KINTICS Elevator Products Catalog

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EC90 Series Open Loop Elevator Integrated Controller

About the Product

EC90 is a new generation of elevator open-loop integrated controller developed based on INVT's mature GD300L open-loop control technology and EC series integration technology. It also integrates the closed loop vector control mode, support synchronous and asynchronous motor, parallel and serial communication call mode and other separate functions on the market, can be well adapted to the needs of the market.

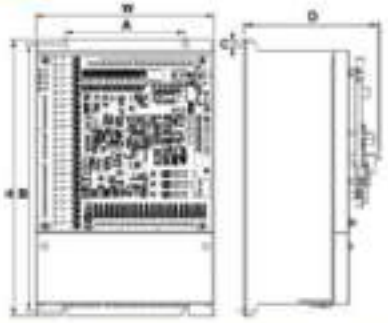
Main Features

- Support up to 15 floors (with floor expansion board), maximum speed 1.0 m/s(open loop), 1.5 m/s(closed loop)
- Support both geared motor and PM motor
- Support both open loop and closed loop control mode with extra PG card
- Support parallel/semi-serial/full serial communication
- Easy commissioning tools such as external LCD keypad, built-in keypad and phone APP with Bluetooth adaptor
- Emergency rescue running with UPS power supply
- Built-in RTC circuit, supports the lock function based on date and time
- Customized protocol function efficiently prevents the spare parts to being replaced by others

Configuration

Model	Input voltage	Rated power(kW)	Input current (A)	Output current (A)	Braking unit	Braking resistor
EC90-004-4	3PH AC380V±15%	4.0	13.5	9.5	Built-in	75Ω/1200W
EC90-5R5-4		5.5	19.5	14.0	Built-in	55Ω/1500W
EC90-7R5-4		7.5	25.0	18.5	Built-in	50Ω/2000W
EC90-011-4		11	32.0	25.0	Built-in	40Ω/4000W
EC90-015-4		15	40.0	32.0	Built-in	32Ω/4500W

Appearance and Installation Dimensions

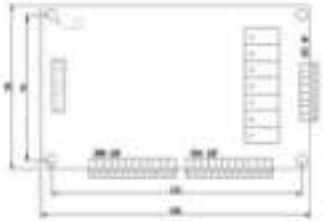


Model	W (mm)	H (mm)	D (mm)	A (mm)	B (mm)	Diameter of mounting hole(mm)	Mounting bolt
EC90-004-4	180	290	178	148	274	Φ5.5	M5
EC90-5R5-4	180	290	178	148	274	Φ5.5	M5
EC90-7R5-4	225	360	190	150	345	Φ7	M6
EC90-011-4	225	360	190	150	345	Φ7	M6
EC90-015-4	225	360	190	150	345	Φ7	M6

Expansion Card

Model	Picture	Category	Description	
EC-PG101-05		PG card for asynchronous motor	5V Incremental PG card	Special for incremental encoder, power supply output :-05(4.75~7V), -12(11.75~16V), -24(24V±5%)
EC-PG101-12			12-15V Incremental PG card	
EC-PG101-24			24V Incremental PG card	
EC-PG102-05		PG card for synchronous motor	Sin/Cos PG card	Special for SIN/COS encoder like ERN1387, power supply output 5V±5%, 300mA
EC-PG106-05-T EC-PG106-05-S			Absolute encoder PG card	Special for ENDAT/SSI encoder like ECN1313, power supply output 5V±5%, 300mA

Floor Expansion Card



Note: optional for floor expansion up to 15 floors.

Model	Appearance dimensions		Installation dimension		
	L(mm)	W(mm)	L(mm)	W(mm)	Diameter of mounting hole(mm)
EC-EBA	130	79	121	70	Φ5

EC160A/EC160K Series Elevator Integrated Controller

About the Product

EC160A/EC160K series elevator integrated controller is a new elevator intelligent control system developed under the design concept that integrates drive, control and network communication together. It adopts advanced closed loop vector control technology, elevator intelligent control technology and network communication technology, integrating makes elevator control, drive, and management integrate efficiently.

Note: EC160A - control board integrates terminal block for the inputs; EC160K - using dedicated plug-in board for the inputs, connected to the control board with the flat cable, refers to page 10.

EC160A

EC160K

Main Features

- Safety enabling hardware input conform to EN81 standards
- Max. speed: 6m/s, Max floor: 64
- Support the detection of phase sequence to save the phase relay in control panel
- Intelligent group control supports up to 8 elevators at the same time
- Embedded high-performance starting compensation technology of non-weighing sensor
- Support emergency rescue running for AC220V single-phase UPS and light load direction search
- Highly integrated design makes the structure compact and saves space for control cabinet
- Various debugging method like phone app, LCD keypad and on-board built-in keypad
- Safety monitor function for brake force and door lock circuit shorted
- New PWM dead zone compensation technology effectively reduces motor noise and loss
- Built-in PG card, support both SIN/COS and incremental encoder(PM motor and induction motor)

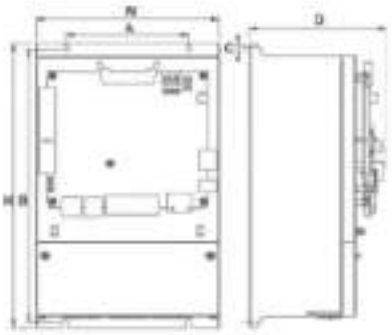
Comprehensive Technical Parameters

Item	Name	Description
I/O characteristics	Input voltage range	3PH AC380V±15% 3PH AC220V±15%
	Input frequency range	47~63Hz
	Output voltage range	0~rated input voltage
	Output frequency range	0~400Hz
Peripheral interface characteristics	Digital low voltage input	24 digital inputs, 9~30V
	High voltage detection input	5 high voltage detection inputs, 110V/220V
	Switch output	Standard: 6 relay NO outputs, 5A/250 VAC
	Communication interface	2 groups of CANbus, 2 groups of Modbus
	Encoder interface	Standard: SIN/COS, UVW, incremental encoder interface Optional: Endat 2.1, rotary PG card
Technical control characteristics	Control mode	V/F, open loop vector, close loop vector
	Speed control accuracy	Sensorless vector control: ±0.5% of the Max. speed; PG vector control: ±0.1% of the Max. speed
	Starting torque	Sensorless vector control: 0.5Hz/150% (SVC); PG vector control: 0Hz/180% (VC)
	Overload capacity	150% of the rated current: 60s, 180% of the rated current: 10s, 200% of the rated current: 1s
	Carrier frequency	1.0~16kHz, adjust carrier frequency automatically according to load characteristics, default value: 6kHz

