

**Making Better Automation to Build Your Success**



Website: [www.we-con.com.cn/en](http://www.we-con.com.cn/en)  
Email: [sales@we-con.com.cn](mailto:sales@we-con.com.cn)  
Tel: 400-799-8189 Fax: +86-591-87843899  
Factory: 10th Building,E Area,Software Park, Fuzhou,Fujian,China  
Headquarters: 6th Building,F Area,Software Park,Fuzhou,Fujian,China  
Edition No.: WCT9.2.1



# PRODUCTS CATALOG

Human Machine Interface / Programmable Logic Controller/  
Servo Drive & Motor / IIoT V-BOX / Inverter



FUJIAN FUCAN WECON CO.,LTD. All Rights Reserved.

WECON is a high technology company on automation and its solution, headquartered in Fuzhou software park, Fujian China. Wecon dedicates all the efforts to provide integrated products and solution on automation, such as Human Machine Interface (HMI), Programmable Logic Controller (PLC), Servo Drive&Motor, IIoT V-BOX and Inverter.

WECON has modernized factory over 10,000 square meters in Fuzhou, the R&D and production department strictly follows ISO9001 quality management system, and all products are certificated by CE and FCC. The R&D center has more than 3,000 square meters in Fuzhou, with more than 150 R&D engineers work here.

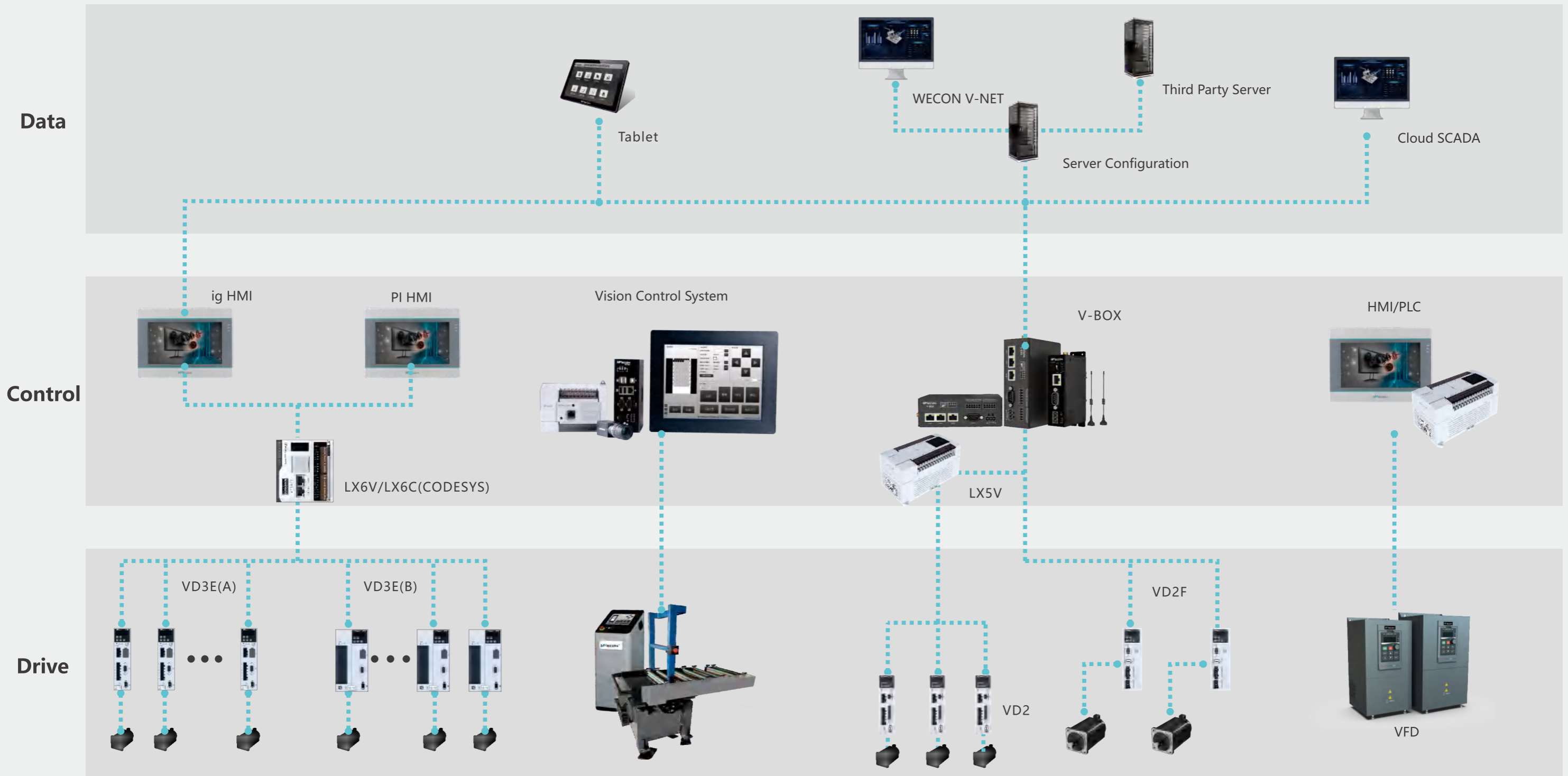
Until July 1st 2023, WECON have been authorized over 140 independent intellectual property rights, which includes 7 Invention Patents, 27 Utility patents, 9 Design Patents, and 108 software intellectual property rights. WECON has over 40 domestic offices all over China, more than 30 foreign distributors in 22 countries. WECON business covers most main industrial countries, locating in Asia, Europe, North America, South America, Oceania and Africa.

2019 is an important year of WECON globalization. In this time, we start to have international employees, now have employees from Turkey, Egypt, and Brazil. They are dedicated efforts and wisdom to support customers success and improve the industry level of the world. WECON provides services such as technical support and maintenance all over the world. Overseas customers could buy products and enjoy services locally and conveniently.

Wecon have opened local offices for sales and support in Turkey, Egypt and Brazil. Wecon have plan to open more than 10-15 offices in other countries within 2 years.

# Content

<b>About WECON</b>	01	<b>WECON SERVO Drives</b>	
<b>WECON Products</b>	03	Servo Drives Features .....	31
<b>WECON HMI</b>		Servo Applications .....	32
HMI Features .....	05	Servo Naming Rules .....	33
ig Series IoT HMI .....	06	Servo Driver&Motor Specifications .....	34
PI8150ig High Definition IoT HMI.....	07	VD3E Series Servo Features .....	35
PI3000ie Series HMI .....	08	Servo Specifications .....	36
ig Specifications .....	09		
PI3000ie Specifications .....	12	<b>WECON V-NET&amp;V-BOX</b>	
PI3000i Specifications .....	13	V-NET Architecture .....	39
<b>WECON PLC</b>		V-NET Functions .....	40
PLC Features .....	15	V-BOX Features .....	41
PLC Applications .....	16	V-BOX Applications .....	42
LX6V/6S Series PLC .....	17	V-BOX E Series Specifications .....	43
LX6C Series PLC .....	19	V-BOX H Series Specifications .....	44
LX5V Series PLC .....	21	V-BOX RE&RH Series Specifications .....	45
LX5S Series PLC .....	22	<b>INVERTER</b>	
Expansions Modules&BD Modules.....	23	VB Series AC Drive .....	47
LX6V&LX5V&LX5S PLC Models .....	24	VM Series AC Drive.....	51
LX3V Series PLC Models .....	25		
LX5V General Specifications .....	27		
LX5S General Specifications .....	28		
PLC General Specifications .....	29		



# WECON HMI

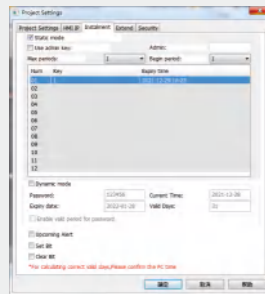


# ig Series IoT HMI

ig IoT HMI, create for the Internet of Things



## Installment



Installment function  
Users can set fixed installment or dynamic installment in HMI in advance to help customers effectively recover the unsettled balance within a certain period of time.

## HMI Recipe



Users can configure the recipe file data on the HMI, and easily switch between different production modes.

## Device Management

- Multi-device management
- Multi-authority account



## Alarm Notification

- Alarm SMS push(4G models)
- Upload and download alarm records

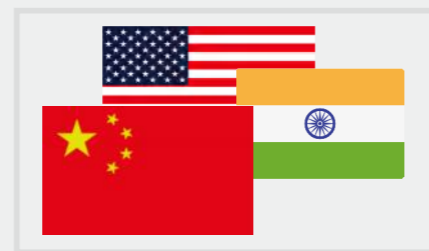


## User Permission Management



The HMI project can set the user permission and usage permission for different users to protect operation of the device.

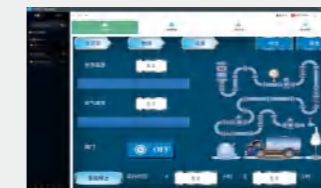
## Multi-language Display



Wecon HMI supports maximum 8 languages, facilitating the use of WECON HMI in many countries.

## Remote Maintenance

- Sync data to cloud
- Remote access
- WVPN pass-through
- Remote debug



## System Integration

- Cloud SCADA
- Big screen display
- Equipment connection



# PI8150ig High Definition IoT HMI

Aluminium Alloy Panel



High-definition  
Wide Viewing Angle

# PI3000ie Series HMI

Quad Core CPU  
Fast and Fluent Touch



## Big Screen

More convenient operation  
Display in high-definition and high quality



1920×1080

## Aluminium Alloy Panel

Strong anti-interference, excellent heat dissipation  
Anti-corrosion, and high temperature resistance



## Fast



6 seconds for booting  
100ms for screen switch

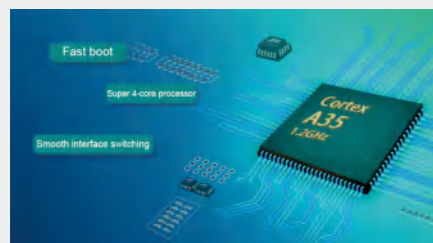
## Numerous



300+ communication protocols  
50+ objects

## 4-core CPU

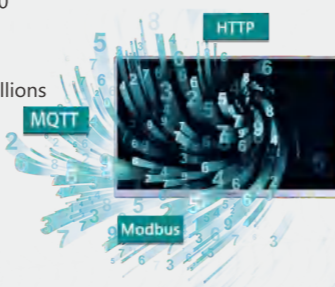
With Cortex A35 1.2GHz high performance processor  
PI8150ig has powerful operation processing capability



## Complete IoT Functions

MQTT cloud protocol and database server connection  
Supported more powerful IoT functions

- Real-time Monitoring Points: 300
- Alarm Monitoring Points: 200
- History Monitoring Points: 100
- History Storage: 120 days / 1 millions



## Unique



Unique installment function  
Unique user permission management  
Unique data encryption function

## Reliable



Enhance software security  
Better communication Stability  
Waterproof and heat cooling

# ig SPECIFICATIONS

## IOT HMI



### Model

PI3070ig PI3102ig PI3070ig-O-H PI3102ig-O-H

Item		Specifications			
CPU		High Performance CPU			
Touch Screen		Resistive			
Display	Screen Size	7 Inch	10.1 Inch	7 Inch	10.1 Inch
	Resolution	800*480	1024*600	1024*600	1024*600
	Brightness	250 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>
	Backlight Type	LED			
	Backlight Life	50,000 Hours			
Storage	Flash	128MB			
	RAM	128MB			
	SD Card	YES			
I/O Port	USB	USB Host: USB 2.0 x 1; USB Client: USB 2.0 x 1 (cannot be used at the same time)			
	Serial Port	Type 1: COM1(RS232), COM1(RS485), COM1(RS485) Type 2: COM1(RS232), COM1(RS422), COM1(RS485)			
	Ethernet	YES			
	CAN	N/A			
	4G/WIFI Module	Optional			N/A
Permanent Calendar		Built-in			
Power	Power Supply	24V DC (12~28V DC)			
	Power Consumption	<8W	<10W	<8W	<10W
Dimension	Enclosure	Plastic+ABS (Polycarbonate)			
	Dimension(mm)	201.2W*147.2H*39.0D	272.0W*191.0H*41.5D	201.2W*147.2H*39.0D	272.0W*191.0H*41.5D
	Mounting Size(mm)	192.0W*138.0H	260.0W*179.0H	192.0W*138.0H	260.0W*179.0H
	Net Weight (KG)	0.52	1.02	0.52	1.02
Environment	Protection	IP65 (Front panel)			
	Temperature	Storage: -20℃~70℃ Working: -10℃~55℃			
	Humidity	10 ~ 90%RH (Non-condensing)			
	Vibration Resistance	10 ~ 25 Hz (X, Y, Z direction 2G/30 minutes)			
CE Certification		CE Marked			
FCC Certification		FCC Class A			
Programming Software		PI Studio			
IoT Service (optional)	Real-time Monitoring Points	100			N/A
	Alarm Monitoring Points	20			N/A
	History Monitoring Points	50			N/A
	History Storage	60 days / 1 millions			N/A
VPN Pass-through		YES			N/A

# ig SPECIFICATIONS

## Advanced HMI



### Model

PI8043ig PI8070ig PI8102ig PI8150ig

Item		Specifications			
CPU		High Performance CPU			
Touch Screen		Resistive			
Display	Screen Size	4.3 Inch	7 Inch	10.1 Inch	15 Inch
	Resolution	480*272	800*480	1024*600	1920*1080
	Brightness	300 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>
	Backlight Type	LED			
	Backlight Life	50,000 Hours			
Storage	Flash	4GB			
	RAM	512MB			
	SD Card	N/A	YES	YES (TF Card)	
	USB	USB Host: 2.0 x 1; USB Device: Type-C 2.0 (can not be used at the same time)	USB Host:2.0 x 1; USB Client:USB 2.0 x 1 (can not be used at the same time)		
I/O Port	Serial Port	Type 1: COM1(RS232), COM1(RS485), COM1(RS485) Type 2: COM1(RS232), COM1(RS422), COM1(RS485)			
	Ethernet	YES			
	CAN	N/A			
	4G/WIFI Module	Optional			
	Permanent Calendar		Built-in		
Power	Power Supply	24V DC (12~28V DC)			
	Power Consumption	<8W	<10W	<8W	<15W
Dimension	Enclosure	Plastic+ABS (Polycarbonate)			Aluminum + Metal + ABS
	Dimension(mm)	142.0W*86.0H*30.5D	201.2W*147.2H*39.0D	272.0W*191.0H*41.5D	403.0W*253.0H*35.2D
	Mounting Size(mm)	131.0W*78.0H	192.0W*138.0H	260.0W*179.0H	394.0W*244.0H
	Net Weight (KG)	0.39	0.52	1.02	2.46
Environment	Protection	IP65 (Front panel)			
	Temperature	Storage: -20℃~70℃ Working: -10℃~55℃			Storage: -20℃~60℃ Working: 0℃~50℃
	Humidity	10 ~ 90%RH (Non-condensing)			
	Vibration Resistance	10 ~ 25 Hz (X, Y, Z direction 2G/30 minutes)			
CE Certification		CE Marked			
FCC Certification		FCC Class A			
Programming Software		PI Studio			
Software	IoT Service (optional)	Real-time Monitoring Points: 300			
		Alarm Monitoring Points: 200			
		History Monitoring Points: 100			
		History Storage: 120 days / 1 millions			
VPN Pass-through		YES			

