





Elevator Commissioning Guide

- 1 Power Check
- 2 Elevator Commissioning Process Guide
- 3 Single Elevator Commissioning
- 4 Summary of Parameters
- 5 Product Dimensions
- 6 Error Codes

This chapter provides the operation instructions for the elevator industry. Refer to the content of this chapter, you can quickly complete the installation and commissioning of elevators, including related wiring and parameter setting.

Please pay special attention to the following precautions while operating this product.

| | |
|---|--|
|  <p>DANGER</p> | <ul style="list-style-type: none"> ☑ Be sure to turn off the power before wiring. ☑ When the product is energized, do not remove the cover so as to avoid the risk of electric shock. ☑ Terminal E[⊕] must be properly grounded. The 230V series shall be grounded with Type 3 grounding; the 460V series shall be grounded with the special grounding. |
|  <p>CAUTION</p> | <ul style="list-style-type: none"> ☑ Before starting the operation, please make sure the compatibility between Delta's Integrated Elevator Drive (IED) and the motor of the elevator; please refer to Appendix A Specifications. ☑ When a Delta IED is in operation, do not touch the heat sink (socket) and the braking resistor to avoid the risk of burns. ☑ During the installation, the installation precautions must be observed; unauthorized operating environment may result in fire, gas explosion, electrical induction and other events. ☑ If the wiring between the Delta IED and a motor is too long, the interlayer insulation of the motor may be damaged. In this case, please replace the motor with an AC motor dedicated for Delta IED or install a reactor (Please refer to Appendix B) between Delta IED and the AC motor so as to prevent the damaged insulation from burning the AC motor. ☑ The rated voltage of the power system for installing the Delta IED shall not exceed 240 V for the 230 series (480V for the 460 series); and the current shall not exceed 5000A RMS (10000A RMS for the models with capacities higher than 40HP (30kW)) |

1 Power Check

Checks before Power is Supplied

After the control system's wiring is complete, it is necessary to check the wiring:

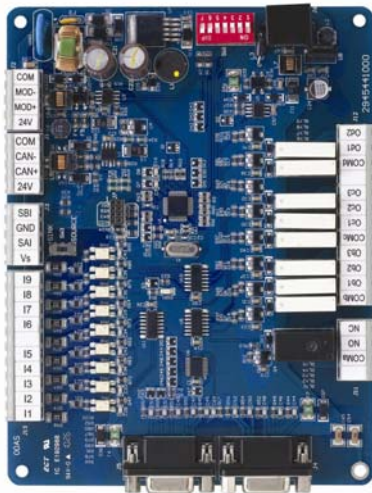
1. Check if the electrical parts and mechanical parts are connected properly so as to ensure safety.
2. Please refer to the Operation Manual and Wiring Instructions to check if all the connections are correct. While executing the commissioning, it is recommended to execute the operation by two or more operators; if any error occurs, shut off the power immediately.
3. Check if the part numbers of devices match the requirements. The safety circuit is connected properly and the signal is normal. The door lock circuit is connected properly and the signal is normal.
4. The hoistway is clear and there is no person in the elevator car; the condition is ready for safe operation of the elevator.
5. Be sure to check if the power to be supplied and the electrical wiring are correct. Be sure to avoid damaging Delta IED due to supplying incorrect power.
6. Please check if the control cabinet, motor chassis, elevator car's ground wire, and hall door's ground wire are grounded safely so as to ensure personal safety. (Note: The control box and the motor chassis shall be one-point grounded.)
7. Short-circuit checks for the control cabinet to the ground: if any short circuit is found for the following items (a) ~ (e), please solve the problem before supplying power to the device.
 - (a) Three phase wires of the input power cord to the ground;
 - (b) Three phase wires of the motor to the ground;
 - (c) Communication lines to the ground;
 - (d) The encoder wire to the ground.
8. Please make sure that the following items are grounded reliably:
 - (a) The control cabinet should be grounded;
 - (b) The motor should be grounded;
 - (c) The elevator car's ground wire should be grounded;
 - (d) The door motor should be grounded;
 - (e) The pipelines should be grounded;
 - (f) The encoder's shield at the control cabinet should be grounded;
 - (g) The encoder's shield at the motor end should be grounded.(Note: For asynchronous motor: the encoder's shield should be grounded at one end. For synchronous motor: the encoder's shield should be grounded at both ends.)
9. Wiring checks for the communication wires, encoder wires and power cord:
 - (a) The communication cable for the hoistway should be twisted pair with a twist pitch < 35 mm;
 - (b) The communication cable for the elevator car should be twisted pair with a twist pitch < 35 mm;
 - (c) The communication cable for parallel/group control should be twisted pair with a twist pitch < 35 mm; (for group control only)
 - (d) The encoder cable and power cord should be wired in separate pipelines;

- (e) The communication cable and the power cord should be wired in separate pipelines;
- (f) The communication cable for parallel/group control and the power cord should be wired in separate pipeline (for group controlled elevators only).

List of Wiring Products

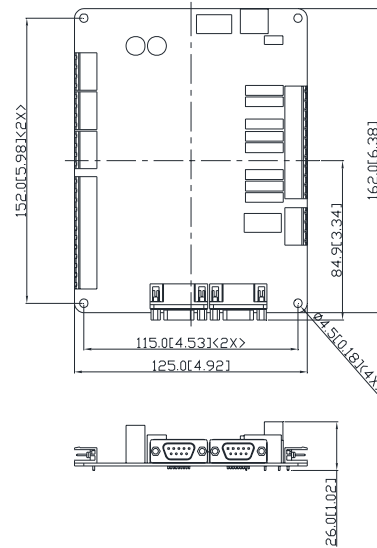
Car-Top Signal Terminal Board

EA-CT01



Dimensions

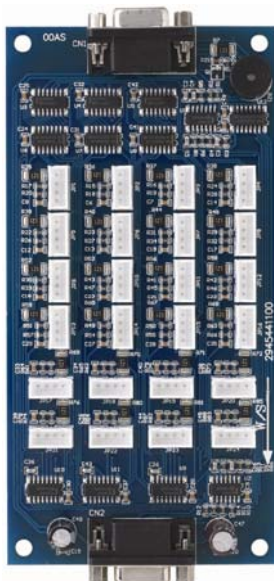
Unit: mm [inch.]



| Terminals | Description |
|--|---|
| I1~I9 | Multi-function input terminals ; front/rear door open-/close limit signals; front/rear door open-/close-position attained signals; front/rear door light curtain signal |
| SAI/SBI/GND/Vs | Analog input terminals for the connection of weighing signal input |
| CAN+ / CAN- | CAN communication |
| MOD+ / MOD- | Modbus communication |
| J4, J5 | Connect car command board |
| Ob1~Ob3-COMb Oc1~Oc3-COMc Od1~Od2-COMd NO-COMa/ NC-COMa | Multi-function relay outputs; door open/close signals; up-/down- position attained signal; elevator car fan/lighting control; |

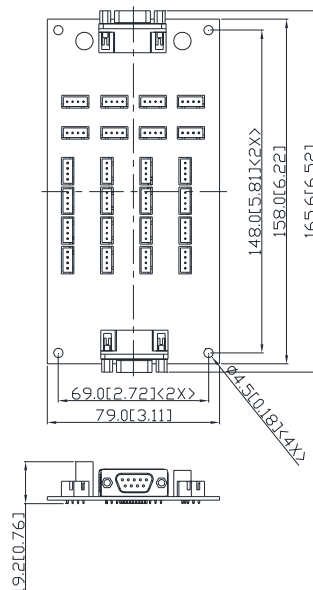
Elevator Car Command Board

EA-CP16



Dimensions

Unit: mm [inch.]



| Terminals | Description |
|-------------|---|
| CN1 | Connection to the car-top board, integrated car-top board, car display board |
| CN2 | Extension slot for connection to another EA-CP16 (More than 16 floors applications) |
| JP1 ~ JP16 | Elevator car's floor button plug-in |
| JP17 - JP24 | Door open/close outputs; door open delay output; non-stop output; operator control output; independent operation output; fireman output, etc. |