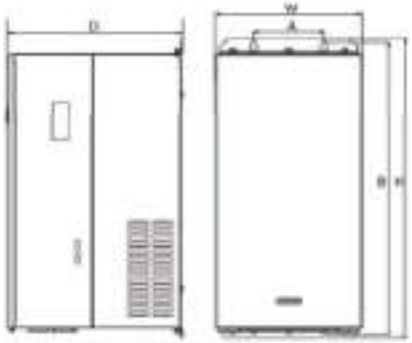
Configuration

Model (EC160A)	Model (EC160K)	Input Voltage	Rated power (kW)	Output current (A)	Braking unit	Braking resistor
EC160-2R2-S2(A)	/	1PH AC220V±15%	2.2	11.0	Built-in	100Ω/1000W
EC160-004-2(A)	/	3PH AC220V±15%	4.0	18.5	Built-in	35Ω/1200W
EC160-5R5-2(A)	EC160-5R5-2(K)		5.5	27.0	Built-in	25Ω/1500W
EC160-7R5-2(A)	EC160-7R5-2(K)		7.5	34.0	Built-in	20Ω/2000W
EC160-011-2(A)	EC160-011-2(K)		11.0	46.0	Built-in	15Ω/4000W
EC160-015-2(A)	EC160-015-2(K)		15.0	62.0	Built-in	10Ω/4500W
EC160-018-2(A)	EC160-018-2(K)		18.5	75.0	DBU100H-060-2	8Ω/5000W
EC160-022-2(A)	EC160-022-2(K)		22.0	92.0	DBU100H-060-2	7Ω/6500W
EC160-004-4(A)	/	3PH AC380V±15%	4.0	11.0	Built-in	75Ω/1200W
EC160-5R5-4(A)	EC160-5R5-4(K)		5.5	13.0	Built-in	55Ω/1500W
EC160-7R5-4(A)	EC160-7R5-4(K)		7.5	18.5	Built-in	50Ω/2000W
EC160-011-4(A)	EC160-011-4(K)		11.0	27.0	Built-in	40Ω/4000W
EC160-015-4(A)	EC160-015-4(K)		15.0	34.0	Built-in	32Ω/4500W
EC160-018-4(A)	EC160-018-4(K)		18.5	38.0	Built-in	28Ω/5000W
EC160-022-4(A)	EC160-022-4(K)		22.0	46.0	Built-in	22Ω/7000W
EC160-030-4(A)	EC160-030-4(K)		30.0	62.0	Built-in	20Ω/10000W
EC160-037-4(A)	EC160-037-4(K)		37.0	75.0	DBU100H-060-4	14Ω/11100W
EC160-045-4(A)	EC160-045-4(K)		45.0	92.0	DBU100H-060-4	11Ω/13500W
EC160-055-4(A)	EC160-055-4(K)		55.0	115	DBU100H-060-4	9Ω/16500W

Appearance and Installation Dimensions



4~30kW



37~55kW

Input voltage	Power(kW)	W(mm)	H(mm)	D(mm)	A(mm)	B(mm)	C(mm)	Mounting bolt
3PH AC220V	4~7.5	223	347	169	150	334.5	Φ7	M6
	11~15	290	426	233	235	410	Φ7	M6
3PH AC380V	4~5.5	223	347	168	150	334.5	Φ7	M6
	7.5~15	223	347	169	150	334.5	Φ7	M6
	18.5~30	290	426	233	235	410	Φ7	M6
	37~55	270	555	325	130	540	Φ7	M6

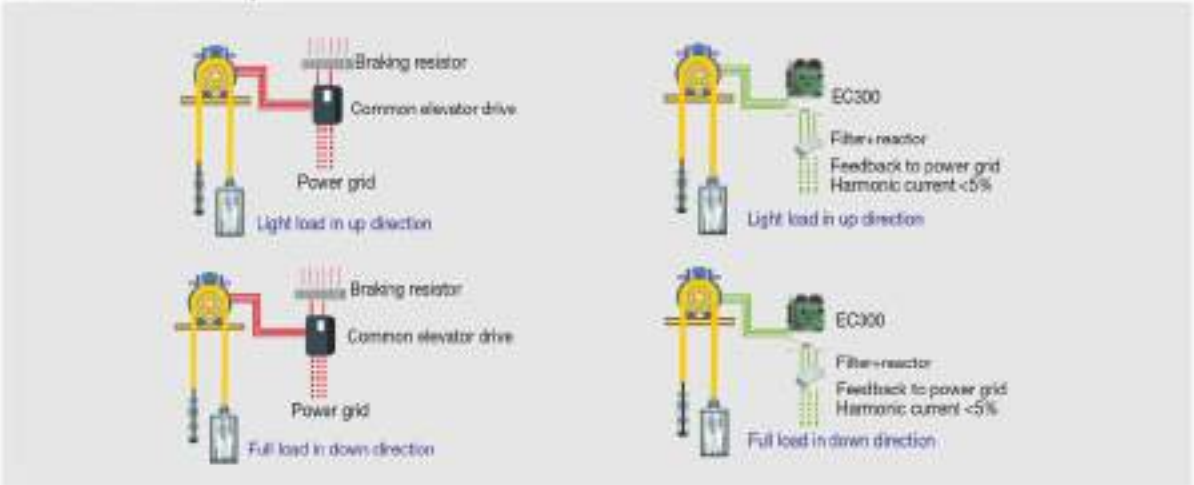
EC300 Series Four-quadrant Elevator Integrated Controller

About the Product

EC300 elevator integrated controller, 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 loading occasions for elevators, it improves all around in the aspects of energy efficiency, safety and reliability, easy operation and economic practicality.

Main Features

- All elevator functions same as EC160A elevator integrated controller
- Adopts four quadrant frequency control technology to convert the redundant mechanical energy(potential energy & kinetic energy) of the running elevator into electricity back to the grid instead of the traditional energy consumption way with braking resistor. The energy feedback efficiency up to 80% above, feedback current harmonic < 5%, and total energy-saving up to 30%, in line with the requirement of power grid harmonic in IEC61000-3-2, makes it easier to get the A grade of elevator energy consumption indicators authentication.
- Adopts TI dual-core control chip as the DSP, high communication rate, quick 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.



