

CONTROL SYSTEM SELECTION BROCHURE

PLC Thermostat HMI

Power Solutions

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Industry Automation

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New Energy Solutions

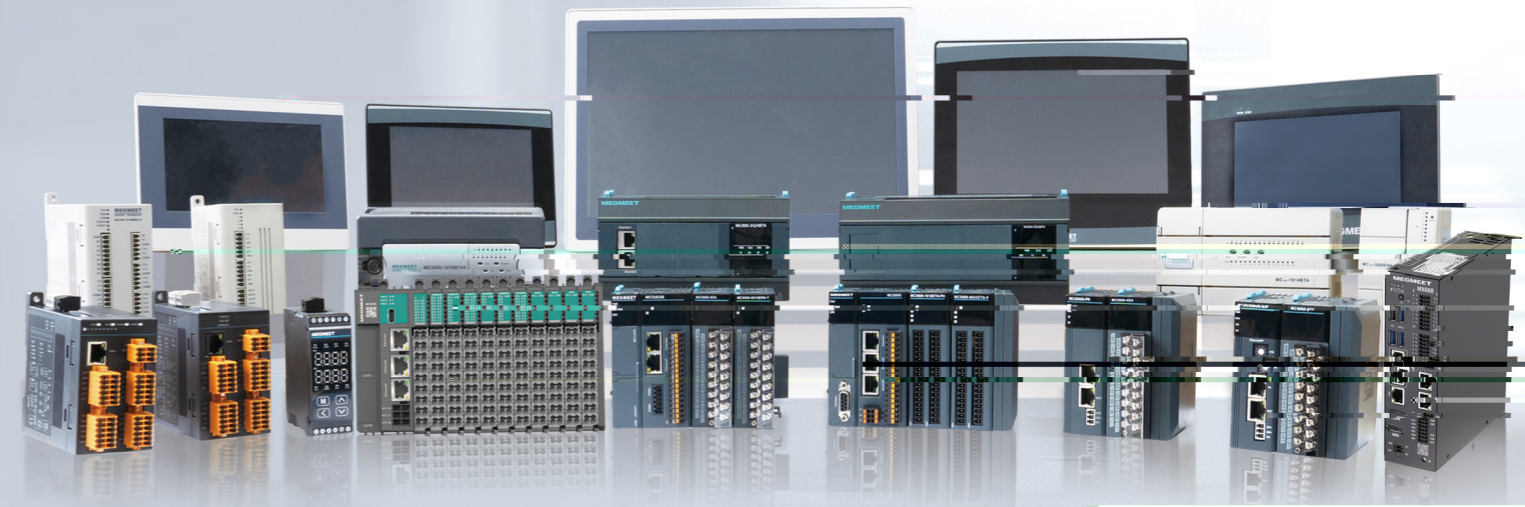
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Home Appliance Control Solutions

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Precision Connection

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SHENZHEN MEGMEET ELECTRICAL CO., LTD.

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Q Megmeet



MEGMEET

Shenzhen Megmeet Electrical Co., Ltd.(Stock Code:002851) is a one-stop solution provider for the R&D,

electronics and automatic control echnology. Company's main business covers six parts: power supply products, industrial automation, new energy vehicle& rail transit, intelligent equipment, smart appliance electronic control and precision connection.

Our company has established a strong platform of R&D, manufacturing, marketing and service with more than 2800 R&D personnel and a total of more than 7800 employees. We have established R&D centers in Shenzhen City, Changsha City, Xi'an City, Wuhan City, Zhuzhou City, Hangzhou City, Taizhou City and Chengdu City; overseas research institutes in the United States, Germany, and Sweden; manufacturing centers in Zhuzhou City, Dongguan City, Heyuan City, Taizhou City, and Yiwu City; overseas factories in Thailand and India; overseas marketing station in the United States, Japan, Korea, Southeast Asia, India, Germany, Poland, Romania, Turkey, Sweden to provide quality service resources.

control and energy saving.



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HMI

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MX600 Series Medium PLC

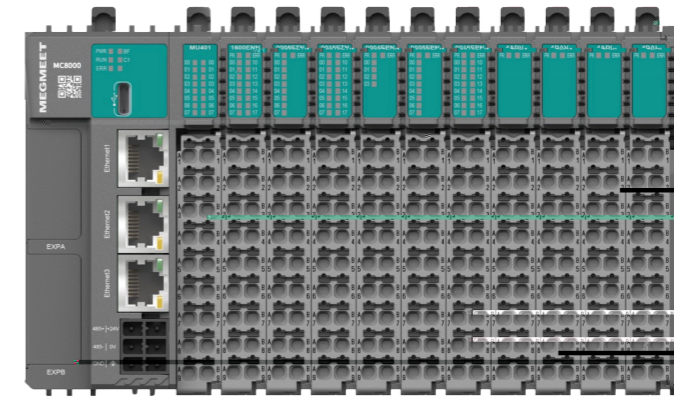
MX600 series intelligent controller breaks through the 256-axis μ s-level synchronous control, supports EtherCAT, EtherNET / IP, ProfiNet and other bus protocols, and the redundant architecture ensures 99.999 % extreme condition stability. It covers high-precision scenarios such as lithium battery winding, semiconductor, photovoltaic, etc., and synchronously meets the ms-level sequential control requirements of 3C assembly, five-axis machining and high-speed packaging.

