

Power Solutions

- ☐ Telecom Power
- ☐ Server Power
- ☐ Electric Power
- ☐ Medical Power
- ☐ Display Power
- ☐ LED Power
- ☐ Laser Power
- ☐ OA Power
- ☐ Flat Panel Power
- ☐ Bi-directional Inverters for Portable Power
- ☐ Solar & BESS & EV Charging Solution

Industry Automation

- ☐ Servo System
- ☒ Control System
- ☐ Elevator Controller
- ☐ Linear Motors
- ☐ IOT Solution
- ☐ Encoder
- ☐ Variable Frequency Drive
- ☐ Internal Gear Pump

New Energy Solutions

- ☐ Multiplexed EV Charging System(OBC & DC-DC)
- ☐ Power Electronic Unit(2-in-1, 3-in-1)
- ☐ E-Compressor
- ☐ TV EDU
- ☐ Motor Control Unit
- ☐ Construction Machinery Controller
- ☐ Intelligent Active Hydraulic Suspension (i-AHS)
- ☐ Railway A/C Controller
- ☐ Railway VFD
- ☐ Light Electric Vehicle Controller
- ☐ Thermal Mgmt. System

Home Appliance Control Solutions

- ☐ Residential A/C Controller
- ☐ Commercial A/C Controller
- ☐ Heat Pump Controller
- ☐ Vehicle A/C Controller
- ☐ Solar A/C Controller
- ☐ Mini Compressor Controller
- ☐ Refrigerator Controller
- ☐ Washer/Dryer Controller
- ☐ Residential Microwave
- ☐ Industrial Microwave
- ☐ Smart Bidet
- ☐ RF Thawing System

Precision Connection

- ☐ FFC
- ☐ FPC
- ☐ Coaxial Cable
- ☐ CCS
- ☐ Litz Wire
- ☐ Peek Wire

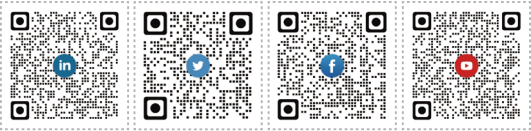
SHENZHEN MEGMEET ELECTRICAL CO., LTD.

Add 1: 5th Floor, Block B, Unisplendour Information Harbor,
Langshan Rd., Science & Technology Park, Nanshan District,
Shenzhen, 518057, China

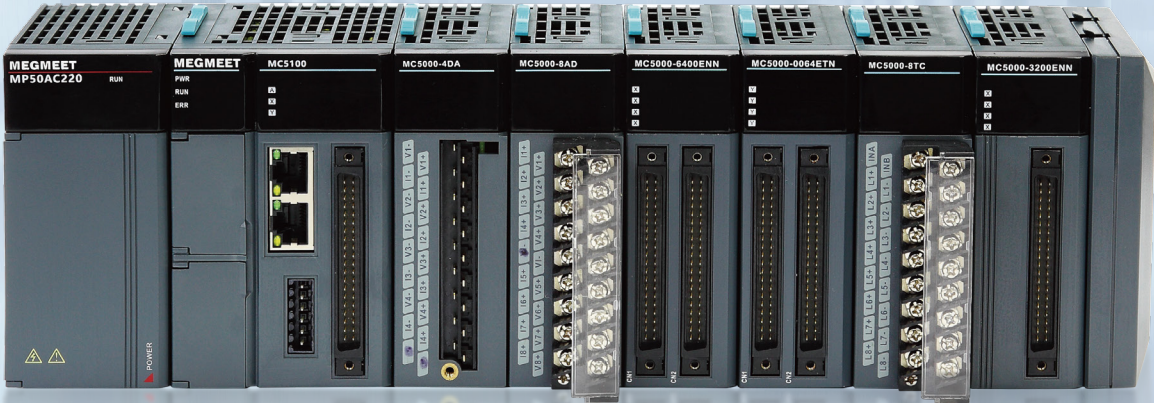
Add 2: 34th Floor, High-tech Zone Union Tower, No.63 Xuefu
Road, Nanshan District, Shenzhen, 518057, China

Version: 202405
Megmeet reserves the right to modify the technical parameters and appearance of the products in this catalogue without prior advice to the users.

FOLLOW US



MC5000 Series
Medium Programmable Logic Controller



Global Leading Solution Provider In Electrical Automation

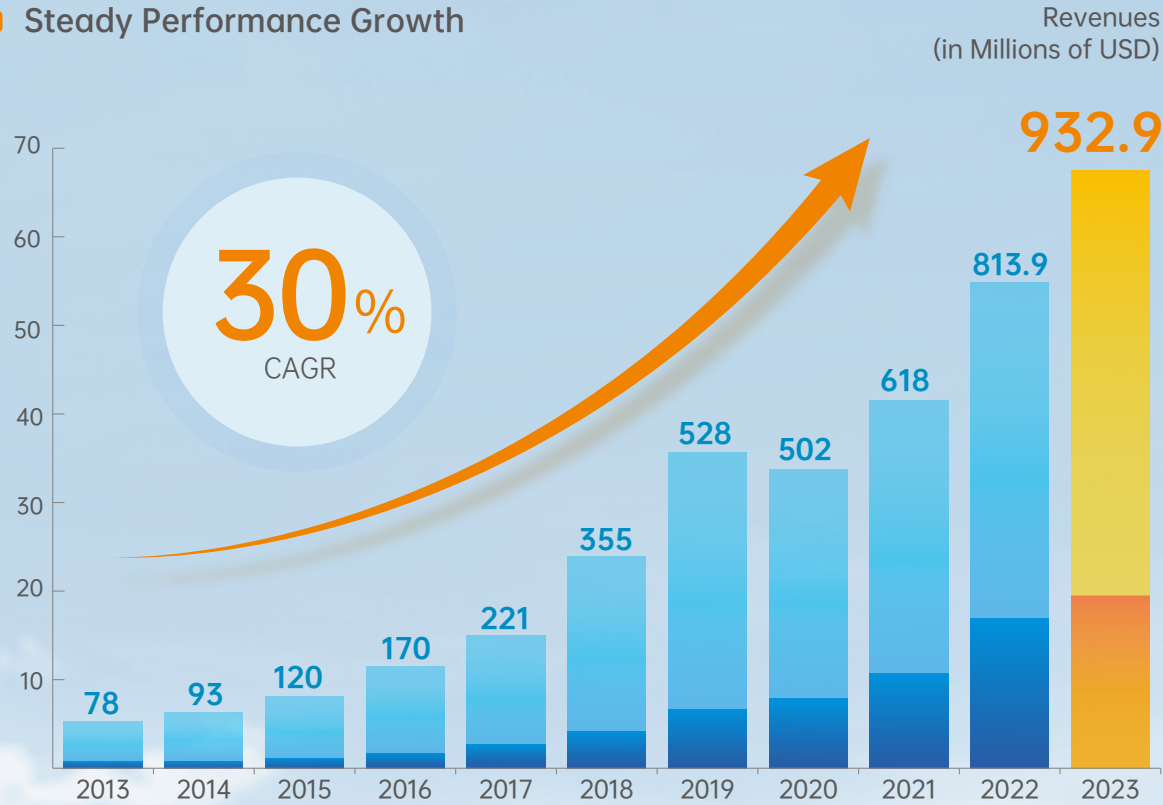
ABOUT MEGMEET

Megmeet Group (stock ticker: 002851.SZ) is a one-stop solution provider in the field of electrical automation, integrating software and hardware R&D, production, sales and services. With more than 20 years of experience, Megmeet has formed core technologies of digital power control, system control and communication, and hardware power conversion. Megmeet sets foot in six core business areas: Industrial Automation, New Energy Transportation, Intelligent Equipment, Power Solutions, Home Appliance Control Solutions, and Precision Connection. Megmeet has established R&D, manufacturing, marketing and service centers worldwide.