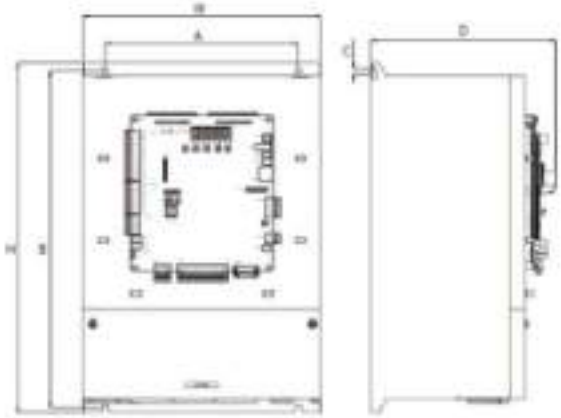
Configuration

Model	Input Voltage	Rated Power (kW)	Input Current (A)	Output Current (A)	Input Reactor Model
EC300-7R5-4	3PH AC380V±15%	7.5	25	18.5	ERL20A10504
EC300-011-4		11	32	27	ERL20A10504
EC300-015-4		15	40	34	ERL35A06004
EC300-018-4		18.5	47	37	ERL45A04704
EC300-022-4		22	56	46	ERL45A04704
EC300-030-4		30	70	62	ERL60A03504

Comprehensive Technical Parameters

Item	Name	Description
I/O characteristics	Input voltage range	3PH 380V(-15%)-440V(+10%)
	Input frequency range	47-63Hz
	Output voltage range	0-rated input voltage
	Output frequency range	0-400Hz
Peripheral interface characteristics	Digital low voltage input	24 digital inputs, 9-30V
	High voltage detection input	5 high voltage detection inputs, 110V/220V
	Switch output	Standard: 6 relay NO outputs, 5A/250 VAC
	Communication interface	2 groups of CANbus,2 groups of Modbus,Ethernet
	Encoder interface	Standard: SIN/COS, UVW, incremental encoder interface Optional: Endat 2.1, rotary PG card
Technical control characteristics	Control mode	V/F, open loop vector close loop vector
	Speed control accuracy	Sensorless vector control: ±0.5% of the Max. speed; PG vector control: ±0.1% of the Max. speed
	Starting torque	Sensorless vector control: 0.5Hz/150% (SVC); PG vector control: 0Hz/180% (VC)
	Overload capacity	150% of the rated current: 60s, 180% of the rated current: 10s, 200% of the rated current: 1s
	Carrier frequency	1.0-16kHz, adjust carrier frequency automatically according to load characteristics, default value: 6kHz
	Feedback harmonic current	<5%

Appearance and Installation Dimensions

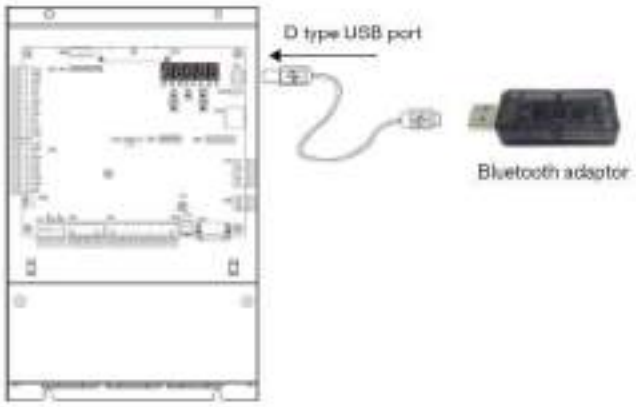


Input voltage	Power(kW)	W(mm)	H(mm)	D(mm)	A(mm)	B(mm)	C(mm)	Mounting bolt
3 PH AC380V	7.5-15	223	347	181	150	334.5	Φ7	M6
	18.5-30	290	426	225	235	410	Φ7	M6

Bluetooth & Phone APP

Product Features

- Convenient carrying of Bluetooth adaptor
- Fully functional and easy to use
- Quick operation of mobile phone touch screen
- Simple debugging of multiple sets of parameters
- Simple remote upgrade
- Online authorization for easy management
- Convenient and fast car debugging
- Support Android and iOS device

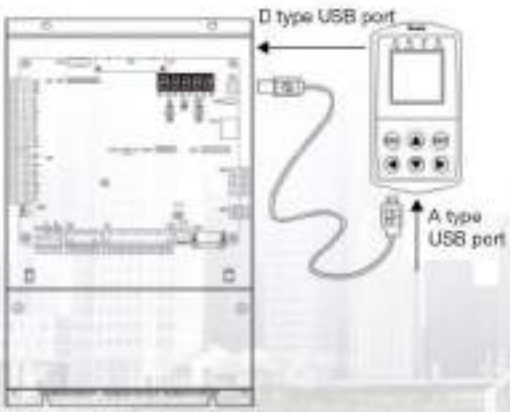


Phone APP

LCD Keypad

Product Features

- Support car debugging
- Support for manufacturer parameter settings
- Support for both Chinese and English languages
- Full text display on 2.5 inch screen
- Can download and upload all parameters
- Different password for access permission to the parameter like inquiry, debug and factory setting



EC-KCB-H2 Plug-in Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
265*155	245*135	Φ5

Product Features

- The plug-in board comes with an error prevention function
- Separate design of high and low voltage circuits
- Assembled and modular design to improve production efficiency of control panel
- Independent detection for front and rear landing and car door lock short circuit
- Reduce engineering installation wiring and reduce wiring error rate
- Design of built-in short circuit and grounding protection fuse

Installation position

Control panel

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 standard RS485 communication protocol for connecting with third-party multimedia displays and voice announcer
- Analog and digital weighing signal input 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 for each elevator at least, the first CCB supports 16 floors, the cascading CCBs support 20 floors
- Attendant, independent, bypass or non-stop switch, attendant direction reverse, door open holding delay button input etc.

Application Range

Combined with EC-CTB car top control board

Installation Position

Car operation panel

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 for 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
- CANbus communication, flexible installation

Installation Position

Car top inspection box or control cabinet

LM11-K1 Elevator Voice Station Reporting Device

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
104*120*28	90*92	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

EC-DF Destination Dispatch System

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
166*150	148*68	Φ4

Product Features

- Support group control up to 8 elevators
- Integrate various advanced dispatch technologies such as expert systems, fuzzy logic, neural networks, etc
- Automatic identification of up/down peak hours, zoned pick-up and drop off, improving elevator operation efficiency
- Real time statistics of passenger flow, achieving decentralized elevator dispatch, providing passengers a better elevator experience
- Flexible and versatile configuration, supporting special functions such as VIP and disabled people

Installation Position

Control panel or independent DDS panel

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

EC-UCM V2.0 UCMP Control Board

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
105*100	97 * 92	Φ4

Product Features

- Adopting safety relays and high reliability design
- Supports the detection of unintended car movement for the elevator with synchronous or asynchronous motor
- Supports advance door open and releveling functions

Installation Position

Control cabinet

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 by setting DIP switch
- CANBUS & RS485 protocol can provide monitoring signal: auto/inspection, up/down, light curtain, overload, full load, fire service, lock, fault etc.

Application Range

Configured with other company's communication product like display board, voice announcement device, building management system etc.