Product Feature

<ul style="list-style-type: none"> Support 16-axis/250us, 64-axis/500us and 256-axis/2ms sync cycles, and 20us jitter to ensure high-precision control. 	/

MC8000 Series Medium PLC *

MC8000 series product is a new generation of high-performance and cost-effective medium PLC based on the mOPAX platform of MEGMEET. It is fully compatible with the IEC61131-3 programming specification and supports LD, ST, SFC, CFC, FBD, and IL programming languages; adopts the blade-type module design, and supports multi-core processor. Based on multi-bus protocols such as EtherCAT and Profinet, a multi-axis motion control system is constructed, to meet the high-speed response requirements of intelligent devices.



Product Feature

Strong expansion & networking

- Expand up to 32 modules, support the expansion of digital, analog, CAN, RS485, RS232, etc.
- Full protocol compatibility, support Modbus/EtherCAT/EtherNet IP/Profinet and others.

Precise Multi-axis control

- 1ms/16-axis sync, support 16/32/64-axis EtherCAT control

Ultra-large capacity

- Support 10M program capacity, 20M data capacity, 512KB retention, for complex logic and data processing

Reliably excellent performance

- Four-core A55 processor, communication, logic and algorithm are completely independent.
- 8*200K high-speed input, 8*200K pulse output (single pulse, pulse + direction, AB phase, FWD+REV, etc.)

Flexible & convenient operation

- 12mm machine body, saving space
- PUSH In terminal, easily wiring and replacing without tools

MC6000 Series Medium PLC



conforms to PLCopen specification and IEC61131-3 standard.

Product Feature

- EtherCAT Control:**
- High-speed I/O:** Built-in 200KHz high-speed I/O(8 * DI+8 * DO)
- Programming language:**
- Rich Interface:**
- Large capacity:** 16MB program capacity, 16MB data capacity, 256MB storage capacity, 64KB+4KB retention on power down
- Multi-communication:**

Item	MC6000	MC6010*	MC6020*
Local IO expansion	16 modules Max. 1024 points		
Program capacity	16M		
Data capacity	12MB		
Power-down retention capacity	64+4KB		
Memory area	Area I: 128KB, Area Q: 128K, Area M: 4MB		
Instruction processing speed	Bit instruction processing (AVG.)	24.9ns	
	Word instruction processing (AVG.)	60.9ns	
	Integer four-rule operation(AVG.)	50.7ns	
	Floating number four-rule operation (AVG.)	50.4ns	
High-speed IO	Input	4-channel AB phase/8-channel single phase	
	Output	Y0-Y7 4-channel 200KHz	
Communication function	Ethernet	5*sockets Modbus TCP Master/Slave Free protocol	
	RS485	2-channel Modbus RTU Master/Slave MCbus Free protocol	
	Special function	Support 4 Clients to access Support OPC UA, TCP/IP, UDP	
Programming language	ST LD FBD SFC CFC IL		
EtherCAT	Supported motion axis	Max. 24	Max. 12
	Slave station quantity	Max. 32 Including motion axis)	
	Min. Synchronization period	1ms	
	Typical value of communication cycle	16 axis-2ms	12 axis-2ms
Motion control	CAM quantity	8	4
	Single axis quantity	16	12
	Axis group/CNC	1 axis group	
Hardware resource	TF card	Supported	
	Type-C	Supported	

MC6010 Pro net(Slave) Index	
Transmission medium	Ethernet CAT5 cable
Transmission distance	100m(Station-Station)
Transmission rate	100Mbps
Bus Interface	1*RJ45
RT	Supported; Min. Period: 4ms
IRT	Not supported
Input data area	1440 Bytes
Output data area	1440 Bytes

MC6020 Ethernet/IP Index	
Slave station quantity	31
Transmission medium	Ethernet CAT5 cable
Transmission distance	100m(Station-Station)
Transmission rate	100Mbps
Bus Interface	1*RJ45
Max. Input	504 Bytes
Max. Output	504 Bytes
Max. Quantity of CIP connection	10

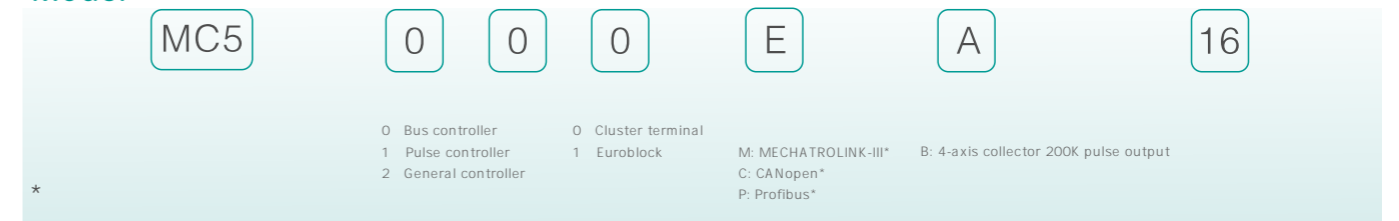
MC5000 Series Medium PLC



Product Feature

- Motion control:**
 - Based on pulse output: 2M difference 100K collector, 8PO expansion, control up to 38 pulse axis
- Operation speed:** and 100K-step standard program executes no more than 2.2ms
- C language:**
- Communication:**
- Large capacity:** 320K-step program capacity, 2M Byte C language, 2M Byte data capacity