As a global professional solution provider in electrical automation, Megmeet consistently embodies the company's ethos of "latest technology, lean technique, high-end quality and first-class service". To ensure a better living environment for all human beings, Megmeet will continue to improve the efficient use of electricity, promote clean energy and maximize production efficiency. Megmeet is determined to set the benchmark for the electrical automation industry.



Steady Performance Growth



7300+
Total Employees



2600+
R&D Staff



4:6
Gender Diversity
Women VS Men



1700+
No. of Patents & IP Rights

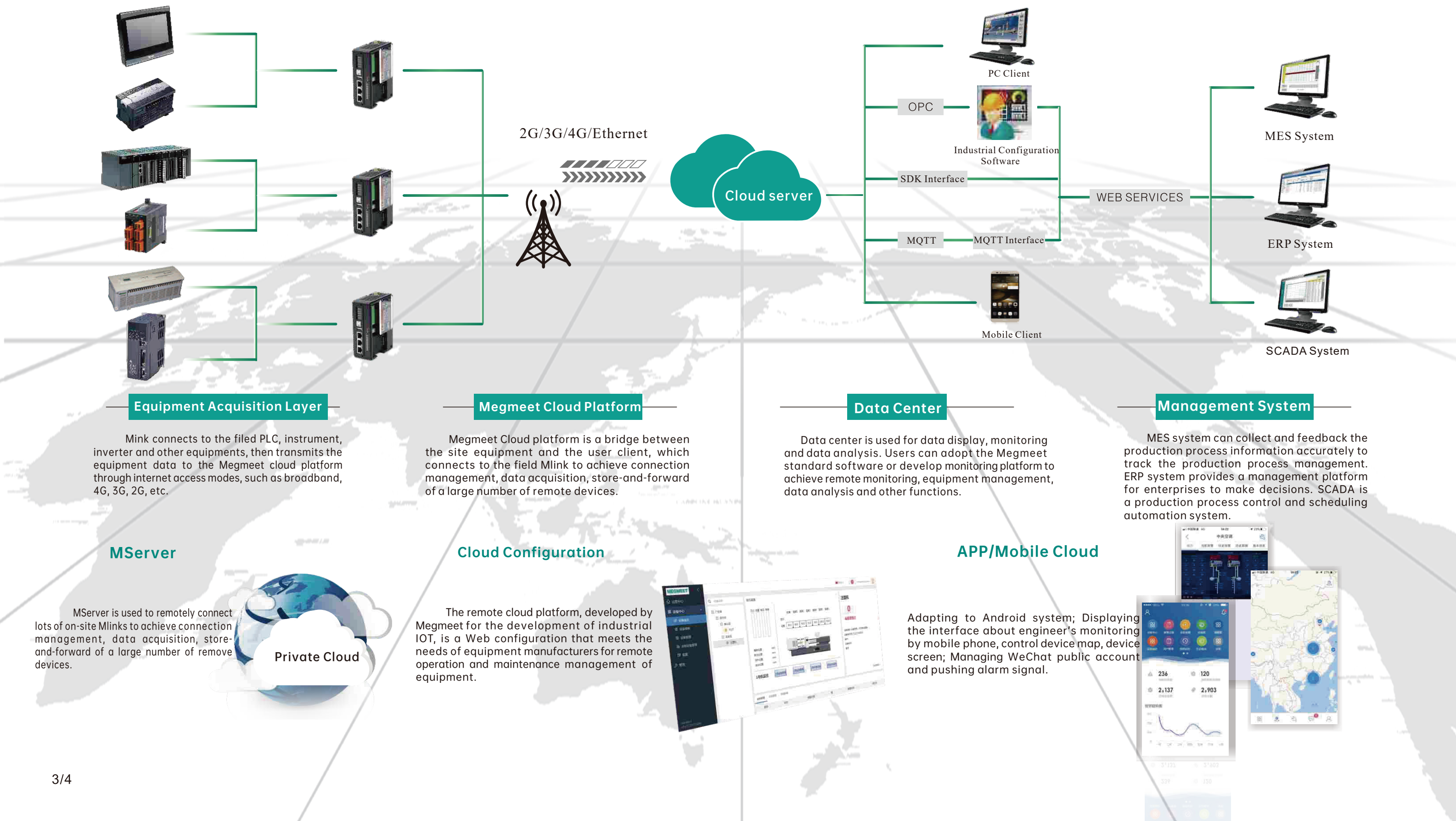


10
R&D Centers



8
Manufacturing Bases

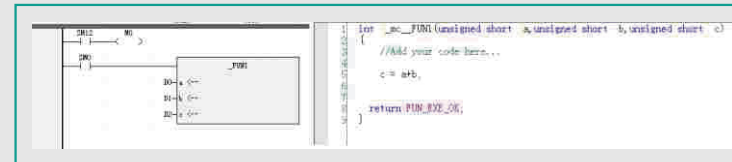
Industrial IOT Solutions



Function Features of MC5000 Series PLC

C Language

- C language
- User can customize instructions
- Structured programming
- PLCOPEN instruction



Motion Control

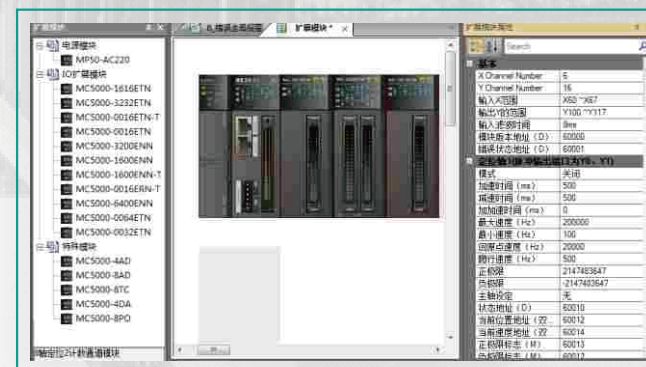
- 6-axis table output
- Executing single-axis, interpolation and other operations in accordance with the table

Axis	Position	Velocity	Acceleration
Axis1	12.3	120.000	1.000
Axis2	23.000	20.000	1.000
Axis3	45.000	30.000	1.000
Axis4	23.000	20.000	1.000
Axis5	12.3	120.000	1.000
Axis6	45.000	30.000	1.000

EtherCAT

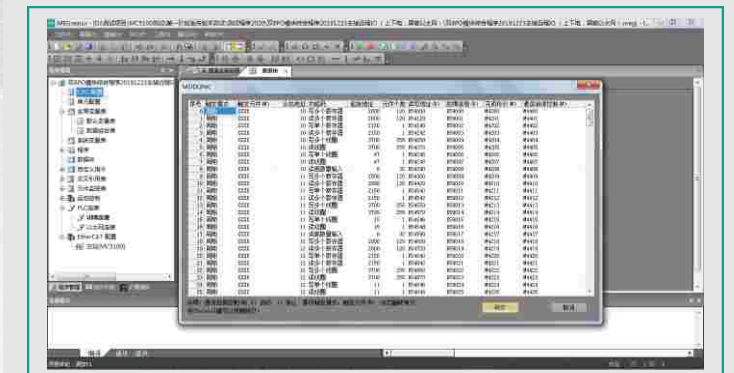
Expansion Configuration

- Expansion module configuration
- Rich expansion modules(IO/AD/DA/TC/PO.....)



