

# VH600 Series General Purpose Medium PLC



## About us



VEICHI Electric (stock code: 688698) has always been dedicated to the field of electrical drive and industrial control since its establishment, and now it is a high-tech enterprise engaged in R&D, production, and sales of industrial automation products in one. With R&D and production bases in Suzhou, Shenzhen and Xi'an, and a wholly-owned subsidiary in India, VEICHI now is capable of conducting its business to many countries and regions with competitive, safe and reliable products and services to customers all over the world.

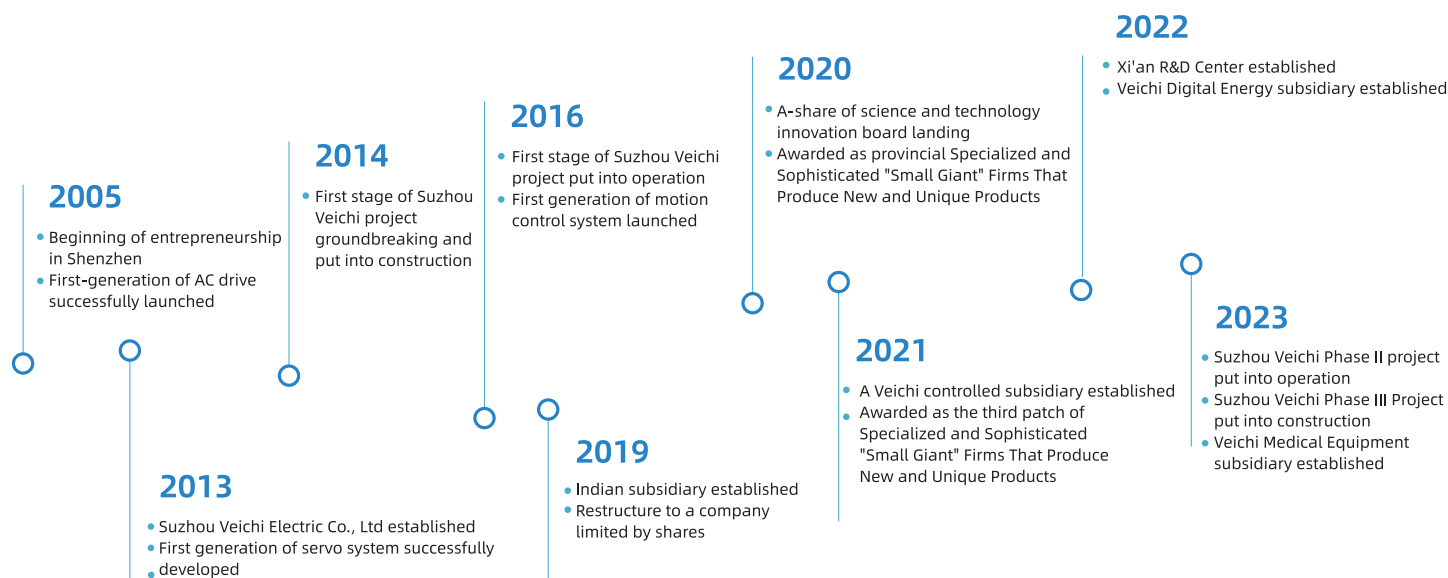
Plentiful products cover AC drives, servo systems and control systems, which are widely used in heavy industry, light industry, high-end equipment and more to facilitate the intellectualized transformation of the manufacturing industry with solutions customized to different scenarios. In the meanwhile, along the development trend of the times, VEICHI is extending its place to the emerging fields such as robotics, new energy, and medical care, and has developed products such as coreless motors, frameless motors, photovoltaic AC drives, and surgical power systems, which have deeply empowered the impressively promising industries.

On long-term and persistent independent R&D and innovation, VEICHI has successfully cultivated a series of patented technologies with independent intellectual property rights, and has mastered the core technologies of motor control such as vector control of PMSM, high-frequency pulse injection

control, field-weakening control for higher speed, scalar V/F control and vector control etc., and of silicon carbide application, motor parameter tuning and identification, motor control and protection, and motor speed tracking and start-up control. As of March 31, 2024, a total of 204 patents have been granted, including 48 patents for inventions.