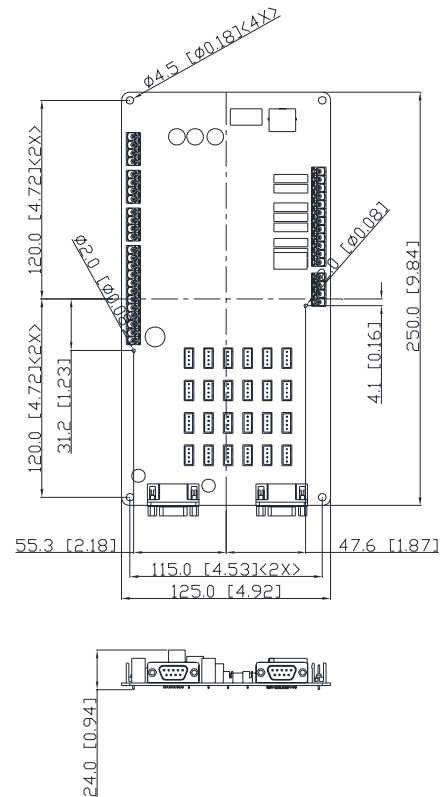
Integrated Elevator Car Command Board

EA-CTP01



Dimensions

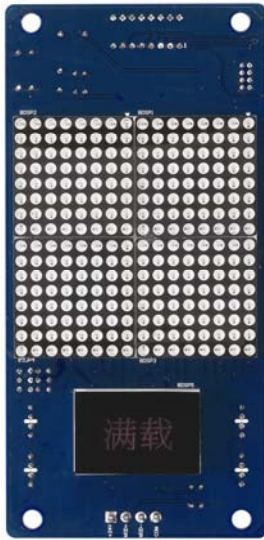
Unit: mm [inch.]



| Terminals | Description |
|--|--|
| I1 ~ I9 | Multi-function input terminals Front/rear door open-/close- position attained signals; front/rear door light curtain signal; |
| SAI/SBI GND/Vs | Analog input terminals for the connection of weighing signal input |
| CAN+ / CAN- MOD+ / MOD- | CAN communication Modbus communication |
| CN1 | Extension slot for connection to the car command board (primary) (More than 16 floors applications) |
| CN2 | Extension slot for connection to the car command board (secondary) (More than 16 floors applications) |
| JP1 ~ JP16 | Elevator car's floor button plug-in |
| JP17 ~ JP24 | Door open/close outputs; door open delay output; non-stop output; attendant operation output; independent operation output; fireman output, etc. |
| Ob1~Ob3-COMb Oc1~Oc3-COMc Od1~Od2-COMd NO-COMa/ NC-COMa | Multi-function relay outputs Door open/close signals; Up-/down-to-position signals; Elevator car fan/light control; |

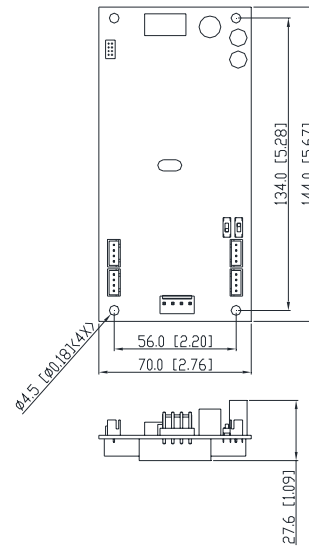
Vertical/Horizontal Matrix Display Board

EA-FM02MH



Dimensions

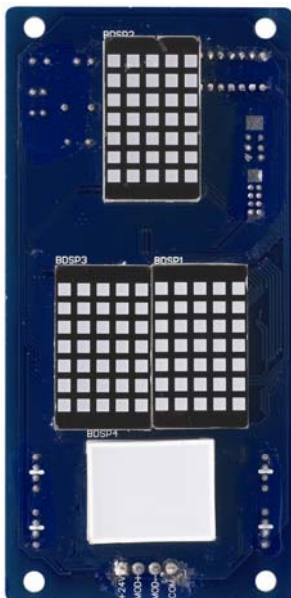
Unit: mm [inch.]



| Terminals | Description |
|-----------|---|
| J1 | Modbus communication and power cord terminals, 4-pin interface: Pin 2 and Pin 3 are Modbus communication cable wires; Pin 1 and Pin 4 are for power wiring. |
| J2, J3 | Up/Down call button interface: Pin 2 and Pin 3 are wires for digital input wiring; Pin 1 and Pin 4 are used for button indicator output signal control |
| J4 | For up-/down-position attained indicator output signal control |
| J5 | Fire/Lock button interface: Pin 1 and Pin 4 are used for Fire button input; Pin 2 and Pin 3 are used for Lock button input |

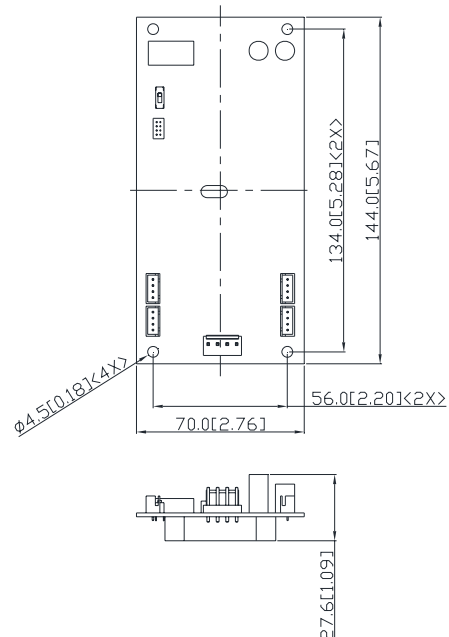
Vertical Display Board

EA-FM02MV



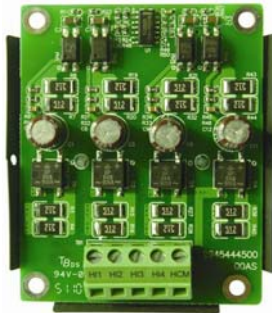
Dimensions

Unit: mm [inch.]



| Terminals | Description |
|-----------|---|
| J1 | Modbus communication and power cord terminals, 4-pin interface: Pin 2 and Pin 3 are Modbus communication cable wires; Pin 1 and Pin 4 are for power wiring. |
| J2, J3 | Up/Down call button interface: Pin 2 and Pin 3 are wires for digital input wiring; Pin 1 and Pin 4 are used for button indicator output signal control |
| J4 | Fire button interface: Pin 2 and Pin 3 are wires for number of input switches; Pin 1 and Pin 4 are used for button indicator output signal control |
| J5 | Lock button interface: Pin 2 and Pin 3 are wires for number of input switches; Pin 1 and Pin 4 are used for button indicator output signal control |

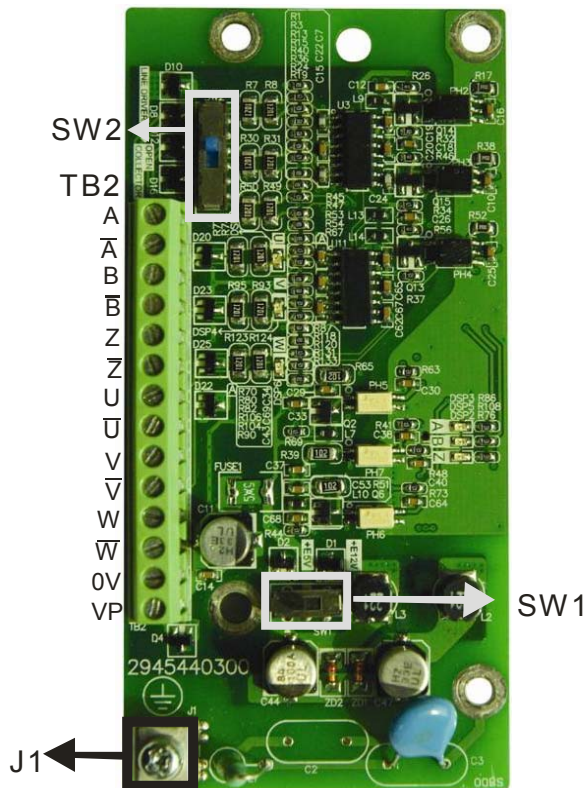
Digital Input Card
EMED-D411A110V



※ This digital input card is supplied with 110Vac.

