



KINCO
PLC+HMI Serie MK

Overview

Kinco MK series combines the advantages of the M-IoT, and is an economical all-in-one product that supports the M-IoT function launched by the Kinco Company. The Kinco MK series all-in-one HMI-PLC retains the high cost performance of the Kinco HP series of all-in-one machines, but adopts a high-performance CPU and the new DTools software technology platform for programming the HMI, so as to support more rich picture components and functions of the new software. In addition, combined with the Kinco M-IoT technology platform it provides remote download, pass through PLC communication over the network, VNC remote monitoring, equipment management and other advanced remote operation and maintenance functions. This will provide more value for our users.



Main features

- **M-IoT Function**
Support program upload and download, pass through PLC communication through network, VNC remote monitoring, equipment management and other rich remote operation and maintenance functions, easy to use and powerful, to facilitate the application needs of customers in various applications.
- **Performance**
The HMI part adopts industrial CPU, 700MHz main frequency, 128MB Flash +64MB DDR2 mass storage, and supports the new generation touch screen Dtools programming software of Kinco, which further improves the performance of the product.
- **Extended Function**
The PLC supports a rich variety of extension modules, it can be extended with a maximum of 8 KS extension modules. It can meet the needs of a variety of applications of users, with a better cost performance.
- **High speed pulse counter**
4 high speed pulse counters are provided. Each high-speed counter allows a maximum of 32 PV values and supports 32 "CV =PV" interrupts. High speed counter supports a variety of modes, it can be single-phase, dual-phase (Up/Down), AB phase (1-fold and 4-fold frequency).The maximum counting frequency of the four pulse counters is 50KHz.Users can setup by [HSC Wizard] in KincoBuilder.
- **High speed pulse output**
4 high-speed pulse outputs are provided, all support PTO (pulse string) and PWM (pulse width modulation) output signals. The software provides PLS (PWM or PTO), positioning control command group, PFLO_F (follow instruction) and other functions to facilitate users implementing simple motion control applications.
- **Serial communication ports**
The PLC part contains 2 RS485 interfaces, PORT1, PORT2, with communication rates of up to 115.2kbps. PORT1 supports Kinco programming protocols, Modbus RTU master and slave stations, and free serial protocol. PORT2 supports Modbus RTU master and slave stations and free serial protocol.

parameter

Standard			
Parameter	MK070E-33DT	MK070E-32DX	MK043E-20DT
I/O and communication port			
Digital IO	DI 16*DC24V , DO 14*DC24V	DI16*DC24V , DO 4*DC24V+ 12*Relay	DI 9*DC24V , DO 9*DC24V
Analog IO	2 * AI, 1 * AO Both support 4-20mA/1-5V/0-20mA/ 0-10V signals	None	2 * AI Supports 1-5V / 0-10V signal
Connect expansion BD board	8 extension modules		
Program port	USB2.0 SLAVE		
CAN Communication port	1 Supports Kinco motion control instructions	1 Supports CANOpen master station	1 Supports CAN free communication
Serial port	2* RS485: PORT 1, PORT 2. The highest communication rate reaches 115.2kbps PORT1 supports programming protocol, Modbus RTU master and slave, and free communication PORT2 supports Modbus RTU master and slave and free communication		
High-speed counter	4 Supports single-phase, double-phase UP/DOWN, and AB phase pulse input 4-channel maximum counting frequency: 50KHz		
High-speed output	4 Q0.0 Q0.1 Q0.4: Up to 50KHz (Each channel requires load resistance not exceed 3KΩ, Q0.5: Up to 10KHz	2	4
Edge interrupt	4, I0.0-I0.3 can be on/off interrupt.		
Memory area			
User programme	Maximum. 4K instructions supported		
User data memory	M area 1K bytes; V area 4K bytes		
Data back-up memory	E2PROM, Maximum. 448 bytes supported		
Retentive memory range	V area (1908 bytes) + C area (C0-C63) Lithium battery, 3-year lifetime at room temperature		
Others			
RTC	Built-in: Error less than 5 minutes/month at 25 °C		