Convenient Communication

- Modbus(RTU/TCP) communication can use the method of table configuration to access the slave station and simplify the programming work.



MC5000 Series PLC



M6 Series Servo



MC5000S-ET Expansion Rack



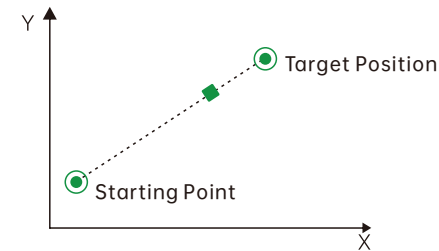
M6 Series Servo

EtherCAT

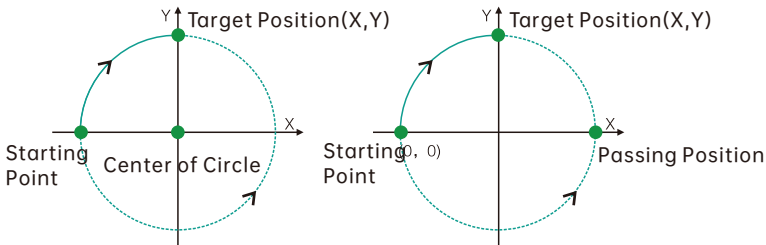
Powerful Motion Control Function

Supported Function: 64 × bus control, 6 × differential pulse, linear interpolation, circular interpolation, electronic gear and electronic CAM.

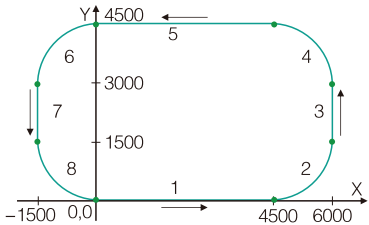
Linear Interpolation(LIN)



Circular Interpolation(CW/CCW)



Combination of LIN and CW/CCW

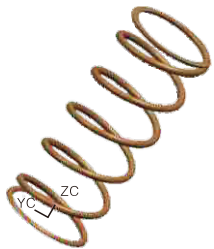


Speed of Interpolation

The speed of interpolation motions in any two axis can be up to 200KHz.

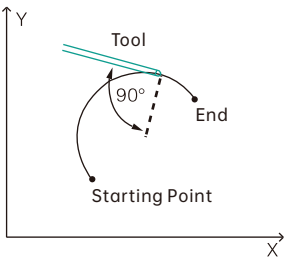
Three-dimensional Helical Interpolation

Achieving three-dimensional helical interpolation operation



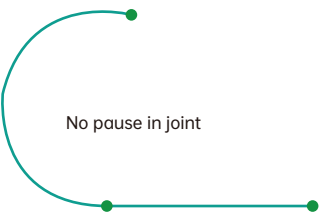
Normal and Tangent Interpolation

The direction of the tool is kept perpendicular to the trajectory during the control of circular interpolation.



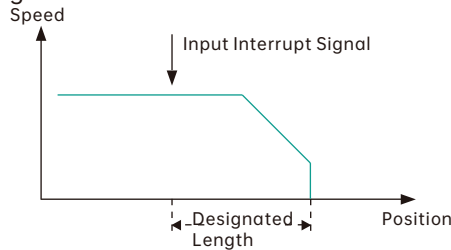
Continuous Interpolation

The speed can be kept during the switch of interpolation in multistage continuous interpolation.



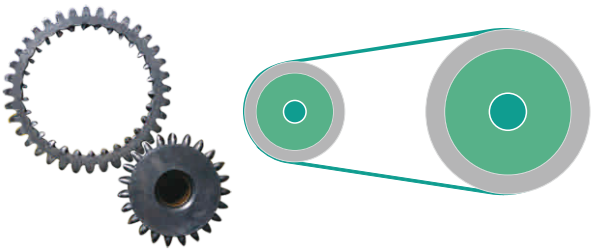
Interrupt Set Length

Detecting the specified input and then running according to the set length



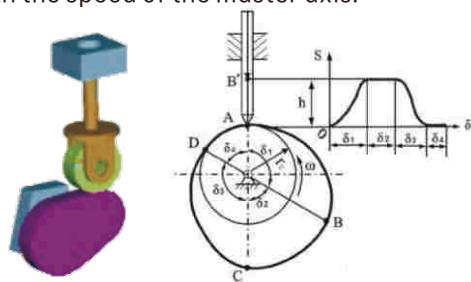
Advanced Electronic Gear Algorithm(GEARBOX)

Controlling the slave axis to move along with the master axis at a certain electronic gear ratio.



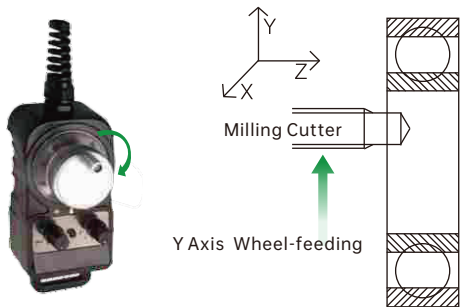
Electronic CAM Function

Holding four groups of 2048 CAM data curve, the slave axis moves along with the master axis and keeps pace with the speed of the master axis.



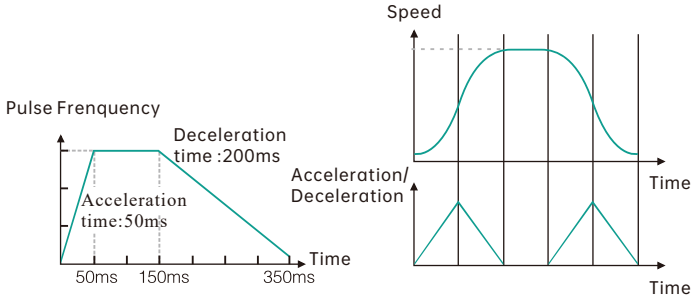
Hand Wheel

Being suitable for occasions where manual positioning is required, and the variable pulse output can be set to achieve the manual accurate positioning during parts processing.



Asymmetric Trapezoidal Acceleration/Deceleration and S-curve Acceleration/Deceleration

Supporting for the asymmetric trapezoidal acceleration/deceleration and S-curve acceleration/deceleration function.