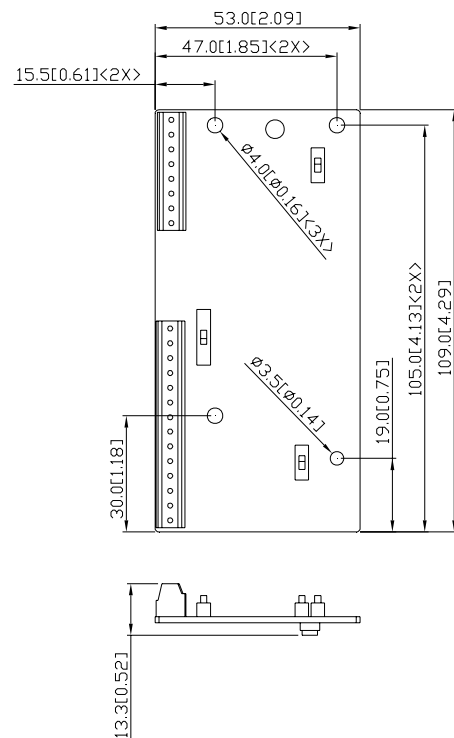
| Terminals | Description |
|-----------|---|
| HCM | AC power common node for digital Multi-function input terminals |
| HI1 ~ HI4 | Input Voltage: 100VAC ~ 130VAC Input frequency: 47 ~ 63 Hz |

PG Feedback Card
EMED-PGAB



Dimensions

Unit: mm [inch.]



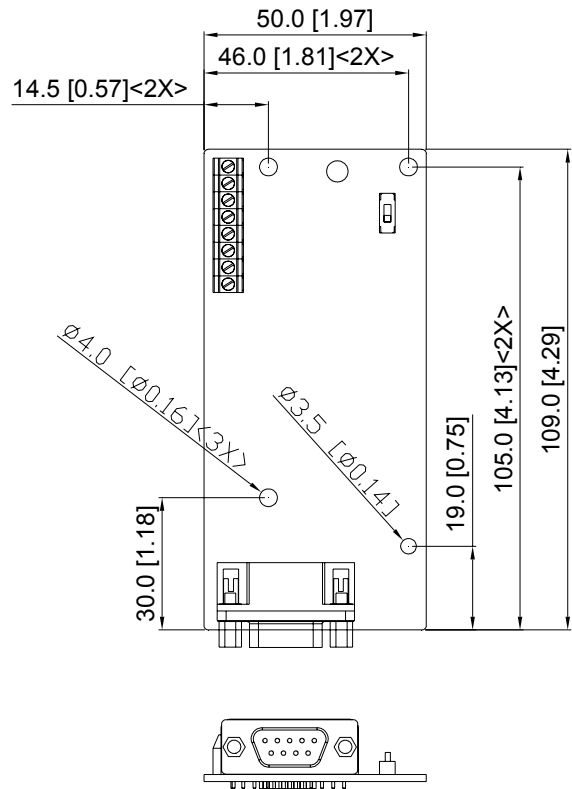
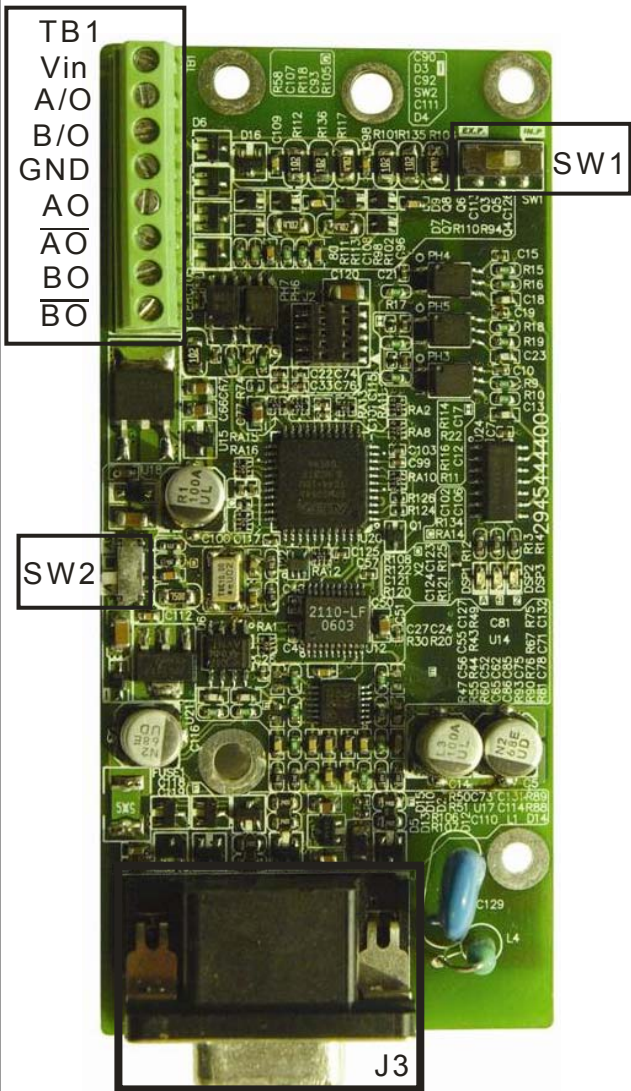
※ The open-collector, Line Driver, and U V W encoder signal are supported.

| Terminals | Description | |
|-----------|---|---|
| TB1 | VP | Encoder power output Output voltage: +5V/+12V (+5V/+12V is determined by SW1), Maximum output current: 200mA |
| | 0V | Common node for encoder power |
| | A, /A, B, /B, Z, /Z | Encoder signal input Line Driver input complies with RS422 standard Single-ended input specifications: to receive a +12 V open collector signal (which is determined by SW2) Maximum input frequency: 100kHz |
| | U, /U, V, /V, W, /W | Encoder differential absolute signal input Maximum input frequency: 50kHz |
| SW1 | Encoder 5V/12V switch | |
| SW2 | Input open collector/Line Driver switch | |

PG Feedback Card
EMED-PGHSD

Dimensions

Unit: mm [inch.]



※ Heidenhain ERN1387, EnDat2.1, and HIPERFACE are supported.

| Terminals | | Description |
|------------------------|------------------|--|
| TB1 | Vin | Input voltage (the voltage amplitude for adjusting the push-pull pulse output) Maximum input voltage: 24VDC |
| | GND | Common node for input power/output signals |
| | A/O, B/O | Push-pull pulse output signal Maximum output current: 20mA Maximum output frequency: 100kHz |
| | AO, /AO, BO, /BO | Differential pulse output signal Maximum output current: 50mA Maximum output frequency: 100kHz |
| D-SUB 9 Connector (J3) | | Encoder signal input Heidenhain ERN1387 Encoder is supported Heidenhain EnDat2.1 SICK HIPERFACE |
| SW1 | | To switch between IN.P and EX.P |
| SW2 | | Encoder 5V/12V switch |

Digital Operation Panel

KPED-CE01

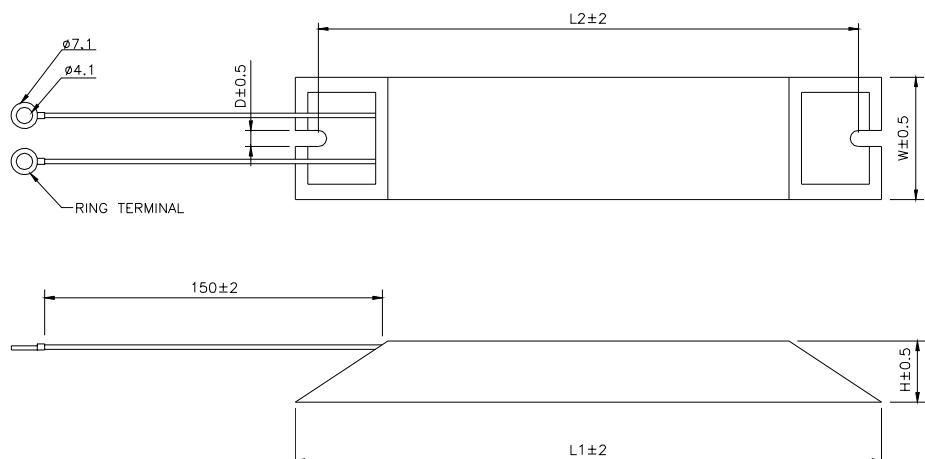
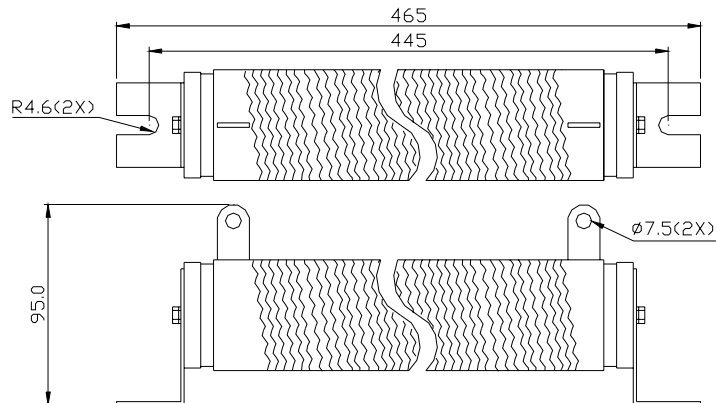