VEICHI has been developing step by step over the past 18 years with abundant honorary awards and certificates from the state and competent authorities, including "the Third Batch of Special and Sophisticated 'Small Giant' Enterprises That Produce Novel and Unique Products", "High-tech Enterprises", "Jiangsu Provincial Engineering Technology Research Center", "Jiangsu Provincial Enterprise Technology Center", "Jiangsu Provincial Industrial Internet Development Demonstration Enterprise (Benchmarking Factory Category)" and others.

In the future, VEICHI Electric will continue to uphold the business philosophy of "guided by market demand and driven by technological innovation", strengthen the key core technology research and product iteration, and constantly expand its high-performance, high-quality, high-reliability applications, contributing to the development of electrical drive and industrial control with might and main.



## Production Introduction



**VH600 is the first medium-sized PLC independently developed by VEICHI.** Having accumulated years of experience in the development of industrial control equipment and analyzed the actual situation of a number of sites, VEICHI has been manufacturing reliable industrial controllers specifically for mid- and high-end equipment and factory automation design.

VH600 is integrated with a range of functions and can be used to control multiple devices with ultra-high-speed computing and processing speed to deliver excellent system performance.

### Simple CODESYS integrated development environment:

For multiple programming languages (LD, FBD, ST, SFC and CFC) in conformity to IEC 61131-3.

### Precise motion control:

By EtherCAT bus and pulses  
For up to 128 axes (32 recommended)  
And 16-axis electronic cam with synchronization cycle of 2ms.



### Strong bus network:

For up to 125 EtherCAT slaves (including servo axes)

### Supports PLCopen mainstream functions

## Product Features

### Part 1 Efficiency

**Faster command processing:**

Quad-core processor for nanosecond speed.  
Nearly 3X improvement in overall performance over the previous generation with greater capacity

### Part 2 Convenience

**CODESYS IDE :**

CODESYS integrated development environment (IDE) supports various IEC 61131-3 programming languages (LD, FBD, ST, SFC, CFC) to boost development efficiency.

### Part 3 Communication

**Strong bus network:**

EtherCAT, EtherNet/IP, OPC UA, Modbus TCP, RS485, CAN bus and other global standard industrial networks.  
Two channels of EtherNet built-in switches.

### Part 4 Control

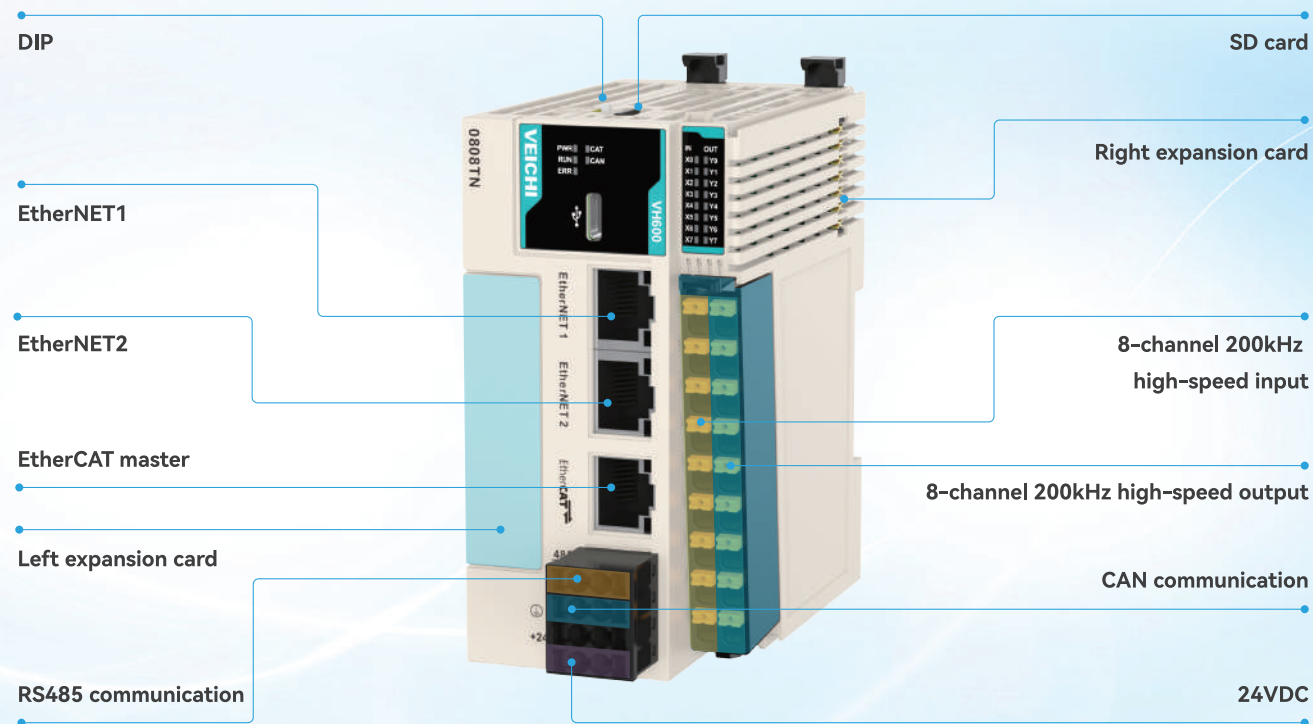
**Bus + Pulse for more flexibility and versatility:**

