talents,
Open Innovation, Win-win Cooperation.

VEICHI HISTORY

2025
Suzhou VEICHI Phase III digital production base put into operation
Changzhou high-end electrical equipment production base topped out
Jiujiang smart production base groundbreaking ceremony held

2024
Strategic acquisition of Changzhou GT Electric, entering the port and marine sector
“One Core, Two New Drivers” development strategy adopted

2023
Suzhou VEICHI Phase II put into operation
VEICHI Medical Equipment subsidiary established, expanding into the healthcare sector

2022
Xi’an R&D Center established VEICHI Digital Energy subsidiary founded, digitalizing the green energy
Integrated power solutions for humanoid/collaborative/mobile robots launched,initiating deployment in the robotics sector

2021
VEICHI-controlled subsidiary established, enhancing industrial chain integration
Recognized as a SRDI "Little Giant" enterprise

2020
Listed on the Science and Technology Innovation Board (STAR Market)
Recognized as a provincial SRDI "Little Giant" enterprise

2019
Restructured into a joint-stock company
VEICHI overseas subsidiary established, marking the start of global expansion

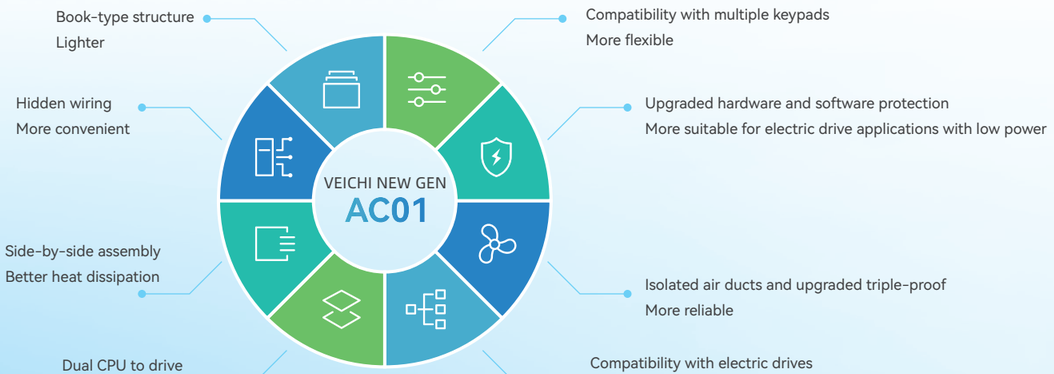
2016
Suzhou VEICHI Phase I put into operation
First-generation motion control system successfully launched

2013
First-generation servo system launched
Expanded into renewable energy with solar water pump solutions

2005
Start of business in Shenzhen
First generation of AC drive launched

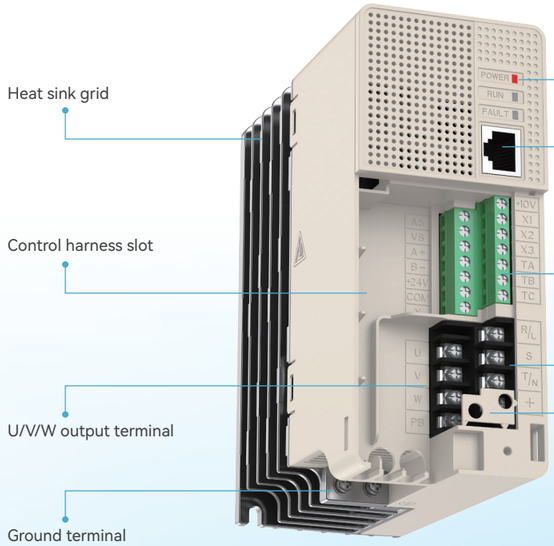
AC01 Series Network AC Drive

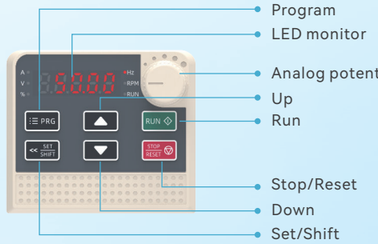
The AC01 series is a compact, cost-effective AC drive developed on VEICHI's low-voltage AC drive platform. Designed to meet the needs of lean manufacturing, it delivers reliable and efficient drive performance in a space-saving package. Its slim, book-style form factor combines a rugged structural design with carefully selected, high-reliability components for stable, long-term operation. Highly automated manufacturing processes and an integrated circuit architecture ensure consistent product quality while helping reduce overall system costs. Backed by VEICHI's advanced PLM system, the network-enabled AC01 series combines a compact, lightweight design with versatile functionality and dependable performance. It helps customers across the value chain improve operational efficiency and advance lean production.