Model



Item	MC5200E	MC5101EB	MC5100EA	MC5000EA64	MC5000E64	MC5001EB64
Local IO expansion	16 modules (Max. 1024 IO points)					
Program capacity	320K step					
Data capacity	2M					
Operating speed	Bit instruction processing	6.4ns				
	Word instruction processing	25ns				
	Integer four-rule operation (AVG.)	40ns				
	Floating number four-rule operation (AVG.)	50ns				
	Ladder diagram	2ms/100K step				
High-speed IO	Output	-	4-axis (collector)	6-axis(difference)	-	4-axis (collector)
	Input	-	2× AB phase	1×5V differential+2×AB AB phase	-	2×AB phase
Common IO(Transistor)	16-input, 16-output	4-input, 4-output			16-input, 16-output	4-input, 4-output
Communication function	Ethernet	8 sockets (ModbusTCP Master/slave free protocol)				
	RS485	2×(Modbus Master/slave MCbus free protocol)				
Programming language	LD, SFC, FBD, C language					
EtherCAT	Supported motion axis	-			64(Max.)	
	Bus expansion rack	8 groups				
	Min. synchronization time	250us				
	Typical value of communication cycle	-				
Motion Control	CAM and interpolation	-	3×CAM /1 × multi-axis interpolation			Supported
	Table output	-	10000 steps x2			
	CAD file import	-	Supported			
C Language	Standard C	Support standard C				
	Operation mode	Mixed programming with ladder diagram/Independent C-programming				
	Function library	Rich standard function library				
	User-defined library	Support to encapsulate function blocks by C language(import, export, encryption)				
Hardware Resource	SD card	Supported				
	USB download	Supported				

Model	Description	Speci cation
CPU Module		
	IO of Main Module	Number of bus control axis
MC5200E	Input: 16-channel Output: 16-channel transistor	-
MC5100EA	Input: 4-channel 200K pulse 3-channel 1M differential pulse Output: 4-channel transistor, 6x2M differential pulse channel	-
MC5101EB	Input: 8-channel(support 4-channel 200K pulse) Output: 8-channel transistor(support 4-channel 200K pulse)	-
MC5000E8	Input: 16-channel Output: 16-channel transistor	8-axis EtherCAT
MC5000E16	Input: 16-channel Output: 16-channel transistor	16-axis EtherCAT
MC5000E32	Input: 16-channel Output: 16-channel transistor	32-axis EtherCAT
MC5000E64	Input: 16-channel Output: 16-channel transistor	64-axis EtherCAT
MC5001EB8	Input: 8-channel(support 4-channel 200K pulse) Output: 8-channel transistor(support 4-channel 200K pulse)	8-axis EtherCAT
MC5001EB16	Input: 8-channel(support 4-channel 200K pulse) Output: 8-channel transistor(support 4-channel 200K pulse)	16-axis EtherCAT
MC5001EB32	Input: 8-channel(support 4-channel 200K pulse) Output: 8-channel transistor(support 4-channel 200K pulse)	32-axis EtherCAT
MC5001EB64	Input: 8-channel(support 4-channel 200K pulse) Output: 8-channel transistor(support 4-channel 200K pulse)	64-axis EtherCAT
MC5000EA8	Input: 4-channel 200K pulse 3-channel 1M differential pulse Output: 4-channel transistor, 6x2M differential pulse channel	8-axis EtherCAT
MC5000EA16	Input: 4-channel 200K pulse 3-channel 1M differential pulse Output: 4-channel transistor, 6x2M differential pulse channel	16-axis EtherCAT
MC5000EA32	Input: 4-channel 200K pulse 3-channel 1M differential pulse Output: 4-channel transistor, 6x2M differential pulse channel	32-axis EtherCAT
MC5000EA64	Input: 4-channel 200K pulse 3-channel 1M differential pulse Output: 4-channel transistor, 6x2M differential pulse channel	64-axis EtherCAT

Applicable to MC6000/MC5000 basic modules and MC5000S remote IO modules

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 con gure 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	Pro Net expansion rack	Pro Net slave station
Accessory		
MCA05-100L	1m terminal line	Tieline
MCA05-150L	1.5m terminal line	Tieline
MCA10-40P	40PIN terminal	Wiring terminal

Basic Module (AC Power)

Model	Description	Dimensions(mm) LxWxH
MU200-4040BTA	40-point DC24V input, 40-point transistor output	246x90x85
MU200-4040BRA	40-point DC24V input, 40-point relay output	
MU200-3232BTA	32-point DC24V input, 32-point transistor output	210x90x85
MU200-3232BRA	32-point DC24V input, 32-point relay output	
MU200-2424BTA	24-point DC24V input, 24-point transistor output	180x90x85
MU200-2424BRA	24-point DC24V input, 24-point relay output	
MU200-1616BTA	16-point DC24V input, 16-point transistor output	145x90x85
MU200-1616BRA	16-point DC24V input, 16-point relay output	

