



SHENZHEN HPMONT TECHNOLOGY CO., LTD.

**RUDRAKSHA**



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**RUDRAKSHA >>>**



More  
Safe

More  
Convenient

More  
Smart

## PRODUCT SELECTION GUIDE

Elevator Control System Expert

Intellectual Product Impressed Customers





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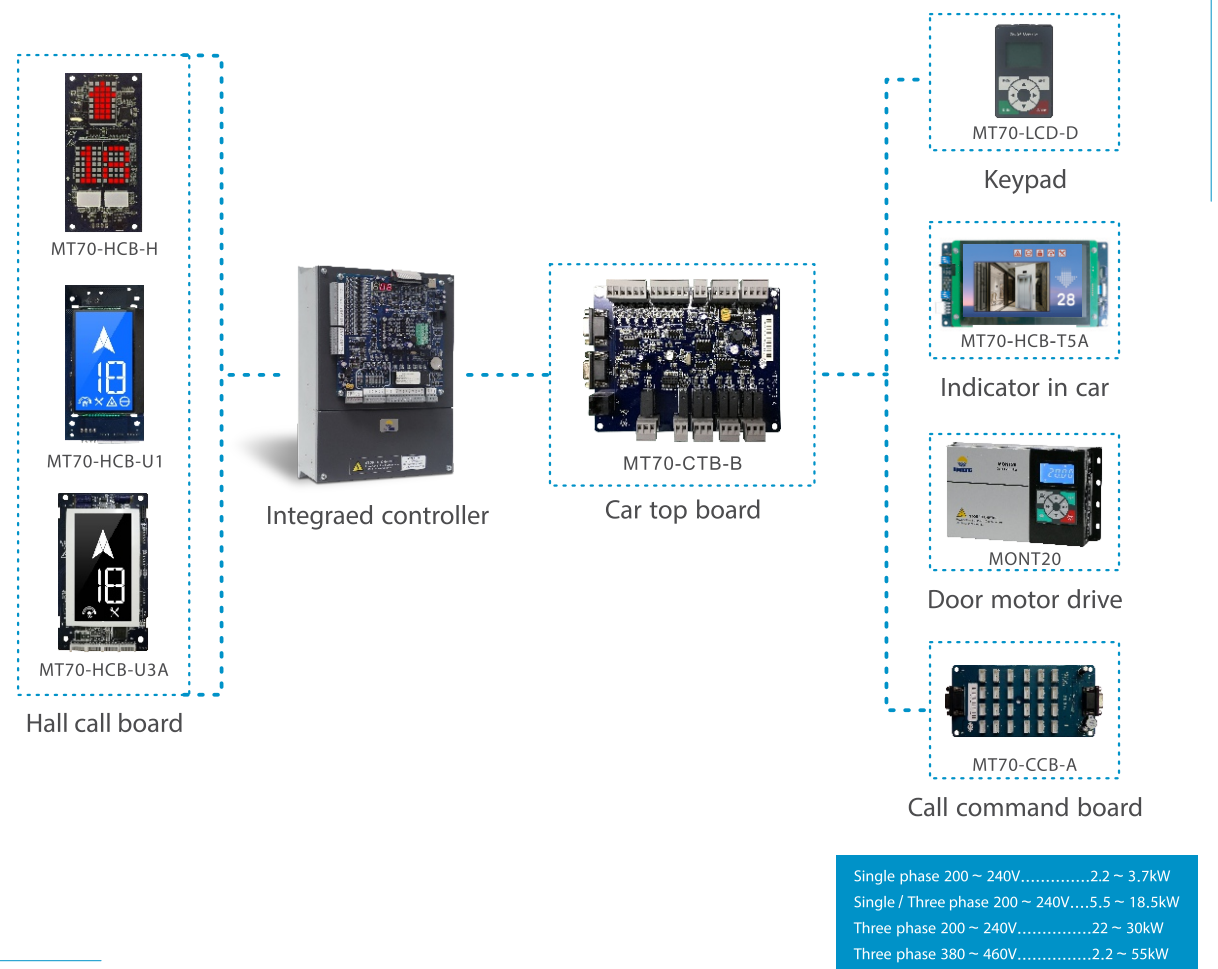
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# MONT70

Elevator Integrated Controller

MONT70 series products are the intelligent control system with automatic control technology, power electronic technology, motor drive technology and network communication technology. On the international advanced level, MONT70 can be perfectly qualified for various elevator system applications.



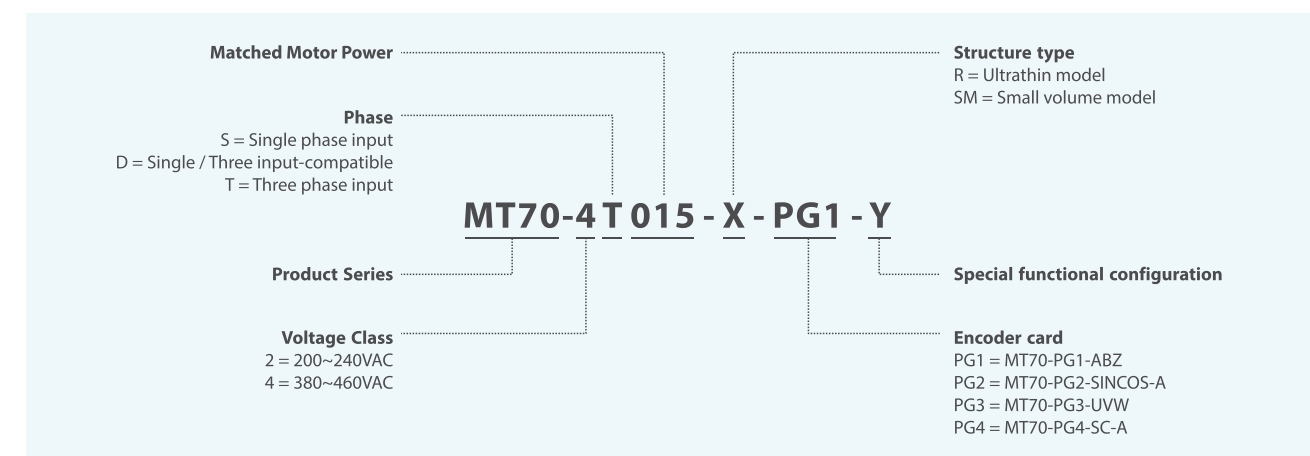
## Product Features

Safer	Comply with the new elevator inspection regulation and national standard, well meet the standards of European Union, the Middle East, South Korea, Russia and other regions
More convenient	Debugging interface with both Chinese and pictures; Parameter setting, one key for all design
More reliable	Select new generation of IGBT modules and redundancy design to improve load capacity and product service life

## Technical Data

Electrical data	Input voltage	Single phase 200~240V; Single / Three phase 200~240V; Three phase 200~240V; Three phase 380~460V; Fluctuations not exceed ± 10%, unbalanced rate <3%
	Input frequency	50/60Hz ± 5%
	Output voltage	0~ Input voltage
	Output frequency	0~100.0Hz
Input / Output	Analog input	AI: Voltage -10~+10V
	Digital input	X1~X24
	High voltage input	X25~X28
	Relay output	Y1~Y3 Contactor capacity: 250VAC/5A or 30VDC/3A; Y4~Y6 Contactor capacity: 250VAC/3A or 30VDC/1A
Elevator basic characteristics	Floor	48F Max.
	Running speed	Max. 4m/s
	Group number	Max. 8 sets
	Communication mode	CAN, Modbus

## Configuration Parameter



MONT70 Elevator Integrated Controller			Power Selection			Braking Resistor (recommended)			
Size	Model	Motor Power kW	Rated Capacity kVA	Rated Input Current A	Rated Output Current A	Resistor Range Ω	Suggested Resistor Ω	Syn. Power kW	Asyn. Power kW
FA	MT70-2S2P2	2.2	3.8	24.1	10.3	26~130	50	1.0	1.0
FAR	MT70-2S2P2-R	2.2	3.8	24.1	10.3	26~130	50	1.0	1.0
FA	MT70-2S3P7	3.7	5.9	40	17	26~90	30	1.6	1.2
FAR	MT70-2S3P7-R	3.7	5.9	40	17	26~90	30	1.6	1.2
FASM	MT70-2D2P2-SM	2.2	3.8	24.1/ 12 <sup>(1)</sup>	10.3	26~130	50	1	1
FASM	MT70-2D3P7-SM	3.7	5.9	40/ 19 <sup>(1)</sup>	17	26~90	30	1.6	1.2

## MONT71

Elevator Integrated Controller

MONT71 adapts complete parallel signal processing to meet the application needs of various villa ladders, passengers and cargo elevators.