Layout

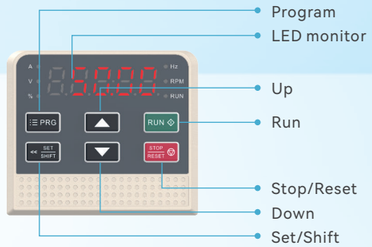




KBD01-15-A Keypad with Analog Potentiometer



KBD10-15 Single-Line External Keypad
(Opening size: 61*36(mm))



KBD01-15 Fixed-Mount Keypad

Note: The KBD01-15(*) keypad plugs directly into the AC01 AC drive, whereas the KBD10-15 and KBD300-25 keypads are connected to the drive via a network cable.



KBD300-25 Dual-Line External Keypad
(Opening size 119*70(mm))

Indicator Interface

AC01 series network AC drive can operate without external keypad, and its operating status is indicated by three LEDs on the interface:

Mark	Indicator	Status	Description
POWER	Red light	On	Power is normal and drive is ready for operation
		Off	Power is abnormal
RUN	Green light	On	Drive is in forward operation
		Flash(on for 500ms and off for 500ms in cycles)	Drive is in reverse operation
		Off	Drive is not in operation
FAULT	Red light	On	Fault indicated by main codes 1-11
		Flash (on for 100ms and off for 100ms in cycles)	Fault indicated by main codes 12-117
		Slow flash (on for 100ms and off for 100ms + on for 100ms and off for 1700ms in cycles)	Drive alarm active
		Off	No fault detected

Note: For fault and alarm codes, refer to the AC01 manual.

Control Terminal Specifications (European-type)

Item	Power	Stripping Length (mm)	Wire Specification (AWG)	Screw
Specification	0.4kW~7.5kW	6~7	30-14	M3

Main Circuit Terminal Specifications (Grid-type)

Model	Screw (mm)	Fixture Torque （N • m）	Copper （AWG）
AC01-S2-R40G-B	M3	0.7	1.5mm² (14)
AC01-S2-R75G-B	M3	0.7	2.5mm²(12)
AC01-S2-1R5G-B	M4	1.3	2.5mm² (12)
AC01-S2-2R2G-B	M4	1.3	4mm² (10)
AC01-S2-004G-B	M4	1.3	4mm² (10)
AC01-T3-R75G-B	M3	0.7	1.5mm² (14)
AC01-T3-1R5G-B	M3	0.7	2.5mm² (12)
AC01-T3-2R2G-B	M4	1.3	2.5mm² (12)
AC01-T3-004G-B	M4	1.3	4mm² (10)
AC01-T3-5R5G-B	M4	1.3	6mm² (9)
AC01-T3-7R5G-B	M4	1.3	6mm² (9)

Note: AC01-W and standard AC01 models share the same main-circuit terminal wiring.

Performance Feature

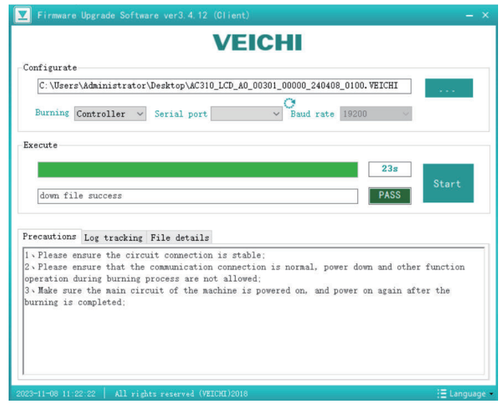
Control Performance

The AC01 software incorporates key features of the AC310 Series and delivers high-precision drive control, enabling convenient one-touch operation for specialized applications.