IO Expansion Module Applicable to the basic modules of MU300/MU200 series PLC

Model	Description	Dimensions(mm) LxWxH
MU200-0016ERN	16-point relay output	60x90x85
MU200-0016ETN	16-point transistor output	
MU200-1600ENN	16-point input	
MU200-0808ERN	8-point DC24V input, 8-point relay output	
MU200-0808ETN	8-point DC24V input, 8-point transistor output	

Special Function Module Applicable to the basic modules of MU300/MU200 series PLC

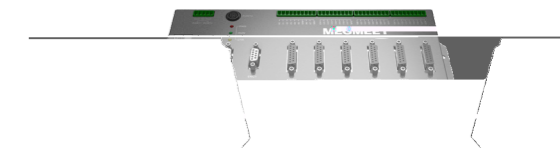
Model	Description	Dimensions(mm) LxWxH
MU200-4AD	4-channel analog quantity input	60x90x85
MU200-8AD	8-channel analog quantity input	
MU200-4DA	4-channel analog quantity output	
MU200-8TC	8-channel thermocouple	
MU200-4PT	4-channel thermal resistance	

Expansion Card Applicable to the basic modules of MU300/MU200 series PLC

Model	Description	Dimensions(mm) LxWxH
MUE-4X	4-point input	38x46.4x11.5
MUE-4Y	4-point output	
MUE-4XY	2-point input and 2-point output	
MUE-2AD	2-channel analog quantity input	
MUE-2DA	2-channel analog quantity output	
MUE-2AM	1-channel analog quantity input and 1-channel analog quantity output	
MUE-RS232	RS232 communication	
MUE-RS485	RS485 communication	
MUE-CAN	CAN communication	

MC700 Series Motion Controller

Product Feature



- 6-channel 200K high-speed pulse inputs and 6-channel 200K pulse output
- Ethernet, 2*RS485, RS232, SD card, etc.
- 320K-step program capacity, 2M Byte C language, 2M Byte data capacity

Item	MC700P6	MC700E
Hardware specification	Dimensions(L*W*H) (mm)	260*140*27
	Power supply voltage	24V
Communication	Ethernet	2 GbE
	RS485 port	2
	RS232 port	1
High-speed IO	High-speed count channel(200KHz)	6
Common IO	Input channel	26
	Output channel	22
Servo axis interface	Servo axis interface	6-channel differential pulse output 2-channel differential encoder input
	Level standard	EIA/TIA-485
Pulse axis interface	Pulse speed	4MHz
	Control mode	AB phase/ pulse+direction
Program capacity	EtherCAT	EtherCAT
	Ladder diagram	320K step
	User C language	2M byte
	User Data (excluding SD card)	2M byte
Execution speed	Ladder diagram	2ms/100K step
	C language	2400dmips
Motion Control	Supported motion axis	
	Interpolation algorithm	Linear interpolation, circular interpolation, spiral interpolation
	E-CAM	Tracking shear CAM, ying shear CAM, custom CAM
	E-gear	Supported
	G-code import	Supported
	CAD file import	Supported
C Language	Standard C	Supported
	Operation mode	Mixed programming with ladder diagram/Independent C-programming
	Function library	Provide rich standard function library and motion control library
	User-defined library	Users can enc

Basic Module



※MC280-specific function

MC200 Series Small PLC



Product Feature

- Program capacity: 12K

- μ

- Input filter protection and power loss protection

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Basic Module (AC Power)

Model	Specification	Dimensions(mm) LxWxH
MC200-2012BRA	20-point 24VDC input, 12-point relay output	158x90x82
MC200-2012BTA	20-point 24VDC input, 12-point transistor output	
MC200-3232BRA	32-point 24VDC input, 32-point relay output	228x90x82
MC200-3232BTA	32-point 24VDC input, 32-point transistor output	
MC200-4040BRA	40-point 24VDC input, 40-point relay output	275x90x82
MC200-4040BTA	40-point 24VDC input, 40-point transistor output	

IO Expansion Module

Applicable to the basic modules of MC280/MC200E/MC200 series PLC

Model	Specification	Dimensions(mm) LxWxH
MC200-0800ENN	8-point 24VDC input	58x90x82
MC200-1600ENN	16-point 24VDC input	
MC200-0008ERN	8-point relay output	
MC200-0008ETN	8-point transistor output	
MC200-0808ERN	8-point 24VDC input, 8-point relay output	
MC200-0808ETN	8-point 24VDC input, 8-point transistor output	
MC200-0016ERN	16-point relay output	
MC200-0016ETN	16-point transistor output	
MC200-1616ERN	20-point 24VDC input, 12-point relay output	158x90x82
MC200-1616ETN	16-point 24VDC input, 16-point transistor output(Active)	
MC200-1616ERA	16-point 24VDC input, 16-point relay output(Active)	
MC200-1616ETA	16-point 24VDC input, 16-point transistor output(Active)	

Special Function Module

Applicable to the basic modules of MC280/MC200E/MC200 series PLC

Model	Specification	Dimensions(mm) LxWxH
MC200-2AD MC200-4AD	2-point, 4-point analog quantity input	58x90x82
MC200-2DA MC200-4DA	2-point, 4-point analog quantity output	
MC200-8AD	8-point analog quantity input	
MC200-4AM	2-point analog quantity input, 2-point analog quantity output	
MC200-5AM	4-point analog quantity input, 1-point analog quantity output	
MC200-2TC MC200-4TC	2-point, 4-point thermocouple	
MC200-8TC	8-point thermocouple	
MC200-2PT MC200-4PT	2-point, 4-point thermal resistance	
MC200-2HC	2-channel high-speed count module: single-phase 200K; bi-directional phase 100K; 1-channel pulse following output 20K	

Communication Module

Applicable to the basic modules of MC280/MC200E/MC200 series PLC

Model	Specification	Dimensions(mm) LxWxH
MC200-CPM	CANopen master communication module	58x90x82
MC200-CAN	CAN communication module	
MC200-RS485	RS485 communication module	
MC200-WEN	Ethernet communication module	

MC100 Series Small PLC

MC100 series PLC owns the characteristics of small size, large capacity, high configuration and high speed.