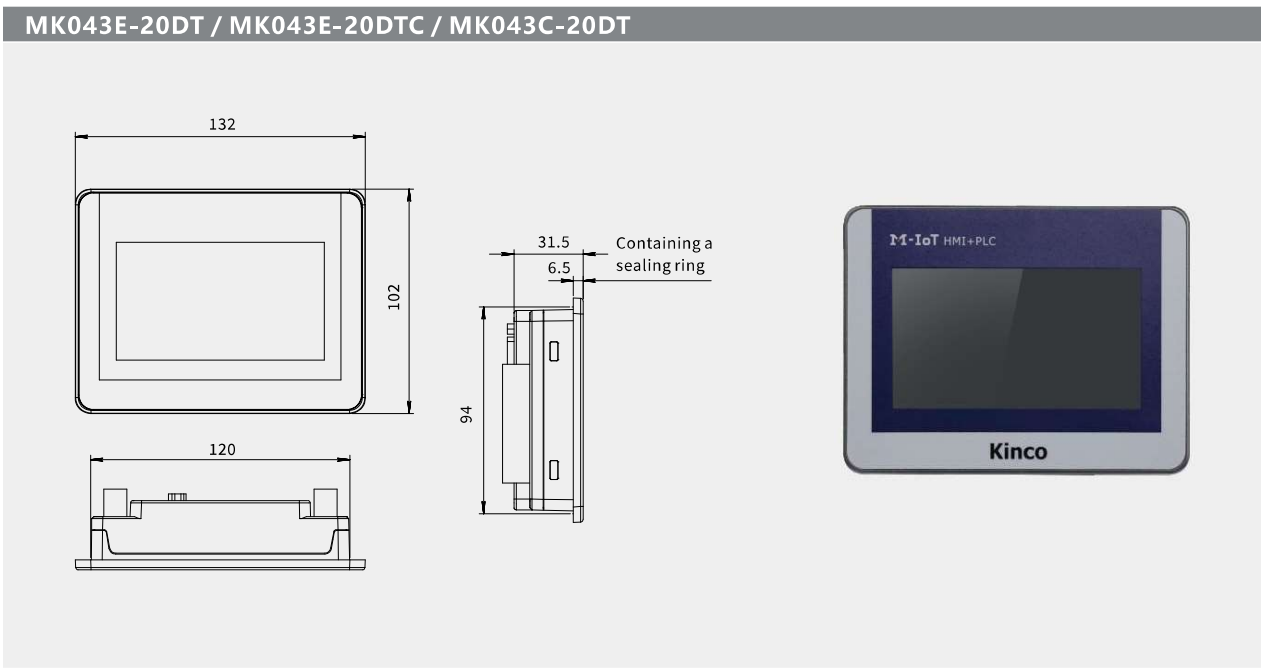
parameter

Enhancement			
Parameter	MK070E-27DRT	MK043E-20DTC	MK043E-27DT
I/O and communication port			
Digital IO	DI 12*DC24V , DO 12* Relay	DI 9*DC24V , DO 9*DC24V	DI 10*DC24V , DIO 4*DC24V DO 10*DC24V
Analog IO	3 * RD Supports Pt100 type thermistors, Temperature measurement range -40 °C~240 °C	2 * TC Supports J/K/E/T type thermocouples	2 * AI, 1 * AO All support 4-20 mA / 1-5V / 0-20 mA / 0-10V signal
Connect expansion BD board	8 extension modules		
Program port	USB2.0 SLAVE		
CAN Communication port	1 Supports CAN free communication	1 Supports CAN free communication	1 Supports CAN free communication
Serial port	2* RS485: PORT 1, PORT 2. The highest communication rate reaches 115.2kbps PORT1 supports programming protocol, Modbus RTU master and slave, and free communication PORT2 supports Modbus RTU master and slave and free communication		
High-speed counter	4 Supports single-phase,double-phase UP/DOWN, and AB phase pulse input 4-channel maximum counting frequency: 50KHz		
High-speed output	4	2	Q0.0 Q0.1 Q0.4: Up to 50KHz (Each channel requires load resistance not exceed 3KΩ, Q0.5: Up to 10KHz
Edge interrupt	4, I0.0-I0.3 can be on/off interrupt.		
Memory area			
User programme	Maximum. 4K instructions supported		
User data memory	M area 1K bytes; V area 4K bytes		
Data back-up memory	E2PROM, Maximum. 448 bytes supported		
Retentive memory range	V area (1908 bytes) + C area (C0-C63) Lithium battery, 3-year lifetime at room temperature		
Others			
RTC	Built-in: Error less than 5 minutes/month at 25 °C		