# PI3000ie SPECIFICATIONS

## Economical HMI



Model	PI3035ie	PI3043ie	PI3043ieS-N	PI3043ie-T
-------	----------	----------	-------------	------------

Item	Specifications				
CPU	CortexA35				
Touch Screen	Resistive				
Display	Screen Size	3.5 Inch	4.3 Inch	4.3 Inch	4.3 Inch
	Resolution	320*240	480*272	480*272	480*272
	Brightness	300cd/m <sup>2</sup>			
	Backlight Type	LED			
	Backlight Life Time	50,000 Hours			
Storage	Flash	128MB			
	RAM	64MB			
	SD Card	N/A			
	RTC	Real Time Clock			
I/O Port	Micro-USB	USB 2.0 x 1			
	Serial Port	Type 1: COM1(RS232), COM1(RS485)	Type 1: COM1(RS232), COM1(RS485)	Type 1: COM1(RS232), COM1(RS485), COM1(RS485)	Type 1: COM1(RS232), COM1(RS485)
		Type 2: COM1(RS232), COM1(RS422)	Type 2: COM1(RS232), COM1(RS422)	Type 2: COM1(RS232), COM1(RS422), COM1(RS485)	Type 2: COM1(RS232), COM1(RS422)
	Ethernet	N/A	N/A	YES	N/A
	PermanentCalendar	Built-in			
Power	Power Supply	24V DC(12~28VDC)			
	Power Consumption	< 5W			
Dimension	Enclosure	Plastic+ABS (Polycarbonate)			
	Dimension(mm)	96.0W*81.0W*33D	142.0W*86.0H*30.3D		142.0W*86.0H*38.9D
	Mounting Size (mm)	91.0W*73.0D	131.0W*78.0H		131.0W*79.0H
	NetWeight(KG)	0.14	0.19		0.21
Environment	Protection	IP65 (Front panel)			
	Temperature	Storage: -20°C~70°C; Working:-10°C~55°C			
	Humidity	10 ~ 90%RH (Non-condensing)			
	Vibration Resistance	10 ~ 25 Hz (X, Y, Z direction)2G/30minutes)			
CE Certification	CE Marked				
Programming Software	PI Studio				
Remote Control	N/A				

# PI3000ie SPECIFICATIONS

## Economical HMI



Model	PI3070ie	PI3102ie
-------	----------	----------

Item	Specifications		
CPU	CortexA35		
Touch Screen	Resistive		
Display	Screen Size	7 Inch	10.2 Inch
	Resolution	800*480	1024*600
	Brightness	250 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>
	Backlight Type	LED	
	Backlight Life Time	50,000 Hours	
Storage	Flash	128MB	
	RAM	64MB	
	SD Card	NA	
	USB	USB Host: USB 2.0 x 1; USB Client: USB 2.0 x 1	
Ports	Serial Port	Type 1: COM1(RS232), COM1(RS485) Type 2: COM1(RS232), COM1(RS422)	
	Ethernet	N/A	
	Permanent Calendar	Built-in	
Power	Power Supply	24V DC(12~28V DC)	
	Power Consumption	< 8W	< 10W
Dimension	Enclosure	Plastic+ABS (Polycarbonate)	
	Dimension(mm)	201.2W*147.2H*39.0D	272.0W*191.0H*41.5D
	Mounting Size (mm)	192.0W*138.0H	260.0W*179.0H
	NetWeight(KG)	0.52	1.02
Environment	Protection	IP65 (Front panel)	
	Temperature	Storage: -20°C~70°C; Working -10°C~55°C	
	Humidity	10 ~ 90%RH(Non-condensing)	
	Vibration Resistance	10 ~ 25 Hz (X, Y, Z direction)2G/30minutes)	
CE Certification	CE Marked		
Programming Software	PI Studio		
Remote Control	N/A		

# PI3000i SPECIFICATIONS

## Basic HMI



Model	PI3070i	PI3070i-2S	PI3070i-A	PI3070i-SL
-------	---------	------------	-----------	------------

Item	Specifications				
CPU	CortexA7				
Touch Screen	Resistive				
Display	Screen Size	7 Inch			
	Resolution	800*480			
	Brightness	250 cd/m <sup>2</sup>			
	Backlight Type	LED			
	Backlight Life Time	50,000 Hours			
Storage	Flash	128MB			
	RAM	128MB			
	SD Card	NA	YES	YES	NA
	RTC	YES			
I/O Ports	USB	USB Host: USB 2.0 x 1; USB Client: USB 2.0 x 1			
	Serial Port	RS232, RS422/RS485 (2 in 1)	COM1: RS232,RS422/RS485		RS232, RS422/RS485 (2 in 1)
			COM2: RS232,RS485		
			COM3: RS485		
	Ethernet	N/A	YES	YES	N/A
CAN	N/A	N/A	YES	N/A	
Permanent Calendar	Built-in				
Power	Power Supply	24V DC(12~28VDC)			
	Power	< 8W			
Dimension	Enclosure	Plastic+ABS (Polycarbonate)			
	Dimension(mm)	201.2W*147.2H*39.0D	200.0W*146.0H*36.5D	191.2W*137.2H*41.0D	
	Mounting Size	192.0W*138.0H	192.0W*138.0H	172.0W*111.0H	
	Net Weight(KG)	0.51	0.51	0.52	
Environment	Protection	IP65 (Frontpanel)			
	Temperature	Storage: -20°C~70°C; Working: -10°C~55°C			
	Humidity	10 ~ 85%RH(Non-condensing)			
	Vibration	10 ~ 25 Hz (X, Y, Z direction 2G/30 minutes)			
CE Certification	CE Marked				
FCC Certification	FCC Class A				
Programming Software	PI Studio				
Remote Control	N/A				

# PI3000i SPECIFICATIONS

## Basic HMI



Model	PI3102i	PI3102i-2S	PI3102i-A
-------	---------	------------	-----------

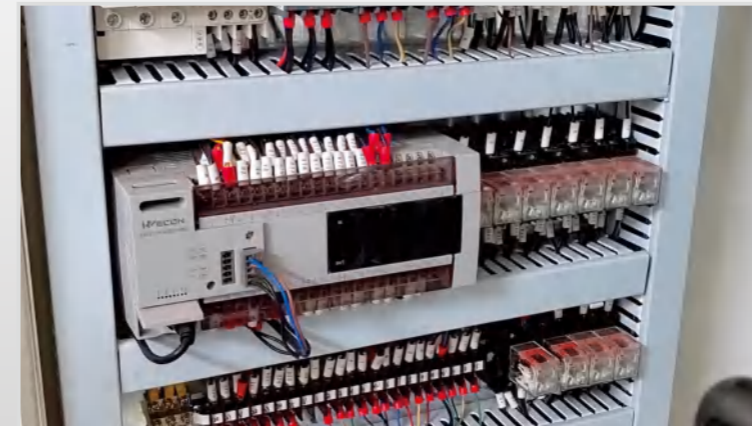
Item	Specification			
CPU	CortexA7			
Touch Screen	Resistive			
Display	Screen Size	10.2inch		
	Resolution	1024*600		
	Brightness	350 cd/m <sup>2</sup>		
	Backlight Type	LED		
	Backlight Life	50,000 Hours		
Storage	Flash	128MB		
	RAM	128MB		
	SD Card	N/A	YES	
	RTC	YES		
I/O Port	USB	USB Host: USB 2.0 x 1; USB Client: USB 2.0 x 1		
	Serial Port	RS232, RS422/RS485 (2 in 1)	COM1: RS232,RS422/RS485	COM1: RS232,RS422/RS485, CAN
			COM2: RS232,RS485	COM2: RS232,RS485
			COM3: RS485	COM3: RS485
	Ethernet	YES		
CAN	N/A	YES		
Permanent Calendar	Built-in			
Power	Power Supply	24V DC(12~28VDC)		
	Power Consumption	<10W		
Dimension	Enclosure	Plastic+ABS (Polycarbonate)		
	Dimension(mm)	272.0W * 191.0H * 41.5D	272.0W * 190.7H * 41.3D	
	Mounting Size(mm)	260.0W * 179.0H		
	Net Weight(KG)	1.00	1.2	
Environment	Protection	IP65 (Frontpanel)		
	Temperature	Storage: -20°C~70°C; Working: -10°C~55°C		
	Humidity	10 ~ 85%RH (Non-condensing)		
	Vibration	10 ~ 25 Hz (X, Y, Z direction 2G/30 minutes)		
CE Certification	CE Marked			
FCC Certification	FCC Class A			
Programming Software	PI Studio			
RemoteControl	N/A			



# WECON PLC



## PLC Applications Automatic Plug Wiring Machine



### Fast Scan

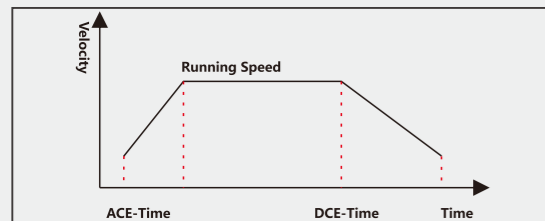
Program scanning speed: 0.2ms

### Efficient Work

The line is 1.8m-2m, 1250 lines/hour  
The line is 1.3 meters, 1300 lines/hour

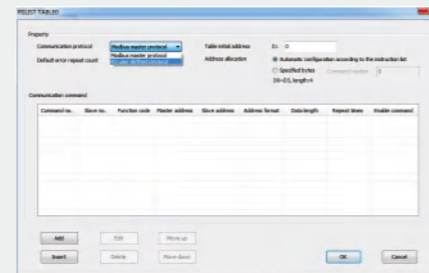
## High Speed Pulse Input/Output

- Supports pulse + direction mode input
- Supports high speed pulse output with acceleration and deceleration
- The acceleration and deceleration time are configurable



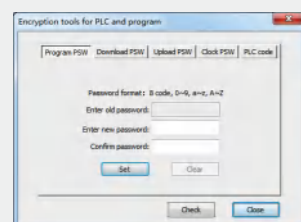
## Modbus Listed Instruction

- RSLIST+RSLIST list
- Easier protocols communication



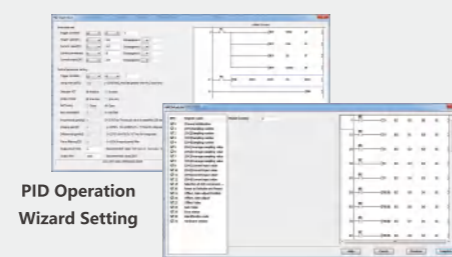
## Program Encryption

- Subroutine encryption
- Ladder encryption
- PLC unit and PLC project encryption



## PLC Guide Function

- PID operation guide setting
- All module guide setting
- All BD Board guide setting



## Application

Rail Transport, Packaging Machinery, Automated Production Lines, Grinding Machine, Industrial Robots, Spray and Dust Prevention, Elevator, Textile Machinery

### Grinding Machine



### Textile Machinery



### Industrial Robots



### Elevator



# LX6V (6S) series PLC

## Modular EtherCAT PLC

Multi-port, fast communication, brand new product

- Supports EtherCAT and USB TYPE-C
- Supports 61131-3 LD programming mode, free tag protocol, faster and more efficient communication
- Nice appearance of PLC and module



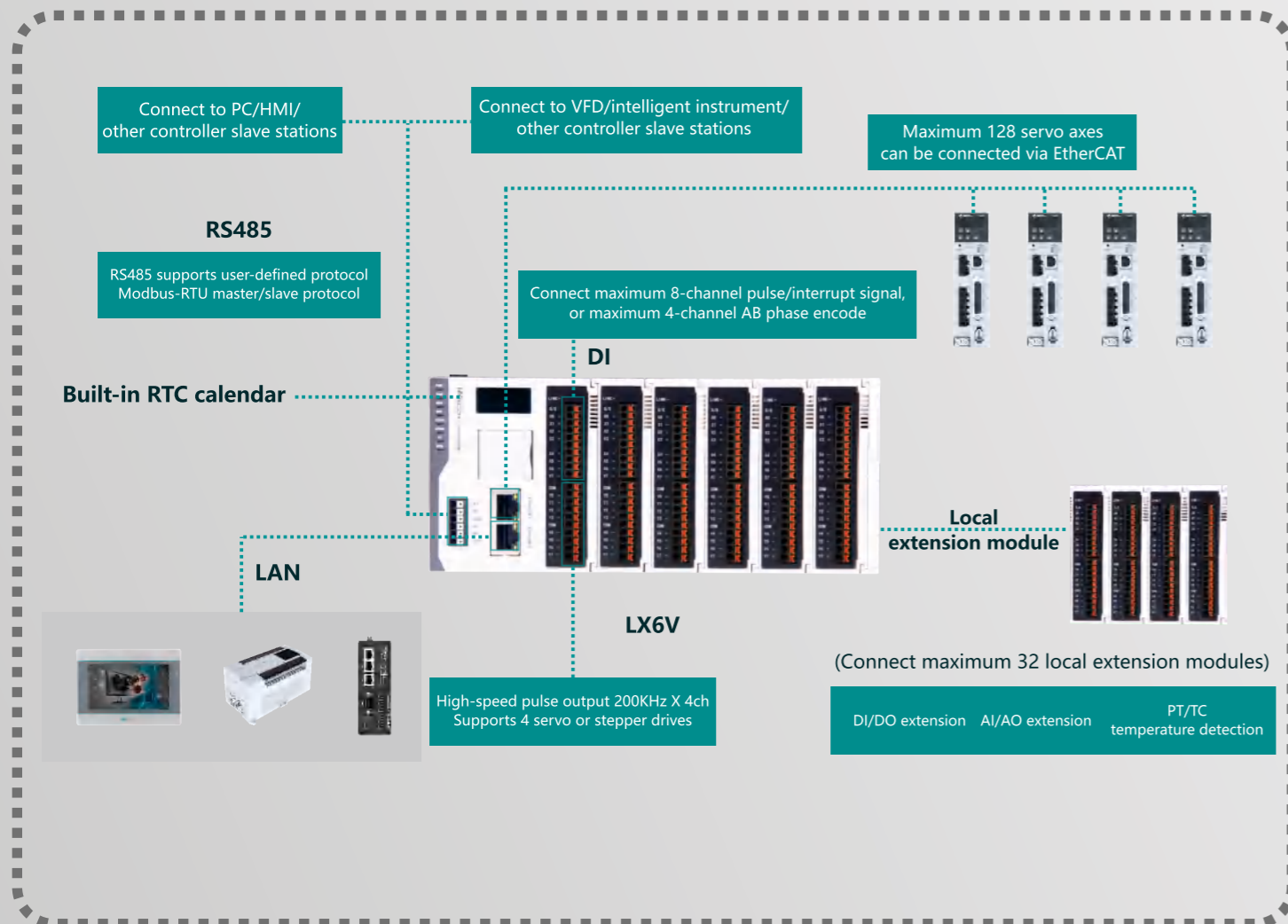
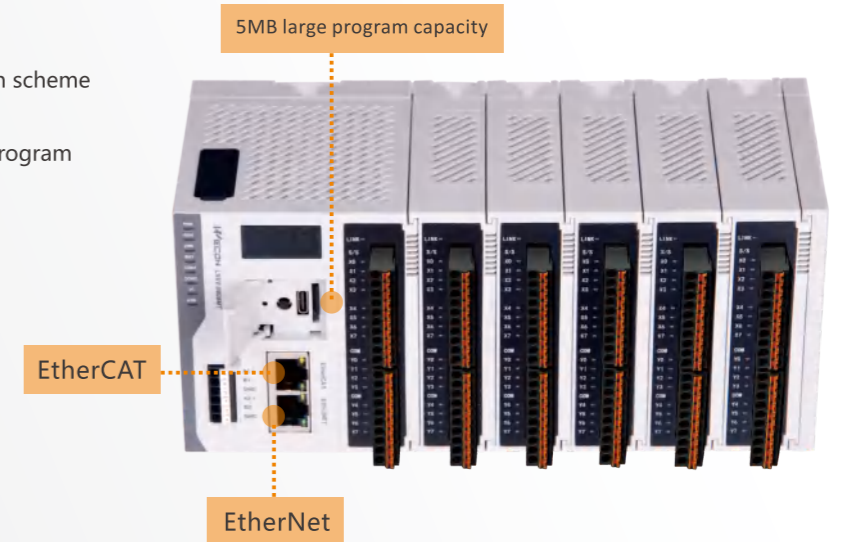
## LX6V/LX6S series PLC, small size and large capacity, a new evolution to bus PLC