| Buttons | Description |
|---------|--|
| | Status Display UP: Upward movement DN: Downward movement D1: Safety signal D2: Upper leveling signal D3: Door lock signal D4: Lower leveling signal |
| | Horizontal movement buttons: For moving the cursor position for value adjustment |
| | Reset button for recovery from errors |
| | Value adjustment button: For modifying the settings and parameters |
| | Screen selection button: For successively change the displayed items for choice |
| | Parameter data setting button: For reading or modifying various parameter settings |

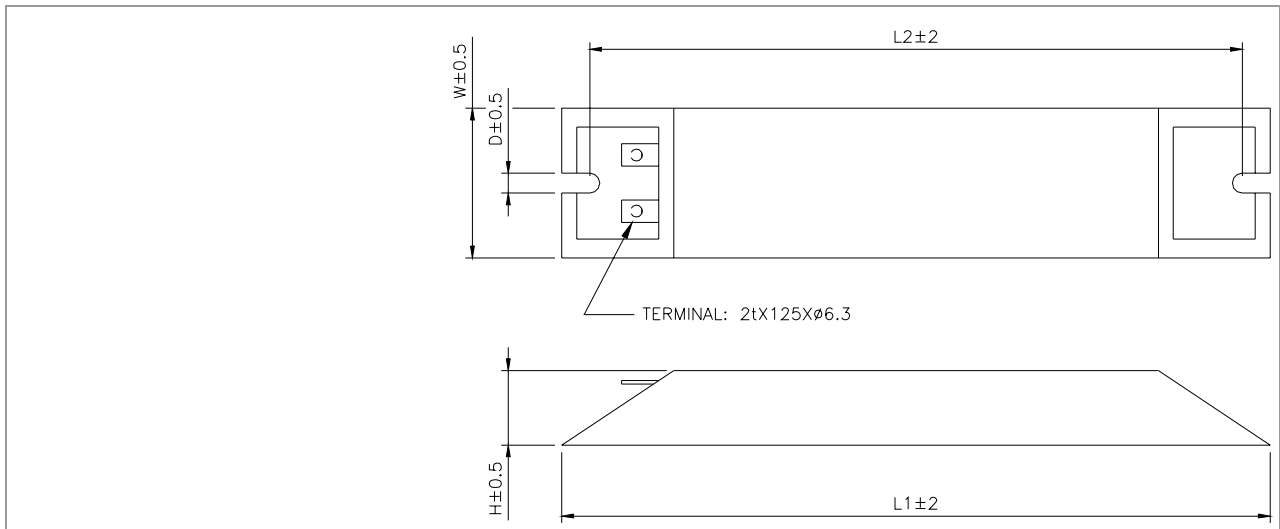
Braking Resistor

Dimensions (unit: mm)

- BR1K0W050;
- BR1K2W008;
- BR1K2W6P8;
- BR1K5W005;
- BR1K5W040;



| TYPE | L1 | L2 | H | D | W | MAX. WEIGHT (g) |
|-----------|-----|-----|----|-----|----|-----------------|
| BR080W200 | 140 | 125 | 20 | 5.3 | 60 | 160 |
| BR080W750 | 140 | 125 | 20 | 5.3 | 60 | 160 |
| BR300W070 | 215 | 200 | 30 | 5.3 | 60 | 750 |
| BR300W100 | 215 | 200 | 30 | 5.3 | 60 | 750 |
| BR300W250 | 215 | 200 | 30 | 5.3 | 60 | 750 |
| BR300W400 | 215 | 200 | 30 | 5.3 | 60 | 750 |
| BR400W150 | 265 | 250 | 30 | 5.3 | 60 | 930 |
| BR400W040 | 265 | 250 | 30 | 5.3 | 60 | 930 |



| TYPE | L1 | L2 | H | D | W | MAX. WEIGHT (g) |
|-----------|-----|-----|----|-----|-----|-----------------|
| BR500W030 | 335 | 320 | 30 | 5.3 | 60 | 1100 |
| BR500W100 | 335 | 320 | 30 | 5.3 | 60 | 1100 |
| BR1K0W020 | 400 | 385 | 50 | 5.3 | 100 | 2800 |
| BR1K0W075 | 400 | 385 | 50 | 5.3 | 100 | 2800 |

