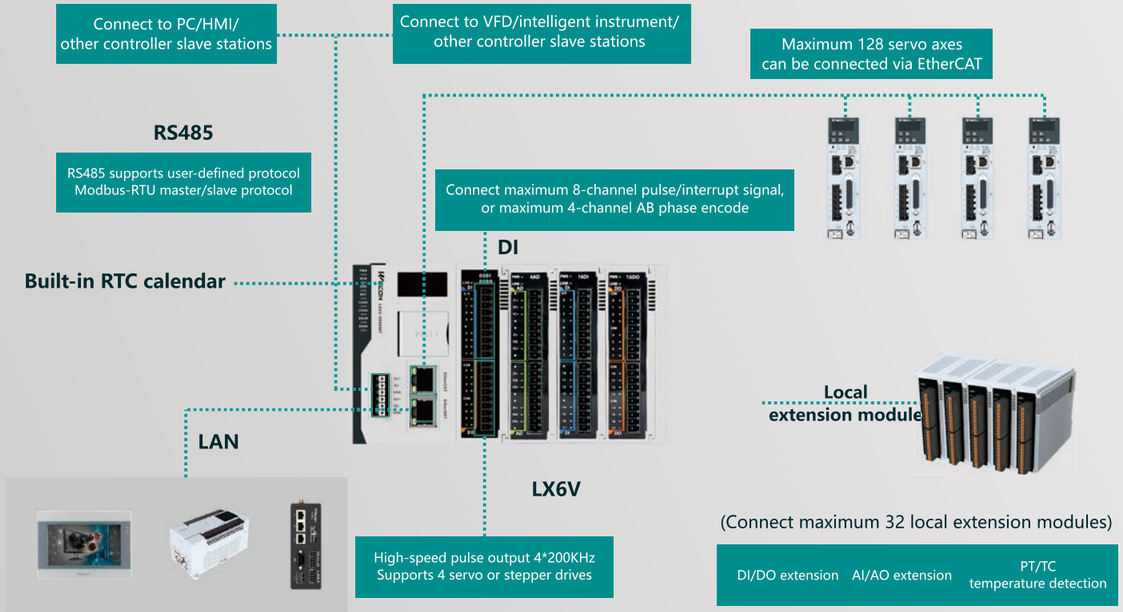
# LX6V(6S) Series PLC

## 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



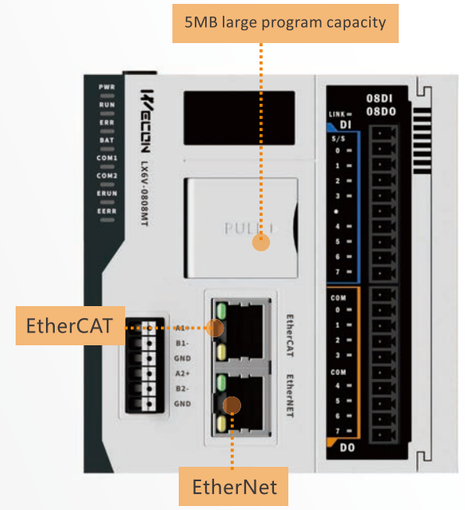

**LX6V/LX6S series PLC, small size and large capacity, a new evolution to bus PLC**

## 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

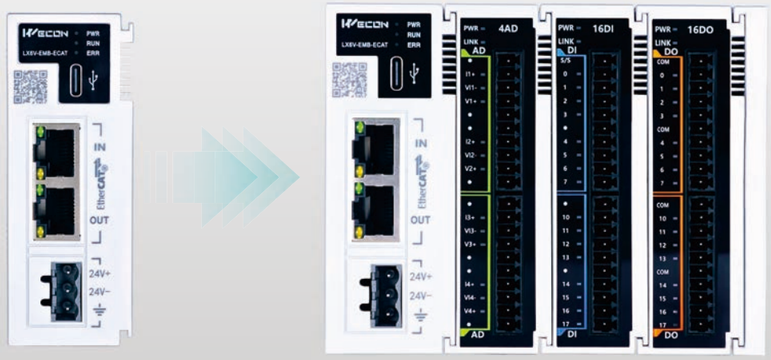
| Item | LX6V(LX6S) -0808MT/1616MT |
|---|---|
| Running Mode | Cycle Scan/ Interrupt |
| Programming | LD/SFC/ST |
| Total Instructions | Basic instruction: 29 / Application instruction: 170 |
| Execute time | Basic instruction 0.01-0.02μs |
| System EMMC | 5MB |
| Download/Monitoring | Programming cable (Port) |
| | EtherNet |
| | USB TYPE-C |
| High Speed Pulse Output | Transistor type 4 channels 200KHz |
| High speed counter interrupt | 100 channels |
| Timer Interrupt | 100 channels, support 0.1ms interrupt |
| External input interrupt | X0-X7 supports both rising and falling edges |
| High Speed Input Single | 8 channels 150 KHz |
| High Speed Input AB Phase | 4 channels 150K Hz, supports 2 or 4 frequency multiplication |
| Power-down save | Adjusted by software |
| Storage | FLASH |
| Filter | For all the input terminals |
| Serial Port | RS485, RS485 |
| Temperature | Working Temperature: 0～55℃ / Storage Temperature -20～70℃ |
| Humidity | 35～85%RH (Without condensation) |
| Shock Resistance | JISC0040 Standard |
| Influence Immunity | Meet the IEC61000-4-4 and GB/T 17626.4 standard:<br>Noise voltage amplitude 1KVP-P, pulse width 10us, period 0.3 s, edge time 5ns, duration 1min. |
| TF | Support |
| ETHERNET | Megabit Ethernet(LX6S) / Gigabit Ethernet (LX6V) |
| ETHERCAT | Up to 128 servo axes |

# LX6V Coupler

LX6V-EM□-ECAT

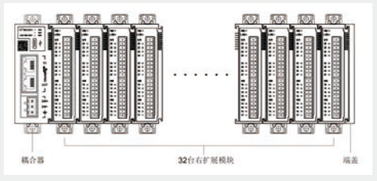
## Remote I/O coupler

Based on EtherCAT bus technology
Diversified module types that are faster, more stable and more convenient.
Easily meet various system configurations



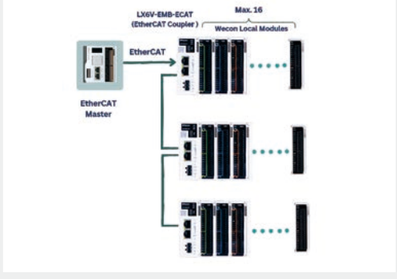

### Flexible configuration & more expansion

- Support up to 32 expansion modules;
- The I/O configuration can be adjusted through the software, meeting the various requirements of different cases.




### More precision and efficiency

- EtherCAT distributed I/O separates controllers and devices to achieve truly distributed control;




### Easy installation

- Tool-free blade mounting;
- Compact structure is more stable;
- Small size and space-saving.



### Superior performance

- High-speed bus microsecond response, speed up to 100Mbps;
- Support a large number of I/O node connections to meet high-speed data acquisition and precise control.




# Specification

**Universal Type**



| Model | LX6V-EMB-ECAT | LX6V-EMC-ECAT |
|---|---|---|

| Item | Specification parameter | |
|---|---|---|
| Maximum expansion module | 16 | 32 |
| Rated input voltage | DV 24V±10%，100mA（without expansion module） | |
| Communication interface | RJ45×2, EtherCAT communication protocol with 100Mbps performance;<br>EtherCAT IN: EtherCAT input port;<br>EtherCAT OUT: EtherCAT output port. | |
| Transmission distance | Length of communication line between two nodes≤100m | |
| Transmission medium | Category 5E (cat 5e) cable or above | |
| Single AP process data | Maximum input and output 1024 bytes | |
| Synchronous | Minimum 125us | |
| Allowable instantaneous power-off time | 10ms | |
| Impulse current | ≤45A (loaded with maximum module) | |
| Power protection | Anti-reverse connection protection; overcurrent protection; surge absorption | |
| Firmware upgrade | Support | |
| Usage environment | No corrosive, combustible gas, no large amount of conductive dust | |
| Environment temperature | Operating temperature: -20℃ to 55℃<br>Storage temperature: -40℃ to 70℃ | |
| Environment humidity | Working humidity: 10% to 90%RH (No condensation)<br>Storage humidity: ≤90%RH (No condensation) | |
| Altitude | 0-2000m | |
| Installation | Installed on DIN46277 (Width: 35mm) rail by fastener | |
| Overall size | 40.0*92.0*95.0mm | |
| Available module type | LX6 series expansion module | |