Product Feature

- Program capacity: 16K, Basic instruction: 0.3μ
- 6-channel high speed pulse input, Max. frequency 50KHz; 2-channel 100KHz high speed pulse output

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Basic Module (AC Power)

Model	Speci cation	Dimensions(mm) LxWxH
MC100-1006BRA	10-point 24VDC input, 6-point relay output	135x90x79.2
MC100-1006BTA	10-point 24VDC input, 6-point transistor output	
MC100-1410BRA	14-point 24VDC input, 10-point relay output	150x90x79.2
MC100-1410BTA	14-point 24VDC input, 10-point transistor output	
MC100-1614BRA	16-point 24VDC input, 14-point relay output	182x90x79.2
MC100-1614BTA	16-point 24VDC input, 14-point transistor output	
MC100-1614BRA1	16-point 24VDC input, 14-point relay output 2-point analog quantity input and 1-point analog quantity output	182x90x79.2
MC100-1614BTA1	16-point 24VDC input, 14-point transistor output 2-point analog quantity input and 1-point analog quantity output	
MC100-2416BRA	24-point 24VDC input, 16-point relay output	182x90x79.2
MC100-2416BTA	24-point 24VDC input, 16-point transistor output	
MC100-3624BRA	36-point 24VDC input, 24-point relay output	224.5x90x79.2
MC100-3624BTA	36-point 24VDC input, 24-point transistor output	

Basic Module (AC Power)

Model	Speci cation	Dimensions(mm) LxWxH
MC100-1006BRD	10-point 24VDC input, 6-point relay output	135x90x79.2
MC100-1006BTD	10-point 24VDC input, 6-point transistor output	
MC100-1410BRD	14-point 24VDC input, 10-point relay output	150x90x79.2
MC100-1410BTD	14-point 24VDC input, 10-point transistor output	
MC100-1614BRD	16-point 24VDC input, 14-point relay output	182x90x79.2
MC100-1614BTD	16-point 24VDC input, 14-point transistor output	
MC100-2416BRD	24-point 24VDC input, 16-point relay output	182x90x79.2
MC100-2416BTD	24-point 24VDC input, 16-point transistor output	
MC100-3624BRD	36-point 24VDC input, 24-point relay output	224.5x90x79.2
MC100-3624BTD	36-point 24VDC input, 24-point transistor output	

IO Expansion Module

Model	Speci cation	Dimensions(mm) LxWxH
MC100-0800ENN	8-point 24VDC input	61x90x73.1
MC100-1600ENN	16-point 24VDC input	
MC100-0008ERN	8-point relay output	
MC100-0008ETN	8-point transistor output	
MC100-0016ERN	16-point relay output	
MC100-0016ETN	16-point transistor output	
MC100-0808ERN	8-point 24VDC input, 8-point relay output	
MC100-0808ETN	8-point 24VDC input, 8-point transistor output	

Special Function Module

Model	Speci cation	Dimensions(mm) LxWxH
MC100-2AD	2-point analog quantity input	61x90x73.1
MC100-2DA	2-point analog quantity output	
MC100-4AD	4-point analog quantity input	
MC100-4DA	4-point analog quantity output	
MC100-5AM	4-point analog quantity input and 1-point analog quantity output	
MC100-2TC MC100-4TC	2, 4 points thermocouple	
MC100-2PT MC100-4PT	2, 4 points thermal resistance	
MC100-1WT MC100-2WT	1-channel and 2-channel weighing	

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MQT Series Temperature Controller

modules flexibly and integrating internal intelligent PID algorithm; it has the advantages of cascade, high precision,

Product Feature

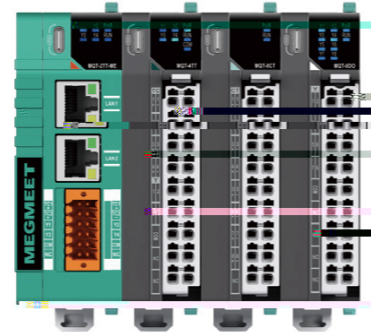
High precision:

High performance:

Strong function:

Simple installation:

Complete module:



Item	Description	
Power supply	24VDC -15% ~ 20%	
Signal input	Input type	Thermocouple K J E N T R B For all channel
		Thermal resistance Pt100 JPt100 Cu100 Ni120 For all channel
	Precision	Thermocouple 0.15% Full scale + cold compensation
		Thermal resistance 0.3% Full scale
Sampling cycle	25ms/channel 100ms/8channels 100ms/4 channels	
Control output	Output form	Transistor output (SSR drive output), relay output, current output, voltage output
	Control action	Manual, ON / OFF, single PID, heating & cooling PID, position proportional PID
Alarm output	Alarm form	14 alarms, such as upper and lower limit alarm, deviation alarm and so on.
	Output form	Transistor and relay output (output state can be directly controlled by writing registers)
	Output channel	8 channels
Digital input	Input form	Transistor input
	Input channel	4 channels
Control cycle	0.1s - 10s or 1s - 100s	
Acquisition channel	4 channels and 8 channels	
Isolation	Exist between power and communication, power and channel, communication and channel, channel and channel	
Communication port	RS485/Modbus-TCP/EtherNet/EtherCAT/Profinet	
Generals	Ambient temperature	Working: -20 ~ 60 °C, storage: -40 ~ 70 °C
	Ambient humidity	Working: 10 ~ 90% RH (no condensation), keeping: 5 ~ 95% RH (no condensation)
	Altitude	Below 2000m
	Protection level	IP20
C & S	Conform to IEC/EN 61326-1 For use in industrial locations CE	

Model

Model	Acquisition channel	Temperature control output	Alarm output	Input type
Communication module				
MQT-2TT-ME	2-CH	Modbus TCP/IP/Ethernet	Transistor(4-CH)	TC
MQT-2RT-ME	2-CH	Modbus TCP/IP/Ethernet	Transistor(4-CH)	RTD
MQT-2TT-ET	2-CH	EtherCAT	Transistor(4-CH)	TC
MQT-2RT-ET	2-CH	EtherCAT	Transistor(4-CH)	RTD
MQT-2TT-RS	2-CH	Modbus RS485	Transistor(4-CH)	TC
MQT-2RT-RS	2-CH	Modbus RS485	Transistor(4-CH)	RTD
MQT-2TT-PN	2-CH	Profinet	Transistor(4-CH)	TC
MQT-2RT-PN	2-CH	Profinet	Transistor(4-CH)	RTD
Temperature control module				
MQT-4TT	4-CH	Modbus RS485	Transistor(4-CH)	TC
MQT-4TA	4-CH	Modbus RS485	Analog(4-CH)	TC
MQT-4TR	4-CH	Modbus RS485	Relay(4-CH)	TC
MQT-4RT	4-CH	Modbus RS485	Transistor(4-CH)	RTD
MQT-4RA	4-CH	Modbus RS485	Analog(4-CH)	RTD
MQT-4RR	4-CH	Modbus RS485	Relay(4-CH)	RTD
Expansion module				
MQT-8DI	8-CH	8-channel digital input	-	Digital (8-CH)
MQT-8DO	8-CH	8-channel digital output	Digital (8-CH)	-
MQT-8CT	8-CH	8-channel current detection	-	Transformer current
MQT-8DM	8-CH	4-channel digital input, 4-channel digital output	Digital (4-CH)	Digital (4-CH)
MQT-8AI	8-CH	8-channel analog current input	-	Analog (8-CH)
MQT-8AV	8-CH	8-channel analog voltage input	-	Analog (8-CH)
MQT-8AO	8-CH	8-channel analog output	Analog (8-CH)	-

MTC/MTCW/MTCV Series Temperature Controller

MTC/MTCW/MTCV series products are multi-channel and high-precision temperature controllers, which are suitable for various occasions of temperature control. Its main feature is compatible with TC and RTD, high measure accuracy; high integration (one module supports up to 12 channels of temperature control and 16 channels of measurement), space saving, easy data exchange, remote monitoring, and high cost performance.

Product Feature

- Dedicated software:** Provide special software - MtcCompanion
- Dual-PID function:** Heating&cooling dual-PID control function, 14 alarms like upper and lower limits, deviation, etc
- High precision:** Intelligent self-tuning and multi-stage temperature setting functions to achieve high-precision temperature control
- Multi-way control:** Integrated multi-channel temperature control to centralize data management
- Easy exchange:** Data exchange easily between thermostat and PLC, thermostat and HMI, thermostat and computer through Ethernet and serial port



Item	Description	
Power supply	24VDC -15% ~ 20%	
Signal input	Input type	Thermocouple K J E N T R B For all channel Thermal resistance Pt100 JPt100 Cu100 Ni120 For all channel
	Precision	Thermocouple 0.2% Full scale + cold compensation Thermal resistance 0.3% Full scale)
	Sampling cycle	25ms/channel 100ms/8 channels 100ms/4 channels
	Output form	Transistor output (SSR drive output), relay output, current output, voltage output
Control output	Control action	Manual, ON / OFF, single PID, heating & cooling PID, position proportional PID
	Alarm form	14 alarms, such as upper and lower limit alarm, deviation alarm and so on.
Alarm output	Output form	Transistor and relay output (output state can be directly controlled by writing registers)
	Output channel	8 channels
IO input	Input form	Transistor input
	Input channel	4 channels
Control cycle	0.1s - 10s or 1s - 100s	
Acquisition channel	4 channels and 8 channels	
Isolation	Exist between power and communication, power and channel, communication and channel, (MTCV)channel and channel	
Communication port	MTC/MTCV: One isolated RS485 serial port; support MODBUS slave and MCBUS slave protocol MTCW: One isolated + one non-isolated RS485 serial port, one Ethernet port; support MODBUS slave protocol	
Generals	Ambient temperature	Working: -20 ~ 60 °C, storage: -40 ~ 70 °C
	Ambient humidity	Working: 10 ~ 90 % RH (no condensation), keeping: 5 ~ 95 % RH (no condensation)
	Altitude	Below 2000m
	Protection level	IP20
C & S	Conform to IEC/EN 61326-1 For use in industrial locations UL61010-1 CE UL	