2 Elevator Commissioning Process Guide

Elevator Commissioning Process

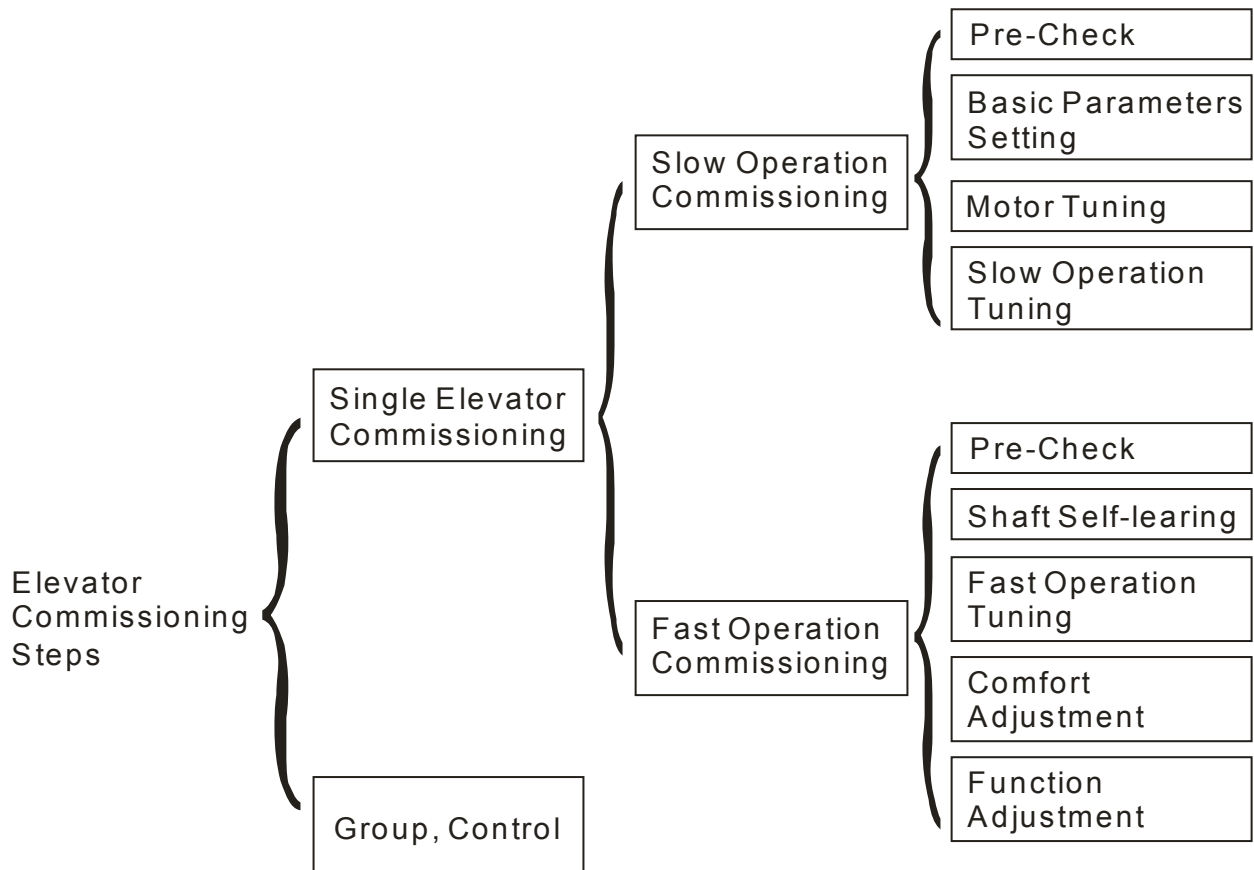


Figure D1-1

Flow chart of basic parameter commissioning for slow car movement

Elevator Basic/ Others Parameter Settings

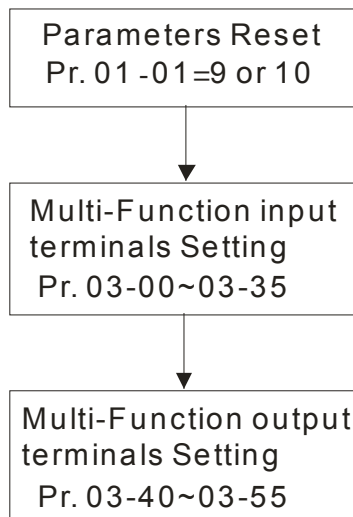


Figure D1-2

Flow chart for motor tuning

Induction motor tuning

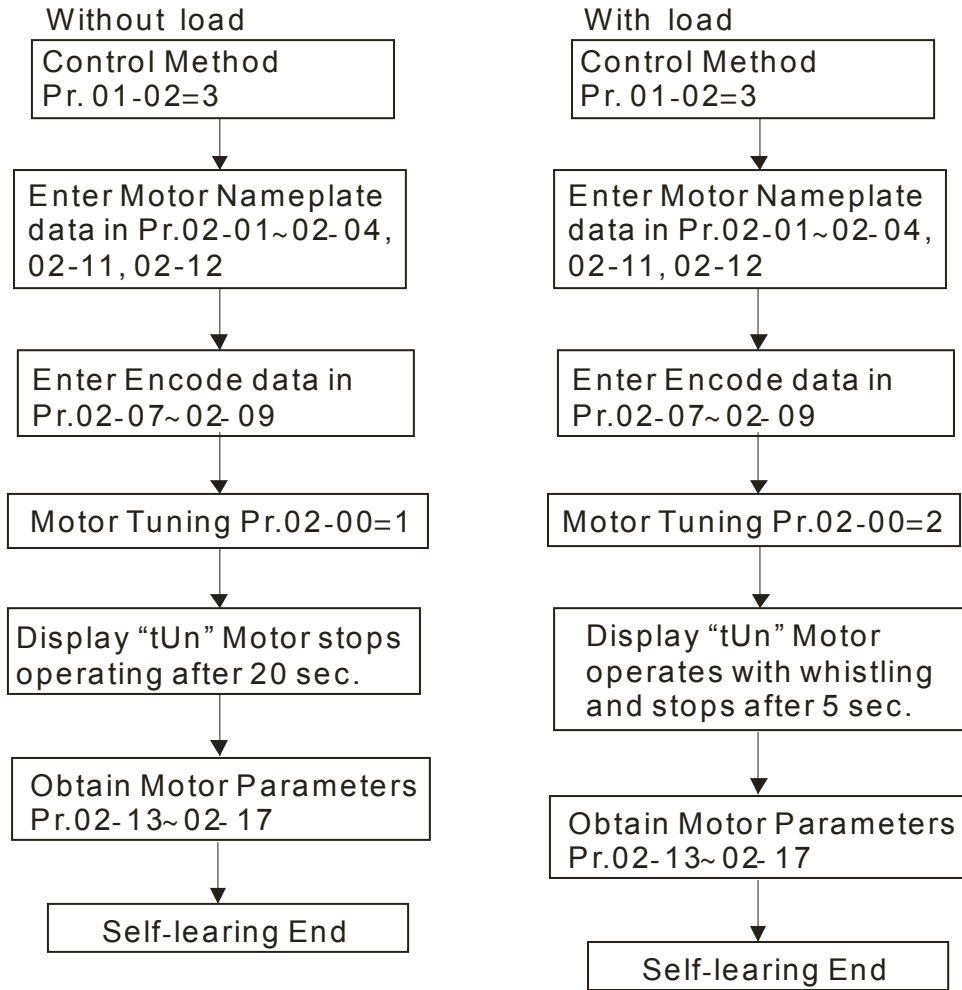