Installation Position

Car operation panel, control panel, hall landing

DC-03B/L Dot-matrix LED Display

Product Features

- 32-bit processor, CANbus communication
- Red round dot-matrix LED, high brightness, scrolling display
- 10mm ultra-thin design, suitable for the wall-mounted landing operation panel(LOP)
- Elevator status displaying like overload, full load, fault and maintenance
- All ASC characters can be displayed
- Hall call, lock and fire service function

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

DC-03BS-A Dot-matrix LED Display

Product Features

- 32-bit processor, CANbus communication
- Red square dot-matrix LED, scrolling display
- 10mm ultra-thin design, suitable for the wall-mounted landing operation panel(LOP)
- Elevator status displaying like overload, full load, fault and maintenance
- All ASC characters can be displayed
- Hall call, lock and fire service function

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

DC-03S/D Dot-matrix LED Display

Product Features

- CANbus communication
- Red round dot-matrix LED, scrolling display
- Ultra-thin design, suitable for the wall-mounted landing operation panel(LOP)
- Elevator status displaying like overload, full load, fault and maintenance
- All ASC characters can be displayed
- Hall call, lock and fire service function
- Support up/down arrival lantern

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
100*70*7.9	86*56	Φ4

DC-03S(0) Dot-matrix LED Display

Product Features

- CANbus communication
- Red and amber color round dot-matrix LED optional, scrolling display
- Ultra-thin design, suitable for the wall-mounted landing operation panel(LOP)
- Elevator status displaying like overload, full load, fault and maintenance
- All ASC characters can be displayed
- Hall call, lock and fire service function
- Support up/down arrival lantern

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

DC-03I Dot-matrix LED Display

Product Features

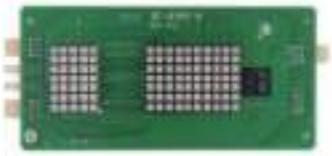
- 32-bit processor, CANbus communication
- Red round dot-matrix LED, scrolling display
- 10mm ultra-thin design, suitable for the wall-mounted landing operation panel(LOP)
- Elevator status displaying like overload, full load, fault and maintenance
- All ASC characters can be displayed
- Hall call, lock and fire service function

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
144*70*12.5	134*56	Φ4

DC-03HS-A Dot-matrix LED Display

Product Features

- 32-bit processor, CANbus communication
- Red and white square dot-matrix LED optional, scrolling display
- Arrival lantern or chime output
- All ASC characters can be displayed
- Hall call, lock and fire service function
- Elevator status displaying like overload, full load, fault and maintenance



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

DC-07I Segment LED Display

Product Features

- 32-bit processor,CANbus communication
- White segment LCD on black background
- Arrival lantern or chime output
- Common ASC characters can be displayed
- Hall call, lock and fire service function
- Elevator status displaying like overload, full load, fault and maintenance

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)	LCD size (inch)
141*78*15	118*60	Φ4	4.3

DC-07P-D3 Segment LED Display

Product Features

- 32-bit processor, CANbus communication
- White segment LED on black background
- 6.5mm ultra-thin design, suitable for the wall-mounted landing operation panel(LOP)
- All ASC characters can be displayed
- Hall call, lock and fire service function
- Elevator status displaying like overload, full load, fault and maintenance

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
131*72*6.5	118*60	Φ4

DC-09A Segment LED Display

Product Features

- 32-bit processor, CANbus communication
- 6.4 inches, white segment LED on black background
- Common ASC characters can be displayed
- Running display like floor number, direction arrow
- Elevator status displaying like overload, full load, fault and maintenance

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
129*119*14	109*88	Φ4

DC-07K-B3 Segment LCD

Product Features

- 32-bit processor, CANbus communication
- White segment LCD on blue background
- Arrival lantern or chime output
- Common ASC characters can be displayed
- Hall call, lock and fire service function
- Elevator status displaying like overload, full load, fault and maintenance

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)	LCD size (inch)
141*79.5*14.5	118*60	Φ4	4.3

DC-07D/DC-07S Segment LCD

Product Features

- 32-bit processor, RS485 communication
- 6.4-inch, white segment LCD on blue (07D) / black (07S) background
- Common ASC characters can be displayed
- Elevator status displaying like overload, full load, fault and maintenance

DC-07D DC-07S

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)	LCD size (inch)
178*130*18	160*105	Φ4	6.4

DC-05 Series Segment LCD

Product Features

- 5-inch, white segment LED on blue (05HB) / black (05H) background
- CANBUS communication
- Function for hall call, parking, fire
- Display for overload, full load, maintenance

DC-05HB

DC-05H

Appearance dimension (mm)	Installation dimension (mm)	Hole size (mm)
141*94*19	125*77	Φ4

LM21 Series Multimedia Picture Machine

Model	LM21—043	LM21—070	LM21—104	LM21—121
Size of LCD(inch)	4.3	7	10.4	12.1
LCD Resolution(Pixels)	640*480	800*480	640*480	800*600

Product Features

- Display the floor, running direction, overload, fire alarm, full load, fault and inspection information
- Floor reporting and background music playing.The display will be off automatically if standby over 10 minutes
- Display the date, clock, LOGO of customers and words;
- Color pictures used for corporate identify and commercial advertising;
- The user can use Micro SD to update the display images and audio files, change the display interfaces and modes. Horizontal and vertical installation are available.

GD300L Series Elevator AC Drive

About the Product

GD300L series elevator AC drive is INVT's a new generation elevator AC drive developed on INVT the latest and most advanced Goodrive300 control platform. As using TI 28-series DSP and advanced vector control technology, Goodrive300L series elevator AC drive improves great achievements in security, reliability, control performance and use functions.

Technical Features

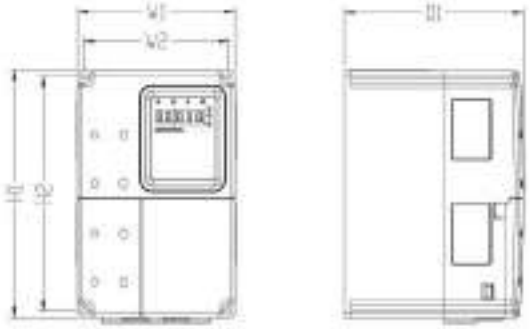
- STO function: Support optional built-in Safety Torque Off function, and conform to IEC 61508(SIL 3), EN/ISO 13849-1(PL e) and EN945-1(Category 3)
- Support forced deceleration function to prevent lift car from top-hitting and bottom-clashing during the upward or downward running
- Support emergency rescue running with AC220V UPS and light load direction search
- Advanced torque compensation algorithm with/without weight sensor to prevent rollback and make the starting smooth
- Support both open & closed loop vector control