### Software upgrade

- Newly designed overall encryption scheme
- Newly designed free tag protocol
- Compatible with 5V 61131-3 LD program
- Custom FB/FC
- Global variable definition
- EtherCAT configuration
- EtherNet configuration

### Capacity upgrade

- 5MB large program capacity
- 512KB latched capacity
- 100KB register capacity
- 5MB free tag capacity



## PLC General

Item	LX6V(LX6S)-0808MT/1616MT
RunningMode	Cycle Scan/ Interrupt
Programming	Instruction table/laddediagram/FB/FC
Total Instructions	Basic instruction:29 / Applicationinstruction:170
Execute time	Basic instructor:0.01-0.02μs
System EMMC	5M
Download/Monitoring	Programming cable (Port)
	EtherNet
HighSpeed Pulse Output	Transistor type 4 channels 200KHz
Highspeed counterinterrupt	100 channels
TimerInterrupt	100 channels, support 0.1ms interrupt
External input/interrupt	X0-X7 supports both rising and falling edges
HighSpeed InputSingle	8 channels 150 KHz
HighSpeed InputAB Phase	4 channels 150K Hz, supports 2 or 4 frequency multiplication
Power-downsave	Adjusted by software
Storage	FLASH
Filter	For all the input terminals
Serial Port	RS485, RS485
Temperature	WorkingTemperature 0 ~ 55°C / StorageTemperature -20 ~ 70°C
Humidity	35~85%RH (Without condensation)
Shock Resistance	JISC0040 Standard
Influence Immunity	Meet the IEC61000-4-4 and GB/T 17626.4 standard: Noise voltage amplitude 1KVP-P, pulsewidth 10us, period 0.3s, edge time 5ns, duration 1min.
TF	Support
ETHERNET	Megabit Ethernet(LX6S)/Gigabit Ethernet for LX6V
ETHERCAT	Up to 128 servo axis

# LX6C series PLC

**LX6C**  
High-performance  
Medium-size Controller

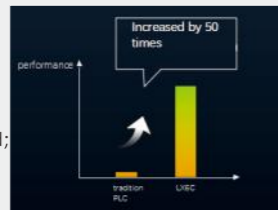


Based on  
the **CODESYS** Platform

## Program Execution

---SUPERIOR SPEED

4-core 1.8G CPU boosts instruction processing speed; NS-level basic instruction execution speed; Multitasking management system.



## Expansion Module

---Scale at High Speed

High speed communication, quick response; Free optional, Flexible matching to meet needs; Blade structure, easy to install and save space.



## Communication Protocol

---Seamless Connectivity

Standard with Ethernet, Multi-protocol link



## Motion Control

---Ultimate Operation Control

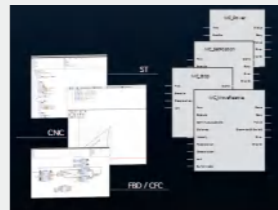
Single-axis motion control; Multi-axis motion control; Buffer Mode; Movement superposition.



## Project Development

---Rapid Development

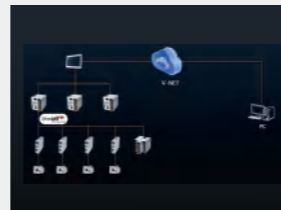
Follow the PLCopen2.0 Standard, easy programming Program online monitoring, easy debugging User permissions management, project password.



## Operation & Maintenance

---Perfectly and Reliable

Easily remote debugging and upgrade in V-NET System



# PLC General

Model	LX6C-0808MT/1616MT	
Program Space	Program Capacity	50MB
	Variable Capacity	10MB
	I Area (%I)	128KB
	Q Area (%Q)	128KB
	M Area (%M)	512KB
	Power-down Latch Area	1MB
Programming Language		LD/IL/FBD/CFC/SFC/ST
EtherNet	Function	Communication, debugging, uploading and downloading programs, firmware upgrade, etc.
	Data Transmission	1000Mbps/100Mbps/10Mbps
	Total TCP Connections	Maximum 128
	ModbusTCP	Maximum 128
	Socket	Maximum 128
EtherNet/IP	Cable	Standard industrial Ethernet communication
	Server	Maximum connections: 128
EtherCAT	Client	Maximum connections: 128
	Transmission Speed	100Mbps(100Base-TX)
	Topology	Bus type
	Cable	Standard EtherCAT communication cable
	Maximum Transmission	100 meters
OPC-UA Server	Maximum Number from	256
	Maximum Process Data	1380(maximum frame number is 1)
	Communication Cycle	Minimum of 125µs It lasts for 1 minute.
	Support Protocol	EtherCAT master
	Support	Support
USB	Quantity	1 channel TYPE-C interface
	Function	RTC calibration, IP setting, firmware upgrade, etc.
	Specifications	USB 2.0
RS485	Quantity	2
	Baud Rate (bps)	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
	Maximum	500m(9600 baud rate)
	Communication Mode	Half duplex
	Support Protocol	Modbus master/slave(RTU/ASCII), free communication protocol
	Topology	Bus type
TF Card	Maximum Number of	31
	Support	Support
Power Supply	DC24V (±10%)	Support
	Support Version	PLC OPEN MotionControl2.0
MotionControl	CNC	Support
	G-code Capacity	32M
	Robotic(Axis Group)	Built-in 25 kinematic models, Maximum 8 axis groups (Maximum 6 axis interpolation per axis group)
EtherCAT Axis	Number of Servo Axis	128 axis (8 sets @ 500µs)
	Servo Axis	32
Expansion Module	Maximum Number	32
	Input	8
Host IO	Output	8

# LX5V Series PLC

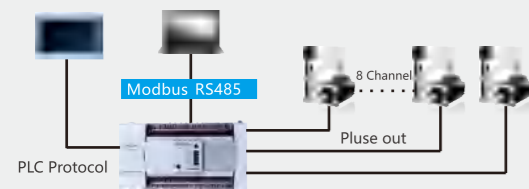


# LX5S Series PLC



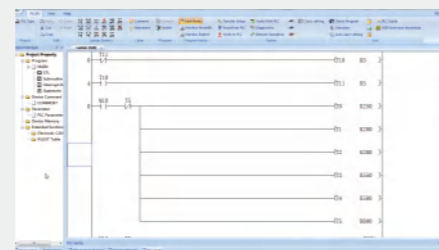
## 8 Channel Pulse Input/Output

- 8 channels high speed counter ;
- 8 channels high speed pulse input, 150KHZ high-speed counter;
- 8 channels high speed pulse output, 200KHZ high-speed pulse output;
- Fast and accurate control.



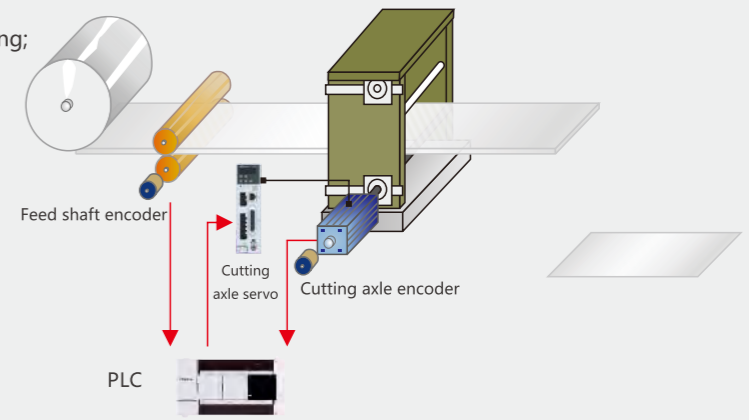
## Easy Programming

- Friendly interface;
- Clear program classification;
- Detailed and clear parameter configuration.



## Functions

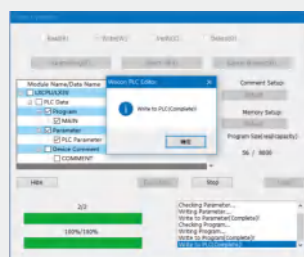
- Support to modify frequency and position during pulse running;
- Support the highest baud rate: 921600;
- Support 100us high-speed timer interrupt;
- Support up to 100 high-speed counter interrupts;
- Support E-CAM;
- Support electronic gear;
- Support efficient and stable PID and CCPID self-tuning;
- Support LX 3V series modules;
- USB power supply;
- LX5V Software;
- 0.03us~0.08us for basic instruction execution.



E-cam -- Flying shear function

## Fast

- 0.01us~0.03us for basic instruction execution ;
- Supports 8 channels external X interrupt;
- Support both rising edge and falling edge.

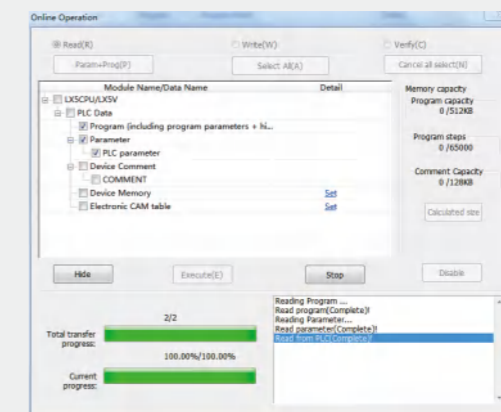


## Functions

- Support to modify frequency and position during pulse running;
- Support the highest baud rate: 921600;
- Support 100us high-speed timer interrupt;
- Support up to 100 high-speed counter interrupt;
- Support E-CAM;
- Support electronic gear;
- Support efficient and stable PID and CCPID self-tuning;
- Support BD module of LX 3V series (3V Communication BD module not supported);
- USB power supply.

## More Registers

- 512KB program capacity;
- 76KB latched capacity;
- 76KB register capacity;
- Added 128 timers of 0.1ms;
- Added 128 timers of 1ms.



# Expansion Modules & BD Modules

## Expansion Modules

Module	Specification	Module	Specification	
I/O	LX6V-16EX	Analog	LX3V/6V-4AD	4 * Analog Input
	LX6V-16EYT		LX3V/6V-4DA	4 * Analog Output
	LX6V-0808EXYT	Weighting	LX3V-1WT	1 * Weighting(24-bit)
	LX3V-8EX/16EX		LX3V-2WT	2 * Weighting(24-bit)
	LX3V-8EYR/16EYR		LX3V-1WT-L	1 * Weighting(18-bit)
	LX3V-8EYT/16EYT		LX3V-2WT-L	2 * Weighting(18-bit)
Temperature	LX3V-4PT	High Speed Pulse Output	LX3V-4PGA	Supports 4*200kHz high-speed pulse output. Supports T, S curve acceleration and deceleration. Supports two-speed positioning and interrupt one-speed positioning. Supports variable speed operation. Supports single-speed positioning.
	LX3V-4TC			
	LX3V-4LTC		4 * TC with Isolation(PID Control)	
Remote	LCM-16EX	Remote	LCM-2WT	2 * weighing expansion module, 24-bit resolution, supports RS485 Modbus communication.
	LCM-16EYR			
EtherCAT	LX6V-EMB-ECAT		LCM-4TC	

## BD Modules

Except for Communication BD Modules, LX5V BD Modules can compatible with all LX3V PLC.

BD Module	Function	BD Module	Function
LX3V-2ADI2DAI-BD	2 * Analog Input/Analog Output(4~20mA)	LX3V-2PT-BD	2 * Thermal Resistance Input
LX3V-2TC2DAI-BD	2 * Thermocouple Input 2 * Analog Output(4~20mA)	LX3V-2PT2ADV-BD	2 * Thermal Resistance Input; 2 * Analog Voltage Input(-10V-10V)
LX3V-2PT2DAI-BD	2 * Thermal Resistance Input; 2 * Analog Output(4~20mA)	LX3V-2PT2DAV-BD	2 * Thermal Resistance Input 2 * Analog Voltage Output(-10V-10V)
LX3V-2TC-BD	2 * Thermocouple Input	LX3V-2ADV2DAV-BD	2 * Analog Input/Output (-10V~10V)
LX3V-4ADI-BD	4 * Analog Input(4~20mA)	LX3V-2RS485-BD	2 * RS485 Communication
LX3V-4ADV-BD	4 * Analog Input(-10V~10V)	LX3VP-ETH-BD	1 * Ethernet Communication
LX3V-2ADV-BD	2 * Analog Voltage Input(-10V-10V)	LX3V-2DAI-BD	2 * Analog Current Output(4-20mA)
LX3V-2ADI-BD	2 * Analog Current Input(4-20mA)	LX3V-2DAV-BD	2 * Analog Voltage Output(-10V-10V)
LX3V-2PTS-BD	2 * Thermal Resistance Input, Precision > 0.1°C		
BD Module	Function	BD Module	Function
LX5V-8BYT-BD	8 * DO Output(Transistor/NPN output)	LX5V-2RS485-BD	2 * RS485 Communication
LX5V-8BX-BD	8 * DI Input	LX5V-ETH-BD	1 * Ethernet Communication
LX5V-2ADV-BD	2 * Analog Voltage Input(-10V-10V)	LX5V-4ADV-BD	4 * Analog Input(-10V~10V)
LX5V-2ADI-BD	2 * Analog Current Input(4-20mA)	LX5V-4ADI-BD	4 * Analog Input(4~20mA)
LX5V-2DAV-BD	2 * Analog Voltage Output(-10V-10V)	LX5V-2ADV2DAV-BD	2 * Analog Input/Output(-10V~10V)
LX5V-2DAI-BD	2 * Analog Current Output(4-20mA)	LX5V-2ADI2DAI	2 * Analog Input/Analog Output(4~20mA)
LX5V-2PT-BD	2 * Thermal Resistance Input, Precision = 0.2~0.3°C	LX5V-2PT2ADV-BD	2 * Thermal Resistance Input; 2 * Analog Voltage Input(-10V-10V)
LX5V-2PTS-BD	2 * Thermal Resistance Input, Precision = 0.1°C	LX5V-2PT2DAI-BD	2 * Thermal Resistance Input; 2 * Analog Output(4~20mA)
LX5V-2TC-BD	2 * Thermocouple Input (K Type, J Type)	LX5V-2PT2DAV-BD	2 * Thermal Resistance Input; 2 * Analog Voltage Output(-10V-10V)
LX5V-2TC2DAI-BD	2 * Thermocouple Input (K Type, J Type); 2 * Analog Output(4~20mA)		