Figure D1-3

Synchronous motor tuning

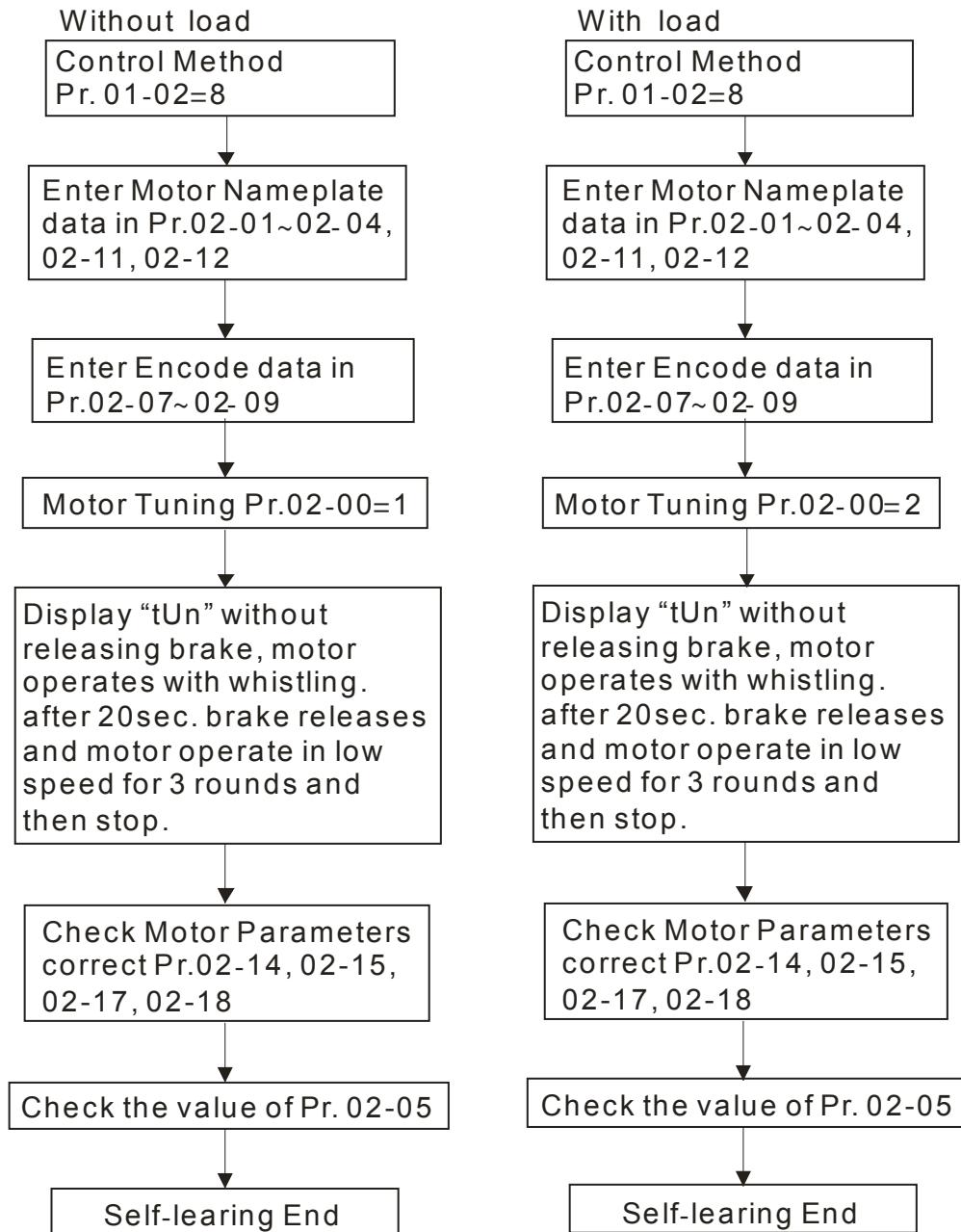


Figure D1-4

Commissioning flow chart for fast car movement

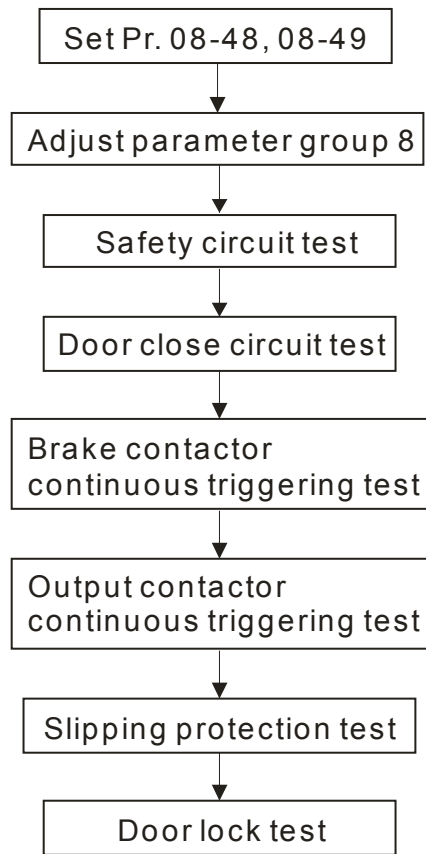


Figure D1-5

Wiring diagram

Overall wiring

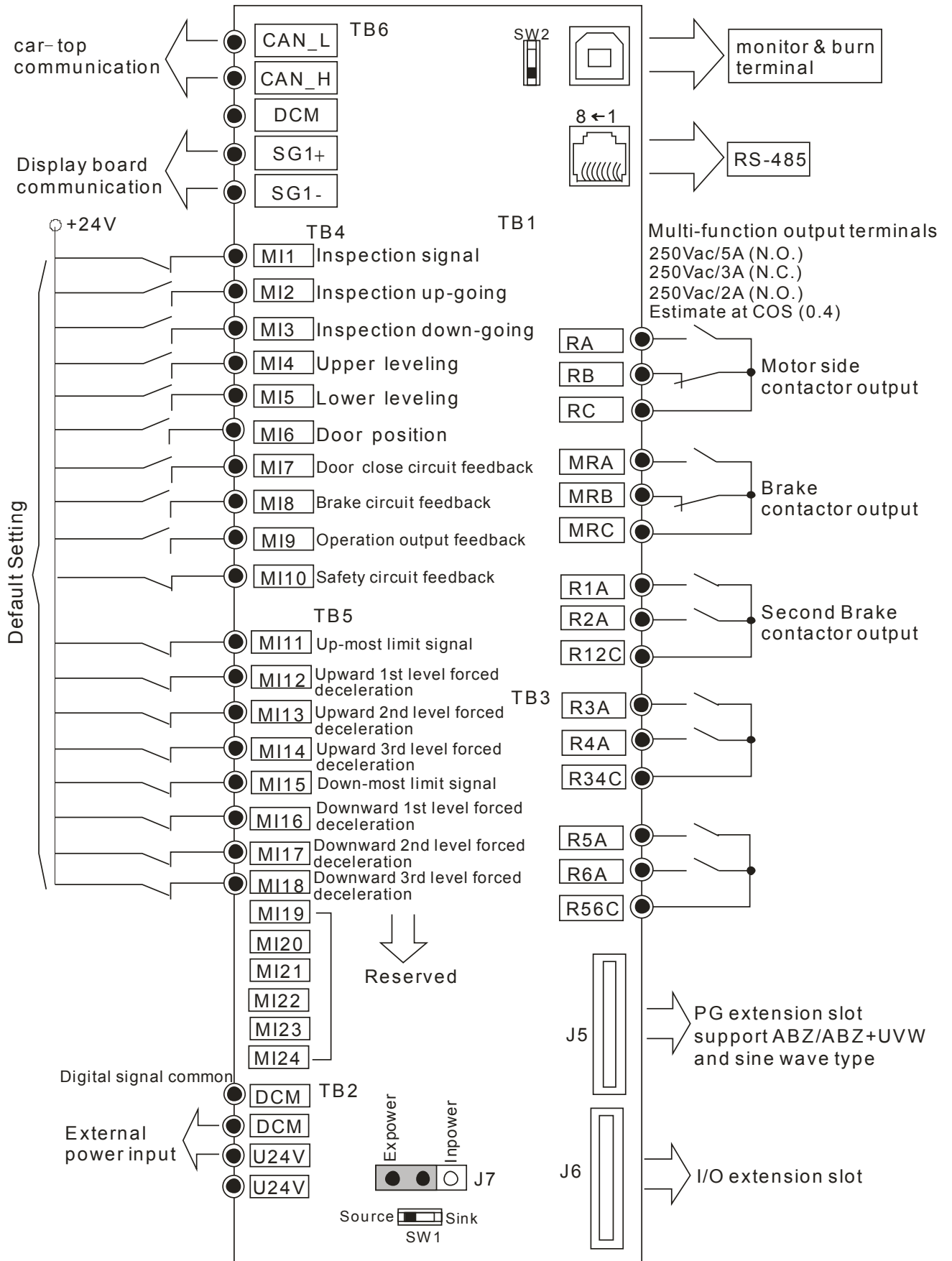
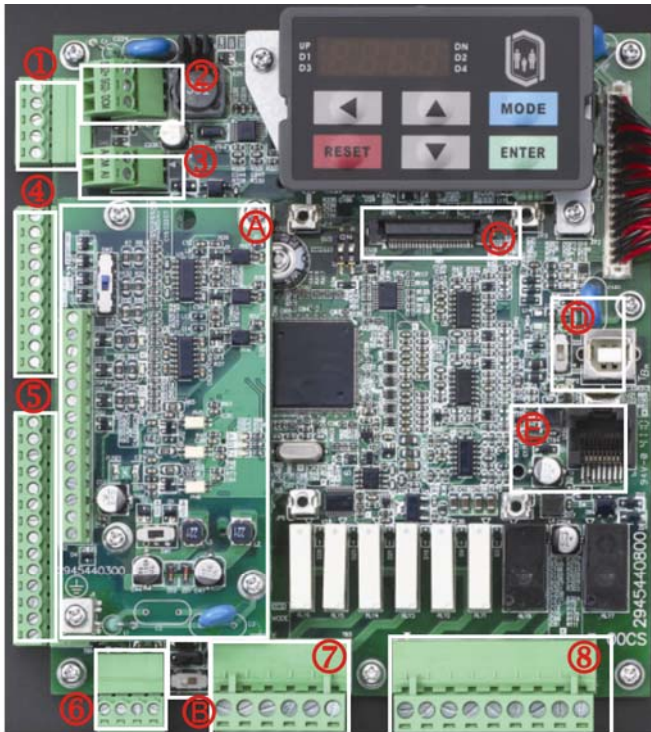
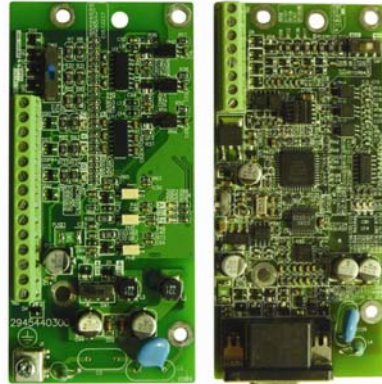