Motor type	Asynchronous/Synchronous motor
Motor control mode	V/F, SVC
Modulation	SVPWM
Speed control range	SVC, 1:100 at rated load
Speed stabilizing accuracy	SVC, ≤2% of rated sync speed
Start torque	SVC: 150% of the rated torque at 0.5Hz
Torque response	SVC: <20ms
Frequency accuracy	Digit setting: max. frequency × ±0.01%; analog setting: max.frequency × ±0.2 %
Frequency resolution	Digit setting: 0.01Hz; analog setting: max. frequency × 0.05 %

Firmware Upgrade

The VEICHI software provides great convenience for instant firmware upgrades of the AC01.



Comprehensive Fault Protection

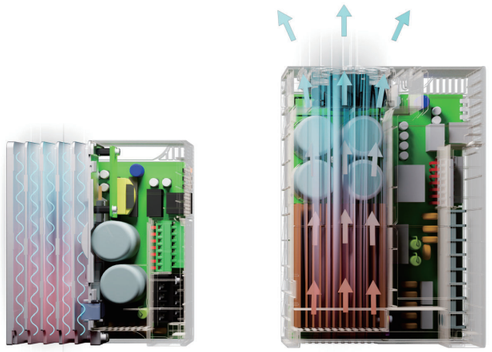
The AC01 has been optimized for more flexible and convenient use with low-power motors. Adjustments to alarm thresholds and detection sensitivity reduce unnecessary alarms while maintaining reliable protection for various parameters, ensuring more stable, reliable, and user-friendly operation.

System failure	Drive overload	Non-zero sum of three-phase currents	Parameter copy failure	Brake unit failure	Parameter setting fault
Overcurrent	Continuous CBC activation	Excessive U/V/W phase zero drift	Three-phase output phase loss	Auto tuning error	CPU timeout
Overvoltage	Rectifier module overheat	Short circuit to ground	U/V/W output phase loss	Load protection	Parameter storage failure
Undervoltage	Inverter module overheat	Fan short circuit	Input phase loss	Excessive speed deviation	Communication fault
Motor overload	Terminal start protection	PID disconnection feedback	External fault	Overspeed	.....

Reliability Design

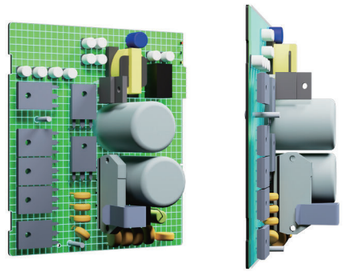
New Structure

The entire AC01 series is available with either natural convection or forced-air cooling. Separate cooling air ducts ensure efficient heat dissipation and enhance overall product reliability.



Protection Improvement

The AC01 series features enhanced protection through an upgraded PCB conformal coating process. Automated coating ensures more uniform thickness and comprehensive coverage, improving product reliability in harsh environments.



Flexible Configuration

The AC01 series can be equipped with an optional built-in C3 EMC filter to suppress high-frequency noise and electromagnetic interference and meet application-specific EMC requirements.

Fully Automated Production and Assembly

The entire AC01 series is assembled, tested, burn-in tested, and packaged on automated production lines, ensuring greater process consistency and product reliability.



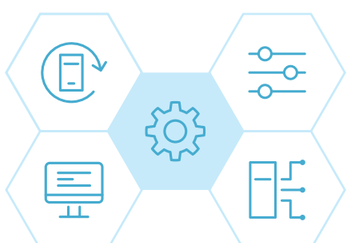






Higher Standards

The AC01 product line complies with international certification and regulatory requirements, including CE, EAC, TÜV, and UL, demonstrating its reliability and safety.