# Lx6 & LX5 Series PLC Models

## LX6V & LX6S & LX6C Model

LX6V PLC Model	I / O	Output Type	Dimension (mm)	Pulse Counter	E-CAM	Pulse Counter	RS485	EtherCAT	BD Board	Power Supply	Ethernet
LX6V-0808MT-DB	08/08	Transistor	85x90x110	4	YES	4	2	16 Axis	32	DC	Gigabit
LX6V-0808MT-DC	08/08	Transistor	85x90x110	4	YES	4	2	32 Axis	32	DC	Gigabit
LX6V-0808MT-DD	08/08	Transistor	85x90x110	4	YES	4	2	64 Axis	32	DC	Gigabit
LX6V-0808MT-DE	08/08	Transistor	85x90x110	4	YES	4	2	128 Axis	32	DC	Gigabit
LX6C-0808MT-DB	08/08	Transistor	85x90x110	-	YES	-	2	16 Axis	32	DC	Gigabit
LX6C-0808MT-DD	08/08	Transistor	85x90x110	-	YES	-	2	64 Axis	32	DC	Gigabit
LX6S-0808MT-DA	08/08	Transistor	85x90x110	4	YES	4	2	8 Axis	32	DC	Gigabit
LX6S-0808MT-DB	08/08	Transistor	85x90x110	4	YES	4	2	16 Axis	32	DC	Gigabit

## LX5V PLC Model

LX5V Model	I/O	Output Type	Dimension (mm)	Pulse Counter	E-CAM	Pulse Output	RS485	BD Board	Module	Power Supply	Ethernet
LX5V-1412MT-A(D/AN/DN)	14/12	Transistor	137x107x87	4	YES	4	2	1	YES	AC(DC)	Optional
LX5V-1616MT-A(D/AN/DN)	16/16	Transistor	175x107x87	8	YES	8	2	2	YES	AC(DC)	Optional
LX5V-2416MT-A(D/AN/DN)	24/16	Transistor	175x107x87	8	YES	8	2	2	YES	AC(DC)	Optional
LX5V-2424MT-A(D/AN/DN)	24/24	Transistor	220x107x87	8	YES	8	2	2	YES	AC(DC)	Optional
LX5V-3624MT-A(D/AN/DN)	36/24	Transistor	220x107x87	8	YES	8	2	2	YES	AC(DC)	Optional

## LX5S PLC Model

LX5S Model	I/O	Output Type	Dimension (mm)	Pulse Counter	E-CAM	Pulse Output	RS485	BD Board	Module	Power Supply	Ethernet
LX5S-0806MT-A(D)	08/06	Transistor	75x107x87	2	YES	2	1	1	N/A	AC(DC)	N/A
LX5S-0806MR-A(D)	08/06	Relay	75x107x87	2	N/A	0	1	1	N/A	AC(DC)	N/A
LX5S-0806MR2H-A(D)	08/06	Mix	75x107x87	2	YES	2	1	1	N/A	AC(DC)	N/A
LX5S-1208MT-A(D)	12/08	Transistor	75x107x87	2	YES	2	1	1	N/A	AC(DC)	N/A
LX5S-1208MR-A(D)	12/08	Relay	75x107x87	2	N/A	0	1	1	N/A	AC(DC)	N/A
LX5S-1208MR2H-A(D)	12/08	Mix	75x107x87	2	YES	2	1	1	N/A	AC(DC)	N/A
LX5S-1412MT-A(D/AN/DN)	14/12	Transistor	137x107x87	2	YES	2	2	1	YES	AC(DC)	Optional
LX5S-1412MR-A(D/AN/DN)	14/12	Relay	137x107x87	2	YES	2	2	1	YES	AC(DC)	Optional
LX5S-1412MR2H-A(D/AN/DN)	14/12	Mix	137x107x87	2	YES	2	2	1	YES	AC(DC)	Optional
LX5S-1616MT-A(D/AN/DN)	16/16	Transistor	175x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-1616MR-A(D/AN/DN)	16/16	Relay	175x107x87	6	N/A	0	2	2	YES	AC(DC)	Optional
LX5S-1616MR2H-A(D/AN/DN)	16/16	Mix	175x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-1616MT4H-A(D/AN/DN)	16/16	Transistor	175x107x87	6	YES	4	2	2	YES	AC(DC)	Optional
LX5S-2416MT-A(D/AN/DN)	24/16	Transistor	175x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-2416MR-A(D/AN/DN)	24/16	Relay	175x107x87	6	N/A	0	2	2	YES	AC(DC)	Optional
LX5S-2416MR2H-A(D/AN/DN)	24/16	Mix	175x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-2416MT4H-A(D/AN/DN)	24/16	Transistor	175x107x87	6	YES	4	2	2	YES	AC(DC)	Optional
LX5S-2424MT-A(D/AN/DN)	24/24	Transistor	220x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-2424MR-A(D/AN/DN)	24/24	Relay	220x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-2424MR2H-A(D/AN/DN)	24/24	Mix	220x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-2424MT4H-A(D/AN/DN)	24/24	Transistor	220x107x87	6	YES	4	2	2	YES	AC(DC)	Optional
LX5S-3624MT-A(D/AN/DN)	36/24	Transistor	220x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-3624MR-A(D/AN/DN)	36/24	Relay	220x107x87	6	N/A	0	2	2	YES	AC(DC)	Optional
LX5S-3624MR2H-A(D/AN/DN)	36/24	Mix	220x107x87	6	YES	2	2	2	YES	AC(DC)	Optional
LX5S-3624MT4H-A(D/AN/DN)	36/24	Transistor	220x107x87	6	YES	4	2	2	YES	AC(DC)	Optional

# LX3V Series PLC Models

## LX3V PLC Model

LX3V Model	I/O	Output Type	Dimension (mm)	Pulse Counter	Pulse Output	RS485	BD Board	Module	Power Supply
LX3V-0806MR-A1 (D1)	08/06	Relay	75x107x87	2	0	1	1	N/A	AC (DC)
LX3V-0806MT-A1 (D1)	08/06	Transistor	75x107x87	2	2	1	1	N/A	AC (DC)
LX3V-0806MR-A2 (D2)	08/06	Relay	75x107x87	2	0	1	1	N/A	AC (DC)
LX3V-0806MT-A2 (D2)	08/06	Transistor	75x107x87	2	2	1	1	N/A	AC (DC)
LX3V-1208MR-A1 (D1)	12/08	Relay	75x107x87	2	0	1	1	N/A	AC (DC)
LX3V-1208MT-A1 (D1)	12/08	Transistor	75x107x87	2	2	1	1	N/A	AC (DC)
LX3V-1208MR-A2 (D2)	12/08	Relay	75x107x87	2	0	1	1	N/A	AC (DC)
LX3V-1208MT-A2 (D2)	12/08	Transistor	75x107x87	2	2	1	1	N/A	AC (DC)
LX3V-1208MR2H--A2 (D2)	12/08	Mix	75x107x87	2	2	1	1	N/A	AC (DC)
LX3V-1412MR-A (D)	14/12	Relay	137x107x87	2	0	2	1	YES	AC (DC)
LX3V-1412MT-A (D)	14/12	Transistor	137x107x87	2	2	2	1	YES	AC (DC)
LX3V-1412MT4H-A (D)	14/12	Transistor	137x107x87	2	4	2	1	YES	AC (DC)
LX3V-1412MR2H-A (D)	14/12	Mix	137x107x87	2	2	2	1	YES	AC (DC)
LX3V-1616MR-A (D)	16 / 16	Relay	175x107x87	2	0	2	2	YES	AC (DC)
LX3V-1616MT-A (D)	16 / 16	Transistor	175x107x87	2	2	2	2	YES	AC (DC)
LX3V-1616MT4H-A (D)	16 / 16	Transistor	175x107x87	2	4	2	2	YES	AC (DC)
LX3V-1616MR2H-A (D)	16 / 16	Mix	175x107x87	2	2	2	2	YES	AC (DC)
LX3V-2416MR-A (D)	24 / 16	Relay	175x107x87	2	0	2	2	YES	AC (DC)
LX3V-2416MT-A (D)	24 / 16	Transistor	175x107x87	2	2	2	2	YES	AC (DC)
LX3V-2416MT4H-A (D)	24 / 16	Transistor	175x107x87	2	4	2	2	YES	AC (DC)
LX3V-2416MR2H-A (D)	24 / 16	Mix	175x107x87	2	2	2	2	YES	AC (DC)
LX3V-2424MR-A (D)	24/ 24	Relay	220x107x87	2	0	2	2	YES	AC (DC)
LX3V-2424MT-A (D)	24 / 24	Transistor	220x107x87	2	2	2	2	YES	AC (DC)
LX3V-2424MT4H-A (D)	24 / 24	Transistor	220x107x87	2	4	2	2	YES	AC (DC)
LX3V-2424MR2H-A (D)	24 / 24	Mix	220x107x87	2	2	2	2	YES	AC (DC)
LX3V-3624MR-A (D)	36 / 24	Relay	220x107x87	2	0	2	2	YES	AC (DC)
LX3V-3624MT-A (D)	36 / 24	Transistor	220x107x87	2	2	2	2	YES	AC (DC)
LX3V-3624MT4H-A (D)	36 / 24	Transistor	220x107x87	2	4	2	2	YES	AC (DC)
LX3V-3624MR2H-A (D)	36 / 24	Mix	220x107x87	2	2	2	2	YES	AC (DC)

# LX3VP Series PLC Models

## LX3VP PLC Model

PLC Model	I/O	Output type	Dimension (mm)	Pulse Counter	Pulse Output	RS485	CAN	BD Board	Module	Power Supply
LX3VP-1208MR-A(D)	12 / 8	Relay	75x107x87	2	0	1	N/A	1	N/A	AC (DC)
LX3VP-1208MT-A(D)	12 / 8	Transistor	75x107x87	2	2	1	N/A	1	N/A	AC (DC)
LX3VP-1212MR-A(D)	12 / 12	Relay	137x107x87	2	0	2	N/A	1	YES	AC (DC)
LX3VP-1212MT-A(D)	12 / 12	Transistor	137x107x87	2	2	2	N/A	1	YES	AC (DC)
LX3VP-1212MT4H-A(D)	12 / 12	Transistor	137x107x87	2	4	2	N/A	1	YES	AC (DC)
LX3VP-1212MR2H-A(D)	12 / 12	Mix	137x107x87	2	2	2	N/A	1	YES	AC (DC)
LX3VP-1412MR-A(D)	14 / 12	Relay	137x107x87	2	0	2	N/A	1	YES	AC (DC)
LX3VP-1412MT-A(D)	14 / 12	Transistor	137x107x87	2	2	2	N/A	1	YES	AC (DC)
LX3VP-1412MT4H-A(D)	14 / 12	Transistor	137x107x87	2	4	2	N/A	1	YES	AC (DC)
LX3VP-1412MR2H-A(D)	14 / 12	Mix	137x107x87	2	2	2	N/A	1	YES	AC (DC)
LX3VP-1616MR-A(D)	16 / 16	Relay	175x107x87	2	0	2	N/A	2	YES	AC (DC)
LX3VP-1616MT-A(D)	16 / 16	Transistor	175x107x87	2	2	2	N/A	2	YES	AC (DC)
LX3VP-1616MT4H-A(D)	16 / 16	Transistor	175x107x87	2	4	2	N/A	2	YES	AC (DC)
LX3VP-1616MR2H-A(D)	16 / 16	Mix	175x107x87	2	2	2	N/A	2	YES	AC (DC)
LX3VP-2416MR-A(D)	24 / 16	Relay	175x107x87	2	0	2	Optional	2	YES	AC (DC)
LX3VP-2416MT-A(D)	24 / 16	Transistor	175x107x87	2	2	2	Optional	2	YES	AC (DC)
LX3VP-2416MT4H-A(D)	24 / 16	Transistor	175x107x87	2	4	2	Optional	2	YES	AC (DC)
LX3VP-2416MR2H-A(D)	24 / 16	Mix	175x107x87	2	2	2	Optional	2	YES	AC (DC)
LX3VP-2424MR-A(D)	24 / 24	Relay	220x107x87	2	0	2	N/A	2	YES	AC (DC)
LX3VP-2424MT-A(D)	24 / 24	Transistor	220x107x87	2	2	2	N/A	2	YES	AC (DC)
LX3VP-2424MT4H-A(D)	24 / 24	Transistor	220x107x87	2	4	2	N/A	2	YES	AC (DC)
LX3VP-2424MR2H-A(D)	24 / 24	Mix	220x107x87	2	2	2	N/A	2	YES	AC (DC)
LX3VP-3624MR-A(D)	36 / 24	Relay	220x107x87	2	0	2	N/A	2	YES	AC (DC)
LX3VP-3624MT-A(D)	36 / 24	Transistor	220x107x87	2	2	2	N/A	2	YES	AC (DC)
LX3VP-3624MT4H-A(D)	36 / 24	Transistor	220x107x87	2	4	2	N/A	2	YES	AC (DC)
LX3VP-3624MR2H-A(D)	36 / 24	Mix	220x107x87	2	2	2	N/A	2	YES	AC (DC)

# LX5V General Specifications

## LX5V PLC Model

Item	LX5V-1212MT/1412MT	LX5V-1616MT/2416MT	LX5V-2424MT/3624MT
RunningMode	Round Scan/ Interrupt		
Programming	Instruction List/ Ladder		
Total Instructions	Basic Instructions: 29 / Application Instruction: 170		
Execute time	Basic Instructions: 0.01-0.03μs		
System Flash	512KB/384KB(EthernetMode)		
Download/ Monitoring	Serial Programming Cable(Serial Port) / Micro USB / Ethernet		
Ethernet	100MEthernet(Optional)		
HighSpeed Pulse Output	Transistor: 4 channels / 200KHz	Transistor: 8 channels / 200KHz	Transistor: 8 channels / 200KHz
Highspeed counterinterrupt	100 channels		
Timer Interrupt	100 Channels, Interruption time(min):0.1ms		
External inputinterrupt	X0-X7 supports bothrising and falling edges		
HighSpeed InputSingle	4 Channels 150KHz	8 Channels 150KHz	8 Channels 150KHz
HighSpeed InputAB Phase	4 channel 100KHz, frequencymodes:1/2/4 times	8 channel 100KHz, frequencymodes:1/2/4 times	8 channel 100KHz, frequencymodes:1/2/4 times
Power-down save	Adjusted by software		
Filter	For all X input terminals		
Serial Port	COM1: RS422 /RS485 COM2: RS485		
Temperature	WorkingTemperature 0 ~ 55°C /StorageTemperature 0 ~ 70°C		
Humidity	35~85%RH (Nocondensatio)		
Shock Resistance	JISC0040 Standard		
Influence Immunity	MeettheIEC61000-4-4andGB/T 17626.4 standard: Noisevoltageamplitude1KVP-P , pulsewidth10us, period0.3 s, edgetime5ns , duration1min.		
USB Supply	Use for upgrading firmware, downloading ladder diagram	N/A	Use for upgrading firmware, downloading ladder diagram