Configuration

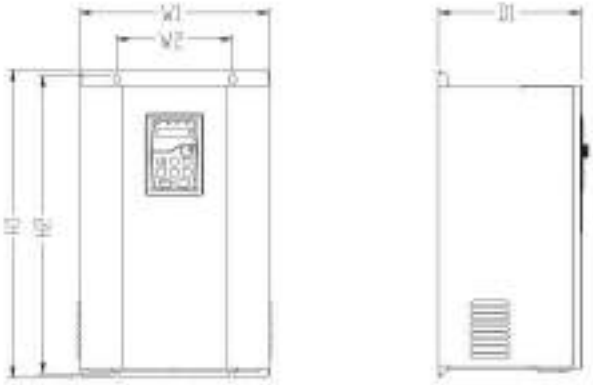
Model	Input voltage	Rated power(kW)	Input current (A)	Output current (A)	Braking unit	Braking resistor
GD300L-2R2G-S2	1PH AC220V±15%	2.2	23	10	Built-in	100Ω/1000W
GD300L-004G-4	3PH AC380V±15%	4	13.5	9.5		75Ω/1200W
GD300L-5R5G-4		5.5	19.5	14		55Ω/1500W
GD300L-7R5G-4		7.5	25	18.5		50Ω/2000W
GD300L-011G-4		11	32	25		40Ω/4000W
GD300L-015G-4		15	40	32		32Ω/4500W
GD300L-018G-4		18.5	47	38	DBU100H-060-4	28Ω/5000W
GD300L-022G-4		22	56	45		22Ω/7000W
GD300L-030G-4		30	70	60		20Ω/10000W
GD300L-004G-2	3PH AC220V±15%	4	17	16	Built-in	35Ω/1200W
GD300L-5R5G-2		5.5	21	20		25Ω/1500W
GD300L-7R5G-2		7.5	31	30		20Ω/2000W
GD300L-011G-2		11	43	42	DBU100H-060-2	15Ω/4000W
GD300L-015G-2		15	56	55		10Ω/4500W

Note: Please contact INVT if any other model is required.

Appearance and Installation Dimensions



Wall mounting diagram for 2.2 kW~15 kW



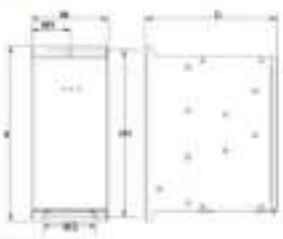
Wall mounting diagram for 18.5 kW~30 kW

Model	W1 (mm)	W2 (mm)	H1 (mm)	H2 (mm)	D1 (mm)	Installation hole (d:mm)
2.2kW~5.5kW	160	147.5	250	237.5	175	5
7.5kW~15kW	220	206	320	305.5	190	6
18.5kW~30kW	290	176	470	455.5	220	6.5

Expansion Card

Name of card	Function instruction
 Incremental PG card	Generally for asynchronous motor 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 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 and SSI 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, 1 CANbus port and 1 RS485 port for Modbus RTU.
 STO card	Two types optional, one type can support for STO function only, another integrates STO and CANbus communication function.

Braking Unit



Model	W(mm)	W1(mm)	W2(mm)	D(mm)	H(mm)	H1(mm)
DBU100H-060-4/-2	130	65	65	163	260	246
DBU100H-110-4/-2	150	75	100	260	340	326

GD380L Series Elevator AC Drive

About the Product

Goodrive380L series elevator dedicated VFD is a new generation of elevator drive developed by using INVT's latest control platform. Goodrive380L adopts advanced frequency conversion vector control technology, and has made modular and customizable innovations on the basis of traditional VFD to meet complex individual needs. By integrating many years of industry experience of INVT, Goodrive380L can perfectly support various motors and encoders, so that it can be widely used in freight elevators, passenger elevators and other fields. The flat and compact design makes Goodrive380L very suitable for the market of home elevator control panel and the ultra-thin integrated control panel. Powerful configuration and performance enable it to meet more precise usage requirements and provide more competitive solutions.

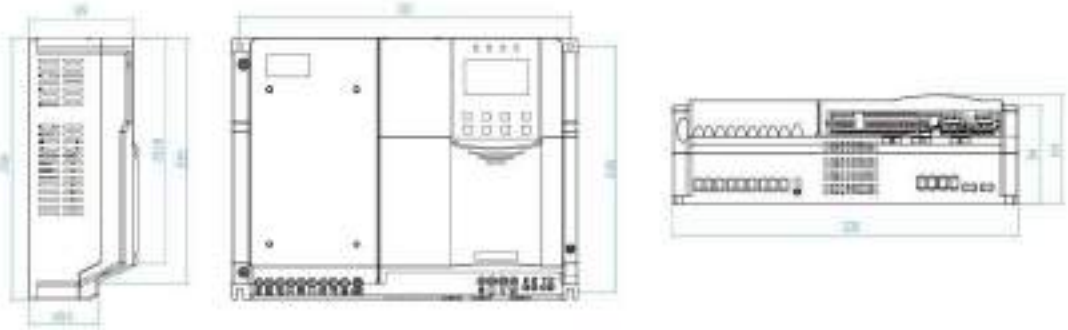
Main Features

- Support both asynchronous(geared) & synchronous(gearless) motor
- Support both open & closed loop control mode
- Support both static & rotational autotuning for different motors
- Support multiple types of encoder: incremental, sin/cos, endat
- Advanced S-Curve algorithm improves comfort during startup, ACC, DEC and stop
- Starting torque compensation with/without weighing sensor to prevent rollback in startup
- Built-in LCD keypad interface
- Removable terminal board
- Emergency-rescue mode & search the direction in light load
- Built-in interlock circuit for emergency power switching
- Support both AC&DC power for the emergency rescue running

Configuration

Model	Power supply	Rated power(kW)	Input current (A)	Output current (A)	Net weight (kg)
GD380L-2R2G-S2	1PH AC220V±15%	2.2	24	10	4
GD380L-2R2G-2	3PH AC220V±15%	2.2	11	10	4
GD380L-004G-2		4	17	16	4
GD380L-004G-4	3PH AC380V±15%	4	13.5	9.5	4
GD380L-5R5G-4		5.5	19.5	14	4
GD380L-7R5G-4		7.5	25	18.5	4

Appearance and Installation Dimensions



Expansion Card

Model	Picture	Category	Description	
EC-PG101-05		PG card for asynchronous motor	5V Incremental PG card	Special for incremental encoder, power supply output :-05(4.75~7V), -12(11.75~16V), -24(24V±5%)
EC-PG101-12			12-15V Incremental PG card	
EC-PG101-24			24V Incremental PG card	
EC-PG102-05		PG card for synchronous motor	Sin/Cos PG card	Special for SIN/COS encoder like ERN1387, power supply output 5V±5%, 300mA
EC-PG106-05-T EC-PG106-05-S			Absolute encoder PG card	Special for ENDAT/SSI encoder like ECN1313, power supply output 5V±5%, 300mA

Braking Resistor

Model	Braking unit	Min.braking resistance (Ω)	Recommended braking resistance (Ω)	Recommended resistor power (W)
GD380L-2R2G-S2	Built-in	22	66	600
GD380L-2R2G-2		22	66	600
GD380L-004G-2		24	34	1200
GD380L-004G-4		80	130	1200
GD380L-5R5G-4		60	68	1600
GD380L-7R5G-4		47	50	1600