Product model

MTC series

Model	Acquisition channel			
MTC-04-NT	4-CH	Transistor (4-CH)	Flag bit	TC, RTD
MTC-08-NT	8-CH	Transistor (8-CH)	Flag bit	TC, RTD
MTC-04-NTT	4-CH	Transistor (4-CH)	Transistor(8-CH), flag bit	TC, RTD
MTC-04-NTR	4-CH	Transistor (4-CH) Relay (8-CH)	Relay(8-CH), flag bit	TC, RTD
MTC-04-NVT	4-CH	Transistor (4-CH) Current(8-CH 0-20mA or 4-20mA) Voltage(8-CH 0-1V 0-5V 0-10V or 1-5V)	Transistor (4-CH)	TC, RTD

MTCW series (Ethernet 2*RS485)

MTCW-04-NTT	4-CH	Transistor (4-CH)	Transistor (4-CH), flag bit	TC, RTD
MTCW-04-NI	4-CH	Current (4-CH 0-20mA or 4-20mA)	Flag bit	TC, RTD
MTCW-04-NV	4-CH	Voltage (4-CH 0-1V 0-5V 0-10V or 1-5V)	Flag bit	TC, RTD
MTCW-08-NN	8-CH	-	Flag bit	TC, RTD
MTCW-08-NI	8-CH	Current (8-CH 0-20mA or 4-20mA)	Flag bit	TC, RTD
MTCW-08-NV	8-CH	Voltage(8-CH 0-1V 0-5V 0-10V or 1-5V)	Flag bit	TC, RTD
MTCW-08-NTT	8-CH	Transistor (8-CH)	Transistor (8-CH), flag bit	TC, RTD
MTCW-12-NT	12-CH	Transistor (12-CH)	Flag bit	TC, RTD
MTCW-16-NN	16-CH	-	Flag bit	TC, RTD
MTCW-08-CT	8-CH	Transistor (8-CH)	Flag bit	Current transformer (8-CH) TC, RTD
MTCW-08-NTD	8-CH	Transistor (8-CH heating, 8-CH cooling)	-	TC, RTD

MTCV series (Channel isolation RS485)

MTCV-16-NT	16-CH	Transistor (16-CH)	Flag bit	TC, RTD
MTCV-08-NT	8-CH	Transistor (8-CH)	Flag bit	TC, RTD

MTCE Series Temperature Controller

MTCE series product, as a multi-channel high-precision EtherCAT temperature controller, are adapted to various mainstream master stations. Its main feature is compatible with thermocouples and thermal resistors, high measurement accuracy, feature-rich, user-friendly. It has the characteristics of high integration, space saving, easy data exchange, remote monitoring, and high cost performance.

Product Feature

Networking capacity EtherCAT

High precision Measure accuracy: full scale of $\pm 0.15\%$; control accuracy: $\pm 0.2^\circ\text{C}$

High performance 0.1s sampling cycle, and 1ms synchronization cycle; a single module can operate PID control and simple logic operation, and monitor analog value



Item	Description	
Power supply	24VDC -15% ~ 20%	
Signal input	Input type	Thermocouple K J E N T R B For all channel
		Thermal resistance Pt100 JPt100 Cu100 Ni120 For all channel
	Precision	Thermocouple 0.15% Full scale + cold compensation Thermal resistance 0.3% Full scale
	Sampling cycle	25ms/channel 100ms/8channels 100ms/4 channels
Control output	Output form	Transistor output (SSR drive output)
	Output channel	10 channels
	Control action	Manual, ON /OFF, single PID, heating & cooling PID, position proportional PID
Alarm output	Alarm form	14 alarms, such as upper and lower limit alarm, deviation alarm and so on.
	Output form	Transistor output (SSR drive output)
	Output channel	10 channels
Control cycle	0.1s - 10s or 1s - 100s	
Acquisition channel	10 channels	
Isolation	Exist between power and communication, power and channel, communication and channel, channel and channel	
Communication port	EtherCAT	
Generals	Ambient temperature	Working: -20 ~ 60°C, storage: -40 ~ 70°C
	Ambient humidity	Working: 10 ~ 90% RH (no condensation), keeping: 5 ~ 95% RH (no condensation)
	Altitude	Below 2000m
	Protection level	IP20
C & S	Conform to IEC/EN 61326-1 For use in industrial locations CE	

Product model

Mdel	Acquisition channel	Temperature control output	Alarm output	Input type
MTCE-10T-NT	10-CH	Transistor	Flag bit	TC
MTCE-10R-NT	10-CH	Transistor	Flag bit	RTD

MCAS Series Temperature Controller

MCAS series temperature controller takes the lead in realizing the self-tuning PID and calibration parameters of cascade control in the industry based on the advanced self-tuning and self-learning control algorithm, which greatly simplifies the debugging of complex cascade control.