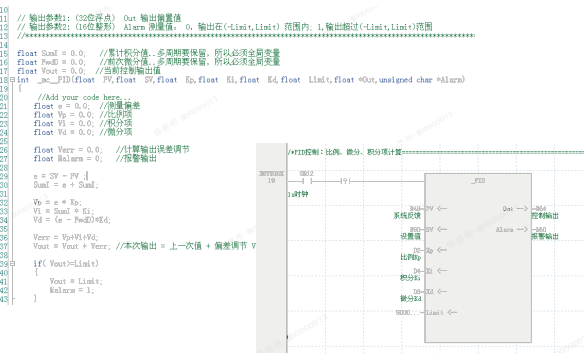
Supporting CAD diagram import and Simple G code function

- Supporting 16 instructions, include single axis positioning, linear interpolation, circular interpolation, jump, cycle, etc.
- Maximum control of 8 axis whose parameters and motion parameters can be configured.
- Supporting up to 4 independent processing tables
- Supporting teaching, manual input, importing CAD graphics to generate the processing program
- Interacting data with PLC conveniently and efficiently



C language

- Standard C language, supports standard language library function
- Users can customize instructions to implement the core algorithm of device
- User-defined instructions can be encapsulated, encrypted, import and export



MC5000 Series Medium Programmable Logic Controller

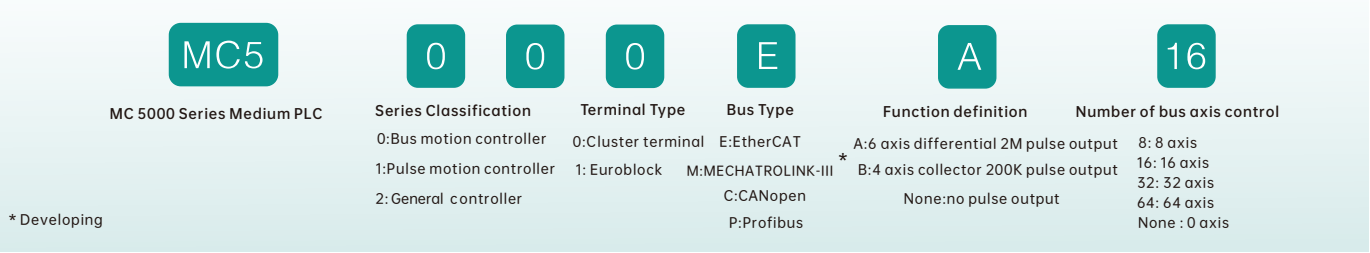
MC5000 is a perfect combination of motion control and medium PLC controller, supporting EtherCAT multi-axis bus control, motion controls including interpolation, CAM, G code, and supporting C language programming and other powerful functions. MC5000 is suitable for the industries of lithium battery, 3C electronics, photovoltaic, municipal, textile, printing and packaging, HVAC, non-standard equipment, etc.



Features:

- **Powerful Motion Control:** Motion control is handled by a separate CPU
Based on EtherCAT bus control: control cycle 250us, up to 64 axis control
Based on pulse output: 2M differential pulse, 100K collector plate, 8PO expansion, up to 38 axis pulse control
- **Operation Speed:** adopting the multi-core processing method to perform communication control, operation and logic, motion control , and the 100K-step standard procedure executes no more than 2.2ms
- **C Language:** supporting standard C programming, 2400dmips
- **Rich interface:** Ethernet, RS485, USB, SD card
- **Large Capacity:** program capacity 320K steps, C language 2M Byte, data capacity 2M Byte

Naming Rule



Specification of Main Module

Model		MC5200E	MC5101EB	MC5100EA	MC5000EA64	MC5000E64	MC5001EB64
Item		General Controller	Pulse Motion Controller		Bus Motion Controller		
Number of Local Expansion Module		16 (Max. 1024 points)					
Program Capacity	Ladder Diagram	320K Step					
	C Language	2M byte					
Data Capacity		2M Byte					
Speed of Instruction Execution	Ladder Diagram	2ms/100K Step					
	C Language	2400 dMIPS					
Speed of Bus Refresh		16 IO Module/ 0.1ms (No scan time)					
Pulse Output		—	4 axis (collector)	6 axis(difference)		—	4 axis (collector)
High-speed Output		—	2 × AB phase input	1 × 5V difference + 2 × AB phase input		—	2 × AB phase input
General IO (transistor)		16-input, 16-output	4-input, 4-output	4-input, 4-output		16-input, 16-output	4-input, 4-output
Number of Positioning Module		4 × MC5000-8PO expansion module					
EtherCAT	Number of Motion Axis	—			64(Max.)		
	Number of Bus Expansion Rack	8 × MC5000S-ET					
	Min. Synchronization Time	250us					
Communication	Ethernet (Socket)	7 (ModbusTCP master/slave,free protocol)					
	RS485	2 channels (Modbus master/slave, MCbus, free protocol)					
C Language	Standard C Language	Supporting standard C language					
	Operation Mode	C language operates programming mixed with ladder diagram/ Independent programming					
	Function Library	Providing rich standard function library					
	User-defined Library	Supporting to encapsulate function blocks with C language (import, export, encryption)					
Motion Control	CAM and Interpolation	—	3 × CAM / 1 × multi-axis interpolation		Yes		
	Table Output	—	10000 steps × 2 groups				
	CAD File Import	—	Yes				
Hardware Resources	SD Card	Yes					
	USB Download	Yes					

Series Modules

Model	Description	Specification	
CPU Module			
	IO of Main Module	Number of bus control axis	
MC5200E	Input: 16- channel Output: 16-channel transistor	-	Standard medium module Terminal: cluster terminal
MC5100EA	Input: 4-channel 200K pulse, 3- channel 1M differential pulse Output: 4-channel transistor, 6×2M differential pulse channel	-	Pulse main module Terminal: cluster terminal
MC5101EB	Input:8-channel(support 4-channel 200K pulse) Output:8-channel transistor(support 4-channel 200K pulse)	-	Pulse main module Terminal: Euroblock
MC5000E8	Input: 16- channel Output: 16-channel transistor	8-axis EtherCAT	Bus main module Terminal: cluster terminal
MC5000E16	Input: 16- channel Output: 16-channel transistor	16-axis EtherCAT	Bus main module Terminal: cluster terminal
MC5000E32	Input: 16- channel Output: 16-channel transistor	32-axis EtherCAT	Bus main module Terminal: cluster terminal
MC5000E64	Input: 16- channel Output: 16-channel transistor	64-axis EtherCAT	Bus main module Terminal: cluster terminal
MC5001EB8	Input:8-channel(support 4-channel 200K pulse) Output:8-channel transistor(support 4-channel 200K pulse)	8-axis EtherCAT	Bus main module Terminal: Euroblock
MC5001EB16	Input:8-channel(support 4-channel 200K pulse) Output:8-channel transistor(support 4-channel 200K pulse)	16-axis EtherCAT	Bus main module Terminal: Euroblock
MC5001EB32	Input:8-channel(support 4-channel 200K pulse) Output:8-channel transistor(support 4-channel 200K pulse)	32-axis EtherCAT	Bus main module Terminal: Euroblock
MC5001EB64	Input:8-channel(support 4-channel 200K pulse) Output:8-channel transistor(support 4-channel 200K pulse)	64-axis EtherCAT	Bus main module Terminal: Euroblock
MC5000EA8	Input: 4-channel 200K pulse, 3- channel 1M differential pulse Output: 4- channel transistor, 6×2M differential pulse channel	8-axis EtherCAT	Bus main module Terminal: cluster terminal
MC5000EA16	Input: 4-channel 200K pulse, 3- channel 1M differential pulse Output: 4- channel transistor, 6×2M differential pulse channel	16-axis EtherCAT	Bus main module Terminal: cluster terminal
MC5000EA32	Input: 4-channel 200K pulse, 3- channel 1M differential pulse Output: 4- channel transistor, 6×2M differential pulse channel	32-axis EtherCAT	Bus main module Terminal: cluster terminal
MC5000EA64	Input: 4-channel 200K pulse, 3- channel 1M differential pulse Output: 4- channel transistor, 6×2M differential pulse channel	64-axis EtherCAT	Bus main module Terminal: cluster terminal