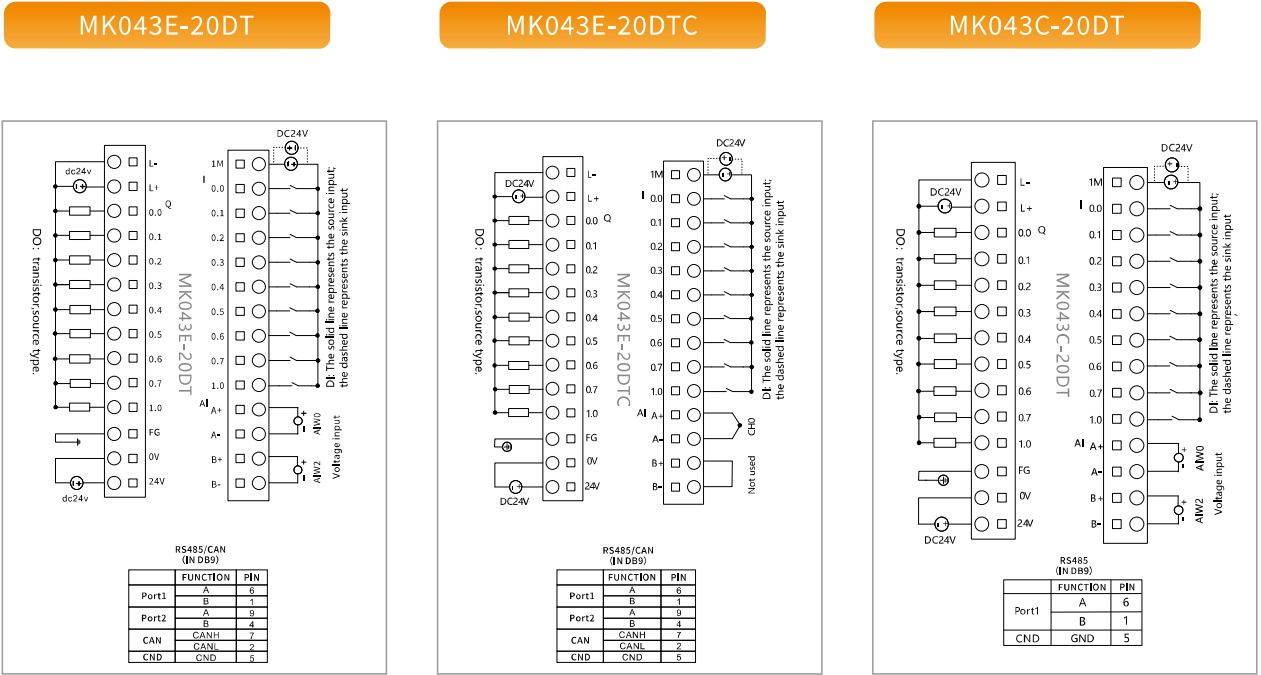
Model parameters (HMI part)