# LX5S General Specifications

## LX5S PLC Model

Item	LX5S-0806MT/MR LX5S-1208MT/MR	LX5S-1212MT/MR LX5S-1412MT/MR	LX5S-1616MT/MR LX5S-2416MT/MR	LX5S-2424MT/MR LX5S-3624MT/MR
RunningMode	Round Scan/ Interrupt/ Event			
Programming	Instruction table/laddediagram			
Total Instructions	Basic instruction:29 / Applicationinstruction:170			
Execute time	Basic instruction 0.03-0.008 μs			
System EMMC	512KB			
Download/ Monitoring	Programming cable(serial type)/ MicroUSB / Ethernet			
Ethernet	N/A	100M Ethernet(Optional)		
HighSpeed Pulse Output	Transistor type;2 channels/ 200KHz			
Highspeed counterinterrupt	100 channel			
Timer Interrupt	100 channels,support 0.1ms interrupt			
External inputinterrupt	X0-X5 supports bothrising and falling edges			
HighSpeed Input Single Phase	2 channel150K Hz; 4 channel10KHz	2 channel150K Hz; 4 channel10KHz	6 channel150K Hz	6 channel150KHz
HighSpeed InputAB Phase	1 channel100K Hz, supports 2 or 4 frequency multiplication 2 channels10K Hz, supports 2 or 4 frequency multiplication	1 channel100K Hz, supports 2 or 4 frequency multiplication 2 channels10K Hz, supports 2 or 4 frequency	3 channels100K Hz, supports 2 or 4 frequency multiplication	3 channels100K Hz, supports 2 or 4 frequency multiplication
Power-downsave	Adjusted by software			
Filter	For all X input terminal s			
Serial Port	COM1 (RS422),COM2 (RS485)	COM1 (RS422 /RS485) ,COM2 (RS485)		
Temperature	WorkingTemperature 0 ~ 55°C /StorageTemperature 0 ~ 70°C			
Humidity	35~85%RH (Without condensatio)			
Shock Resistance	JISC0040 Standard			
Influence Immunity	Meet the IEC61000-4-4andGB/T 17626.4 standard: Noise voltage amplitude 1KVP-P , pulsewidth10us, period0.3 s, edgetime5ns , duration1min.			
USB Supply	YES			

# PLC General Specifications

	LX3V Series	LX3VP Series
Running Mode	RoundScan/Interrupt	
Programming	Instruction List/Ladder	
Total Instructions	Basic Instructions:27 / Application Instruction: 138	Application Instruction: 140
Execute time	Basic Instructions: 0.06us / Application Instruction: 1~10us	
System Flash	16K	64K
Download/Monitoring	Serial Programming Cable (Serial Port) / Micro USB	
HighSpeed Pulse Output	Transistor: 2 channels(4 channeloptional) / Relay N/A(2 channeloptional)	
External Interrupt	6 Channels	
Timer Interrupt	3 Channels	
HighSpeed InputSingle Phase	2 channels200KHz, 4 channels5KHz	
HighSpeed InputAB Phase	1 channel100KHz, frequencymodes:1/2/4 times; 1 channel5KHz, frequencymodes:1/2/4 times	
HoldingAddresses	Adjustable	
Filter	For all X input terminals	
Serial Port	COM1: RS422 or RS485 COM2: RS485	
Temperature	Working Temperature: 0 ~ 55°C / Storage Temperature: -20 ~ 70°C	
Humidity	5~85%RH (Without condensatipn)	
Shock Resistance	JISC0040 Standard	
InfluencImmunity	Meet the IEC61000-4-4 and GB/T 17626.4 standard: Noise voltage amplitude 1KVP-P, pulse width 10us, period 0.3s, edgetime 5ns , duration 1min.	

## Output

Item	Relay Output	Transistor Output
Output Mode	--	NPN
Input Power Supply	DC 24V	DC 24V
Output Circuit	<AC 250V or <DC 30V	DC 5~30V
COM Port Current	--	<0.1mA (DC 30V)
Insulation	Mechanistic	OpticalCoupling
Leak Current	--	0.1mA /DC 30V
Minimum Load	--	DC 5V 2mA
Maximum Output Current	Resistive load	2A/output terminal 8A/COM terminal 0.5A/output terminal 0.8A/COM terminal 0.3A/High speed output terminal
	Inductive load	80VA 12W/DC24V 7.2W/High speed output terminal
	Lamp load	100W 0.9W/DC24V
Response Time	ON	<0.2ms
	OFF	<10ms (Highspeed output terminal <5us)

# PLC General Specifications

## AC Power Supply

Item	≤26 I/O	≥26 I/O
Power Supply	LX3V Series: AC85~264V50~60Hz, LX5V/S Series: AC85~265V50~60Hz	
Power OutageTime	10ms	
Rush Current	<15A5ms / AC 100V; <30A5ms / AC 200V	
Power Fuse	250V 3.15A	
Power Consumption	<35W	<60W
Power Output	DC 24V 700mA	

## DC Power Supply

Item	LX3V / LX3VP / LX5V / LX5S PLC	LX6V PLC
Power Supply	DC 24V±10%	
Power OutageTime	10ms	
Power Fuse	250V 3.15A	
Rush Current	<15A1ms / DC 24V	<45A1ms / DC 24V
Power Consumption	<30W(Notincludetheexternalpowersupplyformodules)	<12W(Notincludetheexternalpowersupply formodules)



# WECON Servo Drives



## Servo Applications

Infrared Stone Cutting Machine



### Smart Control

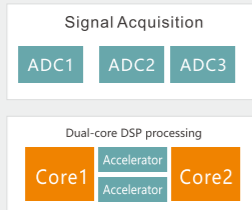
Real-time speed adjustment during cutting

### Multiple Functions

Various functions such as board cutting, multi-face chamfer, special shape, profiling, etc.

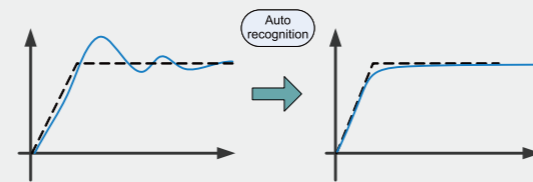
### High Response

High performance CPU  
Faster data reading  
Faster calculation and sampling speed



### Easy to Debug

Automatic load parameter tuning function



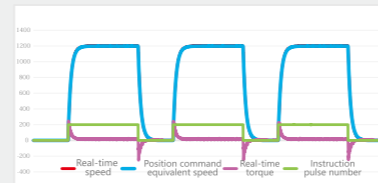
### Strong Protection

Coating protection, anti-corrosion.  
Rich protection functions, more stable.

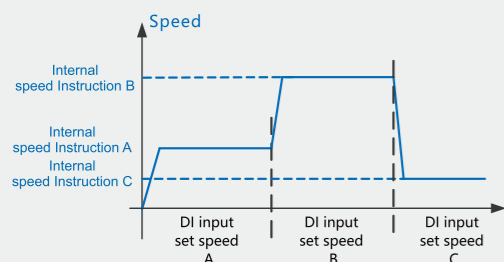


### Personalise

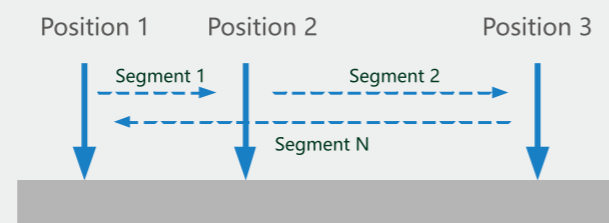
Virtual DI/DO function, four-channel real-time oscilloscope.



### Support internal multi-speed instruction



### Support internal multi-segment position instruction



## Application

Automatic Plug Wiring Machine, Packaging Machinery, Cutting Machinery, Winding Machinery, Face Mask Machinery, Rubber Machinery, Automated Production Lines, Industrial Robots

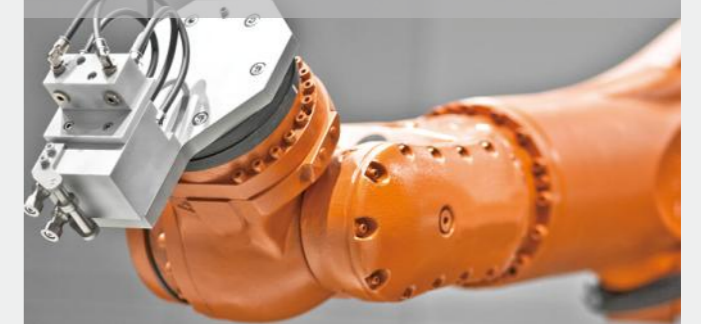
### Automatic Plug Wiring Machine



### Automated Production Lines



### Industrial Robots

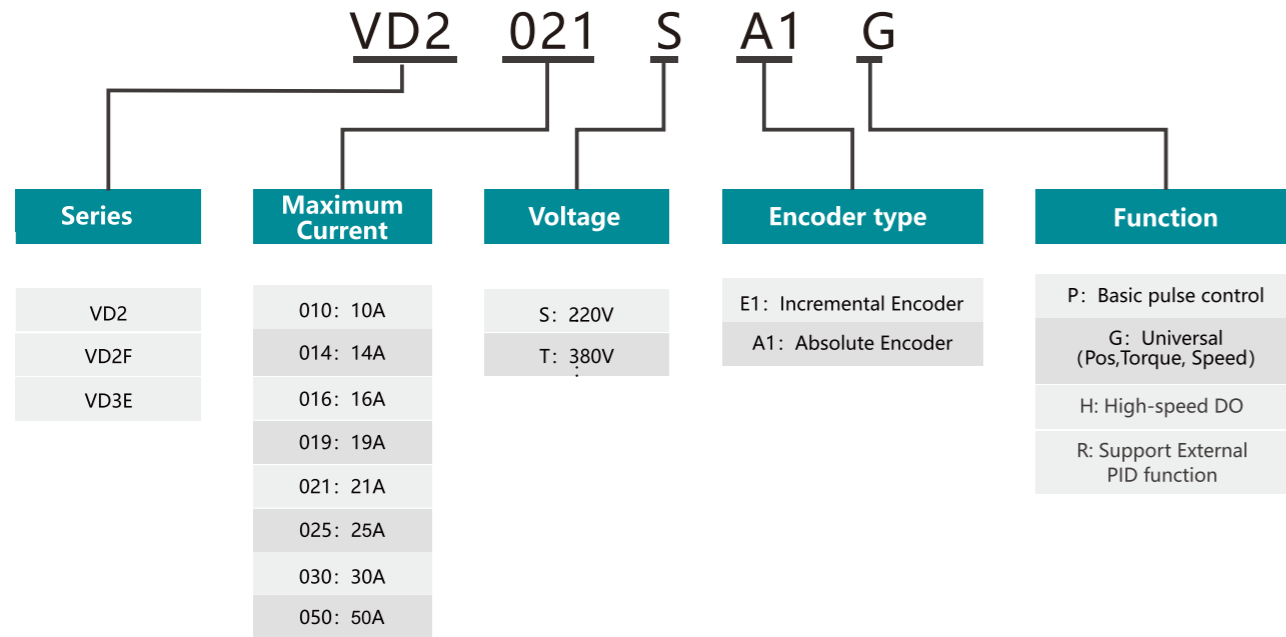


### Textile Machinery

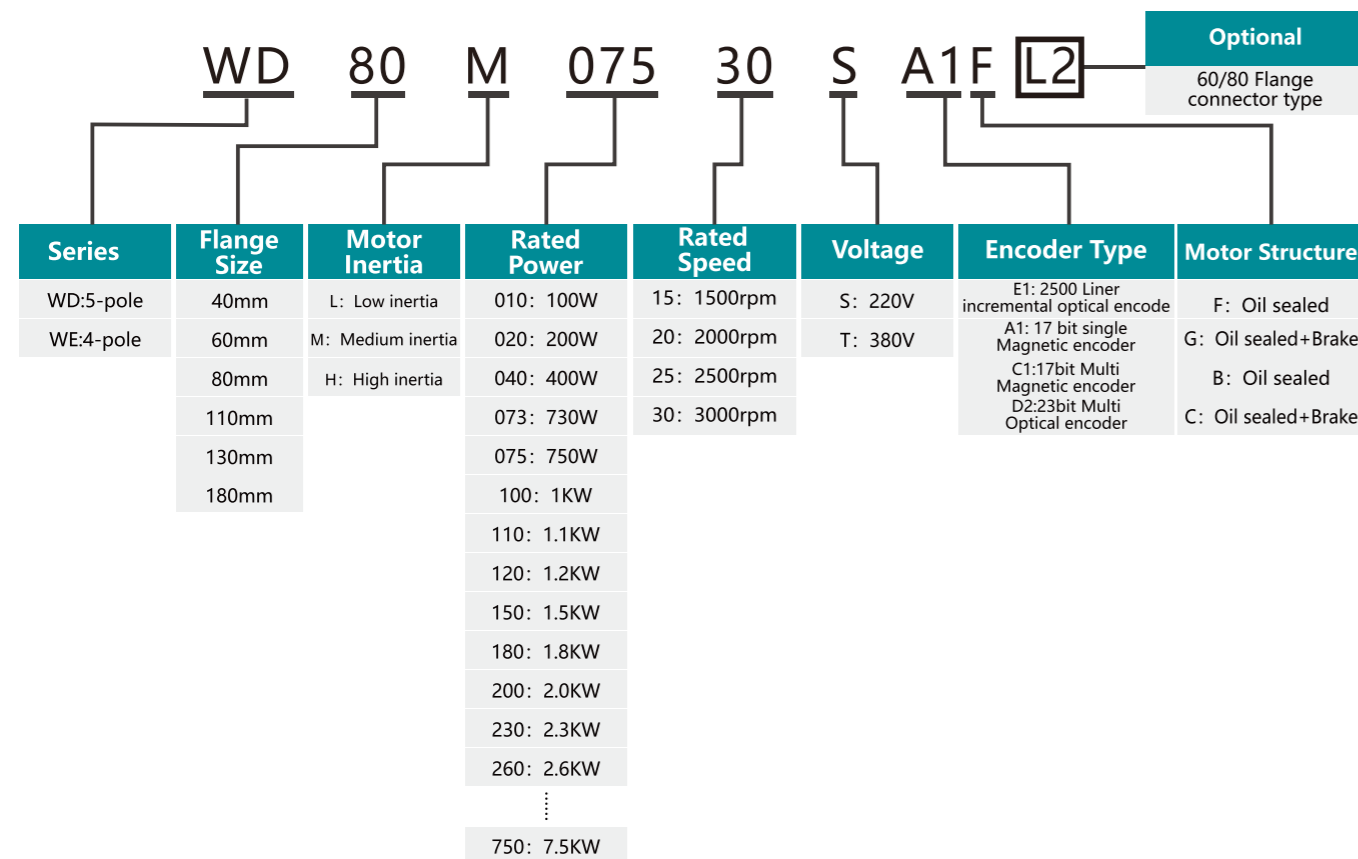


# SERVO Naming Rules

## Drive Naming Rules



## Motor Naming Rules



# Servo Drive & Motor Specifications

A1-Absolute value ; E1-Incremental.

P : Pulse control ; G: General (Pos,Torque,speed) .

H: High-speed DO ; R: Support External PID function.