Naming Rules

AC01-T3-1R5 G-B-WA-P

Product series
AC01 series

Voltage type
T3: Three-phase 380V AC
S2: Single-phase 220V AC

Motor power
1R5: 1.5kW
R75: 0.75kW

P: PNP X-terminal logic
Blank: NPN X-terminal logic

WA: Keypad with potentiometer
W: Keypad without potentiometer
Blank: Without this option

B: With braking unit

G: Heavy-duty

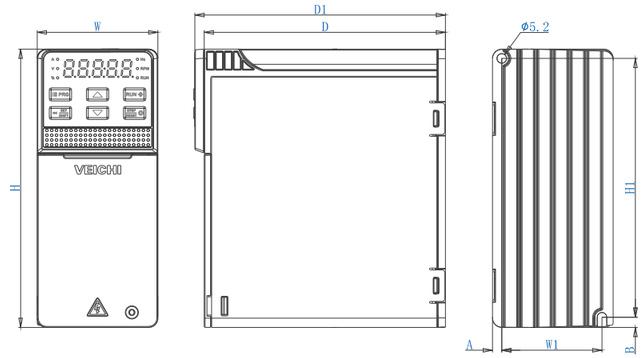
Rated Output Current

Voltage	220V	380V
Power(kW)	Rated output current (A)	
0.4	3.0	—
0.75	4.0	2.5
1.5	7.0	3.7
2.2	10.0	5.0
4	16.0	9.5
5.5	—	13.0
7.5	—	17.0

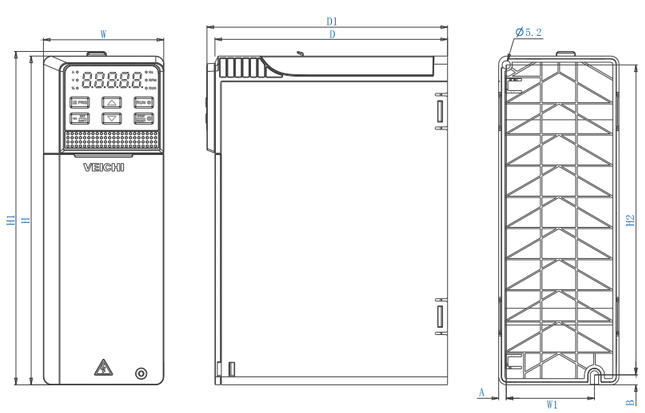
Control Terminal

	Type	Mark	Max.input/output
Control Terminal	Power terminal	+10V-COM	Analog power supply, max. output 50mA
		24V auxiliary power, forming a circuit with COM	Digital power supply, max. output 100mA
	AI	AS-COM	AI current: 0mA~20mA
		VS-COM	AI voltage: 0V~10V
	DI	X1-X3 (NPN type)， forming a circuit with COM	DI with 15KΩ impedance
	DO	TA TB TC relay output	Output capacity: 240V AC/3A; 30V DC/5A
		Y terminal output	Max. output 50mA
	RS485	A+ B-	Modbus, PTU protocol