Figure D1-6

Control board layout 1



A PG feedback (J6)
EMED-PGAB EMED-PGHSD



B MI power source Jumper (J7)
Switch (SW1) Sink/Source

C I/O extension slot (J5)
EMED-D411A



- 1** Serial communication (TB6)
Connect to CANBUS of car-top board /MODBUS of display board. Please refer to figure D1-8.
 - 2** MODBUS communication (for group control) (TB7)
 - 3** Analog input (TB8)
 - 4** MI1~MI10 input terminal (functions can be set) (TB4)
 - 5** MI11~MI24 input terminal (functions can be set)(TB5)
 - 6** 24V power supply input (TB2)
 - 7** Relay output terminal (functions can be set)(R3A/R4A/ R34C/R5A/R6A/R56C) (TB3)
 - 8** Relay output terminal (functions can be set)(RA/RB/ RC/MRA/MRB/MRC/R1A/R2A/R12C) (TB1)
- D** Programming port / Hoist controller monitoring port
 - E** keypad port (RJ45)

Figure D1-7

- ① Serial Communication (TB6)
Connect to CANBUS of car-top board/MODBUS of display board

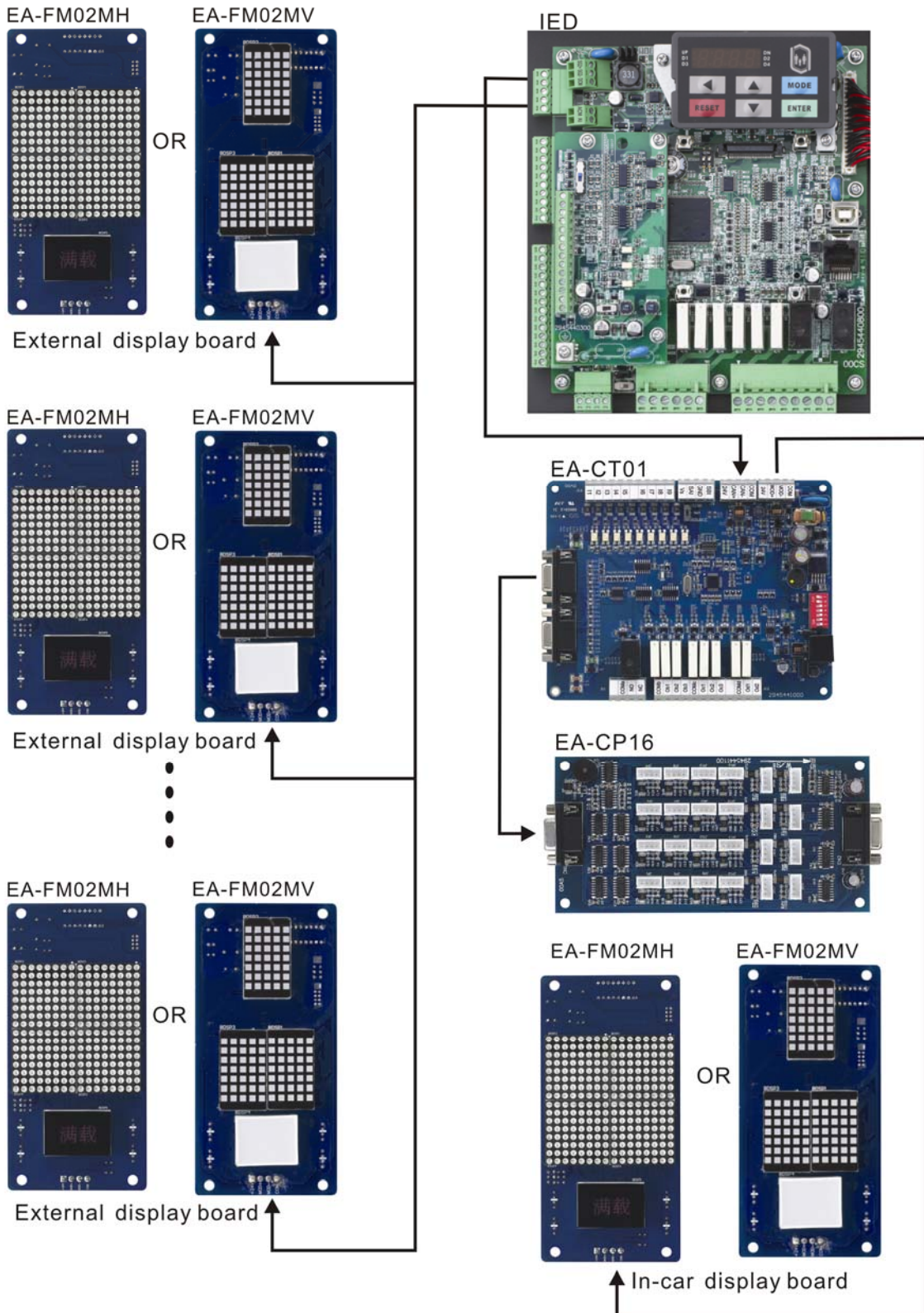


Figure D1-8-1

① Serial Communication (TB6)
 Connect to CANBUS of car-top board/MODBUS of display board

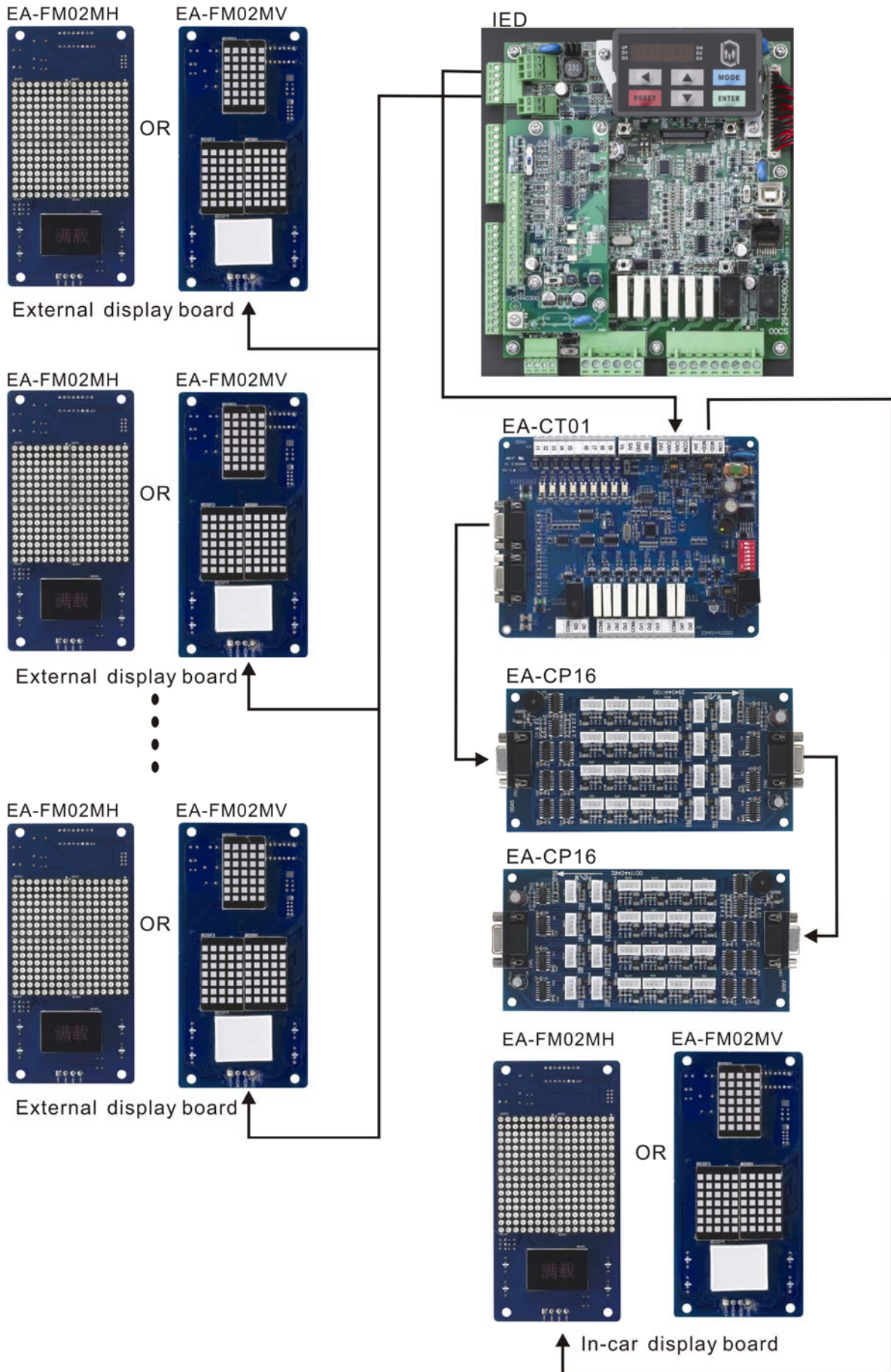


Figure D1-8-2

① Serial Communication (TB6)
 Connect to CANBUS of car-top board/MODBUS of display board