### Product Features

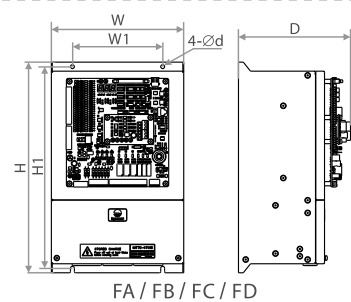
Supporting high buildings	Max.8 floors without expansion card; Max.16 floors with expansion card
Economic	Complete parallel communication without additional accessories; 4 build-in high voltage input and switch can be compounded by software
Flexible display board application method	Supports display board in 7 segment, BCD code and Gray code; Serial communication display board is selectable

Single phase 200 ~ 240V.....2.2 ~3.7kW    Single / Three phase 200 ~ 240V.....5.5 ~ 18.5kW  
Three phase 200 ~ 240V.....22 ~ 30kW    Three phase 380 ~ 460V.....2.2 ~ 55kW

### Technical Data

Electrical data	Input voltage	Single phase 200~240V; Single / Three phase 200~240V; Three phase 200~240V; Three phase 380~460V; Fluctuations not exceed $\pm 10\%$ , unbalanced rate $<3\%$
	Input frequency	50/60Hz $\pm 5\%$
	Output voltage	0~Input voltage
	Output frequency	0~100.0Hz
Input / Output	Analog input	AI: Voltage -10~+10V
	Digital input	X1~X24、X29
	High voltage input	X25~X28
	Relay output	Y0~Y24    Contactor capacity: 250VAC/3A or 30VDC/1A
	Button terminals	L1~L24
Elevator basic characteristics	Floor	10 floors in standard (can be extended to 16 floors)
	Running speed	Max. 1.75m/s
	Communication mode	Complete parallel communication and series communication is selectable
	Expansion board	MT70-IOB-A; MT70-IOB-B; MT70-IOB-C

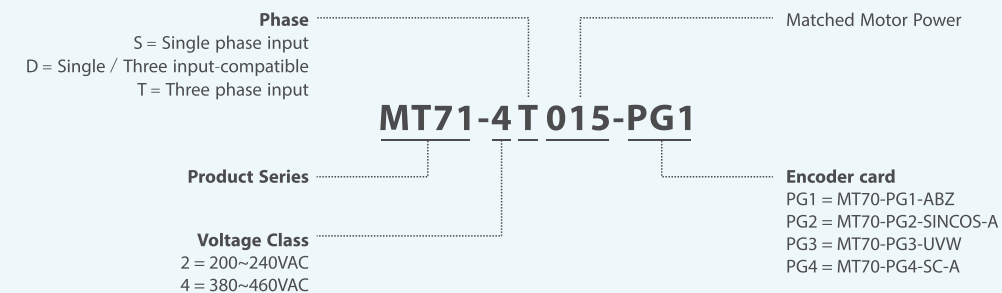
### Production and Installation Size



FA / FB / FC / FD

Size	Production Size (mm)			Installation Size (mm)			GW
	W	H	D	W1	H1	d	kg
FA	200	350	159	150	334.5	6.5	6.3
FB	220	350	186	150	334.5	6.5	7.2
FC	290	555	216	235	541.5	6.5	15.4
FD	380	598	282	260	576	10	37

### Configuration Parameter



MONT71 Elevator Integrated Controller			Power Selection			Braking Resistor (recommended)			
Size	Model	Motor Power kW	Rated Capacity kVA	Rated Input Current A	Rated Output Current A	Resistor Range $\Omega$	Suggested Resistor $\Omega$	Syn. Power kW	Asyn. Power kW
FA	MT71-2S2P2	2.2	3.8	24.1	10	26~130	50	1.0	1.0
FA	MT71-2S3P7	3.7	5.9	40	17	26~90	30	1.6	1.2
FB	MT71-2D5P5	5.5	8.5	60/29 <sup>(1)</sup>	27	17~27	20	2.0	1.6
FB	MT71-2D7P5	7.5	11	75/35 <sup>(1)</sup>	33	11~20	15	3.2	2.0
FC	MT71-2D011	11	16	100/47 <sup>(1)</sup>	45	11~20	15	4.0	3.2
FC	MT71-2D015	15	21	130/62 <sup>(1)</sup>	55	10~16	12	5.0	4.0
FC	MT71-2D018	18.5	24	160/77 <sup>(1)</sup>	70	10~16	12	6.4	5.0
FD	MT71-2T022	22	30	92	80	7~10	9	8.0	6.4
FD	MT71-2T030	30	39	113	110	7~10	9	10.0	8.0
FA	MT71-4T2P2	2.2	3.4	7.3	5.1	56~210	100	1.0	1.0
FA	MT71-4T3P7	3.7	5.9	11.9	9	56~144	80	1.6	1.2
FA	MT71-4T5P5	5.5	8.5	15	13	56~100	70	2.0	1.6
FB	MT71-4T7P5	7.5	11	20	18	56~72	64	3.2	2.0
FB	MT71-4T011	11	16	29	27	34~48	40	4.0	3.2
FB	MT71-4T015	15	21	35	33	34~41	36	5.0	4.0
FC	MT71-4T018	18.5	24	41	39	17~31	24	6.4	5.0
FC	MT71-4T022	22	30	50	48	17~27	20	8.0	6.4
FC	MT71-4T030	30	39	62	60	11~20	15	10.0	8.0
FC	MT71-4T037	37	49	77	75	10~16	12	12.0	10.0
FD	MT71-4T045	45	59	93	91	7~10	9	18.0	15.0
FD	MT71-4T055	55	72	113	112	7~10	9	18.0	15.0

(1): Value before "/" represents rated input current in single phase power supply, and the value after "/" represents rated input current in three phase power supply.

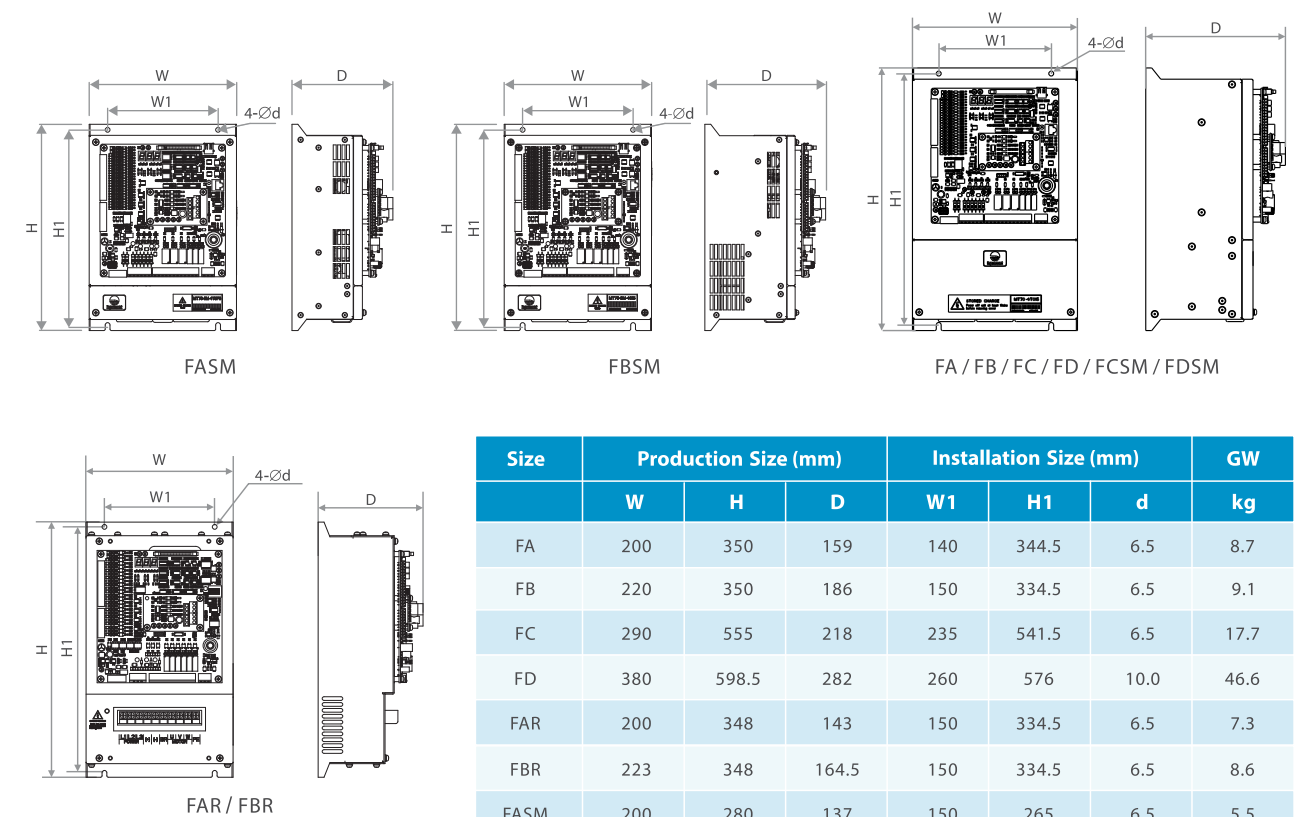


MONT70 Elevator Integrated Controller			Power Selection			Braking Resistor (recommended)			
Size	Model	Motor Power kW	Rated Capacity kVA	Rated Input Current A	Rated Output Current A	Resistor Range $\Omega$	Suggested Resistor $\Omega$	Syn. Power kW	Asyn. Power kW
FB	MT70-2D5P5	5.5	8.5	60/29 <sup>(1)</sup>	27	17~27	20	2.0	1.6
FBSM	MT70-2D5P5-SM	5.5	8.5	60/29 <sup>(1)</sup>	27	17~27	20	2.0	1.6
FB	MT70-2D7P5	7.5	11	75/35 <sup>(1)</sup>	33	11~20	15	3.2	2.0
FBSM	MT70-2D7P5-SM	7.5	11	75/35 <sup>(1)</sup>	33	11~20	15	3.2	2.0
FC	MT70-2D011	11	16	100/47 <sup>(1)</sup>	45	11~20	15	4.0	3.2
FC	MT70-2D015	15	21	130/62 <sup>(1)</sup>	55	10~16	12	5.0	4.0
FC	MT70-2D018	18.5	24	160/77 <sup>(1)</sup>	70	10~16	12	6.4	5.0
FA	MT70-2T3P7	3.7	5.9	19	17	26~50	30	1.6	1.2
FB	MT70-2T5P5	5.5	8.5	29	27	17~27	20	2	1.6
FB	MT70-2T7P5	7.5	11	35	33	11~20	15	3.2	2
FC	MT70-2T011	11	16	47	45	11~20	15	4	3.2
FC	MT70-2T015	15	21	62	55	10~16	12	5	4
FC	MT70-2T018	18.5	24	77	70	10~16	12	6.4	5
FD	MT70-2T022	22	30	92	80	7~10	9	8.0	6.4
FD	MT70-2T030	30	39	113	110	7~10	9	10.0	8.0
FA	MT70-4T2P2	2.2	3.4	7.3	5.1	56~210	100	1.0	1.0
FASM	MT70-4T2P2-SM	2.2	3.4	7.3	5.1	56~210	100	1.0	1.0
FA	MT70-4T3P7	3.7	5.9	11.9	9	56~144	80	1.6	1.2
FAR	MT70-4T3P7-R	3.7	5.9	11.9	9	56~144	80	1.6	1.2
FASM	MT70-4T3P7-SM	3.7	5.9	11.9	9	56~144	80	1.6	1.2
FA	MT70-4T5P5	5.5	8.5	15	13	56~100	70	2.0	1.6
FAR	MT70-4T5P5-R	5.5	8.5	15	13	56~100	70	2.0	1.6
FASM	MT70-4T5P5-SM	5.5	8.5	15	13	56~100	70	2.0	1.6
FB	MT70-4T7P5	7.5	11	20	18	56~72	64	3.2	2.0
FBR	MT70-4T7P5-R	7.5	11	20	18	56~72	64	3.2	2.0
FBSM	MT70-4T7P5-SM	7.5	11	20	18	56~72	64	3.2	2.0
FB	MT70-4T011	11	16	29	27	34~48	40	4.0	3.2
FBR	MT70-4T011-R	11	16	29	27	34~48	40	4.0	3.2
FBSM	MT70-4T011-SM	11	16	29	27	34~48	40	4.0	3.2
FB	MT70-4T015	15	21	35	33	34~41	36	5.0	4.0
FBR	MT70-4T015-R	15	21	35	33	34~41	36	5.0	4.0
FBSM	MT70-4T015-SM	15	21	35	33	34~41	36	5.0	4.0
FC	MT70-4T018	18.5	24	41	39	17~31	24	6.4	5.0
FCSM	MT70-4T018-SM	18.5	24	41	39	17~31	24	6.4	5.0

MONT70 Elevator Integrated Controller			Power Selection			Braking Resistor (recommended)			
Size	Model	Motor Power kW	Rated Capacity kVA	Rated Input Current A	Rated Output Current A	Resistor Range $\Omega$	Suggested Resistor $\Omega$	Syn. Power kW	Asyn. Power kW
FC	MT70-4T022	22	30	50	48	17~27	20	8.0	6.4
FCSM	MT70-4T022-SM	22	30	50	48	17~27	20	8.0	6.4
FC	MT70-4T030	30	39	62	60	11~20	15	10.0	8.0
FDSM	MT70-4T030-SM	30	39	62	60	11~20	15	10.0	8.0
FC	MT70-4T037	37	49	77	75	10~16	12	12.0	10.0
FDSM	MT70-4T037-SM	37	49	77	75	10~16	12	12.0	10.0
FD	MT70-4T045	45	59	93	91	7~10	9	18.0	15.0
FD	MT70-4T055	55	72	113	112	7~10	9	18.0	15.0

(1): Value before "/" represents rated input current in single phase power supply, and the value after "/" represents rated input current in three phase power supply.

## Production and Installation Size



Size	Production Size (mm)			Installation Size (mm)			GW
	W	H	D	W1	H1	d	
FA	200	350	159	140	344.5	6.5	8.7
FB	220	350	186	150	334.5	6.5	9.1
FC	290	555	218	235	541.5	6.5	17.7
FD	380	598.5	282	260	576	10.0	46.6
FAR	200	348	143	150	334.5	6.5	7.3
FBR	223	348	164.5	150	334.5	6.5	8.6
FASM	200	280	137	150	265	6.5	5.5
FBSM	200	280	164	150	265	6.5	7.5
FCSM	220	375	199	195	360	7.0	13.0
FDSM	260	440	230	230	420	8	20.8

## HD5L

Elevator Controller

HD5L is the drive controller dedicated for the elevator. It is convenient to be applied in the new elevator electric drive and replace inverter for old elevator.



Single / Three phase 200 ~ 240V.....2.2 ~ 11kW    Three phase 200 ~ 240V.....15 ~ 30kW  
Three phase 380 ~ 460V.....2.2 ~ 45kW

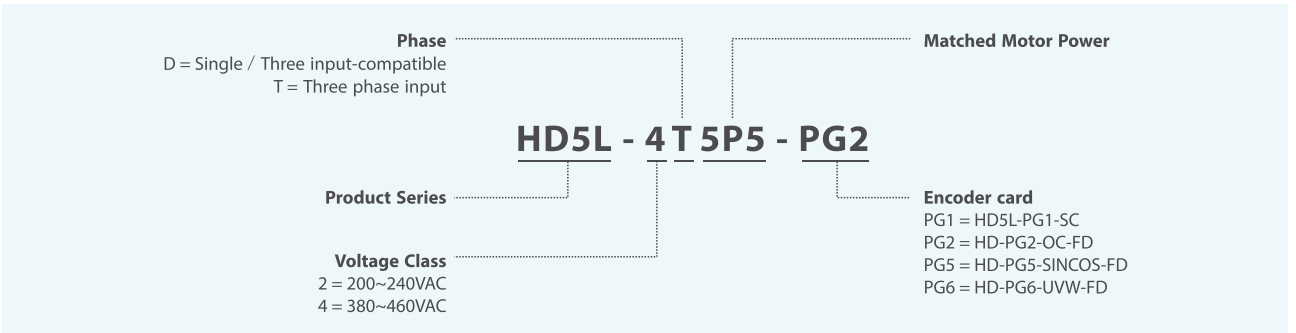
### Product Features

<b>Multiple programmable I/O terminal, flexible timing</b>	Can compatible with various elevator control systems
<b>Starting torque automatic compensation function</b>	Support starting torque automatic compensation of all types of encoder cards to reduce the debugging workload during retrofit
<b>Smooth S-curve acceleration and deceleration</b>	Optimized S-curve leads to perfect elevator riding performance
<b>Frequency division output</b>	Built-in even frequency division from 2, 4, 6 to 128
<b>Built-in brake</b>	Built-in brake unit to reduce costs and labor work

### Technical Data

Electrical data	Input voltage	Single/three phase 200~240V; Three phase 200~240V; Three phase 380~460V; Fluctuations not exceed $\pm 10\%$ , unbalanced rate $<3\%$
	Input frequency	50/60Hz $\pm 5\%$
	Output voltage	0~Input voltage
	Output frequency	0~100.0Hz
Performance	Control mode	V/f control, SVC control, VC control
	Overload capability	2 minutes for 150% rated output current; 10 seconds for 180% rated output current
	Velocity resolution	Digital setting: 0.01Hz; Analogue setting: 0.1% $\times$ Max. frequency
	SVC Control	Speed control accuracy: $\pm 0.5\%$ ; Speed control range: 1:100; Torque control response: $<200\text{ms}$ ; Starting torque: 180% rated torque / 0.5Hz
	VC Control	Speed control accuracy: $\pm 0.05\%$ ; Speed control range: 1:1000; Torque control response: $<50\text{ms}$ ; Starting torque: 200% rated torque / 0Hz
Input / Output	Analog power supply	+10V, load capacity 100mA; -10V, load capacity 5mA
	Digital power supply	+24V, load capacity 200mA
	Analog input	AI1: Voltage 0~10V; AI2~AI4: (Selectable voltage/current) -10V~+10V/0~20mA; AI4 supports differential input
	Analog output	AO1~AO2: (Selectable voltage/current) 0~10V/0~20mA
	Digital input	DI1~DI12
	Digital output	DO1~DO2
	Relay output	R1A/R1B/R1C R2A/R2B/R2C R3A/R3B/R3C R4A/R4B/R4C    Contactor capacity: 250VAC/3A or 30VDC/1A

### Configuration Parameter



HD5L Elevator Controller			Power Selection			Braking Resistor (recommended)			
Size	Model	Motor Power kW	Rated Capacity kVA	Rated Input Current A	Rated Output Current A	Resistor Range $\Omega$	Suggested Resistor $\Omega$	Syn. Power kW	Asyn. Power kW
F3	HD5L-2D2P2	2.2	3.8	24.1/12 <sup>(1)</sup>	10	26~130	50	1.0	1.0
F3	HD5L-2D3P7	3.7	5.9	40/19 <sup>(1)</sup>	17	26~90	30	1.6	1.2
F3	HD5L-2D5P5	5.5	8.5	60/28 <sup>(1)</sup>	25	17~27	20	2.0	1.6
F4	HD5L-2D7P5	7.5	11	75/35 <sup>(1)</sup>	32	11~20	15	3.2	2.0
F5	HD5L-2D011	11	16	100/47 <sup>(1)</sup>	45	11~20	15	4.0	3.2
F5	HD5L-2T015	15	21	62	55	10~16	12	5.0	4.0
F5	HD5L-2T018	18.5	24	77	70	10~16	12	6.4	5.0
F6	HD5L-2T022	22	30	92	80	7~10	9	8.0	6.4
F6	HD5L-2T030	30	39	113	110	7~10	9	10.0	8.0
F3	HD5L-4T2P2	2.2	3.4	7.3	5.1	56~210	100	1.0	1.0
F3	HD5L-4T3P7	3.7	5.9	11.9	9.0	56~144	80	1.6	1.2
F3	HD5L-4T5P5	5.5	8.5	15	13	56~100	70	2.0	1.6
F3	HD5L-4T7P5	7.5	11	19	17	56~72	64	3.2	2.0
F3	HD5L-4T011	11	16	28	25	34~48	40	4.0	3.2
F4	HD5L-4T015	15	21	35	32	34~41	36	5.0	4.0
F4	HD5L-4T018	18.5	24	39	37	17~31	24	6.4	5.0
F5	HD5L-4T022	22	30	47	45	17~27	20	8.0	6.4
F5	HD5L-4T030	30	39	62	60	11~20	15	10.0	8.0
F6	HD5L-4T037	37	49	77	75	10~16	12	12.0	10.0
F6	HD5L-4T045	45	59	92	90	7~10	9	18.0	15.0

(1): Value before "/" represents rated input current in single phase power supply, and the value after "/" represents rated input current in three phase power supply.

### Production and Installation Size

Size	Production Size (mm)			Installation Size (mm)				GW kg
	W	H	D	W1	H1	H2	d	
F3	200	299	210	146	286	280	5	5.8
F4	235	353	222	167	337	330	7	8.2
F5	290	469	240	235	445	430	8	20.4
F6	380	598	290	260	576	550	10	48



## HD3N-L

Open-loop Elevator Controller

HD3N-L is the drive controller dedicated for elevator. It is convenient to be applied in new elevator electric drive.



Single phase 200 ~ 240V 2.2 ~ 11kW Three phase 380 ~ 460V..... 7.5 ~ 45kW

### Product Features

Multiple programmable I/O terminal, flexible timing	Can compatible with various elevator control systems
Smooth S-curve acceleration and deceleration	Optimized S-curve leads to perfect elevator riding performance
Built-in brake	Built-in brake unit to reduce costs and labor work
High-performance SVC control	Starting torque: 180% rated torque / 0.5Hz; No encoder open loop vector control

### Technical Data

Electrical data	Input voltage	Single phase 200~240V; Three phase 380~460V; Fluctuations not exceed $\pm 10\%$ , unbalanced rate $<3\%$
	Input frequency	50/60Hz $\pm 5\%$
	Output voltage	0~Input voltage
	Output frequency	0~400.0Hz
Performance	Control mode	V/f control, SVC control, VC control
	Overload capability	2 minutes for 150% rated output current; 10 seconds for 180% rated output current
	Velocity resolution	Digital setting: 0.01Hz; Analogue setting: $0.1\% \times \text{Max. frequency}$
	SVC Control	Speed control accuracy: $\pm 0.5\%$ ; Speed control range: 1:100; Torque control response: $<200\text{ms}$ ; Starting torque: 180% rated torque / 0.5Hz
Input / Output	Analog power supply	+10V, load capacity 100mA; -10V, load capacity 5mA
	Digital power supply	+24V, load capacity 200mA
	Analog input	AI1: Voltage 0~10V; AI2~AI4: (Selectable voltage/current) -10V~+10V/0~20mA; AI4 supports differential input
	Analog output	AO1~AO2: (Selectable voltage/current) 0~10V/0~20mA
	Digital input	DI1~DI8
	Digital output	DO1~DO2
	Relay output	R1A/R1B/R1C R2A/R2B/R2C Contactor capacity: 250VAC/3A or 30VDC/1A

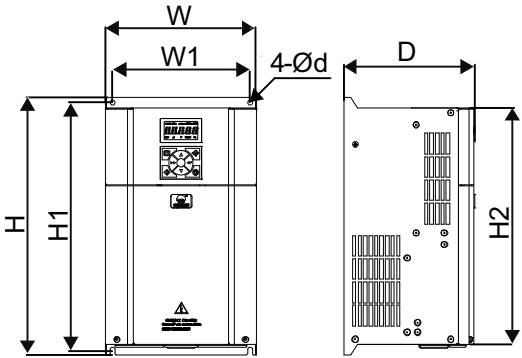
### Configuration Parameter

## HD3N-L

HD3N-L Open-loop Elevator Controller

Model	Motor (kW)	Rated Capacity (kVA)	Rated Input Current (A)	Rated Output Current (A)	Size
HD3N-4T7P5-L	7.5	11	19	17	Frame3
HD3N-4T011-L	11	16	28	25	Frame3
HD3N-4T015-L	15	21	35	32	Frame4
HD3N-4T018-L	18.5	24	39	37	Frame4
HD3N-4T022-L	22	30	47	45	Frame5

### Dimensions and Weight



Size	Dimension (mm)			Mounting Size (mm)				GW (kg)
	W	H	D	W1	H1	H2	d	
Frame3	140	260	155	122	248	235	6	5.4
Frame4	180	298	175	160	284	270	6	8.3
Frame5	220	375	190	200	360	345	7	13

## MTCC-V2

Classic Home Lift Control Panel



### Product Features

Narrowest size	The thinnest villa control panel, 200mm maximize the space of elevator
Classical style	Classical size design of MRL control panel to meet the existing elevator system
All in one	Integrated elevator control, drive module, ARD module, IoT module

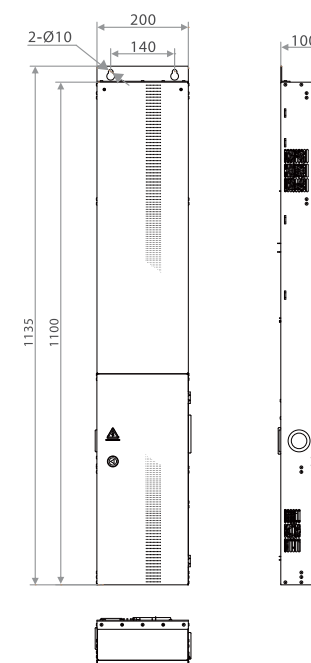
### Technical Data

MTCC Elevator Control Panel	MTCC-V2	
Max. Running Speed	1.5m/s	
Max.floor	8 floors	
Output frequency	0-100.00Hz	
Brake voltage	110VDC / 300W	24VDC / 150W
Governor voltage	220VAC	24VDC
Adaptive Motor	Traction motor,Winching motor	
Brake resistor	Build-out	
Installation mode	Wall-mounting type	
Selectable function	WIFI IoT module; Filter	

### Configuration Parameter

Model	Rated Voltage	Rated current A	Rated power kW	Adaptive Motor
MTCC-V2-4T3P7	AC 380V	9	3.7	Traction motor
MTCC-V2-4T5P5	AC 380V	13	5.5	Winching motor
MTCC-V2-2D2P2	AC 220V	10.3	2.2	Traction motor
MTCC-V2-2D3P7	AC 220V	17	3.7	Winching motor

### Production and Installation Size



### Inspection Box on top of Car





COOL100

Home Lift Control Panel



Product Features

Thinnest size	The thinnest villa control panel, 56mm maximize the space of elevator
"Cool" style	New generation of villa elevator control panel, Cool style leads the trend of elevator design revolution
Safer	"Ultimate brake", ensure elevator safety; Built-in ARD module, realize auto rescue; "One-touch calling" (COOL100-CTB-B function)
Built-in WIFI module	Incredible Wifi function, System ON / OFF button for better operation

Technical Data

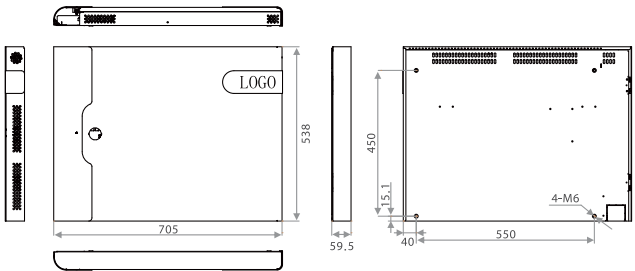
MTCC Elevator Control Panel	COOL100	
Max. Running Speed	1.5m/s	
Max.floor	8 floors	
Output frequency	0-100.00Hz	
Brake voltage	110VDC / 300W	24VDC / 150W
Governor voltage	220VAC	24VDC
Adaptive Motor	Traction motor, Winching motor	
Brake resistor	Built-in	
Installation mode	Wall-mounting type	
Selectable function	WIFI IoT module; Filter	

Configuration Parameter

Model	Rated Voltage	Rated current A	Rated power kW	Adaptive Motor
COOL100-4T3P7	AC 380V	9	3.7	Traction motor
COOL100-4T5P5	AC 380V	13	5.5	Winching motor
COOL100-2D2P2	AC 220V	10.3	2.2	Traction motor
COOL100-2D3P7	AC 220V	17	3.7	Winching motor

Production and Installation Size

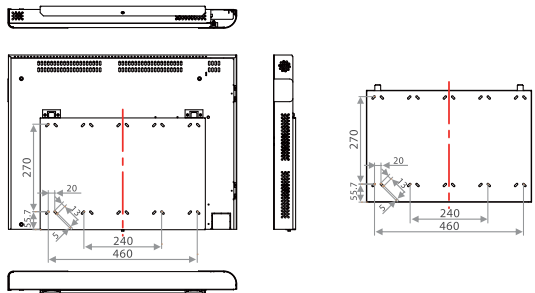
Production Size (mm)



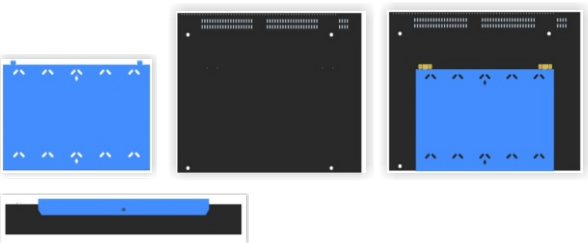
Installation Size (mm)

A. Bracket Installation:

Step 1: First fix the blue backboard to the wall;  
 Step 2: Install the two metal fixing brackets of the COOL100 control panel according to the actual space;  
 Step 3: Hang the COOL100 control panel on the fixed backboard and lock the fixing screws on the bottom.



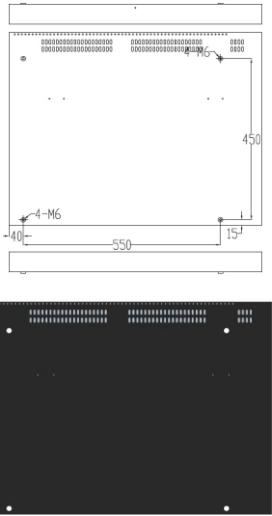
Installation Size



Installation diagram 1

B. Control panel installation:

Use the M6 screws and nuts to directly fix the COOL100 control panel to the horizontal wall or hoistway wall according to the Installation diagram 2.



Installation diagram 2

Inspection Box on top of Car



## HD2L OPEN LOOP DRIVE

HIGH PERFORMANCE ELEVATOR CONTROLLER

Ultra Thin Structure    New SVC Algorithm    Built-in EMI Filter



### Product Features

Ultra thin structure	Max. thickness only 145mm, can be installed side by side and save installation space
Large size LCD display	Blue background display, 5 segment, 5 status indicators, 5 units indication
Personalized button remark	Designed with IEC60417 and GB/T15192 standards
Built-in EMI Filter	Meet the EMI requirements of the standard IEC61800-3; Easy to disconnect, can be used for low current leakage
Intuitive product power label	Can recognize product in convenience and fast speed
Installation-wiring-operation	3 simple steps, can be used as soon as being wired
Sheet metal shell, plastic case	Reliable installation Sealed top, good protection

### Technical Data

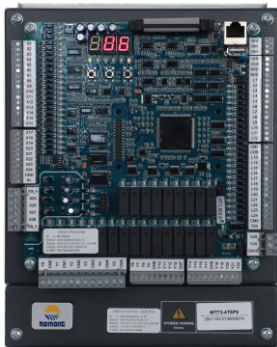
Electrical data	input voltage	Three phase 380~460v; Flotation does not exceed $\pm 10\%$ , unbalanced rate $<3\%$
	input frequency	50/60Hz $\pm 5\%$
	output voltage	0~Input frequency
	output frequency	0~Output frequency
Performance	Control mode	V/F Control, SVC control
input/output	digital input	Digital input signal, DI1-DI7 UP DN, BB, HS, SS, MS, UPS
	2 Digital input	2 Digital output DO fo FLT, RR Signal
	Relay output	Relay for brake output, BRK, RC; Contactor capacity:250VCA/3A or 30VDC/1A
Environmental characteristic	Running temperature	-10~+40 C no deduction; Outout current should be 2% derated for each 1C over 40-50 C
	Storage temperature	-40~+70C
	Application environment	Indoor, not at the direct sunlight, dust, corrosive and flammable gases, Oil, Steamer, Drops, Salt, etc.
	Altitude	No derating under 1000 meters; Derating is required for above 1000 meters
	Humidity	Less than 90% RH, no water drops
	Vibration	3.5m/s <sup>2</sup> at 2-9Hz and 10 m/s <sup>2</sup> at 9~200Hz(IEC60721-3-3)

### Configuration Paramet

HD2L Elevator Controller			Power Selection			Braking Resistor (Recommendation)		
Size	Model	Motor Power kW	Rated Capacity kVA	Rated Input Current A	Rated Output Current A	Resistor Range $\Omega$	Resisitor Power kW	Brake Unit
F1	HD2L-4T3P7	3.7	5.9	11.9	9.0	80	1.2	Bulit-in
F1	HD2L-4T5P5	5.5	8.5	15.0	13.0	70	1.6	Bulit-in

## MT73 ELEVATOR OPEN-LOOP INTEGRATED CONTROLLER

Support Duplex    Support High Buildings    Eco-Friendly  
Powerful DSP Built-in    Flexible Display Application



### Product Features

Supporting High building	Max.8 Floors without expansion card; Max.16 floors with expansion card
Economic	Complete paraller communication without additional accessories; 4 Build-in high voltage input and switch can be compounded by softwere
Flexible Display Board application Method	Support display board in 7 segment, BCD code and grey code; Serial communication display board is selectable

### Technical Data

Electrical data	input voltage	Single phase 200 240V; Three Phase 380 460V; Fluctuations not exceed + 10%, unbalanced rate $<3\%$
	input frequency	50/60Hz+5%
input/output	Analog input	AI:Voltage -10~+10v
	Digital input	X1 X24, X29
	High Voltage input	X25 X28
	Relay output	Y0 Y24 Contract capacity : 250VAC/3A or 30VDC/1A
	Button terminal	L1 L24
Environmental characteristic	Floor	12 FLOORS IN STANDARD (can be extended to 16 floors)
	Running Sppeed	Max. 1m/s
	Communication Mode	Complete paraller communication and series communication is selectable
	Expansion board	MT70-IOB-A; MT70-IOB-B; MT70-IOB-C

### Production and Installation Size

MT73 Elevator Open-loop Integrated Controller			Power Selection			Braking Resistor (Recommendation)			
Size	Model	Motor Power kW	Rated Capacity kVA	Rated Input Current A	Rated Output Current A	Resistor Range $\Omega$	Recommended Resistor $\Omega$	Syn. Power kW	Asyn. Power kW
FASM	MT73-2S2P2	2.2	3.8	24.1	10	26~130	50	1.0	1.0
FASM	MT73-2S3P7	3.7	5.9	40	17	26~90	30	1.6	1.2
FASM	MT73-4T3P7	3.7	5.9	11.9	9	56~144	80	1.6	1.2
FASM	MT73-4T5P5	5.5	8.5	15	13	56~100	70	2.0	1.6
FBSM	MT73-4T7P5	7.5	11	20	18	56~72	64	3.2	2.0
FBSM	MT73-4T011	11	16	29	27	34~48	40	4.0	3.2
FBSM	MT73-4T015	15	21	35	32	34~41	35	6.0	4.0



## MONT20

Door Controller

MONT20 door machine controller is integrated the door switch logic and the motor drive control. Just sending the external door switch command to MONT20, it can control the door system. Apply to: Elevator door, metro door and other door system.



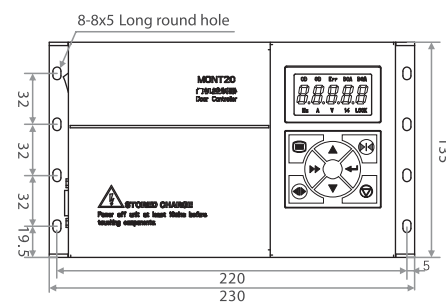
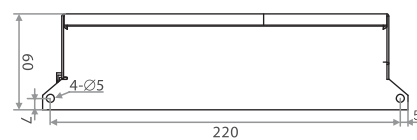
### Product Features

#### MONT20 Door Machine Controller

Integrated parameter, no need to adjust on site;  
Support syn. And asyn. Motor;  
Support distance control with encoder and speed control with Dec. switch;  
Self-cooling design without fans;  
Pluggable interface terminal design;  
Built-in keypad, external keypad is also allowed

Three phase 200 ~ 240V.....0.4kW

## Production and Installation Size



## Elevator Interet of Things-APP

### Software Description

<b>Log in</b>	Log in to the APP with account and password
<b>Data monitoring</b>	Display elevator system status, elevator running status, running direction, current floor, etc.
<b>Video data monitoring</b>	Can check video data collected by the installed camera in real time
<b>File information inquiry</b>	Elevator file (elevator number, registration code, etc.), maintenance personnel (name, phone number. etc.)
<b>Annual elevator inspection</b>	Elevator annual inspection information display and annual inspection expiration reminder
<b>Maintenance and repair order</b>	Elevator maintenance and repair order information

### Steps

Login: The user can use the Internet of Things system account and password to complete the APP software login. If the user logs in for the first time, it needs to verify by mobile phone verification code.



After the user logs in successfully, the software enters the home page, and the user can select the desired function module to enter on the home page.



Data monitoring: The user selects "data monitoring" on the homepage to enter the module, where the user can monitor the running status of multiple elevators in real time (running direction, current floor, etc.).



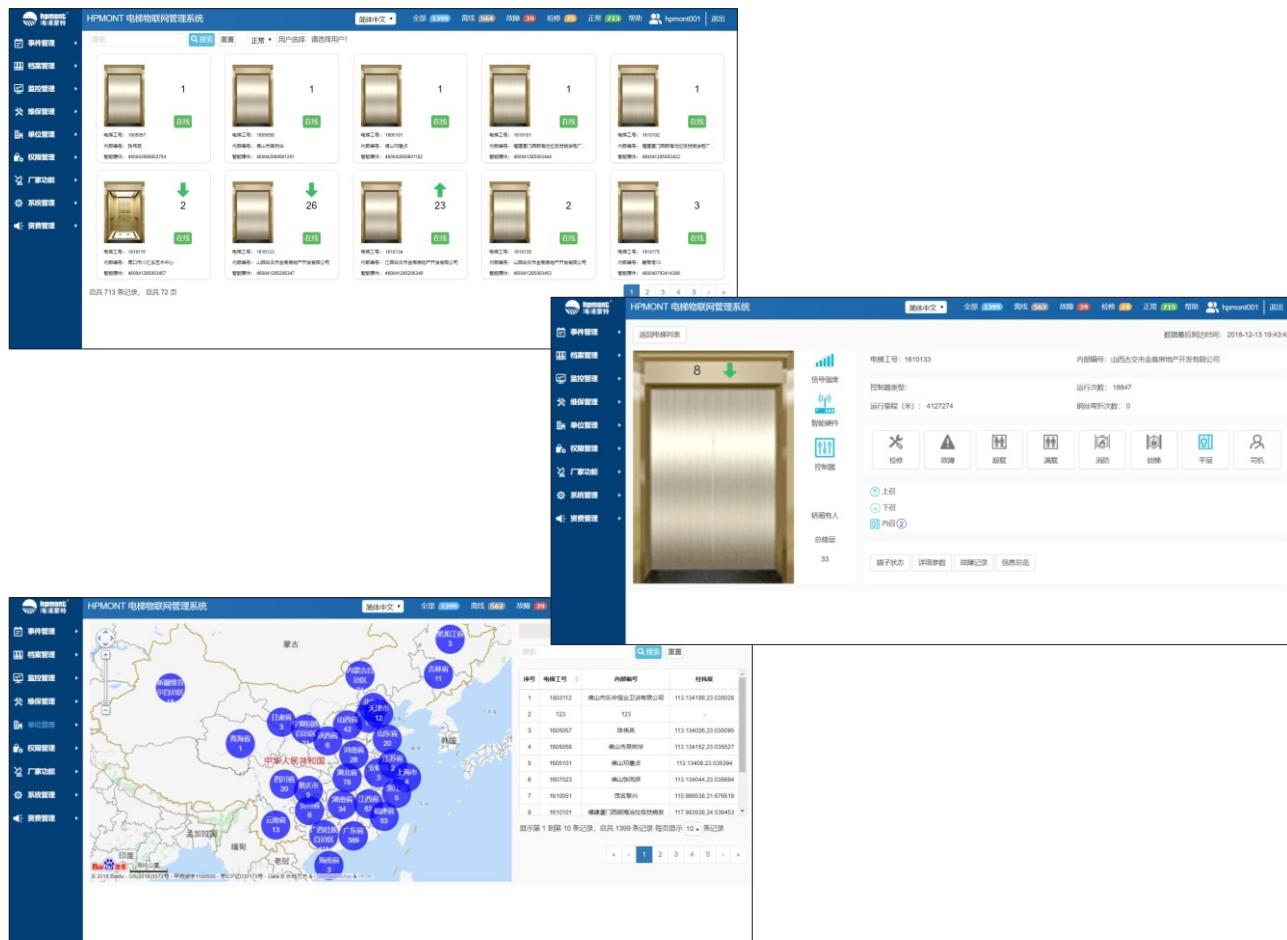
In the "Data Monitoring" module, select the elevator to enter the detailed data monitoring page of the elevator (elevator running status, total floor and historical faults, etc.).



## Elevator Interet of Things-Website

### Software Description

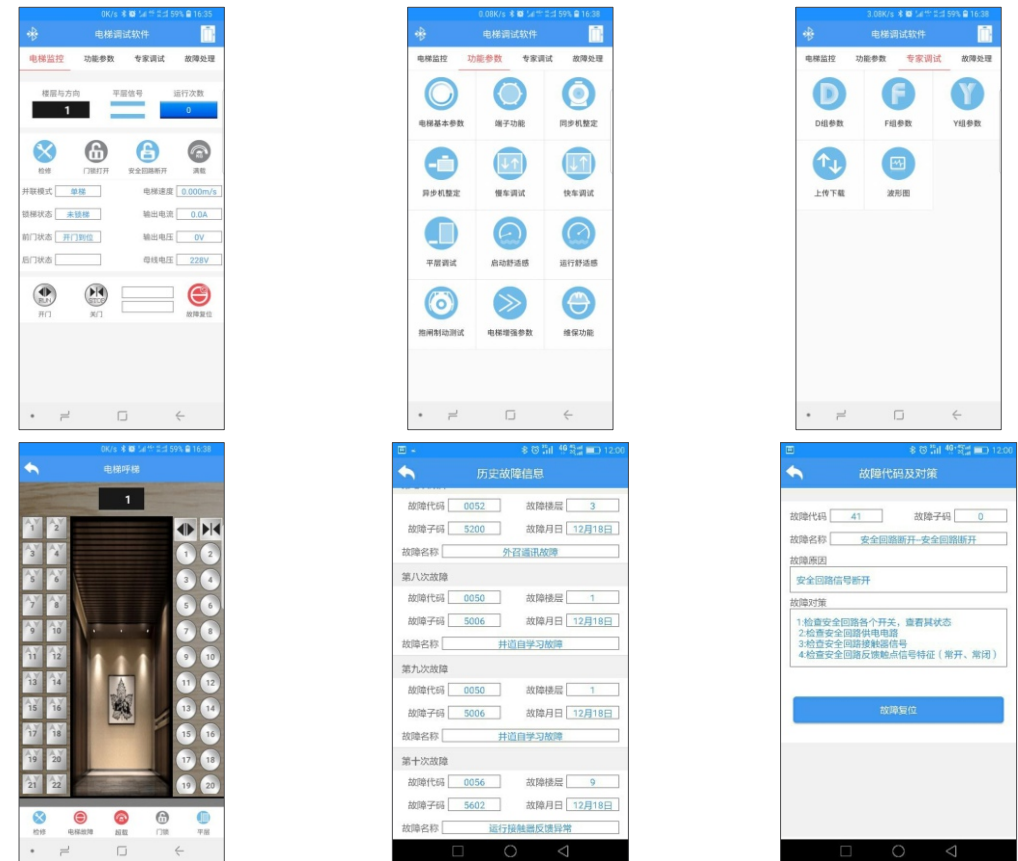
<b>Basic data module</b>	Including user management, role management, property information management, elevator information (maintenance information, fault information, etc.) management, camera management, etc.
<b>Real-time monitoring module</b>	Collect the elevator control board data through the MT70-CIC-B communication board and return it to the server in real time to achieve real-time monitoring of elevator information on the Web side.
<b>Event module</b>	After the elevator fails, it reports to the server through intelligent hardware. The server stores its current running status in the database and sends a fault message to the maintenance personnel bounded to the elevator.
<b>Log module</b>	Elevator online / offline log, SMS log
<b>Expense management module</b>	IoT card expiration inquiry, payment notice



## MT70-BLE-A

Bluetooth Module

When configuring MT70-BLE-A, the product function can be realized by the mobile phone through Bluetooth, such as parameter setting, status monitoring, parameter uploading and downloading, etc.; Based on Android 4.0 or above mobile operating system.


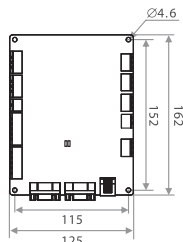

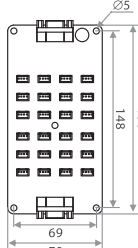

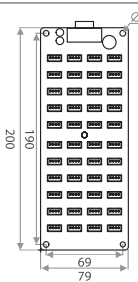

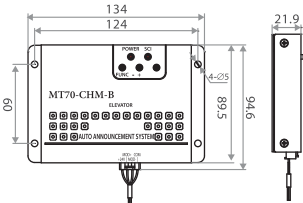

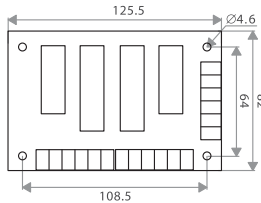


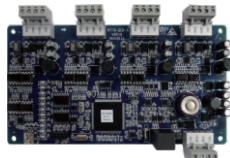
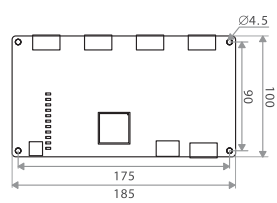

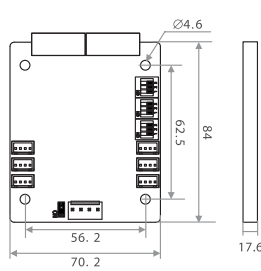
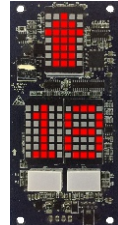
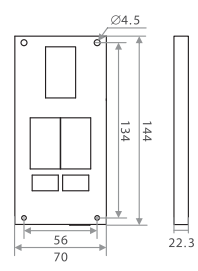
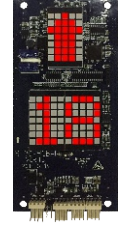
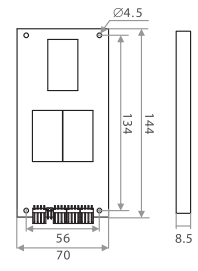
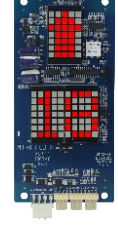
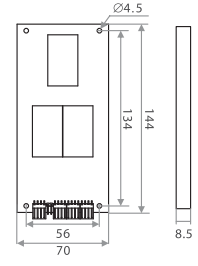
### Software Description

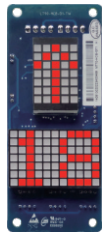
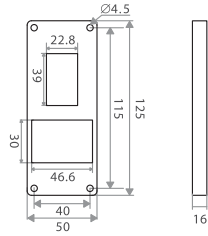
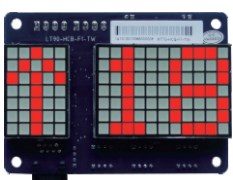
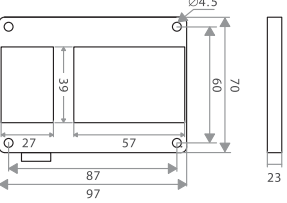
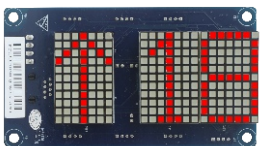
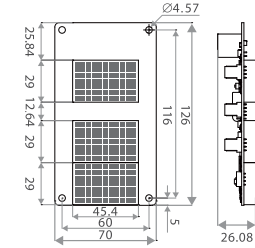

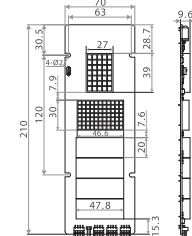
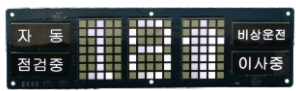
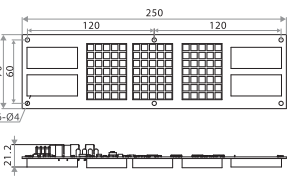
<b>Registration</b>	Fill in the relevant information and submit it, log in to the APP with account and password
<b>Bluetooth connectivity</b>	Search for Bluetooth device MT70-BLE-A, connect mobile phone and integrated controller with Bluetooth function
<b>Permission settings</b>	APP usage permissions and password settings
<b>Elevator monitoring</b>	Display elevator system present status, switch door operation and fault reset operation
<b>Elevator call</b>	Elevator running status, elevator car call registration and system status
<b>Function parameter</b>	Application macro parameters of common function
<b>Debugging</b>	Current fault, historical fault, specified fault, fault help, operation help


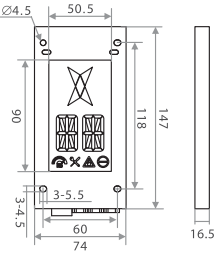

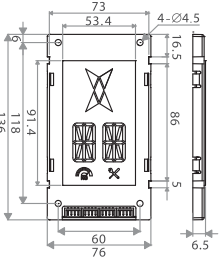

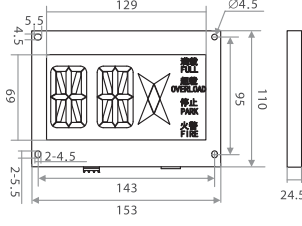

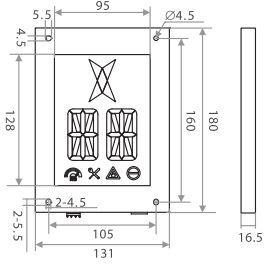

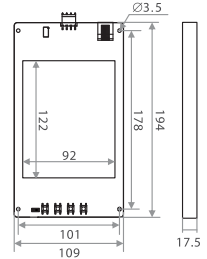


## System Components


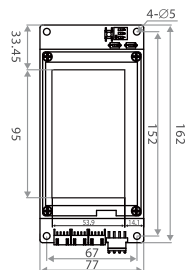
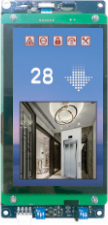
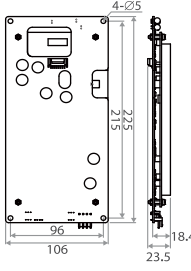
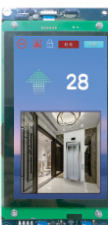
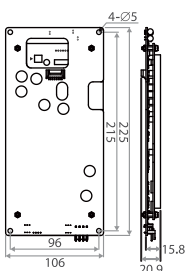

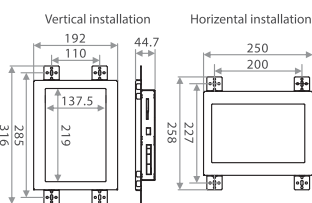

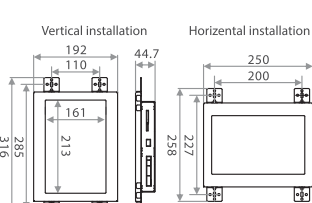
System Components	Product	Size	Specification
MT70-CTB-B Car top board			Using 32-bit processor; Serial communication and simple wiring make it reliable and stable; 14 digital inputs, 8 relay outputs; Support car digital / analog weighing signal input; Support LCD panel for convenient modification and viewing of system parameters; The input and output of car top board can be programmed to set the function
MT70-CCB-A Command board			Can take use of the main and vice manipulator inside the elevator's car; The input and output of 8 interfaces can be programmed to set the function; Support the driver, direct driving, fire fighting and independence waitch input; Support the full-load buzzer alarming output; Every 16 floors configuring one MT70-CCB-A can achieve the cascade, which may be extension up to 48 floors
MT70-CCB-B Command board			Can take use of the main and vice manipulator inside the elevator's car; The input and output of 8 interfaces can be programmed to set the function; Support the driver, direct driving, fire fighting and independence waitch input; Support the full-load buzzer alarming output; The MT70-CCB-B can satisfy the application of 36 floors even there is no cascade
MT70-CHM-B Voice announcement control board			Intelligent voice announcement, built-in two-channel speaker, high broadcast sound quality; The broadcast content is stored in the SD card, and can design and change by the user; Support the motherboard to control languages and supports user-defined voice packets; Support customization voice announcement
MT70-AOB-C UCMP (unintended car movement protection board)			Can realize car unintended movement detection; Can realize door lock short detection; Achieve re-leveling and door advanced opening function; Re-leveling sensor must be NO style; Compatible with 3 or 4 sensor signal inputs


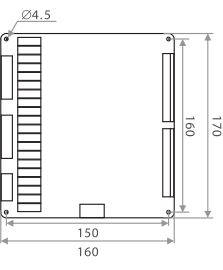

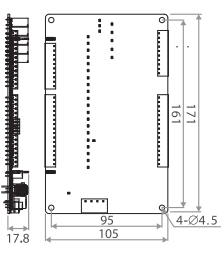
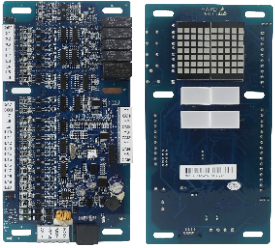
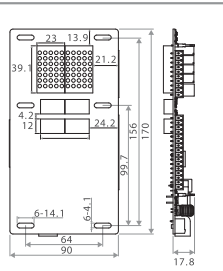
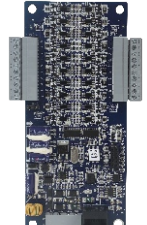
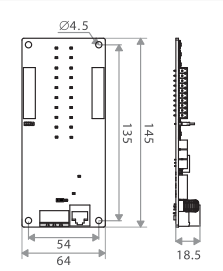

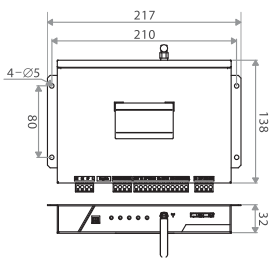
System Components	Product	Size	Specification
MT70-GCB-A Group control board			Can group control 3~8 elevators and meet various requirements; Distribute floor call signal in principle of min. time of customer waiting, increase elevator working efficiency; High speed and reliable transmission is realized by CANBUS series communication; Abnormal running can be switched over automatically; Automatically recover group control functions; Equipped with LCD keypad, and host computer debugging software can be selected to achieve remote monitoring and debugging; IE card is needed to achieve Ethernet communication function. LCD display is also selectable
MT70-HCB-B1 Hall call board without display			DC24V power supply input, Modbus communication protocol; No display type; 6 switch inputs, 4 relay outputs, 6 collector outputs; 5 functions are set by dip switch
MT70-HCB-H Vertical dot matrix display board			DC24V power supply input, Modbus communication protocol; Vertical display; 3 red 5x7 dot matrixes display elevator running direction and current floor; Supports status display such as overload, full-load, stop, fault, and inspection; Support parameters modification and viewing in the car
MT70-HCB-I Ultra-thin dot matrix display board			DC24V power input, Modbus communication protocol; Vertical display; 3 red 5x7 dot matrixes display elevator running direction and present floor; Ultra-thin 10mm design for wall-mounted LOP
MT70-HCB-N Ultra-thin dot matrix display board			DC24V power input, Modbus communication protocol; Vertical display 3 red 5x7 dot matrixes display elevator running direction and present floor; Ultra-thin 10mm design for wall-mounted LOP


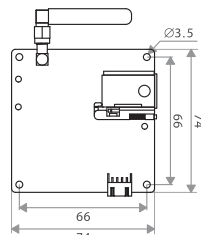
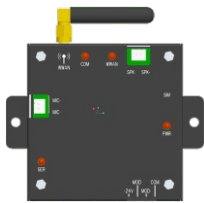
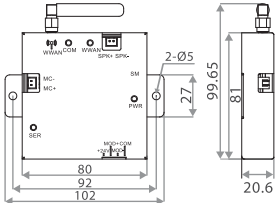
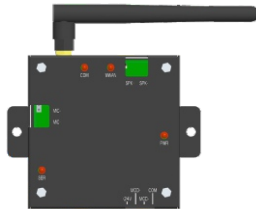
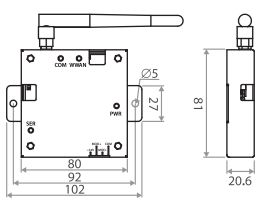
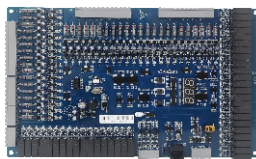
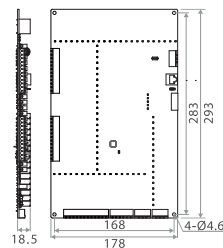

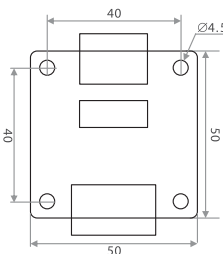
System Components	Product	Size	Specification
MT70-HCB-GT1 Vertical dot matrix display board for disabled persons			DC24V power supply input, MODBUS communication protocol; Vertical dot matrix display; 1 orange 5x7 dot matrixes display the elevator running direction, 1 orange 7x11 dot matrixes display the elevator present floor; Support one group of normal hall call and one group of hall call for disabled persons
MT70-HCB-F1 Horizontal dot matrix display board for disabled persons			DC24V power supply input, MODBUS communication protocol; Horizontal dot matrix display; 1 orange 5x7 dot matrixes display the elevator running direction, 1 orange 7x11 dot matrixes display the elevator present floor; Support one group of normal hall call and one group of hall call for disabled persons; Support parameters modification and viewing in the car
MT70-HCB-F5 Dot matrix display board			The horizontal and vertical display can be switched by the dial switch; 1 orange 7x11 dot matrixes display the elevator running direction, 2 orange 7x11 dot matrixes display the elevator present floor; Support parameters modification and viewing in the car
MT70-HCB-KV1 Vertical dot matrix display panel			DC24V power supply input, 1 RS485 communication; White vertical dot matrix display; Can display auto-running, inspection, rescue, moving; One 5x7 dot matrixes display direction, one 7x11 dot matrixes display floor
MT70-HCB-KH1 Horizontal dot matrix display panel			DC24V power supply input, 1 RS485 communication; White horizontal dot matrix display; Can display auto-running, overhaul, rescue, moving; One 5x7 dot matrix display direction, two 5x7 dot matrix display floor


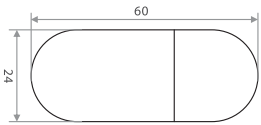

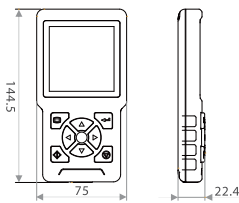

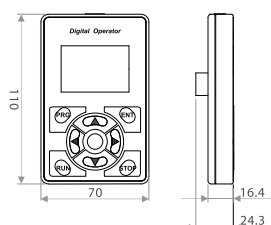
System Components	Product	Size	Specification
MT70-HCB-U1/ MT70-HCB-U2 4.3 inches ultra-thin LCD segment display board			4.3 inches vertical LCD segment display; Ultra-thin design, vertical display; HCB-U1: white on blue, HCB-U2: white on black; Support displays such as: Full-load, inspection, fire, parking
MT70-HCB-U3A 4.3 inches ultra-thin LCD segment display board			4.3 inches vertical LCD segment display; Ultra-thin design, vertical display; White on black; Support displays such as: Full-load, inspection, fire, parking
MT70-HCB-D3 5.7 inches horizontal LCD segment display board			DC24V power supply input, Modbus communication protocol; 5.7 inches horizontal LCD segment display, white on blue; Can display full-load, inspection, fire, parking; Automatically enter energy saving mode during idle time
MT70-HCB-V MT70-HCB-V1 6.4 inches LCD segment display board			DC24V power supply input, Modbus communication protocol; 6.4 inch vertical LCD segment display board; HCB-V: White on blue, HCB-V1: White on black; Can display full-load, inspection, fire, parking; Automatically enter energy saving mode during idle time
MT70-HCB-K 5.7 inch LCD dot matrix display board			DC24V power supply input, Modbus communication protocol; 5.7 inches LCD dot matrix display, white on blue, 320x240 resolutions; Can switch the display modes by DIP switch (vertical display by factory setting); Can display fire, inspection, parking, over-load, full-load etc.; Automatically enter energy saving mode during idle time; Does not support calls



System Components	Product	Size	Specification
MT70-HCB-T1A 4.3 inches TFT LCD display board			4.3 inches TFT LCD display, 480 × 272 resolutions; Horizontal and vertical display can be set; Automatically reduce the display brightness during idle time and enter the energy saving mode; Pictures can be set by users
MT70-HCB-T5A 7 inch TFT LCD image display board			7-inches TFT LCD display, 800 × 480 resolutions, call-in use; Horizontal and vertical display can be set, support a variety of display styles; Automatically reduce the display brightness during idle time and enter the energy saving mode; Can realize voice announcement, play background music, ault, fire, inspection, over-load voice prompts etc; Pictures can be set by users; Does not support calls
MT70-HCB-T5B 7 inches TFT LCD touch screen image display board			7-inches TFT LCD touch screen display, 800 × 480 resolution, call-in, support calls; Horizontal and vertical display can be set, support a variety of display styles; Automatically reduce the display brightness during idle time and enter the energy saving mode; Can realize voice announcement, play background music, fault, fire, inspection, over-load voice prompts etc; Pictures can be set by users
MT70-HCB-M5 10.1 inches TFT LCD video display board			10.1 inches TFT LCD display, 1280×800 resolutions; Horizontal and vertical display can be set; Can display full-load, inspection, fire, etc; Support users to design own text, LOGO, etc.; Can realize voice announcement, play background music, fault prompts etc.; Pictures and videos can be set by users; Does not support calls
MT70-HCB-M6 10.4 inches TFT LCD video display board			10.4 inches TFT LCD display, 800×600 resolutions; Horizontal and vertical display can be set; Can display full-load, inspection, fire, etc.; Support users to design own text, LOGO, etc.; Can realize voice announcement, play background music, fault prompts etc.; Pictures and videos can be set by users; Does not support calls

System Components	Product	Size	Specification
MT70-IOB-A Elevator integrated controller standard IO expansion card			Increase the floor up to 16 floors; Can be used as CTB of cargo elevator, reducing the accompanying cable; Communication mode switching, external call communication can be converted from serial to parallel
MT70-IOB-B Elevator integrated controller economical IO expansion card			Increase the floor up to 14 floors; Can be used as CTB of cargo elevator, reducing the accompanying cable; Communication mode switching, external call communication can be converted from serial to parallel; Supports seven-segment code, BCD display, binary and serial communication display
MT70-IOB-C Elevator integrated controller economical IO expansion card with dot matrix display			Increase the floor up to 14 floors; Can be used as CTB of cargo elevator, reducing the accompanying cable; Communication mode switching, external call communication can be converted from serial to parallel; Can directly display the floors by dot matrix display
MT70-PTS-A Parallel-Serial conversion module			Used in the elevator system, convert the output parallel signal such as elevator floor signal to serial signal; Supports seven-segment code, BCD display, binary input
MT70-EIOT-B Intelligent announcement module			Remote monitor: Used to monitor the status of the elevator system and message monitoring information to the phone terminal; Fault reminder: Automatic SMS reminder when fault; Maintenance management: Electronic sign-in and auto-remind; 5+1 intercom: Merged with elevator original intercom system, achieve telephone communication with outside

System Components	Product	Size	Specification
MT70-CIC-B 2G IoT Module			Remote monitor: The administrator can operate elevator in remote way through the platform (computer or WeChat); Elevator status monitor: When fault, information will be sent to PC, Wechat; If use M2M IoT card, the SIM count can be saved
MT70-CIC-B1-LY GPRS communication interface board module with voice function and protective shell			Remote monitor: The administrator can operate elevator in remote way through the platform (computer or WeChat); Elevator status monitor: When fault, information will be sent to PC, Wechat; Support voice call function; If use M2M IoT card, the SIM count can be saved
MT70-CIC-E WiFi communication interface module			Remote monitor: The administrator can operate elevator in remote way through the platform (computer or WeChat); Elevator status monitor: When fault, information will be sent to PC, Wechat
MT70-EIO-A Elevator integrated controller IO expansion board			Realize the trap detection and automatical rescue function of the elevator controller; When the elevator causes an elevator failure due to a peripheral circuit failure, the elevator controller determines the current fault state, confirms the fault circuit segment, and determines whether the rescue condition is met. If it is satisfied and is in a non-leveling, initiate the corresponding rescue; The rescue process is much more safer. During the rescue process, trapped people can stop the rescue at any time. Rescue can be requested with existing switch door buttons without additional addition
MT70-KCB-B2 Interface board			Realize the new national standard of door lock bypass function

System Components	Product	Size	Specification
MT70-BLE-A Bluetooth module			When using the Bluetooth APP debugging software, it can should be used in corresponding, and connected to the controller through the USB interface; Cannot be used as a USB flash disk and cannot be plugged into PC; RJ45 (CN3) on MCB cannot be used with the USB interface (CN11)
MT70-LCD-C Keypad			Higher resolution and more comprehensive display content; The system menu can be classified according to the application; More convenient and faster debugging; Add different application macros
MT70-LCD-D Keypad			Compatible with all elevator series products