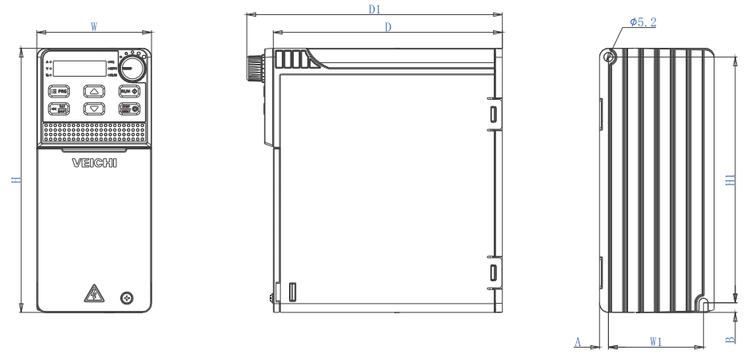
Installation Size



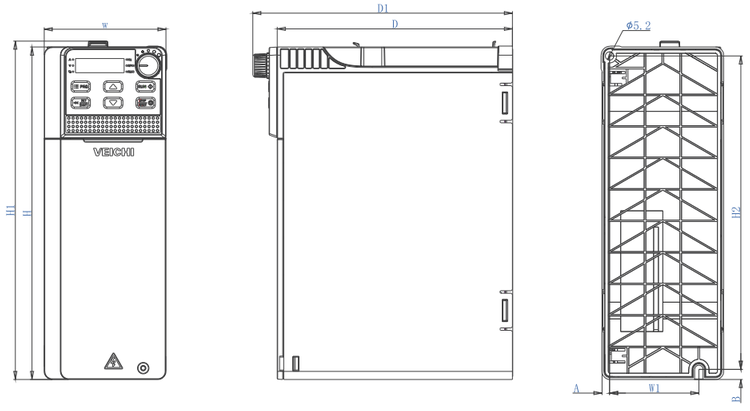
Model	Overall dimensions (mm)				Front-mounting dimensions (mm)				Aperture (mm)
	W	H	D	D1	A	B	W1	H1	
AC01-S2-R40G-B	65	150	130	-	5	5.5	54	139.5	Φ5.2
AC01-S2-R75G-B									
AC01-T3-R75G-B									
AC01-T3-1R5G-B									
AC01-T3-R75G-B-W				135					
AC01-S2-R40G-B-W									
AC01-S2-R75G-B-W									
AC01-T3-1R5G-B-W									



Model	Overall dimensions (mm)				Front-mounting dimensions (mm)					Aperture (mm)
	W	H	D	D1	A	B	W1	H1	H2	
AC01-S2-1R5G-B	75	205	145	-	4.7	6.25	55	207.9	193.25	Φ5.2
AC01-S2-2R2G-B										
AC01-T3-2R2G-B										
AC01-T3-004G-B										
AC01-S2-1R5G-B-W				150						
AC01-S2-2R2G-B-W										
AC01-T3-2R2G-B-W										
AC01-T3-004G-B-W										
AC01-S2-004G-B	100	230	165	-	6.0	6.0	82	232.9	218	Φ6.2
AC01-T3-5R5G-B										
AC01-T3-7R5G-B										
AC01-S2-004G-B-W										
AC01-T3-5R5G-B-W										
AC01-T3-7R5G-B-W										



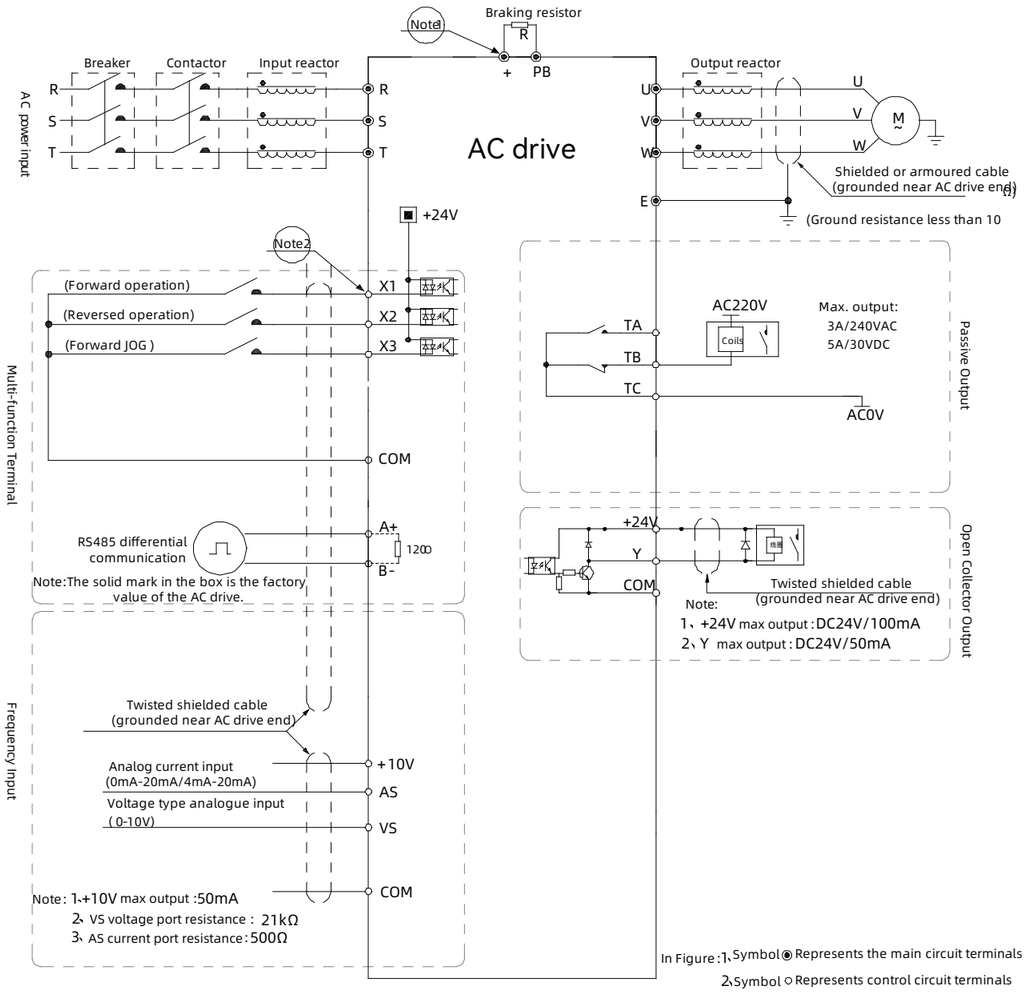
Model	Overall dimensions (mm)				Front-mounting dimensions (mm)				Aperture (mm)
	W	H	D	D1	A	B	W1	H1	
AC01-T3-R75G-B-WA	65	150	130	145	5	5.5	54	139.5	Φ5.2
AC01-S2-R40G-B-WA									
AC01-S2-R75G-B-WA									
AC01-T3-1R5G-B-WA									