EtherCAT includes both real and virtual axes and supports a maximum of 128 axes (32 axes recommended) and 16-axis electronic cam with synchronization cycle of 2ms.

## VH600-0808TN Specification

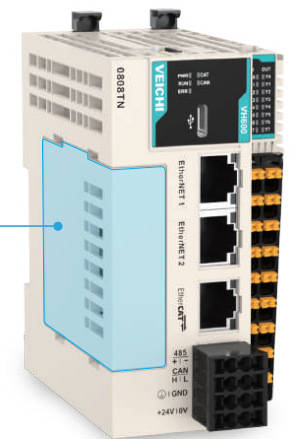
Item	Specification			
Model	VH600-0808TN/P	VH601-0808TN/P	VH602-0808TN/P	VH603-0808TN/P
Number of axes	Up to 128 axes	8 axes	16 axes	32 axes
Rated voltage	24VDC			
RS485	1-channel RS485 serial communication			
CAN	CANOpen master			
EtherNet	2-channel EtherNet (built-in switch), supports ModbusTCP and program upload/download			
EtherCAT	Connect up to 128 EtherCAT slaves (including servo axes)			
High-speed input	8-channel 200kHz			
High-speed output	8-channel (pulse axis) 200kHz, source/drain output selectable			
Left expansion	One 485 function can be extended			
Right expansion	Up to 16 modules can be expanded			
SD card	Support up to 32G for 1 channel			
Program data capacity	Program memory of 10MB, power-off memory of 512kb (Flash power-off save), data capacity of 20MB			
Program language	IEC 61131-3 programming language (LD, FBD, ST, SFC, CFC)			
Motion control	Support linear arc interpolation, electronic gear, electronic cam functions			