EC10 Series Integrated Door Controller

About the Product

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

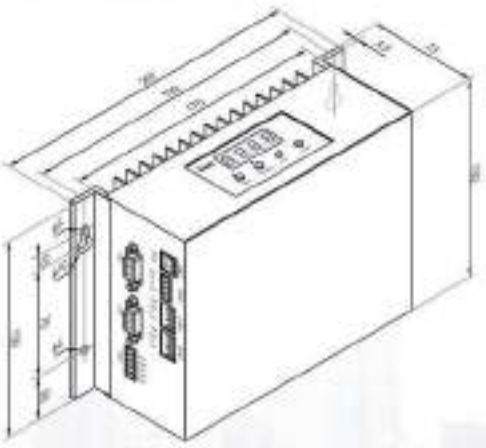
Technical Features

- High velocity response ability based on the closed loop servo control technology
- Integrates car top control board, reducing the wiring, making the debugging simple and convenient
- Precise torque control for the door open/ close torque protect function
- Easy to debug based on the intelligent door width self learning function
- Advanced limit function ensures the door machine running smoothly and accurately
- Friendly parameter setting interface, convenient to modify parameter
- Various communication interfaces: CANBUS, MODBUS, RS232

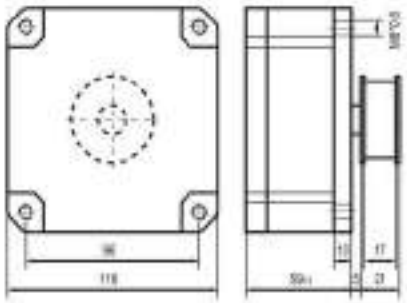
Specification

Item	Model	Rated Power(W)	Brake(A)	Contactor(A)	Main wiring (mm2)
Door Controller	EC10- 0R2G-S2	200	10	10	2.5
PM Motor	DL120-S16	50	-	-	-

Dimension



EC10 Integrated Door Controller



PM Motor

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.

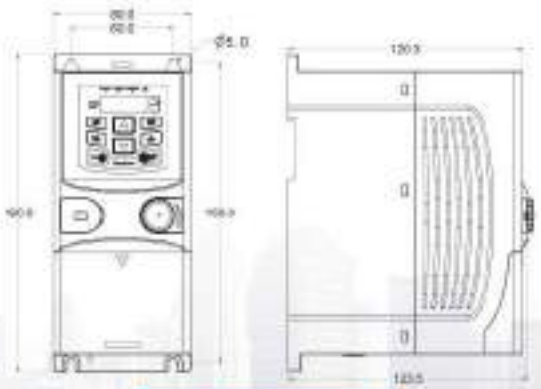
Technical Features

- **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

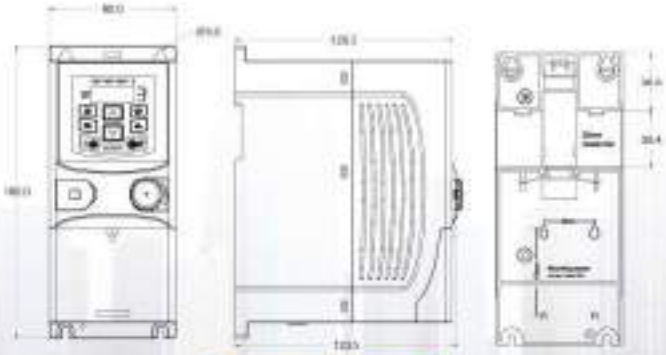
Specification

Model	Rated output power (W)	Rated input current (A)	Rated output current (A)	Gross weight (Kg)	Dimension (mm)
EC20-0R4G-S2	400	6.5	2.5	1.1	215*125*180
EC20-0R7G-S2	750	9.3	4.2	1.1	215*125*180

Dimension



Wall mounting



Rail mounting

GD350-18 Series Escalator AC Drive

About the Product

The GD350-18 series is a high protection and high-performance dedicated AC drive developed for the load characteristics and control requirements of escalators. It has special functions such as motor self-learning, performance control, speed tracking, and low speed torque control.

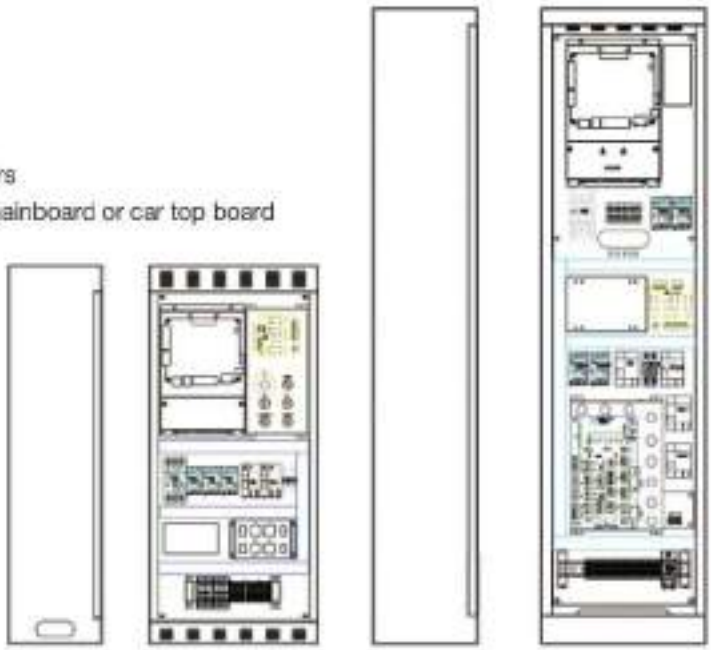
Comprehensive Technical Parameters

Item	Name	Description
Performance & control	Control mode	Space voltage vector control mode Vector control mode without PG Vector control mode with PG
	Motor type	PM motor, geared motor
	Speed ratio	Geared motor, 1:200(SVC) PM motor, 1:20(SVC), 1:1000(VC)
	Speed control accuracy	±0.2%(vector control without PG) ±0.02%(vector control with PG)
	Speed fluctuation	±0.3%(vector control without PG)
	Overload capacitor	150% of the rated current: 60s, 180% of the rated current: 10s, 200% of the rated current: 1s
	Carrier frequency	2.0KHz-16.0KHz
Main features	1. Protection level: Overall protection level IP55 (TÜV official experimental test) 2. Human machine interface: standard high protection multifunctional LCD keyboard 3. Secondary development: Built in PLC facilitates secondary development and meets customized requirements 4. Remote upgrade: optional GPRS card, supporting IoT monitoring and OTA upgrade 5. Smooth startup: Low frequency startup achieves smooth curve transition and reduces equipment loss 6. APP debugging: supports Bluetooth, WiFi access, Android and IOS phone debugging 7. Thermal simulation analysis: Adopting advanced thermal simulation technology to ensure that the entire series of products meet various working conditions requirements	