Product Feature

Cascade control A single module supports 4-channel cascade temperature control

High performance 0.1s sampling cycle

High precision Measure accuracy: full scale of $\pm 0.15\%$; cascade control accuracy: ± 0.5



Item	Description	
Power supply	24VDC -15% ~ 20%	
Signal input	Input type	Thermocouple K J E N T R B For all channel
		Thermal resistance Pt100 JPt100 Cu100 Ni120 For all channel
	Precision	TC 0.15% Full scale + cold compensation RTD 0.3% Full scale
	Sampling cycle	25ms/channel 100ms/8channels 100ms/4 channels
Control output	Output form	Transistor output (SSR drive output)
	Output channel	4/8 channels
	Control action	Manual, ON /OFF, single PID, heating & cooling PID, position proportional PID
Alarm output	Alarm form	14 alarms, such as upper and lower limit alarm, deviation alarm and so on.
	Output form	Transistor output (SSR drive output)
	Output channel	4/8 channels (Transistor)
Control cycle	0.1s - 10s or 1s - 100s	
Acquisition channel	6/8 channels	
Isolation	Exist between power and communication, power and channel, communication and channel, channel and channel	
Communication port	One isolated + one non-isolated RS485 serial port, one Ethernet port; support MODBUS slave protocol	
Generals	Ambient temperature	Working: -20 ~ 60°C, storage: -40 ~ 70°C
	Ambient humidity	Working: 10 ~ 90% RH (no condensation), keeping: 5 ~ 95% RH (no condensation)
	Altitude	Below 2000m
	Protection level	IP20
C & S	Conform to IEC/EN 61326-1 For use in industrial locations UL61010-1 CE UL	

Product model

Model	Acquisition channel	Temperature control output	Alarm output	Input type
MCAS-06-NI	6-CH	Current (6-CH 0-20mA or 4-20mA)	Flag bit	TC, RTD
MCAS-06-NV	6-CH	Voltage (6-CH 0-1V 0-5V 0-10V or 1-5V)	Flag bit	TC, RTD
MCAS-08-NI	8-CH	Current (6-CH 0-20mA or 4-20mA)	Flag bit	TC, RTD
MCAS-08-NV	8-CH	Voltage (8-CH 0-1V 0-5V 0-10V or 1-5V)	Flag bit	TC, RTD
MCAS-08-NTT	8-CH	Transistor (8-CH)	Transistor (8-CH), flag bit	TC, RTD

MZ800 Series Human Machine Interface



Picture					
Model/Series	MZ800-TT210SK30W	MZ800-TT215SK31	MZ800-TT07SK31M	MZ800-TT210SK31M	MZ800-TT22P
Display size	10.1" (16: 9 TFT LCD screen)	15.6" (16: 9 TFT LCD screen)	7" (16: 9 TFT LCD screen)	10.1" (16: 9 TFT LCD screen)	22" (16: 9 TFT LCD screen)
Resolution	1024x600	1920x1080	800x480	1024x600	1920x1080
Display material			TFT color touch(LCD screen)		
Effective display size (T/B/L/R)	85'/85'/85'/85'	85'/85'/85'/85'	50'/70'/70'/70'	85'/85'/85'/85'	85'/85'/80'/80'
Brightness	400	250	360	400	250
Display color	24-bit color	16-bit color		24-bit color	16-bit color
Touch screen		4-wire industrial resistance touch screen			Glass+Glass projected multi-point capacitance touch screen
CPU	4-core 1.2GHz ARM Cortex-A7	1G ARM Cortex-A8	600MHz ARM Cortex-A8		800MHz ARM Cortex-A8
Memorizer	128MB DDR3+4GB EMMC	256MB Flash+512MB DDR3	128M Flash+128M DDR3		256MB Flash+256MB DDR3
RTC			Built-in real-time clock		
Ethernet	30: None 31: 1-CH 10M/100M(Adaptive)	2-CH 10M/100M(Adaptive)	10M/100M(Adaptive)		1-CH 10M/100M(Adaptive)
SD card			Supported		
USB port		One USB Slave 2.0; One USB Host 2.0			One USB Device 2.0; One USB Host 2.0
Serial interface	COM1: RS232/RS485/RS422 COM2: RS485/RS422 COM3: RS232	COM3:RS232/RS485/RS422; COM2:RS485	COM1/COM2:RS232/RS485/RS422; COM3/COM4:RS232	COM1:RS232/RS485/RS422; COM2:RS485/RS422 COM3:RS232	COM1/COM2:RS232/RS485/RS422; COM3/COM4:RS232
Rated power	<10W	<18W	<10W		<20W
Rated voltage	DC24V ranging from DC9V to 28V		DC24V ranging DC18V to 28V		
Power supply protection			Lightning surge protection		
Power-losing time			<5ms		
CE	Conform to EN61000-6-2:2005 EN61000-6-4:2007 standard; Conform to RoHS		lightning surge±1KV group pulse±2KV; electrostatic contact 4KV air discharge8KV		
Operation temperature	0-50	0-50	-20-70	-10-60	-20-70
Storage temperature	-20-60	-20-60	-30-80	-20-70	-20-60
Ambient humidity			10~90%RH (No condensation)		
Shake-resistance			10~25Hz(X Y Z direction 2G/30 min)		
Protection grade		The front panel conforms to IP65 (with at cabinet installation			