## Servo Drives

Series	Type	Drive Model	Max Current(A)	Power Supply (V)	Drive Model	Max Current(A)	Power Supply (V)
VD3E (EtherCAT)	A	VD3E-003SA1G	3	220	VD3E-010SA1G	10	220
		VD3E-014SA1G	14	220			
	B	VD3E-016SA1G	16	220	VD3E-019SA1G	19	220
		VD3E-021SA1G	21	220	VD3E-025SA1G	25	220
		VD3E-030SA1G	30	220	VD3E-016TA1G	16	380
		VD3E-019TA1G	19	380	VD3E-021TA1G	21	380
VD2	A	VD2-010SA1G/H/R	10	220	VD2-014SA1G/H/R	14	220
		VD2-016SA1G/H/R	16	220	VD2-019SA1G/H/R	19	220
	B	VD2-021SA1G/H	21	220	VD2-025SA1G	25	220
		VD2-030SA1G	30	220	VD2-016TA1G/H	16	380
		VD2-019TA1G/H	19	380	VD2-021TA1G/H	21	380
VD2F	F	VD2F-003SA1P	3	220	VD2F-010SA1P	10	220
		VD2F-014SA1P	14	220			

### Note:

- VD2-XXXTA1G is not recommended to work in industrial three-phase voltages of 440V and above.
- For 380V operating voltage, the fluctuation range is 15%
- For 400V operating voltage, the fluctuation range is 10%

## Servo Motors

Motor Model	Flange	Rated Power(KW)	Rated Torque(N.m)	Rated Speed(rpm)	Rated Current(A)	Max Torque(N.m)	
WD40M-01030S ○☆	40	0.1	0.32	3000	1	0.95	
WD60M-04030S ○☆	60	0.4	1.27	3000	2.5	3.81	
WD60M-06030S ○☆		0.6	1.91	3000	3.6	5.73	
WD80M-07530S ○☆	80	0.75	2.39	3000	4.4	7.17	
WE80M-10025S ○☆	80	1	4	2500	4.4	12	
WE80M-11030S ○☆		1.1	3.5	3000	4	10.5	
WE80M-12030S ○☆		1.2	4	3000	4.5	12	
WE110M-12020S ○☆	110	1.2	6	2000	4.5	12	
WE110M-15030S ○☆		1.5	5	3000	6	15	
WE110M-18030S ○☆		1.8	6	3000	6	18	
WE130M-10025S ○☆	130	1	4	2500	4	12	
WE130M-13025S ○☆		1.3	5	2500	5	15	
WE130M-15025S ○☆		1.5	6	2500	6	18	
WE130M-15015S ○☆		1.5	10	1500	6	25	
WE130M-20025S ○☆		2	7.7	2500	7.5	22	
WE130M-23015S ○☆		2.3	15	1500	9.5	30	
WE130M-26025S ○☆		2.6	10	2500	10	25	
WE130M-38025S ○☆		3.8	15	2500	13.5	30	
WE130M-53030T ○☆		5.3	17	3000	9.5	30	

○ : A1-17 bit single Magnetic encoder C1-17bit Multi Magnetic encoder; D2-23bit Multi Optical encoder;

☆: F-Oil sealed; G-Oil sealed & Brake.

(Remarks: Please contact us for motor confirmation before purchase)

# VD3E EtherCAT Servo

Design for High Load Environment



- 125µs sync period
- <1µs sync jitter



## High Performance CPU

Multi-core Architecture  
Communication & Control Parallel Processing  
Higher Response  
Stronger Performance



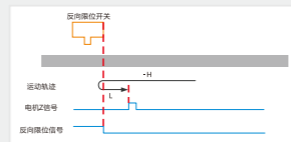
## EtherCAT High-speed Bus Control

High Synchronization  
Flexible Communication Connection  
Flexible Networking



## Rich Features

Parameter Self-tuning  
Parameter Import and Export  
Wave form Viewing and Storage  
Vibration Suppression  
Support Brake



## multi-mode control

Homing Mode(HM)  
Cyclic Synchronous Position Mode (CSP)

# VD3E Drive Specifications

## EtherCAT Type



Model	VD3E(A)	VD3E(B)
-------	---------	---------

Item	VD3E (A)	VD3E (B)	
Basic Specifications	Power Supply	220V	220V/380V
	Control Method	IGBT PWM control sine wave current drive	
	Encoder	17bit ,23bit absolute encoder	
	Input Signal	6 DI inputs, select the input function according to the function code configuration	
	Output Signal	3 DO outputs, select the output function according to the function code configuration	
	Host Communication	USB interface.Function code parameter setting, status monitoring, waveform viewing, parameter self-tuning, etc. can be performed through upper computer	
	Braking Resistor	Built-in braking resistor, support external braking resistor	
General Function	Automatic Parameter Tuning	Automatic load inertia identification, automatic rigidity level and parameter self-tuning can be carried out through the cooperation of the upper computer	
	Waveform Monitoring	The waveform of data such as real-time speed/torque/position deviation can be observed through the host computer	
	Waveform Storage	The waveform acquisition frequency is 1KHz, and the original waveform data can be saved up to 10s	
	Parameter import and Export	Support batch parameter import and export; support SDO download	
	Vibration Suppression	Mechanical vibration can be suppressed by setting vibration suppression parameters	
	Protective Function	Overvoltage, undervoltage, overcurrent, overspeed, overload, overheating, encoder failure, excessive position deviation, torque limit, speed limit, etc.	
	Brake	Support output control	
EtherCAT	Universal Control DI	Servo enable(SON), fault and warning clear (A-CLR), forward drive prohibition(POT), reverse drive prohibition(NOT), emergency stop(E-STOP)	
	Universal Control DO	servo ready(RDY), fault signal(ALM), warning signal(WARN), rotation detection (TGON), zero speed signal(ZSP), torque limit (T-LIMIT), speed limit (V-LIMIT), servo open state output (SRV-ST), servo brake output(BRK-OFF), communication VDO	
	Communication Protocol	EtherCAT protocol	
	Support Service	CoE (PDO, SDO)	
	Synchronously physical Layer	DC-distributed clock 100BASE-TX	
	Baud Rate	100 Mbit/s (100Base-TX)	
	Duplex Mode	Full Duplex	
Topology	Circular, Linear		
Transmission Medium	Shielded Cat 5e or better network cable.		
Transmission Distance	The distance between two nodes is less than 100M (the environment is good and the cable is good).		
Frame Length	44 bytes~1498 bytes		
Process Data	A single Ethernet frame is up to 1486 bytes.		
Sync Jitter	<1µs		
Distributed Clock	64 bit		
EEPROM Capacity	8kbit initialization data is written by the EtherCAT master station		
Control Mode	CSP, HM		
Sync Cycle	125µs		

# VD2 Drive Specifications

Universal Type



Model	VD2(A)	VD2(B)
-------	--------	--------

Item		VD2 Series		
Basic Specifications	Power Supply	220V	220V/380V	
	Control Method	IGBT PWM controlled sine wave current drive		
	Encoder	2500ppr incremental encoder;17 bit,23 bit absolute encoder		
	Input Signal	8*DI		
	Output Signal	4*DO		
	Analog Signal Input	2*AI input(-10v~10v)		
	Pulse Signal Input	Open collector or differential input		
	Pulse Feedback Output	A,B,Z differential output		
	Internal Instructions	Support 8 internal speed commands and internal multi-segment position commands		
	Communication/Debug	Support to communicate with modbus device and debug with SCTools at the same time. (SCTools can set&monitor servo parameters,monitor waveform,self-tuning parameter,etc.)		
Braking Resistor		400W without built-in baking resistor;both support external braking resistor		
General Function	Self-tuning	SCTools supports self-tuning function,and identifies load inertia identification and rigidity level,and other parameters.		
	Waveform Monitoring	View position,speed,torque and other curves on PC in real time		
	Waveform Storage	The original waveform data could be stored for up to 10s		
	Parameter Import / Export	Support batch parameter import and export; support PLC configurate servo parameters automatically(supported by some models)		
	Vibration Suppression	Suppress mechanical vibration by setting vibration suppression parameters		
	Protective Function	Overvoltage, undervoltage, overcurrent, overspeed, overload, overheating, encoder failure, excessive position deviation, torque limit, speed limit, etc		
	Brake	Support		
	Universal Control DI	Servo enable (SON), fault and warning clear (A-CLR), forward drive prohibition (POT), reverse drive prohibition (NOT), command reverse (C-SIGN), emergency stop (E-STOP), Gain switching (GAIN-SEL), Multi-speed command selection (INSPD1, INSPD2, INSPD3); Internal multi-position command selection and enable (POS1, POS2, POS3, POS4, POSEN)		
Function Setting	Universal Control DO	Servo ready (RDY), fault signal (ALM), warning signal (WARN), rotation detection (TGON), zero speed signal (ZSP), torque limit (T-LIMIT), speed limit (V-LIMIT), servo on state output (SRV-ST), servo brake output (BRK-OFF)		
	Pulse Input	Pulse Frequency	Maximum 500khz	
		Pulse Type	Pulse + Direction, CCW/CW pulse, Quadrature encoding	
		Pulse Filtering	First-order low-pass filter or smooth filter	
		Pulse Output	Differential Quadrature encoding A, B, Z output; PPR is settable by p0-16 or p0-17~p0-20.	
	Speed Mode	Command Input	-10V~+10V analog input internal speed command (Maximum 8)	
		Zero Clamp	Motor speed could be clamped to zero via the setting of zero clamp function	
		Torque Limit	Support to set the torque limit	
	Torque Mode	Command Input	-10V~+10V analog input and Internal torque command	
		Torque Reaching	Torque reaching threshold and DO can be set flexibly	
Speed Limit		The speed limit can be set flexibly		

# VD2F Drive Specifications

Universal Type



Model	VD2F
-------	------

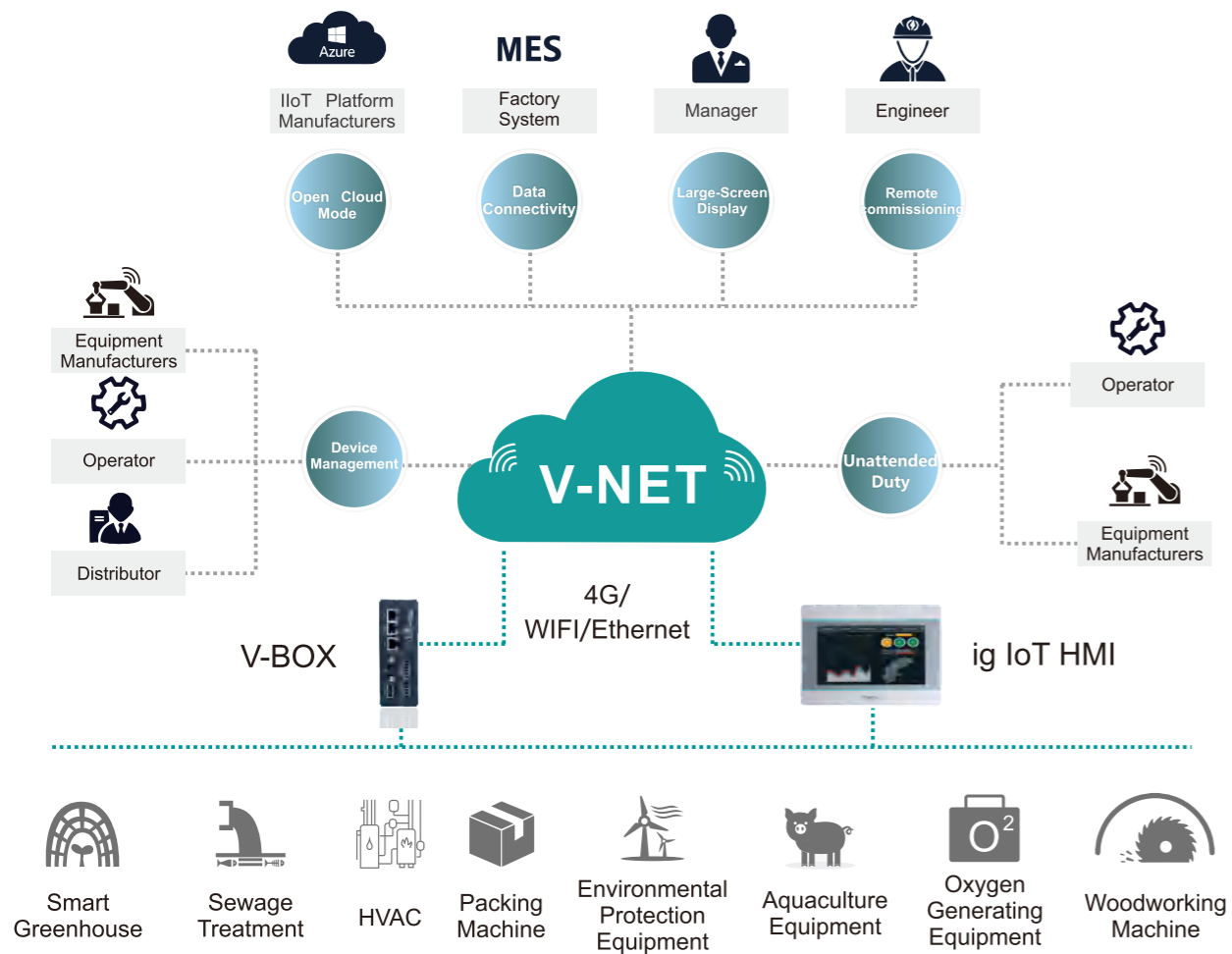
Item		VD2F Series	
Basic Specifications	Power Supply	220V	
	Control Method	IGBT PWM controlled sine wave current drive	
	Encoder	17 bit,23 bit absolute encoder	
	Input Signal	4*DI	
	Output Signal	4*DO	
	Analog Signal Input	—	
	Pulse Signal Input	Open collector or differential input	
	Pulse Feedback Output	Z signal open collector output	
	Internal Instructions	Support 8 internal speed commands and internal multi-segment position commands	
	Communication / Debug	Support to communicate with modbus device or debug with SCTools	
Braking Resistor		750W built-in baking resistor; 400W without built-in baking resistor; both support external braking resistor	
General Function	Self-tuning	SCTools supports self-tuning function, and identifies load inertia identification and rigidity level, and other parameters.	
	Waveform Monitoring	View position, speed, torque and other curves on PC in real time	
	Waveform Storage	The original waveform data could be stored for up to 10s	
	Parameter Import / Export	Support batch parameter import and export; support PLC configurate servo parameters automatically (supported by some models)	
	Vibration Suppression	Suppress mechanical vibration by setting vibration suppression parameters	
	Protective Function	Overvoltage, undervoltage, overcurrent, overspeed, overload, overheating, encoder failure, excessive position deviation, torque limit, speed limit, etc	
	Brake	Support	
	Universal Control DI	Servo enable (SON), fault and warning clear (A-CLR), forward drive prohibition (POT), reverse drive prohibition (NOT), command reverse (C-SIGN), emergency stop (E-STOP), Gain switching (GAIN-SEL), Multi-speed command selection (INSPD1, INSPD2, INSPD3); Internal multi-position command selection and enable (POS1, POS2, POS3, POS4, POSEN)	
Function Setting	Universal Control DO	Servo ready (RDY), fault signal (ALM), warning signal (WARN), rotation detection (TGON), zero speed signal (ZSP), torque limit (T-LIMIT), speed limit (V-LIMIT), servo on state output (SRV-ST), servo brake output (BRK-OFF); Z signal input	
	Pulse Input	Pulse Frequency	Maximum 500khz
		Pulse Type	Pulse + Direction, Orthogonal coding
		Pulse Filtering	First-order low-pass filter or smooth filter
		Pulse Output	—
	Speed Mode	Command Input	Only internal speed command is supported (Maximum 8)
		Zero Clamp	Motor speed could be clamped to zero via the setting of zero clamp function
		Torque Limit	Support to set the torque limit
	Torque Mode	Command Input	Only internal torque command is supported
		Torque Reaching	Torque reaching threshold and DO can be set flexibly
Speed Limit		The speed limit can be set flexibly	