Product mode	Standard/Enhancement	Economy	Standard/Enhancement	Economy
Display Size	7" TFT		4.3" TFT	
Resolution	800*480 pixels		480*272 pixels	
Display Color	256K			
Brightness	250cd/m2		400cd/m2	
Backlight Type	LED			
Touch Panel	4-wire precision resistor network			
Backlight Life	50000 hours			
Processor	700MHz RISC			
Serial port	None		1*RS232(COM2).Only MK043-27DT supports	None
Ethernet	10M/100M self-adaptive port	None	10M/100M self-adaptive port	None
Storage	128MB Flash + 64MB DDR2			
Recipe storage	Internal real time clock + 256KB recipe			
Expandable Memory	1 USB Host			
Program Download	Network Port/1* USB Slave/USB Flash Disk			
Print Port	USB			
Software	Dtools + EdgeAccess + Miot			

Dimension (Unit:mm)

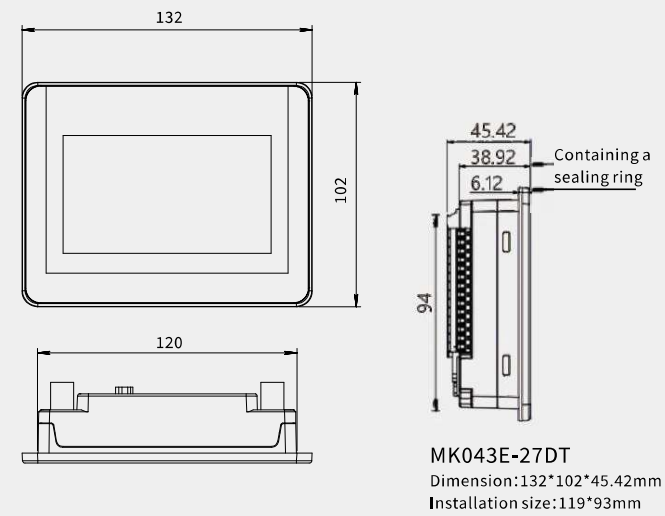


Wiring Diagram



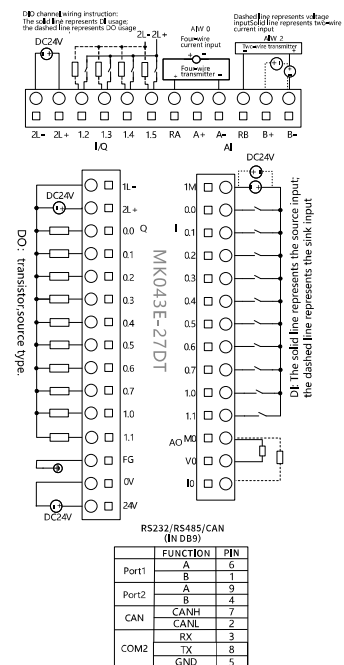
Dimension (Unit:mm)