Control Cabinet

Product Features

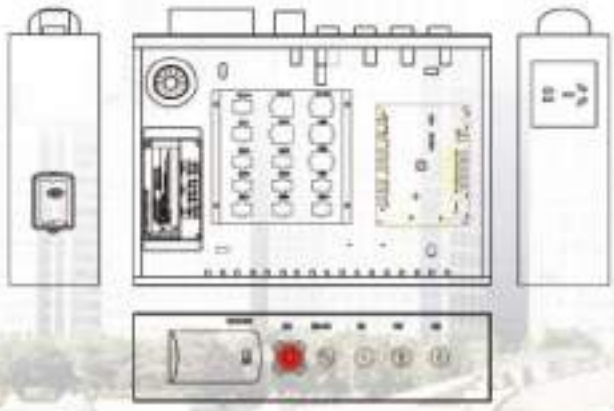
- CAN bus communication
- Leveling accuracy ±2mm
- Support simplex, duplex and group control
- Maximum speed 6m/s, maximum floor 64 floors
- The door controller can be controlled by the mainboard or car top board
- Conform to EN81 Standard
- Adopting EC series elevator integrated controller(integration of drive and control)



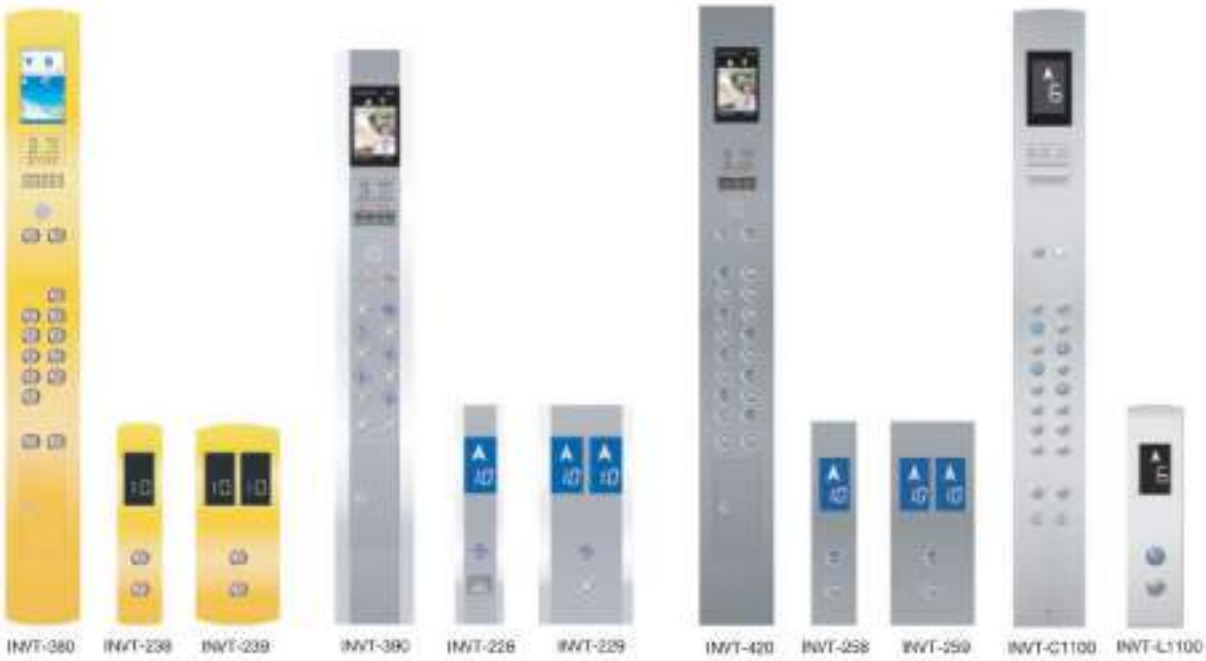
Car Top inspection box

Product Features

- CAN bus communication
- Wiring connection with connector instead of terminal, easy to install and maintain
- Optional use of EC-CTB-A/EC-CTB-C, simplify the wiring connection for the inspection box



KINTICS Series COP & HOP



Dimensions of COP

Floor	Panel (L×W mm)	Bottom Box (L×W×D mm)
1-10	1200*180	1180*157*70
11-18	1360*180	1340*157*70
19-24	1560*180	1540*157*70
25-30	1540*220	1520*200*70
Customized	Customized	Customized

Dimension of HOP

Type	Panel (L×W mm)	Bottom Box (L×W×D mm)
Simplex	440*115	419*95*62.5
Duplex	440*200	419*183*62.5
Customized	Customized	Customized

Material

Hairline, titanium plated gold, rose gold, mirror stainless steel

Display

Optional for multi-media LCD, segment LCD, dot-matrix LED

Button Light Color

Optional for blue, red light button

Home Elevator COP&HOP

INVT-COP-8102 INVT-LOP-8102 INVT-COP-2101 INVT-LOP-2101 INVT-COP-8202 INVT-LOP-ML008

Model	Floor	Panel (L×W×D mm)	Bottom Box (L×W×D mm)
INVT-COP-2101	2-6	1180*180*2	1150*157*70
INVT-COP-8102	2-6	800*150*2	770*130*40
INVT-COP-8202	2-6	650*160*18	-

Model	Panel (L×W×D mm)	Bottom Box (L×W×D mm)
INVT-LOP-2101	400*110*2	380*90*60
INVT-LOP-8102	300*100*2	270*80*50
INVT-LOP-ML008	250*85*15	-

Material

Hairline, rose gold, titanium gold hairline stainless steel, acrylic

C & LBH Series HOP

C100 C200 C300 LBH130

Dimension

Type	Appearance(L×W×D mm)
C100	350*96*15
C200	330*98*17
C300	380*100*15
LBH130	335*102*20