Model	Overall dimensions (mm)				Front-mounting dimensions (mm)					Aperture (mm)
	W	H	D	D1	A	B	W1	H1	H2	
AC01-S2-1R5G-B-WA	75	205	145	160	4.7	6.25	55	207.9	193.25	Φ5.2
AC01-S2-2R2G-B-WA										
AC01-T3-2R2G-B-WA										
AC01-T3-004G-B-WA										
AC01-S2-004G-B-WA	100	230	165	180	6.0	6.0	82	232.9	218	Φ6.2
AC01-T3-5R5G-B-WA										
AC01-T3-7R5G-B-WA										

AC01-W/WA models are supplied as standard with a snap-in keypad. Dimension D1 includes the installed keypad.

Standard Wiring



Note: 1. Select the appropriate braking resistor according to the site conditions and "Braking Resistor Specification Parameters".

2. Multi-function input terminal (X1 ~ X3) can take the NPN transistor signal as input.

3. In the control circuit, digital ground and analog ground terminals are combined into the COM terminal.

Application



VEICHI R&D Centers and Manufacturing Bases













TECHNOLOGICAL STRENGTH

01

As of December 31, 2025, a total of 239 patents had been granted, including 70 invention patents, covering electrical drives, industrial control, green energy, and industrial automation equipment.

02

Top-tier domestic professional and technical talents of industrial control assembled, making R&D personnel 35.08% of total workforce, 77.96% holding bachelor's degrees or higher.

03

Annual R&D investment expenditure accounting for about 10% of the operating revenue for advanced facilities such as a 3-meter anechoic chamber, climate simulation chamber, temperature-humidity-vibration chamber for full-power electric drive tests and multiple industry-specific application tests.



04

Close collaborative relationships with numerous prominent domestic universities and scientific research institutions,establishing the "Postdoctoral Innovation And Practice Base" and the "Postgraduate Workstation" in Jiangsu Province.

05

Stable and reliable products based on strong commitment to technological innovation and excellence and customer needs.

06

EDA (Electronic Design Automation) principles adopted by the sequence of theoretical design, simulation validation (thermal, circuit, and code simulations), and prototype testing.
IPD (Integrated Product Development) process adopted for higher efficiency and collaboration.













SERVICE SCOPE

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 23 major Chinese cities and overseas operations including Indian subsidiaries, the company is supported by an extensive network of 364 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.