MK043E-27DT



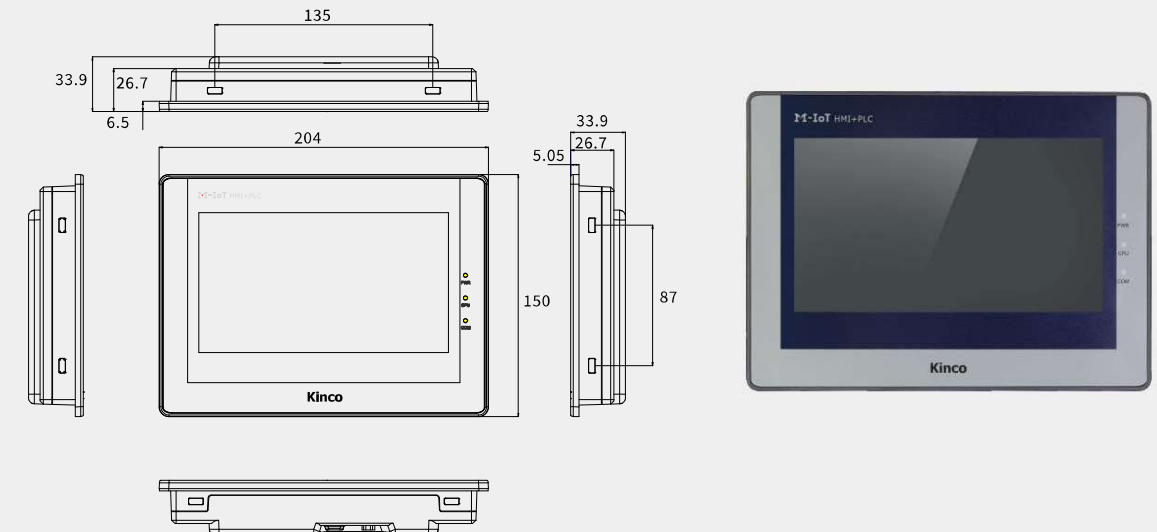
Wiring Diagram

MK043E-27DT



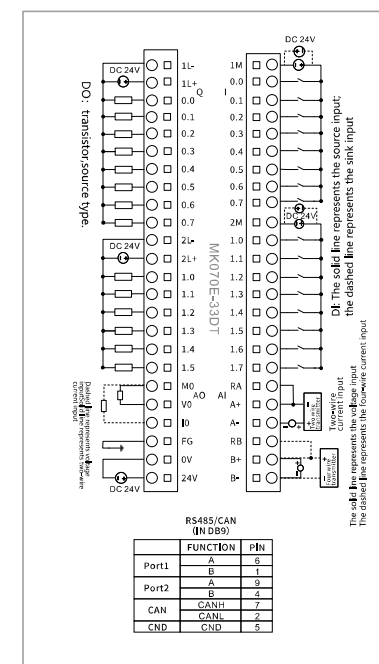
Dimension (Unit:mm)

MK070E-33DT / MK070E-32DX / MK070E-27DRT / MK070C-33DT

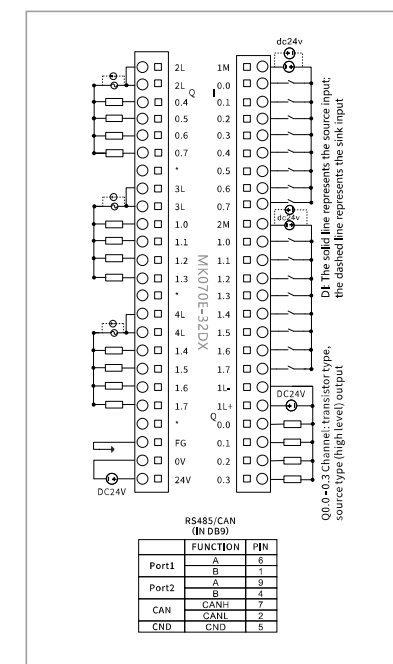


Wiring Diagram

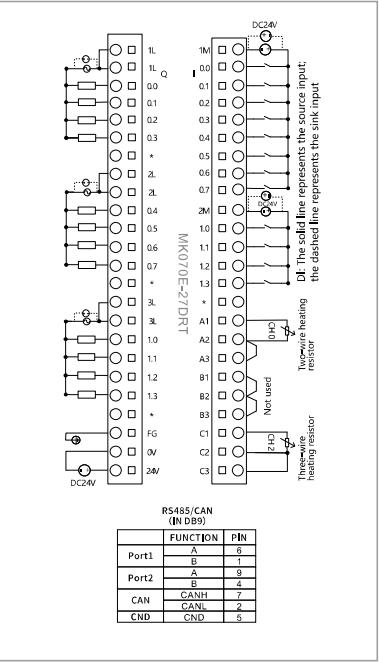
MK070E-33DT



MK070E-32DX



MK070E-27DRT



MK070C-33DT