Installation

Wall-mounted

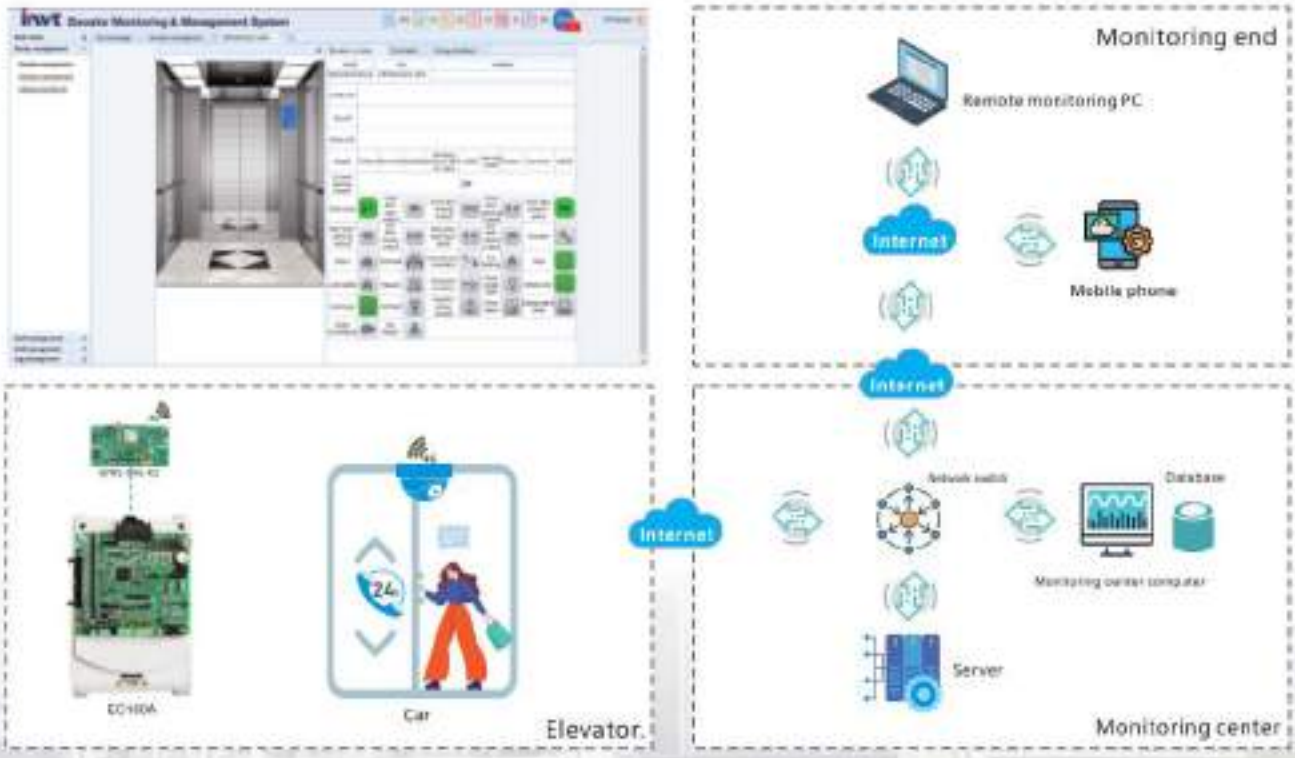
GPRS-04G-K2 IoT & Cloud Monitoring Module

About the Product

GPRS-04G-K2 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 personnel.

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



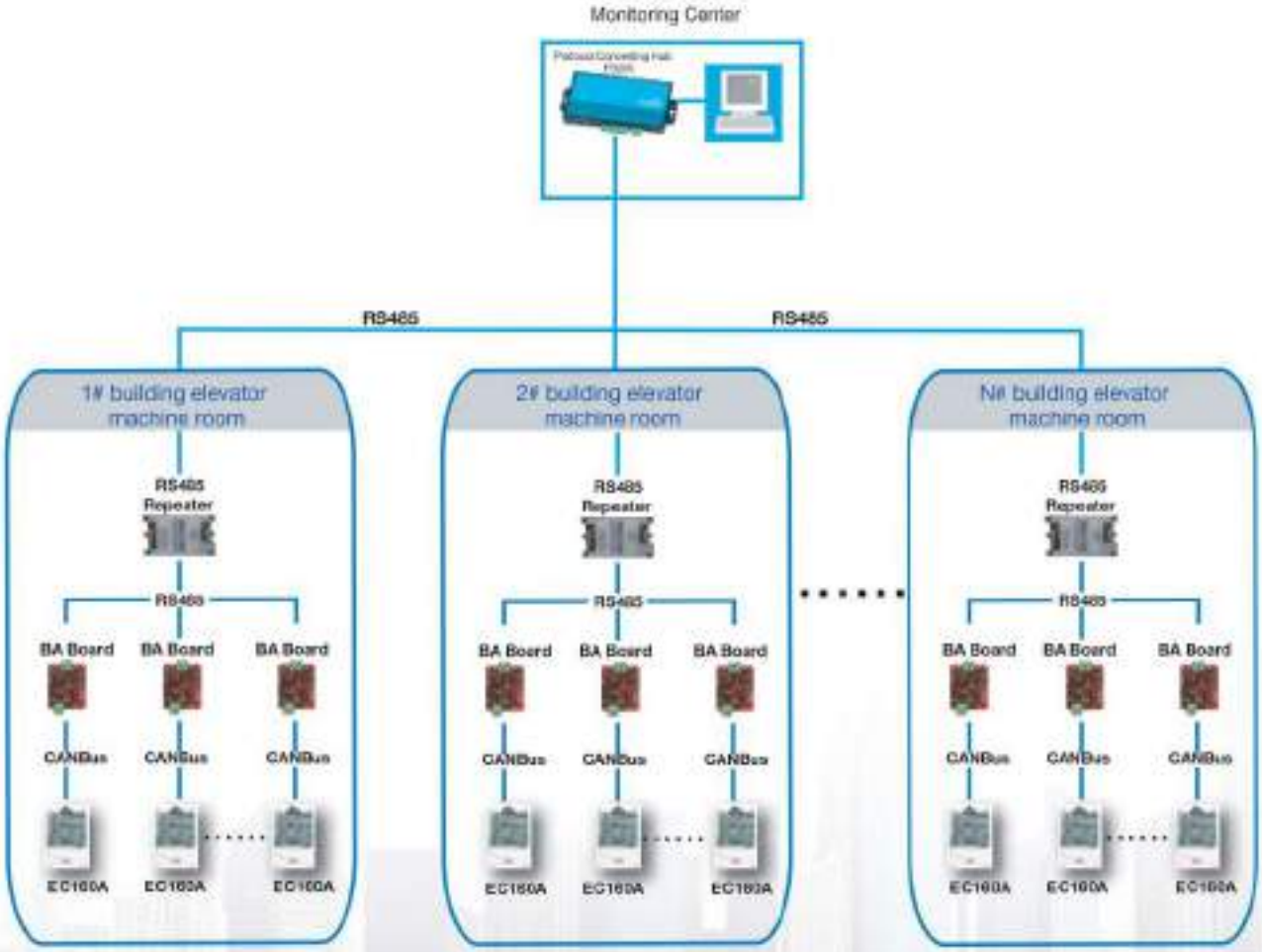
Local Monitoring System

About the Product

The local monitoring system is a local management systemspecially designed for the elevator management in a small range. Integrating Ethernet, CANbus, RS485 communication technologies, it can realize the local real-time monitoring of the elevator in the community, collect and analyze the running data and fault records to improve the efficiency of elevator management.

Product Features

- Dynamic real-time monitoring of elevator running and early warning, data-saving in server, black box function
- Easy installation: only a home router and a computer can set up the monitoring center
- Support monitoring of maximum 128 elevators



Marketing Service Network

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