## One-Stop Control

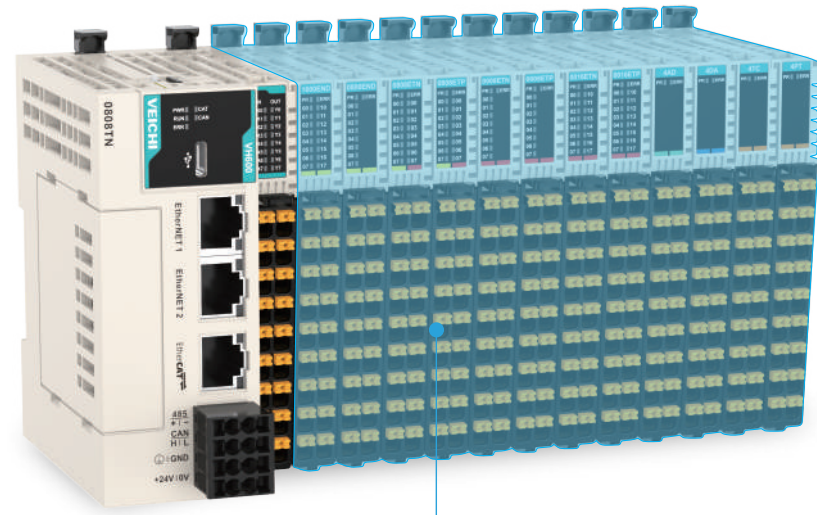


## Left Expansion Card

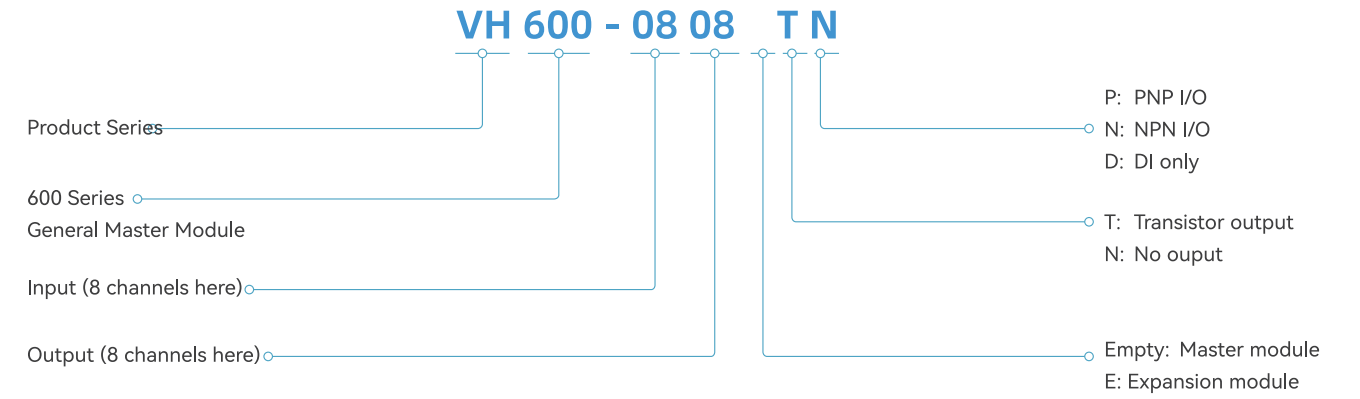
Model	Specification
VH-RS485	2-channel RS485
VH-RS485-RTC	2-channel RS485 + real-time clock (RTC)
VH-4DI	4-channel DI
VH-4DI-RTC	4-channel DI + RTC
VH-4DO-TN	4-channel drain DO
VH-4DO-TN-RTC	4-channel drain DO + RTC
VH-2AD1DA-I	2-channel AI, 1-channel AO (current type)
VH-2AD1DA-I-RTC	2-channel AI, 1-channel AO (current type) + RTC
VH-2AD1DA-V	2-channel AI, 1-channel AO (voltage type)
VH-2AD1DA-V-RTC	2-channel AI, 1-channel AO (voltage type) + RTC
VH-RTC	Real-time clock expansion card



## Right Expansion Card



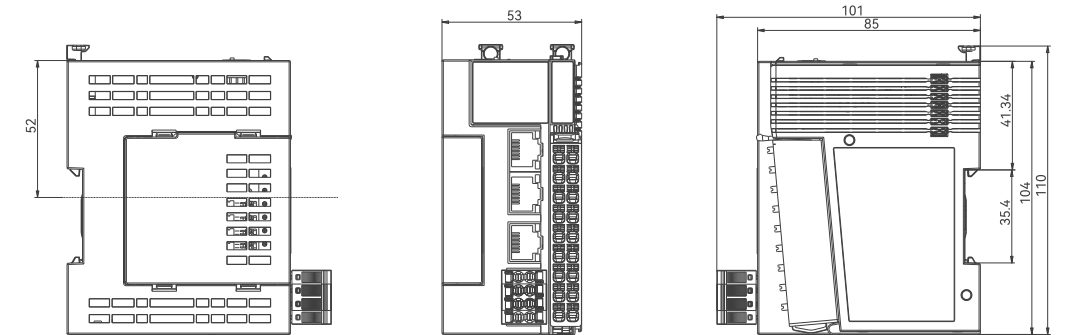
## Model Description



## Dimensions

Model	Specification
VH-1600END	16 channels of DI
VH-0800END	8 channels of DI
VH-0016ETN	16 channels of NPN DO
VH-0016ETP	16 channels of PNP DO
VH-0808ETN	8 channels of DI, 8 channels of NPN DO
VH-0808ETP	8 channels of DI, 8 channels of PNP DO
VH-0008ETN	8 channels of NPN DO
VH-0008ETP	8 channels of PNP DO
VH-4AD	4 channels of AI
VH-4DA	4 channels of AO
VH-4PT	4 channels of RTD temperature detection module
VH-4TC	4 channels of thermocouple temperature detection module

VH600 Series  
Main Module:



VH Series Right  
Expansion Module:

