

Elevator Control Solution

Solution Features

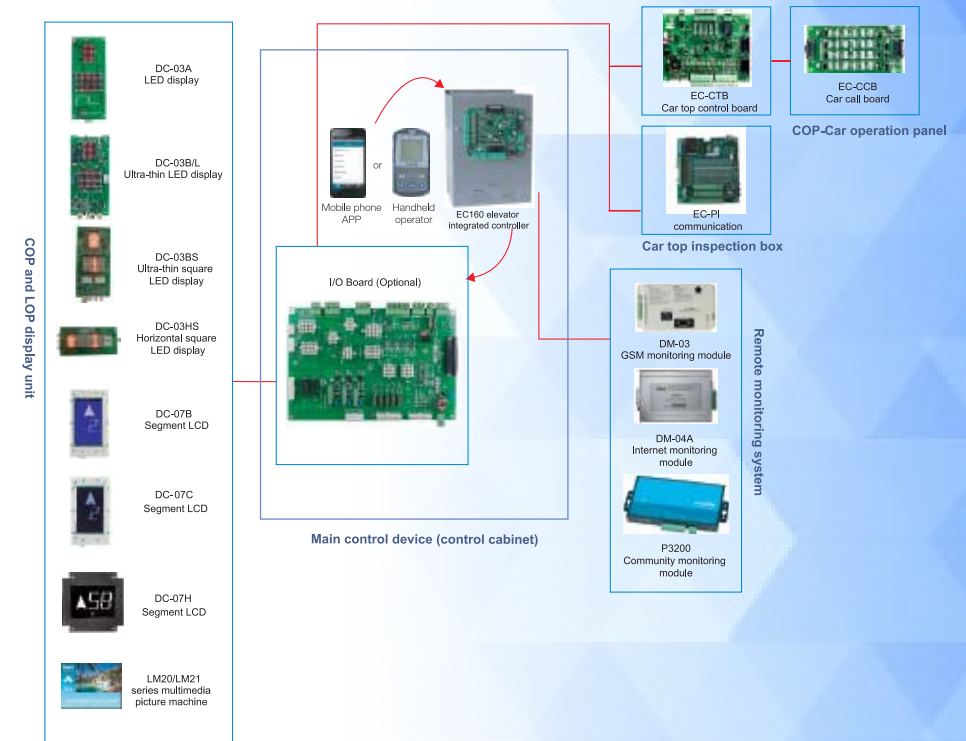
- EN81 Elevator Standard
- Integration of intelligent drive and elevator controller
- Multiple choices such as multi-media, LCD, segment and dot-matrix LED for the COP and HOP display
- Real-time remote monitoring system, effective elevator pre-alarm and alarm solutions
- Controllable maintenance supervision



Technical Advantages

- PLC programmable technology
- Direct stop technology in the principle of distance control, automatically generate N curves
- Advanced vector control technology
- LCD operation keypad, mobile phone commissioning APP with bluetooth module
- Redundancy design, safety protection function for the drive control, improving elevator safety factor greatly
- Automatic car position correction, monitoring function for the forced deceleration switch, protection function against top-hitting and bottom-clashing

EC160 Series Configuration



Hand terminal (optional):

EC100-PAD elevator debugging tool, LCD display, available in Chinese, English and Turkish. Yitiao APP on phone, integrates all and more functions of EC100-PAD, support remote assistance online, convenient to use and carry.

Multi-type display board:

multi-media, LCD, LED (horizontal/vertical display)

Elevator IoT Solution:

DM-03, elevator fault alarm GSM module
DM04A, elevator internet monitoring module
P3200, elevator community monitoring module



MAP CONTROL

EC300 Series Elevator Integrated Controller

About the Product

EC300 intelligent integrated machine all in one designed for drive, control, energy feedback and network communication is a new generation of 4-quadrant intelligent elevator control systems. By the combination of 4-quadrant drive, control and management and the applications on potential energy recovery for elevators, it improves all around in the aspects of energy efficiency, reliability, easy operation and economic practicality.

Main Features

- Resources reducing in elevator installation, debugging, operation and management
- Max. speed: 6m/s, Max floor: 64
- Intelligent network group control can control 8 elevators at the same time
- Embedded high-performance starting compensation technology of non-weighing sensor
- CANBUS for communication in the car, MODBUS or CANBUS for external communication
- Low voltage emergency rescue mode of AC220V single-phase UPS, light load direction search
- Safety enabling hardware input conform to EN81 standards

Special Functions

- Adopts four quadrant frequency control technology to convert the redundant mechanical energy(potential energy and kinetic energy) of the elevator in operation into electricity back to the grid, replace the traditional way of braking resistor energy consumption, energy feedback efficiency up to 80% above, feedback current harmonic < 5%, and total energy-saving up to 30%, in line with the requirement to the power grid harmonic in IEC61000-3-2, makes it easier to get the A grade of elevator energy consumption indicators authentication.
- DSP adopts TI dual-core control chip from the United States, with high communication rate, fast curve tracking response, high control accuracy and strong anti-interference ability
- Built-in data black box function: it can monitor and record the status of elevator operation in real time. When the elevator has instantaneous fault, the control chip can automatically judge the type of fault and record it all in memory



MAP CONTROL

GD300L Series Inverters for Elevator

About the Product






GD300L series inverters are the new generation inverters developed based on INVT the latest and most advanced Goodrive300 control platform. As using TI 28-series DSP and advanced vector control technology, Goodrive300L series inverters improved great achievements in security and reliability, control performance, and use functions.



Technical Features

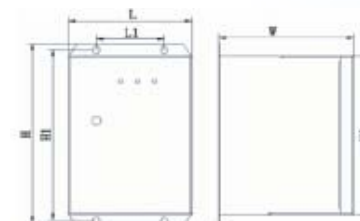
- STO function: Support optional built-in Safety Torque Off function, and passed the certification by IEC 61508(SIL 3), EN/ISO 13849-1(PL e) and EN945-1(Category 3)
- Support forced deceleration function to prevent lift car from top-hitting and bottom-clashing during the upward or downward running.
- Emergency running with power supply AC220V or AC380V or battery(DC48V≤voltage≤96V) and light load direction search.
- Starting/stopping torque compensation with/without weight sensors prevent reverse slip at startup by parameter setting, ensuring stable lift startup.
- Support open/closed loop vector control
- Support jerkless ARD

Expansion Card

Name of card	Function instruction
 Asynchronous PG card	Compatible with push-pull signal, open collector signal and the differential signal; Frequency division range: 1~256, the division factor can freely choose by DIP switch
 SIN/COS Synchronous PG card	SIN/COS synchronous PG card support SIN/COS synchronous encoder(main type is Haidenhain ERN1387 or which is compatible with it)
 Absolute PG card	Absolute PG card support absolute rotary encoder, Endat 2,1/2,2 interface. The division factor is 1. Max. input frequency is 50KHz. (Main type is Haidenhain ECN1313)
 GD300L-I/O extension card	Offers 3 digital inputs, 1 relay output, 1 high-speed output, 1 open collector output and 1 RS485 port for Modbus RTU.
 STO card	STO redundant input terminals, externally connecting to NC contactor. Input H1 and H2 can be used as S5 and S6 (expansion for digital input) if STO disabled.

Dynamic Braking Unit

Model	Application range	L (mm)	L1 (mm)	W (mm)	H (mm)	H1 (mm)	H2 (mm)
DBU-055-4	18.5-55kW	110	60	120	180	171	160



EC10 Series Integrated Door Controller

About the Product

EC10 Series Integrated Door Controller using closed loop servo control technology, integrate car top control panel and door control as an elevator door system drive controller. It is customized for EC100 / EC160 series elevator integrated controller, which make the debugging and maintain easily.

Technical Features

- Use closed loop servo control technology, due to high velocity response ability
 - Integrated car top control board, reducing the wiring, simple and convenient debugging
 - Precise of torque control, having door open/ close torque protect function
 - Intelligent door width self learning, is easy to use
 - Advanced limit function ensure the door machine is running smoothly and accurate
 - Friendly parameter setting interface, convenient modify parameter
- V i i t i t f S t CAN MODBUS RS232



EC20 Series Elevator Door Controller

About the Product

EC20 Series Elevator Door Controller adopts international advanced vector control algorithm, can drive asynchronous motors, supports speed control mode, distance control mode 1 and 2, and it is widely used in automatic doors for elevators, shopping malls and supermarkets.

Technical Features

- **Excellent control performance**
Sensorless vector control and closed loop control for induction door motor
- **Various control modes**
Available speed control mode, distance control mode 1 and 2, improving application range
- **Mini structure design**
Smaller size, saving installation space
- **Various interfaces and strong functions**
Standard embedded CAN communication interface
- **Multiple mounting methods**
Compatible with wall mounting and rail mounting, easy to install
- **Easy to use and maintain**
The fan can be assembled and disassembled separately, easy to maintain



EC30 Series Elevator Door Controller

About the Product

EC30 Series Elevator Door Controller is a driving system controlling permanent magnet synchronous motor and is specified for elevator door control, and it's able to achieve the best door opening and closing speed curve, efficient, reliable, easy to operate; the EC30 door controller is applicable to the door system whose net door opening width is (700~1500) mm.



Technical Features

- Self-learning of door width
- Demonstration of automatic door opening and closing
- Failure alarm and self-protection function
- Support PM motor with absolute encoder

EC-CTB Car Top Control Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
162×125	152×115	Φ4

Product Features

- CANBUS communication
- RS485 communication available, provides a standard RS485 communication protocol to connect with third-party multimedia displays and voice announcer
- RS232 communication available
- Analog weighing input and switching value weighing modes available
- Up to 64 floors control
- Arrival bell output
- Illumination energy-saving control
- Double-door control

Installation Position

Car top inspection box or car operation panel



EC-CCB Car Operation Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
158*79	148*68	Φ4

Product Features

- One board every elevator at least, the first CCB supports 16 floors, one board every 20 floors when more than 16 floors
- Driver, independent, bypass or non-stop switch, driver communication, door-opening delay button input etc.

Application Range

Combined with EC-CTB car top control board

Installation Position

Car operation panel





MAP CONTROL

EC-PI Communicaiton Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
130*120	123*113	Φ4

Product Features

- EC-PI is the serial-to-parallel IO board of EC series integrated controller
- One board supports maximum 8 floors under full collective mode, 16 floors under down collective mode, and supports cascade to extension
- Programmable input/output: 3 relays, 13 optocouplers, 35 low-voltage inputs
- CAN communication, flexible installation

Installation Position

Car top inspection box or control cabinet



MC-GCL Elevator Group Controller

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
121.9*76.2	111.1*64	Φ4

Product Features

- GCL group control system support max 8 elevators
- GCL group control system operation mode: up passenger-flow rush hour, down passenger-flow rush hour, normal, idle
- Optimized dispatch, optimized running elevator
- Shortest and longest waiting time
- Calling control of long time waiting
- Passenger-flow rush hour service, self-running
- Energy-saving and group control fire fighting operation
- Group control spare power operation
- Decentralized processing control

Installation Position

Elevator control cabinet



LM11 Elevator Voice Station Reporting Device

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
156*105*41	145*70	Φ5.5

Product Features

- Announce the running direction when the elevator is about to run
- Announce the floor when the elevator is about to arrive at the stop
- Play the background music
- Comfort the passengers during fault or fire running
- When the elevator arrives at a floor, play the advertising music specified at the current floor after announcing the floor
- Support users to freely change all the music in LM11, including advertising music, background music and stop announcing music
- Use SD card to store MP3, easy to change

Installation Position

Car top or COP-Car operation panel



BA Protocol Converter Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
90*60	64*52	Φ4

Product Features

- Used as a protocol converter, can provide RS485 and CAN protocol
- Baud rate is optional
- CANBUS protocol can provide monitoring signal: up/down, light curtain, OL, FL, fire protection, lock, fault etc
- RS485 protocol can provide monitoring signal: up/down, OL, FL, fire protection, lock, drive, by-pass, maintenance, fault etc
- RS485 bus monitoring signal: up/down, OL, FL, fire protection, lock, drive, by-pass, maintenance, fault etc

Application Range

Configured with other company's RS485 communication or CAN disclosed protocol communication product

Installation Position

COP-Car operation panel



MAP CONTROL

EC-RDB Pre-open Door Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
98*84	90*76	Φ4

Product Features

- Micro-leveling function: when the floor is high, passengers pass in and out can cause the car moving up and down for the rope stretching, which causes inaccurately leveling, so the system will leveling the car slowly with door open
- Pre-open function: to improve efficiency of the elevator, when the elevator is in the pre-installed zone, it will open the door automatically through the control of program (elevator is leveling, and not finishing the progress yet)

Application Range

When customer needs micro-leveling function, pre-open function

Installation Position

Control cabinet



EC-UCM UCMP Control Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
113*108	97*92	Φ4

Product Features

- EC-UCM control board can detect whether the elevator moves unintentionally. If the elevator moves unintentionally, ec-ucm controller will output a safety signal to the actuator (elevator rope clamp, rail clamp and governor) to brake, providing an extra layer of protection for the elevator passenger
- Can effectively prevent contact adhesion, reduce error output and failure

Installation Position

Control cabinet



BS10 Intelligent Management System for Elevator IC Card

Product Features

- Elevator special card can be used when get authorization of real estate management department
- Re-swipe card prevention
- Real-time record of card
- Automatic calling according to IC card information
- Remote control of elevator button
- Setting elevator special IC card permission to meet different demands
- Blacklist lock-out function to prevent illegal use when card is lost
- Multi-function card like smart card
- Card controller functions: swiping, lost, timed, timing, charging, visitor, driver, fire fighting, real-time card records, remote real-time card information, remote control of elevator etc.



Elevator Special IC Card Classification

Authorization card, common card, report the loss of card, timed card, timing card, expense deduction card, visitor card

System Configuration

- BS10-01 controller 1 piece every elevator
- BS10-02 antenna board 1 piece every elevator
- BS10-03 extension board 1 piece every 16 floors
- BS10-04 write card (optional)
- IC card read-write software (optional)

Installation Position

COP-Car operation panel

DC-03B/L Dot-matrix LED Display

Product Features

- 32-bit processor, red round dot-matrix LED, high brightness
- Refinement ultra-thin design 10mm, applied to wall-hooked landing operation panel
- Simple and reliable CANBUS serial communication
- All ASC characters can be displayed
- Calling, locking and fire protection function
- OL, FL, maintenance are optional
- Dot-matrix LED rolling display



Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
144*70*12	134*56	Φ4

DC-03S Dot-matrix LED Display



Product Features

- Red round dot-matrix LED
- CANBUS communication
- Can display all characters of ASC
- Function for hall call, parking, fire
- Support output for arrival lantern

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
85*50*14.1	72.4*42	Φ4

DC-03W Dot-matrix LED Display



Product Features

- DC24V power, 32-bit processor
- CANBUS communication
- All ASC characters can be displayed
- Calling, locking and fire protection function
- OL, FL, maintenance information is optional
- White dot-matrix LED rolling display

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
144*70*12.2	134*56	Φ4

DC-03H(S) Dot-matrix LED Display



Product Features

- DC24V power, 32-bit processor
- CANBUS communication
- Round dot matrix LED display
- Display floor, direction, OL, FL, and overhaul information
- Output of arrival lamp or bell
- DC-03HS: optional for red square dot-matrix LED

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
144*70*11.6	134*56	Φ4

LM21 Series Multimedia Picture Machine



Model	LM21—056	LM21—070	LM21—104
Size of LCD	5.6inch (4:3)	7inch (16:9)	10.4inch (4:3)
LCD Resolution(Pixels)	640*480	800*480	640*480

Product Features

- Display the floor, running direction, overload, fire alarm, full load, stopping and inspection information
- Floor reporting or background music playing. The displaying will stop automatically if no calling signal for 10 minutes;
- Display the data, time, LOGO of customers and words;
- Color pictures used for corporate identify and commercial advertising;
- The user can use Micro SD to update the displayed images and audio files and change the displayed interfaces and modes. Horizontal and vertical installation is available.

Commissioning Tools



EC100-PAD



Yitiao App
(Android ≥4.0.3)



Bluetooth Module

Product Features

- Optional for English, Chinese and Turkish menu
- Parameter setting/copy, fault inquiry, running monitoring, etc

Product Features

- Language display follow system setting
- Parameter setting/copy, fault inquiry, running monitoring, etc support online assistance

INVT Series COP & HOP



TH Series COP & HOP



Material

Tempered Glass

C & LBH Series HOP





MAP CONTROL

DM04A IoT & Cloud Monitoring Module

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
124.5*76	115*38	Φ3.5

About the Product

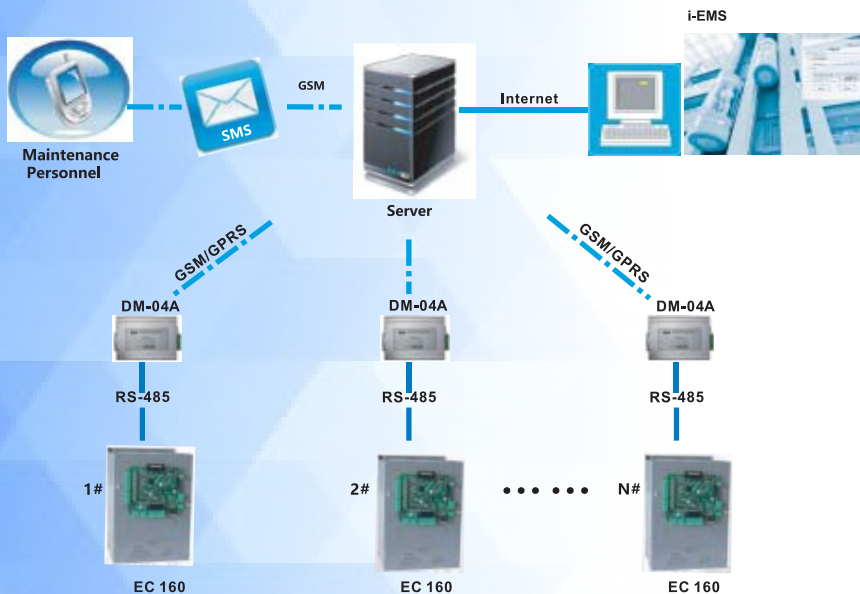
DM04A is a new generation of elevator monitoring system, which uses the latest technology of communication, IoT (Internet of Things) and cloud. Visiting the i-ESM page on browser, we can remotely control the elevator like remote elevator stopping, matching, failure enabling and other operations, and analyze, save the running data and maintenance records to enhance the management of elevator and maintenance

Product Features

- Real-time monitor system on the basis of Internet
- Dynamic real-time monitoring operation and early warning
- Real-time failure records and warning through collection of signal, analysis failure and records of operation
- Supervision and management of maintenance technician, real-time records of maintenance personnels' operation
- CAN port compatible



IoT & Cloud Monitoring System



MAP CONTROL

Inspection Box

Product Features

- Apply plug-in wiring, easy to install, easy to maintain
- Inspection box equipped with EC-CTB, to simplify the COP-Car operation panel wiring
- CANBUS communication
- Safety standard: EN81



Car top inspection box

Appearance dimension: 520X340X120(HXWXDmm)



Pit inspection box

Appearance dimension,

Main: 500X325X250 Subsidiary: 140X72X60(HXWXDmm)

ARD-Automatic Rescue Device



Independent Cabinet Model



Cabinet Integrated Model

Product Features

- Intelligent microprocessor design, in any emergency, main power automatic detection and backup power automatic switching
- VVVF technology, reliable power supply
- Compact mechanical design
- Easy installation and safe operation