# WECON IIoT

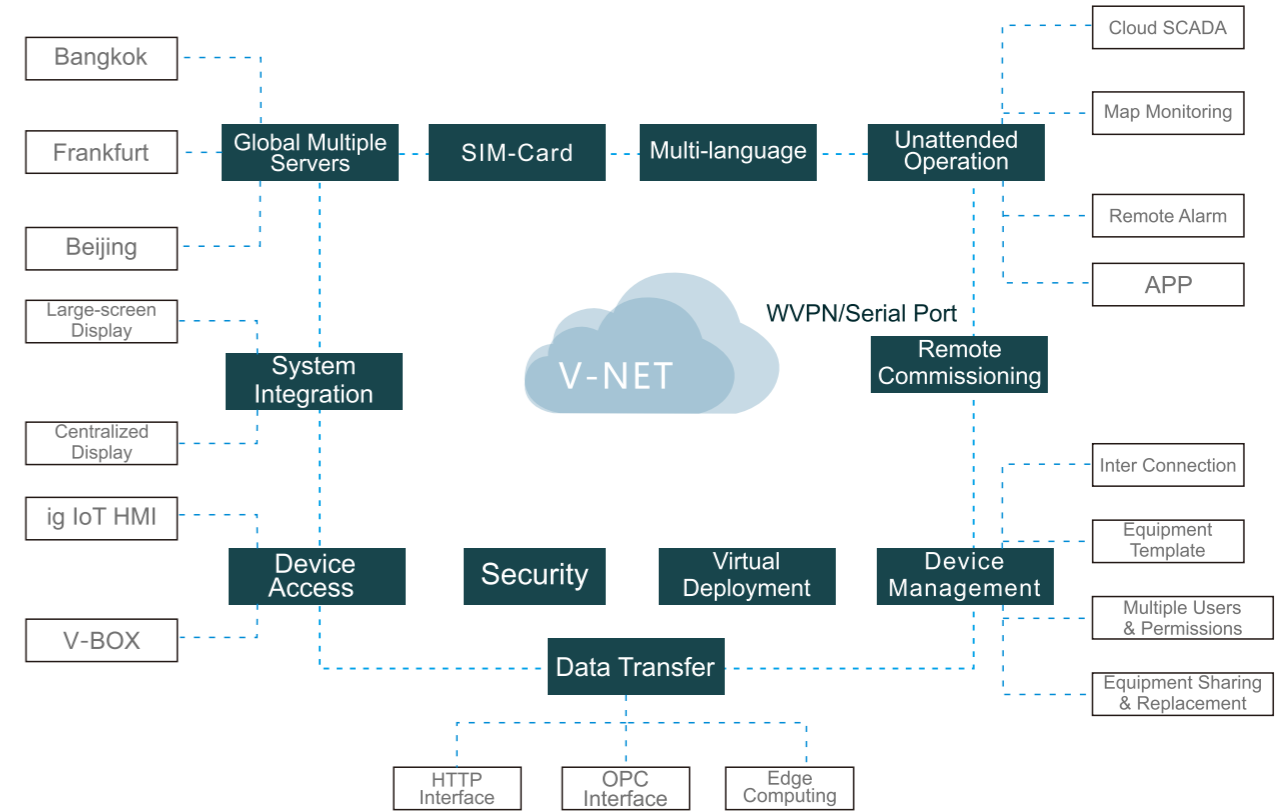
## Products and Solutions



### WECON V-NET&Gateway Architecture



### WECON V-NET&Gateway Functions



#### Device Management

##### All in One

To locate the devices accurately through map index, category search, fuzzy search, etc.

##### One-key Configuration

To download and modify the configuration of the V-BOX of the same model by using the template function.

##### Role Management

Managers can assign V-NET permissions to users at the corresponding levels by establishing users at various levels (4 levels in total), no matter how many devices there are, they could be managed by one person.

#### Global Servers

Server Location	Providers	Country or Region
Beijing	HUAWEI CLOUD	China
Bangkok	HUAWEI CLOUD	Southeast Asia, East Asia and Oceania
Frankfurt	AWS by Amazon	Europe, America, Middle East and India

#### Multilingual

- Chinese & English for main interface;
- User-defined three kinds of languages supported in project of Cloud SCADA;
- Languages switchable.

# WECON V-BOX



Standard with 3 Serial ports & 3 Ethernet (H Series), Support RS485/RS422, Optional for WiFi, 4G, GPS

## WECON Application Heating Detection System



### Digital

Collect the analog signals of the temperature, pressure and flow rate of the outlet water of the heat exchanger, and use PID to control the valve diameter of the heat exchanger and the rotation speed of the circulating pump to achieve the purpose of automatic temperature adjustment.

### Remote Access

Remotely set heating temperature, working period and working mode

### Intelligence

Real-time display on the map of the primary and secondary pipe outlet and inlet water temperature, as well as equipment operating status, to achieve unattended operation.

42/54

WECON V-BOX

## V-NET Applications

Gas Pipelines, Machinery, Water Treatment, Energy Consumption Monitoring, Transportation, Smart Agriculture, Smart Public Toilets, Smart Aquaculture, Municipal/Construction Site Dust Prevention and Spray

### Built-in IOs



Built-in 2\*DI & 2\*DO relay (H Series only)

### Pass-through Function



Support WVPN Pass-through, Serial Port Pass-through to realize PLC remote debugging or download

### Edge Computing



Simple logic control could be realized by built-in Lua Script.

### OpenCloud Mode



V-BOX can be connected to third-party platforms through OpenCloud Mode.

### Protocols



300+ protocols of main brands PLC with ethernet and serial ports

### Installations



DIN rail & mounting Hole installation

### Quick Access



Connect to V-NET easily by plugging in network cables or IoT SIM card (China cloud only)

### Indicators



V-NET Connection indicator  
4G Signal Intensity indicator  
PLC Communication Status indicator

### Machinery



### Gas steam boiler




### Water Treatment



### Transportation




# V-BOX E Series Specifications

General			
Model		E-00	E-4G
Item	Specifications		
CPU		ARM9	
Storage	Flash	128MB	
	RAM	DDRII 64MB	
	SD Card	N/A	
I/O Ports	USB	OTG : USB HOST/USB DEVICE	
	Serial Ports	COM1: RS232, RS422/RS485(2 in 1)	
	Ethernet	1 EthernetPort	
	WIFI Module	N/A	
	4G Module	N/A	4G
Power	Power Supply	24V DC (12~28V DC)	
	Power Consumption	< 10W	
Dimension	Enclosure	Cold-rolled steel sheets	
	Dimension (W*H*D)	101.0mm*73.2mm*26.8mm	
	Wall Hanging Dimension	110.0mm*15.6mm	
	Weight (KG)	0.26	
Environment	Vibration Resistance	IEC61131-2Standard	
	Storage Temperature	-20°C~70°C	
	Working Temperature	-10°C~60°C	
	Relative Humidity	10~85%RH (Non-condensing)	
CE Certification		CE Marked	
FCC Certification		FCC Class A Marked	
Real-time Monitoring Points		200	250
Alarm Monitoring Points		50	100
History Monitoring Points		20	50
History Storage/Storage capacity		60 Days/1 Million	90 Days/1 Million
Normal Pass-through		YES	
WVPN Pass-through		N/A	
Edge Computing		N/A	YES
API Interface		YES	
Remote Update		YES	
Configuration download/upload		YES	
Off-line Transmission		YES	
GPS		N/A	LBS
E-4G model frequency code			
LTE FDD	LTE TDD	WCDMA	GSM
B1/B3/B5/B8	B34/B38/B39/B40/B41	B1/B5/B8	900/1800MHz

Remark: Please contact us for confirmation about 4G Compatibility before purchase.

# V-BOX H Series Specifications

General					
Model		H-00	H-WF	H-4G/H-SG	H-AG
Item	Specifications				
CPU		CortexA7			
Storage	Flash	128MB			
	RAM	DDRIII 128MB			
I/O Ports	USB	HOST/DEVICE: USB OTG Switch			
	Serial Ports	COM1:RS232, RS422/RS485 (2 in 1) RS485(2 in 1) 【COM2: RS485, COM3: RS485】			
	Ethernet	3 EthernetPorts			
	WIFI Module	N/A	YES	N/A	N/A
	4G Module	N/A	N/A	4G	4G (Global)
Power	I/O	2 inputswithoptocoupleisolation2 relay outputs			
	Power Supply	24V DC (12~28V DC)			
Dimension	Power Consumption	<10W			
	Enclosure	PC+ABS			
Environment	Dimension (W*H*D)	131.0mm*100.5mm*46.0mm			
	Weight (KG)	0.3			
Environment	Vibration Resistance	IEC61131-2Standard			
	Storage Temperature	-20°C~70°C			
	Working Temperature	-10°C~60°C			
	Relative Humidity	10~85%RH (Non-condensing)			
CE Certification		CE Marked			
FCC Certification		FCC Class A Marked			
Real-time Monitoring Points		300	300	500	600
Alarm Monitoring Points		200	200	300	300
History Monitoring Points		50	50	100	100
History Storage/Storage capacity		90 Days/1 Million		180 Days/1 Million	
Normal Pass-through		YES			
WVPN Pass-through		N/A	YES	YES	YES
Edge Computing		YES			
API Interface		YES			
Remote Update		YES			
Configuration download/upload		YES			
Off-line Transmission		YES			
GPS		N/A	LBS/GPS	LBS	
H-4G model frequency code					
LTE FDD	LTE TDD	TD-SCDMA	WCDMA	CDMA	GSM
B1/B3/B5/B8	B34/B38/B39/B40/B41	B34/B39	B1/B8	BC0	900/1800MHz
H-AG model frequency code					
LTE FDD		LTE TDD		UMTS	GSM
B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/ B19/B20/B25/B26/B28		B38/B39/B40/B41		B1/B2/B4/B5/B6/B8/B19	B2/B3/B5/B8

Remark: Please contact us for confirmation about 4G Compatibility before purchase.

# V-BOX RE&RH Series Specifications

General				
Model	RE-00	RE-4G	RH-WF	
Item		Specifications		
CPU		HighPerformanceCPU		
Storage	Flash	128MB	8GB	
	RAM	64MB	2GB	
	SD Card	N/A	YES	
I/O Ports	USB HOST	OTG : USB HOST /USB DEVICE		
	USB DEVICE	USB 2.0x1; USB 3.0x1		
	Serial Ports	COM1: RS232, RS422/RS485 (2 in 1)		
	Ethernet	COM2: RS485		
	WIFI Module	1* Ethernet	2 * Ethernet (10/100M)	
	4G Module	N/A	4G	YES
	Power Supply	24V DC (12~28V DC)		
Power Consumption	< 10W			
Dimension	Enclosure	Cold-rolled steel sheets	Plastic+ABS(Polycarbonate)	
	Dimension (W*H*D)	101.0mm*73.2mm*26.8mm	125.0mm*93.7mm*51.0 mm	
	Weight (KG)	0.26	0.30	
Environment	Vibration Resistance	IEC61131-2Standard		
	Storage Temperature	-20°C~70°C		
	Working Temperature	-10°C~60°C		
	Relative Humidity	10~90%RH (Non-condensing)		
CE Certification	CE Marked			
FCC Certification	FCC Class A Marked			
Real-timeMonitoring Points	100	300		
AlarmMonitoring Points	20	200		
HistoryMonitoring Points	50	100		
History Storage/ Storage capacity	60 Days/1 Million			
NormalPass-through	YES			
WVPN Pass-through	YES			
Edge Computing	YES			
API Interface	YES			
RemoteFirmwareUpdate	N/A			
Configuration download/upload	N/A			
Off-lineTransmission	YES			
GPS	N/A	LBS	N/A	
Big Screen Monitoring	YES			
HDMI Port	N/A		YES	

E-4G model frequency code			
LTE FDD	LTE TDD	WCDMA	GSM
B1/B3/B5/B8	B34/B38/B39/B40/B41	B1/B5/B8	900/1800MHz

Remark: Please contact us for confirmation about 4G Compatibility before purchase.



# IIoT Solutions

## Intelligent Water & Fertilizer Intergrated Pump Station

### Background

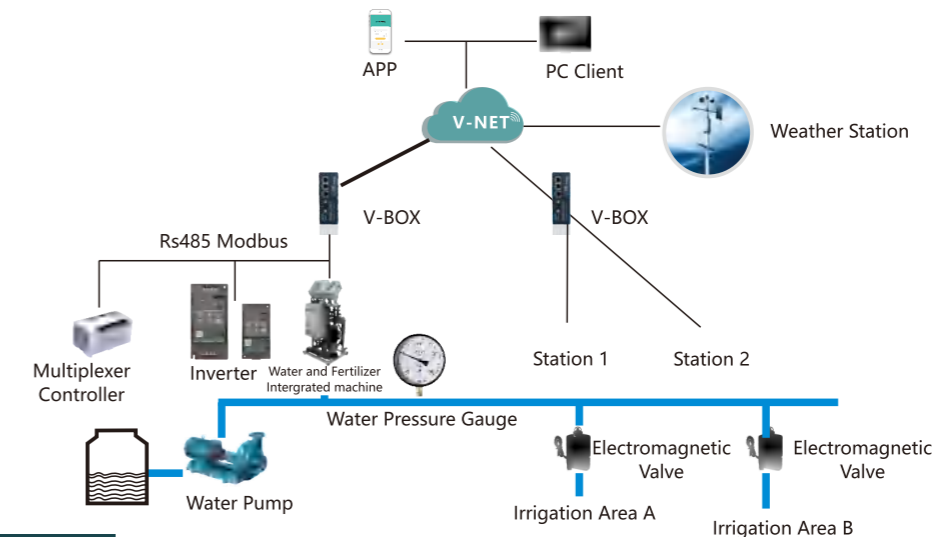
Water and Fertilizer Intergrated is a new agricultural technology that integrated management of irrigation and fertilization. It is based on pressure system to mix solid and liquid fertilizers, according to the soil nutrient content and the fertilizer requirements and characteristics of crop types. The fertilizer and water are mixed together to supply water and fertilizer by pipeline system. After the water and fertilizer are melted, irrigation is formed through pipes and spray guns or sprinklers to supply water and nutrients to crops regularly, quantitatively and evenly.

### Pain Points

- Unbalanced soil moisture and fertilizer, numerous of fertilization ratio data and tedious manual operation.
- Traditional fertilization is labor-intensive, time-consuming, and not in real time.
- It is not convenient for management with wide area of crop cultivation and large numbers of crops.

### Solution

Water & Fertilizer Intergrated devices aims to realize automatic irrigation and fertilization. Through the smart detection platform for biogas slurry and fertilizer configured by V-NET and Cloud SCADA, soil temperature and humidity data are uploaded in real time. Users can remotely view and monitor the Water & Fertilizer Intergrated devices by mobile phones or computers to make irrigation and fertilization more reasonable, so as to improve working efficiency.



### Advantages

#### Unattended Operation

Real-time upload of temperature, humidity, water and fertilizer data through V-BOX or ig HMI, and visual management of the data in the form of graphs and curves.

#### Data Display

Real-time data monitoring of soil and crops, the remote opening of valves and the start and stop of timing rotation could be realized on V-NET, it can realize unattended irrigation, independent control, etc. It could prevent incorrect operation.

#### Alarm System

Real-time data monitoring of water pump current and voltage detection, outlet pressure, flow, etc., it could discover in time whether the irrigation system has unreasonable conditions such as water leakage, low pressure and broken pipes, also could send alarm messages in time to remind operator to carry out the maintenance so as to ensure the efficient operation of the irrigation system.



# VB Series AC Drive

Power Range: Single Phase Input & Three Phase Output(220V): 0.75~2.2kW;  
 Three Phase Input & Three Phase Output (380V/415V/440V): 0.75~400kW

The VB series is a new high-performance vector general-purpose VFD that further enhances stability and reliability through technical upgrades and product optimization, and it is suitable for complex drives applications.



- SVC/VF Control
- 0-1000Hz
- 6 channels DI, 2 channels AI, 2 channels Relay
- High reliability design

## Application

Lifting machinery, tension machinery, cutting and forging machinery, large inertia braking, metal processing, woodworking, rubber and plastic machinery, textile machinery, etc.



## Technical specification sheet

Control characteristic	Control Mode	V/F Control; Sensorless Vector Control (SVC); Torque Control
	Starting Torque	G Type: 0.5Hz/150 % (SVC); P Type: 0.5Hz/100%
	Speed Adjustment Range	1 : 100 (SVC)
	Speed Holding Precision	± 0.5 % (SVC)
	Overload Capability	G Type: 150 % rated current for 60s ; 180 % rated current for 1s P Type: 120 % rated current for 60s ; 150 % rated current for 1s
Input/output	Input Voltage	220V; fluctuation range: 220V(-15%)~220V(+15%); 380V/415V/440V; fluctuation range: 380V(-15%)~440V(+10%)
	Input Frequency	50/60Hz, fluctuation range: ±5%
	Output Voltage	0-rated input voltage
	Output Frequency	SVC: 0~320Hz, V/F: 0~1000Hz
Input/output Terminals	Analog Input	2 channels
	Digital Input	6 channels
	Analog Output	2 channels
	Digital Output	1 channels
	Relay Output	2 channels
	RS485 Communication Terminal	1 channels
	Power Supply	2 channels, 1 channels 10V,1 channels 24V
Application environment	Attitude	Lower than 1000m, service is derated capability above 1000m, derate 1% capacity every 100m increased in height
	Environment Temperature	-10°C ~ + 40°C (service is derated capability for 40°C ~ 50°C)
	Humidity	≤95%RH, no water condensation
	Vibration	< 5.9m/s <sup>2</sup> (0.6g)
	Storage Temperature	- 40°C ~ + 60°C

## Model number description

**VB - 4 T 18R5GB /022PB**

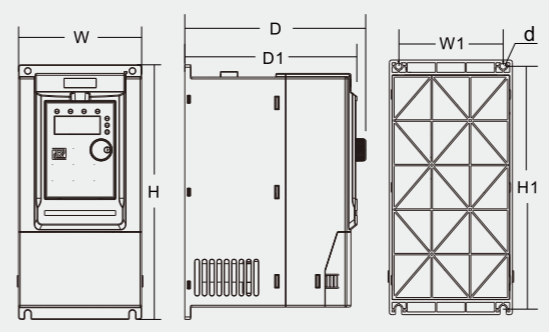
VB: Product Series  2: 220VAC, 4: 380V/415V/440V AC  S: Single phase, T: Three phase	022: 22kW P: Variable Torque Load B: Braking Unit Within  18R5: 18.5kw R: Refers to Decimal Point G: Constant Torque Load B: Braking Unit Within
--------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------

## ■ Specification and selection guide

Voltage grade	Power		Rated input current(A)	Rated output current(A)	Series No.	2:220V 4:380V	S:single phase T: three-phase	Adaptive motor power	G: general type P: fan type	B:integrated with brake function
	kW	HP								
Single phase 220VAC ±15%	0.75	1.0	8.2	4.5	VB	2	S	R75	G	B
	1.5	2.0	14	7	VB	2	S	1R5	G	B
	2.2	3.0	23	9.6	VB	2	S	2R2	G	B
Three phase 380VAC ±15%	0.75	1.0	3.4	2.1	VB	4	T	R75	G	B
	1.5	2.0	5	3.8	VB	4	T	1R5	G	B
	2.2	3.0	5.8	5.1	VB	4	T	2R2	G	B
	4/5.5	5.5/7.5	10.5/14.6	9/13	VB	4	T	4/5R5	G/P	B
	5.5/7.5	7.5/10	14.6/20.5	13/17	VB	4	T	5R5/7R5	G/P	B
	7.5	10.2	20.5	17	VB	4	T	7R5	G	B
	11/15	15/20	26/35	25/32	VB	4	T	011/015	G/P	B
	15/18.5	20/25	35/38.5	32/37	VB	4	T	015/18R5	G/P	B
	18.5/22	25/30	38.5/46	37/45	VB	4	T	18R5/022	G/P	B
	22/30	30/40	46.5/62	45/60	VB	4	T	022/030	G/P	B
	30/37	40/50	62/76	60/75	VB	4	T	030/037	G/P	/
	37/45	50/60	76/92	75/91	VB	4	T	037/045	G/P	/
	45/55	60/70	92/113	91/110	VB	4	T	045/055	G/P	/
	55/75	70/100	113/157	112/150	VB	4	T	055/075	G/P	/
	75/90	100/125	157/180	150/170	VB	4	T	075/090	G/P	/
	90/110	125/150	180/214	170/210	VB	4	T	090/110	G/P	/
	110/132	150/180	214/256	210/253	VB	4	T	110/132	G/P	/
	132/160	180/220	256/307	253/304	VB	4	T	132/160	G/P	/
	160/185	220/255	307/345	304/340	VB	4	T	160/185	G/P	/
	185/200	255/275	345/385	340/377	VB	4	T	185/200	G/P	/
200/220	275/300	385/430	377/426	VB	4	T	200/220	G/P	/	
220/250	300/340	430/468	426/465	VB	4	T	220/250	G/P	/	
250/280	340/380	468/525	465/520	VB	4	T	250/280	G/P	/	
280/315	380/430	525/590	520/585	VB	4	T	280/315	G/P	/	
315/355	430/480	590/665	585/650	VB	4	T	315/355	G/P	/	
355/400	480/545	665/785	650/725	VB	4	T	355/400	G/P	/	
400	545	785	725	VB	4	T	400	G	/	

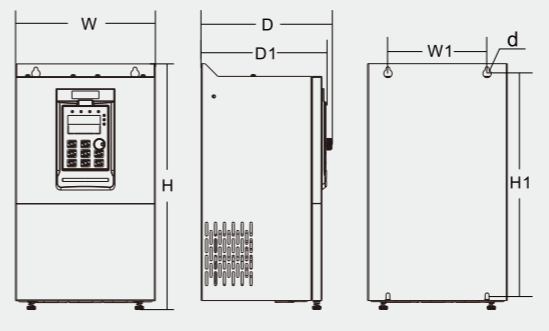
## ■ Dimensions(mm)

### 0.75kW-7.5kW dimension



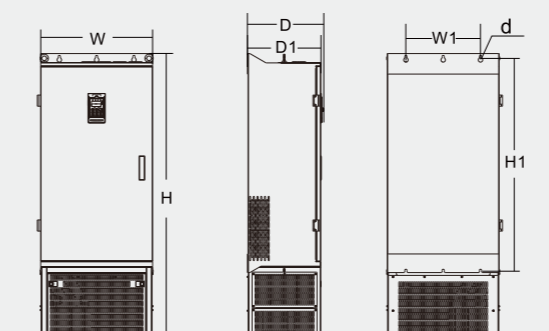
Inverter Model	Outline size				Installation dimension		Opening size
	H	W	D	D1	H1	W1	d
VB-2SR75GB	187	88	138	130	177	73	5
VB-2S1R5GB							
VB-2S2R2GB							
VB-4TR75GB							
VB-4T1R5GB							
VB-4T2R2GB	207	100	147	139	197	85	5
VB-4T004GB/5R5PB	247	130	167	159	237	113	5
VB-4T5R5GB/7R5PB							
VB-4T7R5GB							

### 11kW-185kW dimension



Inverter Model	Outline size				Installation dimension		Opening size
	H	W	D	D1	H1	W1	d
VB-4T011GB/015PB	348	182	211	196	331	156	6
VB-4T015GB/18R5PB							
VB-4T18R5GB/022PB	373	220	205	190	356	156	6
VB-4T022GB/030PB							
VB-4T030G/037P	435	256	222	208	419	170	6
VB-4T037G/045P							
VB-4T045G/055P	543	310	280	265	523	245	10
VB-4T055G/075P							
VB-4T075G/093P	580	358	328	314	560	270	10
VB-4T093G/110P							
VB-4T110G/132P	869	502	355	342	842	320	10
VB-4T132G/160P							
VB-4T160G/185P							
VB-4T185G/200P							

### 200kW-400kW dimension



Inverter Model	Outline size				Installation dimension		Opening size
	H	W	D	D1	H1	W1	d
VB-4T200G/220P	1570	600	408	398	1147	400	12
VB-4T220G/250P							
VB-4T250G/280P							
VB-4T280G/315P	1696	800	408	398	1266	520	12
VB-4T315G/355P							
VB-4T355G/400P							
VB-4T400G							

# VM

## Economical Frequency Converter



Single-phase 220V: 0.75~2.2kW  
 Three-phase 380V: 0.75~7.5kW



Compact in size



Better protection function



Professional motor drive  
 Superior performance



Simple installation  
 Convenient speed regulation



Compatible with synchronous  
 Motor & asynchronous motor



The product is safer to use

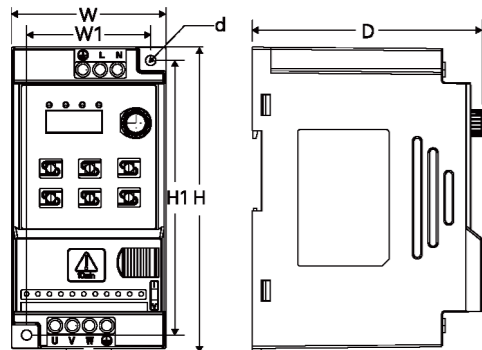
### ■ Technical specification sheet

Item	Description	
Control characteristic	Control mode	V/F control
	Output frequency range	0~1000Hz
	Starting torque	0.5Hz/130%
	Carrier frequency	0.6~15.0kHz
	Overload capacity	150% rated current 60s, 180% rated current 1s
	Torque lift	Automatic torque lift/manual torque lift 0.1 ~ 30.0%
I/O terminals	Analog input	1 way
	Digital input	4 way
	Analog output	1 way
	Relay output	2.2kW (including) models below 1 normal open; For 4kW or more models, 1 channel is normally open and 1 channel is normally closed
	RS485 communication terminal	1 Integrated in the RJ45 cable port
	10V power terminal	1 way
	24V power terminal	1 way
Basic functions	Run command channel	Three channels: set operation panel, control terminal, and RS485 communication control, which can be switched in various ways
	Frequency source	Digital set, panel potentiometer set, analog voltage set, analog current set, RS485 communication set, PID control set, switchable by many ways
	DC braking function	DC braking frequency: 0-50Hz, braking time: 0-60s Braking action current value: 0-150%
	V/F curve	Linear; 1.1-1.9 power; Square type; Customize V/F curves
	Simple PLC, multi-speed control	Up to 15 speed to achieve simple PLC operation
	Integrated PID	It is convenient to realize process control closed-loop control system
	Protection function	Input/output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, overload protection, power-on short circuit detection etc
	LED display	5-bit LED display
	Parameter locking function	The parameter read-only function can be set to prevent misoperations
	Automatic voltage adjustment AVR function	When the grid voltage changes, the output voltage can be kept constant automatically
Application environment	Operation place	Indoor, free from direct sunlight, no dust, no corrosive gas, no combustible gas, no oil mist, no water mist, no drip or salt, etc.
	Altitude	Lower than 1000m. Service in derated capacity when above 1000m. Derate 1% capacity every 100m increase in height.
	Ambient temperature	-10 °C to +50 °C (If the ambient temperature is 40°C to 50 °C, please reduce the amount to use)
	Humidity	≤ 95%RH, no water condensation
	Vibration	< 5.9m/s <sup>2</sup> (0.6G)
	Storage temperature	-25°C ~ 60°C
	Protection class	IP20

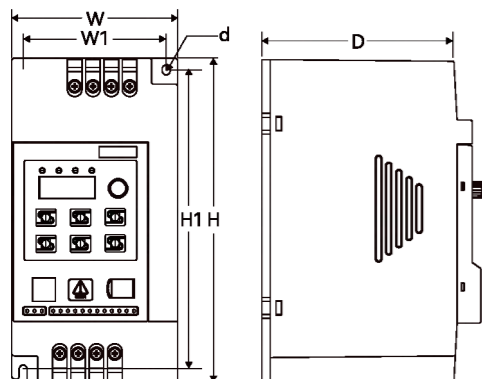
## SELECTION GUIDE

Model	Rated Power	Power capacity	Input current	Output current	Motor G/P	
	kW	kVA	A	A	kW	HP
Single 220V input three-phase 0-220V output						
VM-2SR75	0.75	1.5	8.2	4	0.75	1
VM-2S1R5	1.5	3	14	7	1.5	2
VM-2S2R2	2.2	4	23	9.6	2.2	3
Three 380V output three-phase 0-380V output						
VM-4TR75	0.75	1.5	3.4	2.5	0.75	1
VM-4T1R5	1.5	3	5	3.8	1.5	2
VM-4T2R2	2.2	4	5.8	5.1	2.2	3
VM-4T004	4	5.9	10.5	9	4	5.5
VM-4T5R5	5.5	8.9	14.6	13	5.5	7.5
VM-4T7R5	7.5	11	20	17	7.5	10

## DIMENSION (UNIT:MM)



Model	Outline size			Installation dimension		Opening size
	H	W	D	H1	W1	d
VM-2SR75	142	72	116	130	59	5
VM-2S1R5						
VM-2S2R2						
VM-4TR75						
VM-4T1R5						
VM-4T2R2						



Model	Outline size			Installation dimension		Opening size
	H	W	D	H1	W1	d
VM-4T004	196	95	132	179	79	5.5
VM-4T5R5	225	115	154	208	99	5.5
VM-4T7R5						

## SELECTION GUIDE

VM Series Inverter could be used in Packaging Machinery, Wood Machinery, Food Machinery, Conveying Machinery, Printing Machinery, Fan, Small Water Pump and so on.