Power Module		
MP50AC220	Input: 100~240Vac, Output: 24V/2A	AC power module
IO Expansion Module		
MC5000-3232ETN	32-point 24DVC input, 32-point transistor output	Cluster terminal
MC5000-1616ETN	16-point 24DVC input, 16-point transistor output	Cluster terminal
MC5000-3200ENN	32-point 24DVC input	Cluster terminal
MC5000-0032ETN	32-point transistor output	Cluster terminal
MC5000-6400ENN	64-point 24DVC input	Cluster terminal
MC5000-0064ETN	64-point transistor output	Cluster terminal
MC5000-1600ENN-T	16-point 24DVC input	Plug-pull screw terminal
MC5000-0016ERN-T	16-point relay output	Plug-pull screw terminal
MC5000-0016ETN-T	16-point transistor output	Plug-pull screw terminal
MC5000-3200ENN-P	32-point IO input	Euroblock
MC5000-0032ETN-P	32-point IO output	Euroblock
MC5000-1616ETN-PH	16-point 24DVC input, 16-point transistor output (with 4 channels high-speed counter)	Euroblock
MC5000-1600ENN-P	16-point IO input	Euroblock
MC5000-0016ETN-P	16-point IO output	Euroblock
MC5000-0016ERN-P	16-point relay output	Euroblock
MC5000-0014EPN-P	14-point high-side transistor output	Euroblock
Special Function Module		
MC5000-8PO	8-axis 200KHZ pulse output module (1 main module can configure up to 4, MC5000 only)	Cluster terminal
MC5000-4AD/8AD	4/8- channel analog quantity input module	Plug-pull screw terminal
MC5000-4DA	4- channel analog quantity output module	Plug-pull screw terminal
MC5000-4PT	4- channel thermal resistance temperature module	Plug-pull screw terminal
MC5000-4TC/8TC	4/8- channel thermocouple temperature module	Plug-pull screw terminal
MC5000-2WT*	2- channel weighing module	Plug-pull screw terminal
MC5000-4DA-P	4- channel analog quantity output module	Euroblock
MC5000-6AD-P	6- channel analog quantity input module	Euroblock
MC5000-8TC-P	8- channel thermocouple temperature module	Euroblock
Remote IO Module		
MC5000S-ET	EtherCAT expansion rack	EtherCAT slave station
MC5000S-EIP	EtherNet/IP expansion rack	EtherNet/IP slave station
MC5000S-PN	ProfiNet expansion rack	ProfiNet slave station
Accessory		
MCA05-100L	1m terminal line	Tieline
MCA05-150L	1.5m terminal line	Tieline
MCA10-40P	40PIN terminal	Wiring terminal

* Developing

MC 5000 Series High-performance Medium Programming Controller

Power Supply Specification

Power Module	Technical Specification
Model	MP50AC220
Dimensions(H×L×W)	100×100×45 (mm)
Range of Power Supply	110V~240V
Input Current	0.7A
Power Frequency	50/60Hz

Item	Technical Specification
Dimensions(H×L×W)	100×100×63(mm)
Number of expansion module	16 expansion modules
Speed of Expansion Refresh	7us/IO module
Capacity of Ladder Diagram	320K step
Running Speed	2ms/100K step
Number of Max. Expansion Point	One main module can expand 1024 points/ remote IO 8192 points
SD Card	Yes
USB Download	Yes
Ethernet Download	Yes
RS485	2 channels
Ethernet	7 sockets
Differential Output	Supporting 6 axis differential output
	Pulse+direction, forward/reverse pulse, AB phase
	Differential voltage level 5V
	Differential maximum output frequency 2MHz

PT Module Specification

Item	Technical Specification		
Model	MC5000-4PT		
Dimensions(H×L×W)	100×100×34 (mm)		
Number of Channel	4		
Input Type	Thermal resistance signal: Pt100, Cu100, Cu50		
Rated Temperature Range	Pt100	- 150℃ ~ 600℃	- 238° F ~ 1112° F
	Cu100	- 30℃ ~ 120℃	- 22° F ~ 248° F
	Cu50	- 30℃ ~ 120℃	- 22° F ~ 248° F
Number of AD Bit	16bit		
Conversion Speed	4ms / 4 channels (Unused channels are not converted)		
Resolution	Pt100	0.1℃	0.18° F
	Cu100	0.1℃	0.18° F
	Cu50	0.1℃	0.18° F
Precision	Full scale: ±2%		
Isolation	The analog circuit and digital circuit are separated by the photoelectric coupler.		

PO Positioning Module Specification

Item		Technical Specification	
Model		MC5000-8PO	
Dimensions(H×L×W)		100×100×34 (mm)	
High-speed Input		2 * encoder (ABZ)	
High-speed Output		8 axis	
Connection Mode of Input and Output		40 PIN cluster connector	
Input Channel Specification			
Input Mode		24V single terminal, 5V difference	
Single Terminal Input	Input Voltage Level	24VDC (-15%~+20%)	
	Input Current	5mA (type)	
	ON Voltage	> 15VDC	
	OFF Voltage	< 5VDC	
	Filter Time of Port	1ms-64ms(default: 8ms, can be adjusted by programming software)	
	Input Impedance	3.3K Ω	
Differential Input Signal		RS422 differential linear drive level based on EIA standard	
Signal Frequency		200kHz (single-channel input)	
Common Port Mode		Single-point independent common port	
Isolation Mode		Optical coupling isolation	
Input Action Display		LED display	
Output Channel Specification			
Mode of Output Control		Pulse+direction, forward/reverse pulse, AB phase	
Output Form		Open-collector	
Signal Frequency		200KHz	
Control-circuit Voltage		DC5V-24V	

TC Module Specification

Item	Technical Specification		
Model	MC5000-8TC-P	MC5000-8TC	MC5000-4TC
Dimensions(H×L×W)	100×100×34 (mm)		
Number of Channel	8	4	
Input Type	J type, K type, R type, S type, T type, E type, N type, B type thermocouple		
Precision	±0.2% (25℃)		
	±0.4% (0~50℃)		
Number of AD Bit	24bit		
Conversion Speed	100ms/8 channels		
Cold-junction Compensation	Internal cold-junction compensation (±0.2 ℃)		
	External cold-junction compensation (±0.1 ℃)		
Resolution	0.1℃		
Isolation	Channel to channel isolation		
	The analog circuit and digital circuit are separated by the photoelectric coupler.		

AD Module Specification

Item	Technical Specification		
Model	MC5000-4AD	MC5000-6AD-P	MC5000-8AD
Dimensions(H×L×W)	100×100×34 (mm)		
Number of Channel	4	6	8
Range of Analog Quantity Input	Voltage: -10~+10V(default), 0~10V, -5~+5V, 0~5V, 1~5V Current: 0~20mA, 4~20mA		
Number of AD Bit	16bit		
Conversion Speed	8ms/8 channels		
Number of Channel Average Value	1~1000		
Max. measurement scale	±3% of the full scale		
Conversion precision	Voltage	± 0.2% (25℃) , ± 0.4% (0 ~ 55℃)	
	Current	± 0.2% (25℃) , ± 0.4% (0 ~ 55℃)	
Input Impedance	Voltage	>250K Ω	
	Current	250 Ω	
Isolation		The analog circuit and digital circuit are separated by the photoelectric coupler.	

DA Module Specification

Item	Technical Specification	
Model	MC5000-4DA	MC5000-4DA-P
Dimensions(H×L×W)	100×100×34 (mm)	
Number of Channel	4	
Range of Analog Quantity Input	Voltage: -10~+10V(default), 0~10V, -5~+5V, 0~5V, 1~5V Current: 0~20mA, 4~20mA	
Number of DA Bit	16bit	
Conversion Speed	8ms/ 8 channels	
Conversion precision	Voltage	± 0.2% (25℃) , ± 0.4% (0 ~ 55℃)
	Current	± 0.2% (25℃) , ± 0.4% (0 ~ 55℃)
Min. load (voltage)		1k Ω
Max. load(current)		500Ω
Isolation	The analog circuit and digital circuit are separated by the photoelectric coupler.	

IO Module Specification (Screw Terminal& Cluster Terminal)

Model	3200ENN	0032ETN	1616ETN	3232ETN	6400ENN	0064ETN	1600ENN-T	0016ETN-T	0016ERN-T
Dimensions(H×L×W)	100 × 100 × 34 (mm)								
Number of Input Point	32	0	16	32	64	0	16	0	0
Number of Output Point	0	32	16	32	0	64	0	16	16
Wiring Terminal	1 * 40PIN terminal			2 * 40PIN terminal			Plug and pull screw terminal		
Type of Input Port	Source type / leakage type(SS commom port)								
Voltage of Input Port	>18V ON/<4V OFF								
Impedance of Input Port	4.3k Ω								
Input Filter	1/2/4/8/16/32/64 ms (can be set by software)								
Output Mode	—	Transistor	Transistor	Transistor	—	Transistor	—	Transistor	Relay
Output Circuit-control Voltage	—	24Vdc			—	24Vdc	—	24Vdc	24Vdc/220Vac
Output Circuit-control Current	—	0.3A			—	0.3A	—	0.3A	2A

IO Module Specification (Euroblock)

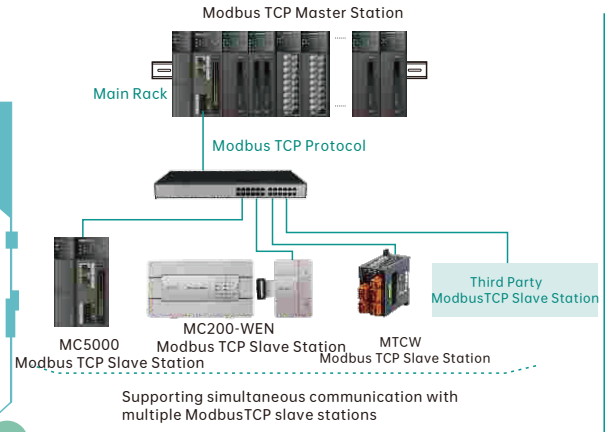
Model	3200ENN-P	0032ETN-P	1616ETN-PH	1600ENN-P	0016ETN-P	0016ERN-P	0014EPN-P★
Dimensions(H×L×W)	100×100×34 (mm)						
Number of Input Point	32	0	16	16	16	0	0
Number of Output Point	0	32	16	0	0	16	14
Wiring Terminal	Euroblock						
Type of Input Port	Source type / leakage type(SS commom port)						
Voltage of Input Port	>18V ON/<4V OFF						
Impedance of Input Port	4.3K Ω						
Input Filter	1/2/4/8/16/32/64 ms (can be set by software)						
Output Mode	-	Transistor	Transistor	-	Transistor	Relay	Transistor
Output Circuit-control Voltage	-	24Vdc		-	24Vdc	24Vdc/220Vac	24Vdc
Output Circuit-control Current	-	0.3A		-	0.3A	2A	2A

★ The output mode of MC5000-0014EPN-P module is PNP transistor output.

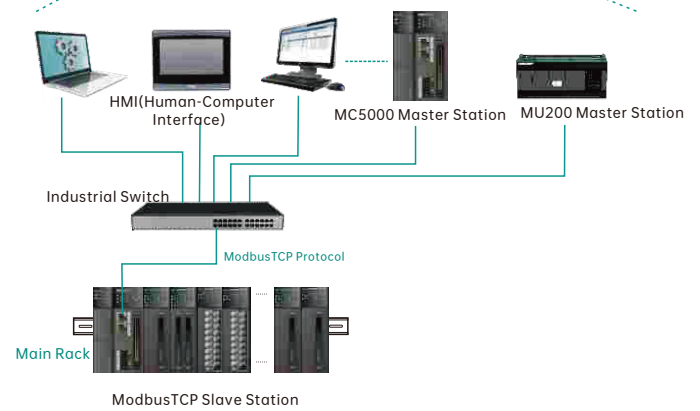
One-stop Solution

Ethernet Network Port(Modbus TCP)

- The Ethernet port of MC5000 CPU module supports ModbusTCP master/slave station protocol.
- As the ModbusTCP slave station, it can link with multi-master station.
- As the ModbusTCP master station, it can establish linkage with multi-slave station.

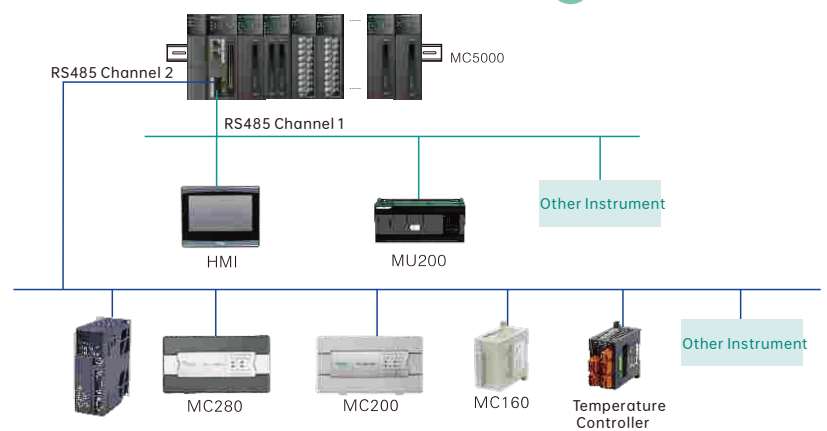


Allowing multiple ModbusTCP master stations to access slave stations simultaneously



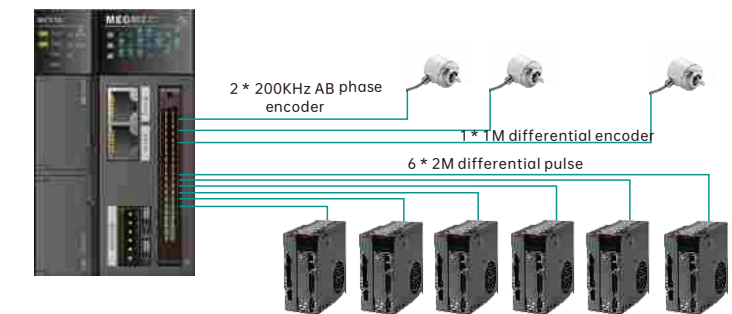
RS485 serial port

- MC5000 CPU module provides 2-channel independent RS485 serial port.
- Each RS485 provides the protocol of Modbus master/slave station, MCBUS and free-port, which is selected by customer's programming to achieve data interaction.
- As the Modbus master station protocol, it can establish communication with 31 slave stations to carry out data interaction.



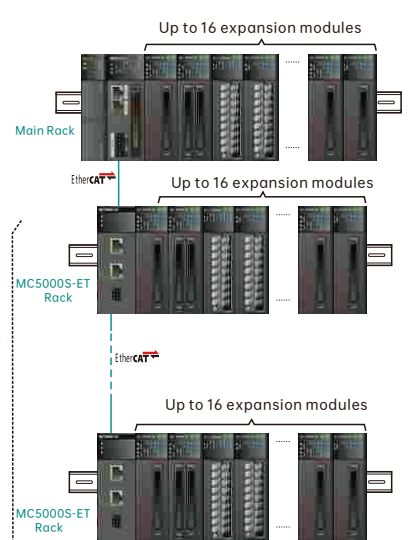
Bus of Main module

- The host bus can access up to 16 digital IO modules and 1024 points with a refresh delay of less than 0.1ms.
- The host bus can access up to 16 analog quantity modules and 128 channels with a refresh delay of less than 1ms.
- The host bus can access up to 8 analog quantity modules and 8 digital IO modules with a refresh delay of less than 1ms.
- The access speed of host bus accommodate to the amount of module automatically, which means the fewer the number of module, the faster of the access speed.



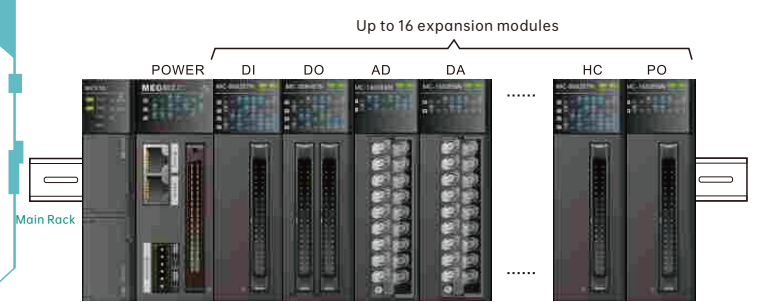
Bus Expansion Rack

- MC5000 can access up to 8 racks of MC5000S-ET, and each rack can access 16 expansion modules.
- The maximum length of bus cable can be 100m.



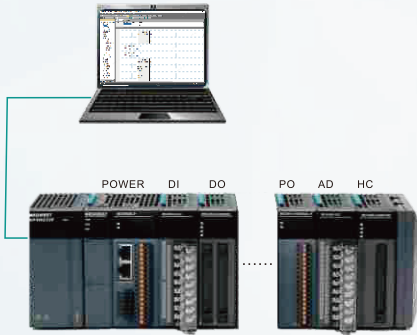
CPU Owns Built-in High-speed IO Function

- MC5000 CPU provides 4 high-speed pulse inputs, 4 high-speed pulse outputs, and supports 4-axis pulse motion control.
- MC5000 CPU module provides 6-group 2M differential pulse output, 3-channel 1M pulse input; MC5101EB supports 4-channel collector 200K pulse output.
- 4 * high-speed interrupt function
- Supporting pulse frequency measurement



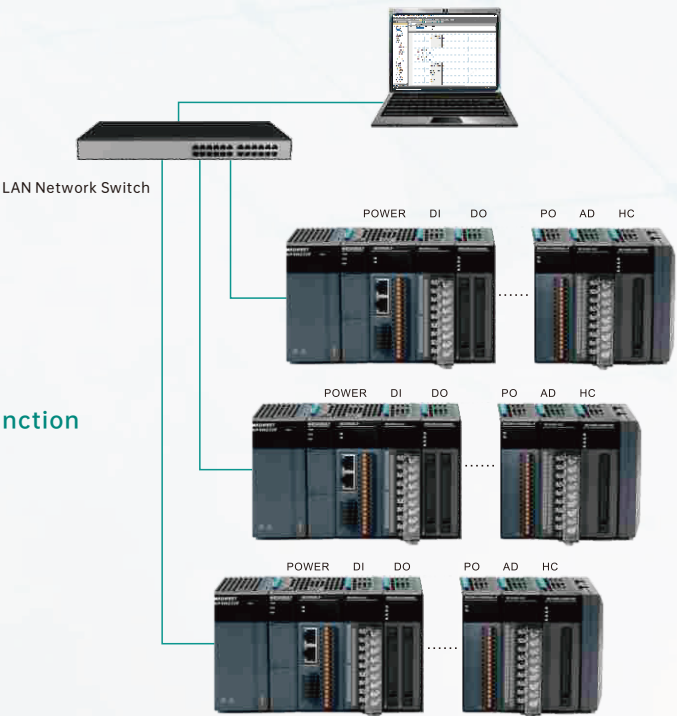
Convenient and Easy-for-use USB Port

- The PLC can complete the operation conveniently and easily of programming, downloading, debugging and monitoring through USB port.



Easy-using and Efficient Background Programming Software

- Connecting MC5000 controller through the network to coordinate multi-machine systems handily.

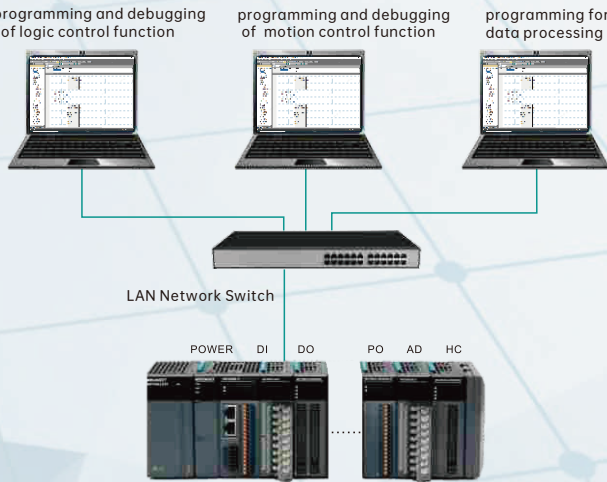


Providing Online Debugging and Online Modification Function

- Supporting to set breakpoint individually and single-step running program to reduce time for positioning BUG.*
- Supporting online modification and non-stop debugging function.

Supporting Multi-person Cooperation to Compile the Program of Complicated Application System

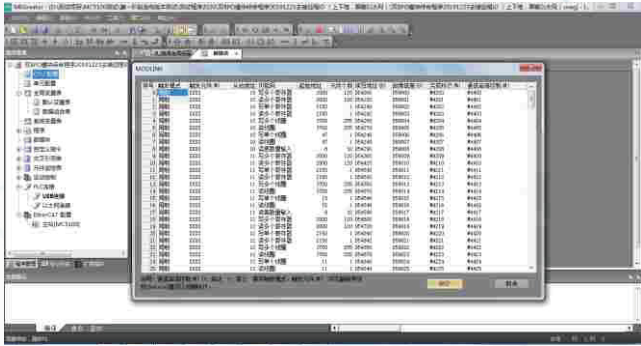
- Supporting multi-person programming efficiently and rapidly.
- Supporting import and export operations.



The program and data are both stored on Flash, which needs not to maintain because of battery-free!

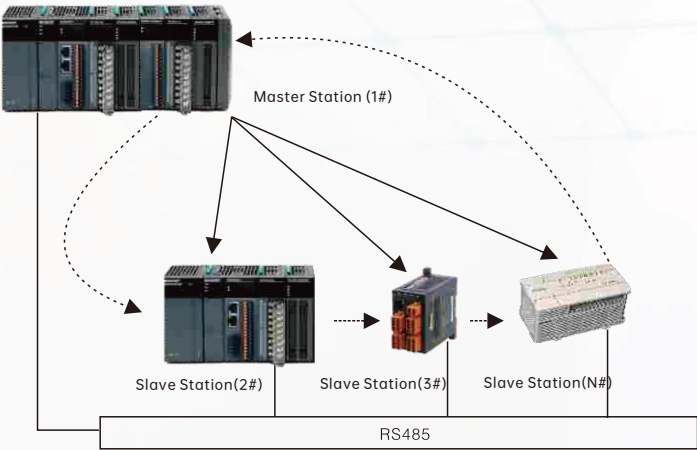
Communication Simplification(ModbusTCP/Modbus)

- Modbus(RTU/TCP) communication can adopt the method of table configuration to access slave station and simplify programming work.



MCBUS Protocol

- The MCBUS builds the loop-token network structure through RS485 and shares data among multiple N:N nodes, where the data of each node is automatically refreshed in real time after finishing configuration.



Importing the user program through SD card

- Importing the user program through SD card can facilitate the device maintenance.

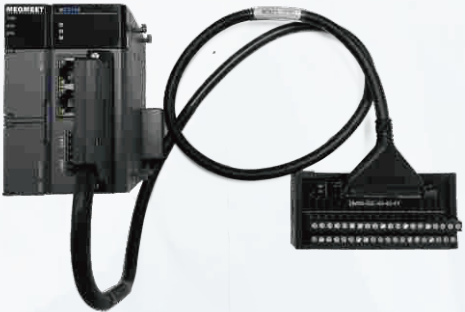


Rich Accessory

- The IO terminals of module are divided into three types:cluster terminal, plug and pull screw terminal, and Euroblock. The user can select appropriate terminal modules according to the industrial site to meet the installation requirements.



Euroblock module Plug and pull screw terminal module Cluster terminal module



Line Cluster and Terminal Block

*: Developing

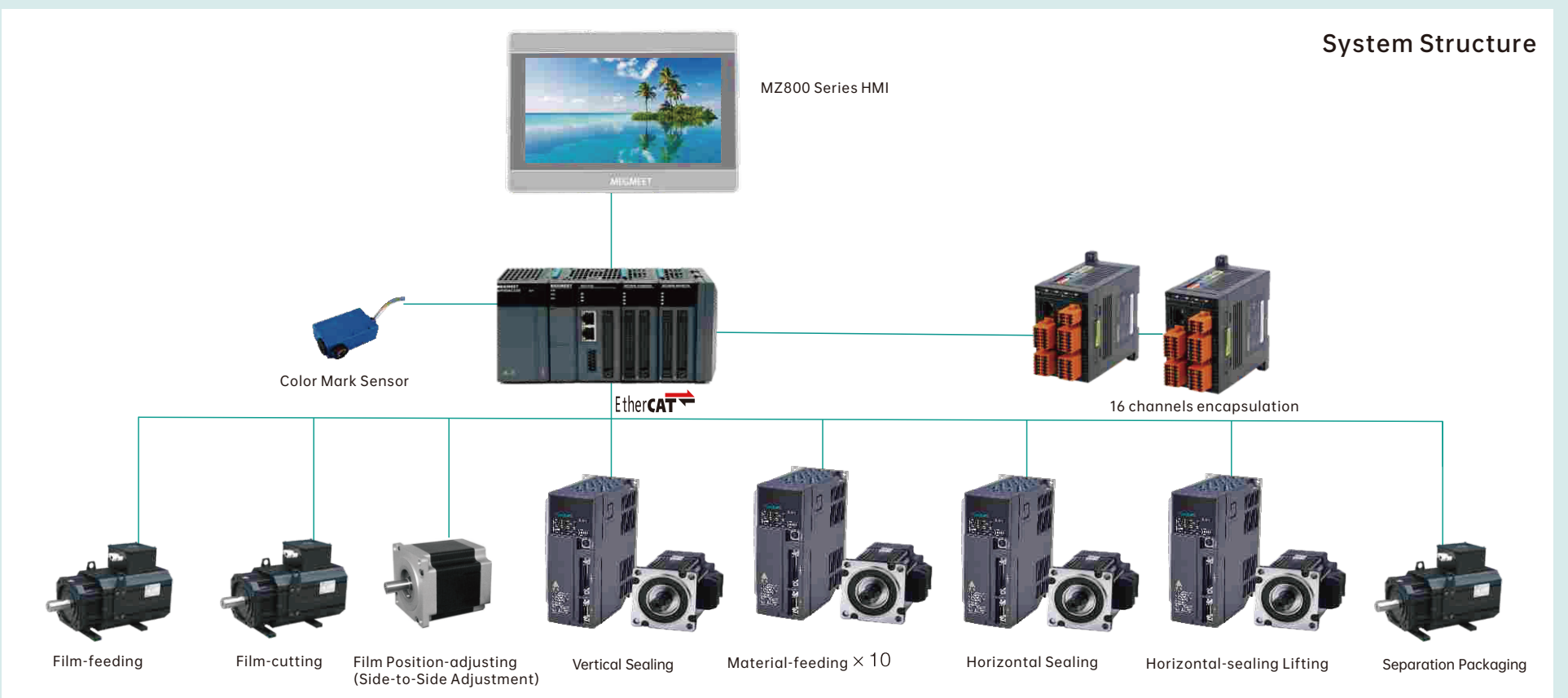
Application Case

Application of MC5100EA in Packaging Machine

The process of packaging machine is composed of five parts: film-feeding, film-cutting, vertical sealing and material-filling, horizontal sealing and independent packaging-dividing. It can carry out 10 rows of packaging operations at the same time and each independent packaging contains two steps of horizontal sealing and vertical sealing.

The control program needs to adopt the electronic CAM motion control algorithm, taking the horizontal sealing lifting as the main axis, the vertical sealing as the slave axis, and keeping the synchronous signal between the horizontal sealing and the vertical sealing to start. The electronic CAM function of MC5100EA can readily complete the synchronous connection among the horizontal seal lifting, vertical sealing and material feeding action, which greatly improves the packaging efficiency.

The main control points of this packaging machine also include film cutting, film deflection-correcting, color mark signal acquisition, temperature control of film packaging, etc. MC5100EA can completely satisfy the needs of complex logic control with its fast response and motion control function.



Application of MC5000EB64 in Wire Drawing Machine

This is a plastic roller-type wire drawing machine, and its process requirements are as follows:

- 64 axis electronic gear, position synchronization
- Synchronous acceleration-deceleration, starting and stopping
- Dynamic adjustment of stretching ratio
- Controlling inter-axis tension to prevent wire breakage

This machine uses MC5000EB64 medium PLC as its control core, and controls the synchronous acceleration-deceleration, starting and stopping of the 64 axis through the EtherCAT bus electronic gear, while keeping the tension between the axis constant.

MC5000EB64 can fully meet this systematic requirement that synchronously controls 64 axis and operate at different inter-axis proportional speeds, which are extremely high requirement for the arithmetic speed and performance of controller. The performances of high precision in bus gear linkage control and high difficulty line-breaking can achieve the operation for constant linear winding and unwinding easily.