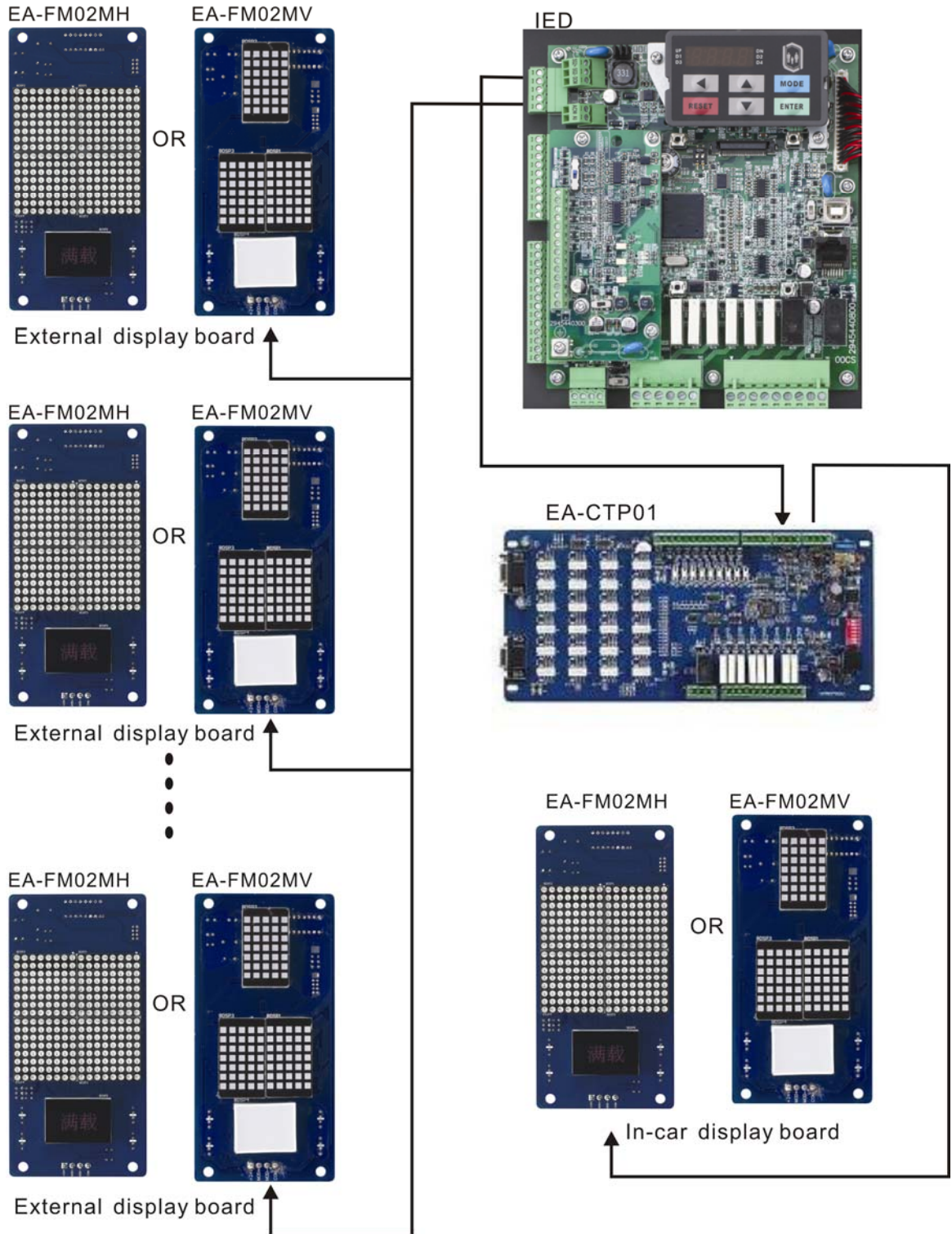


Figure D1-8-3

Control board layout 2

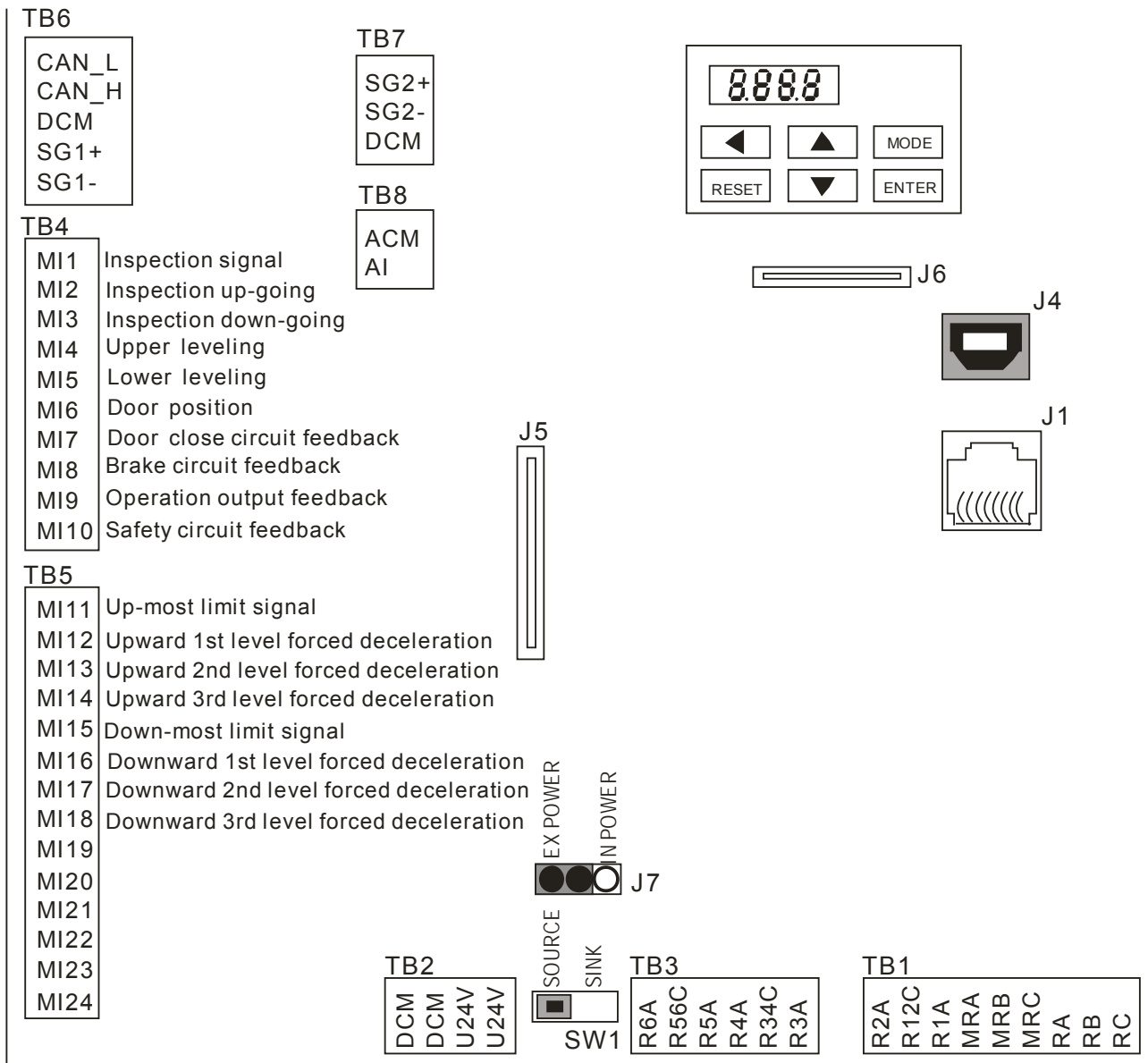


Figure D1-9

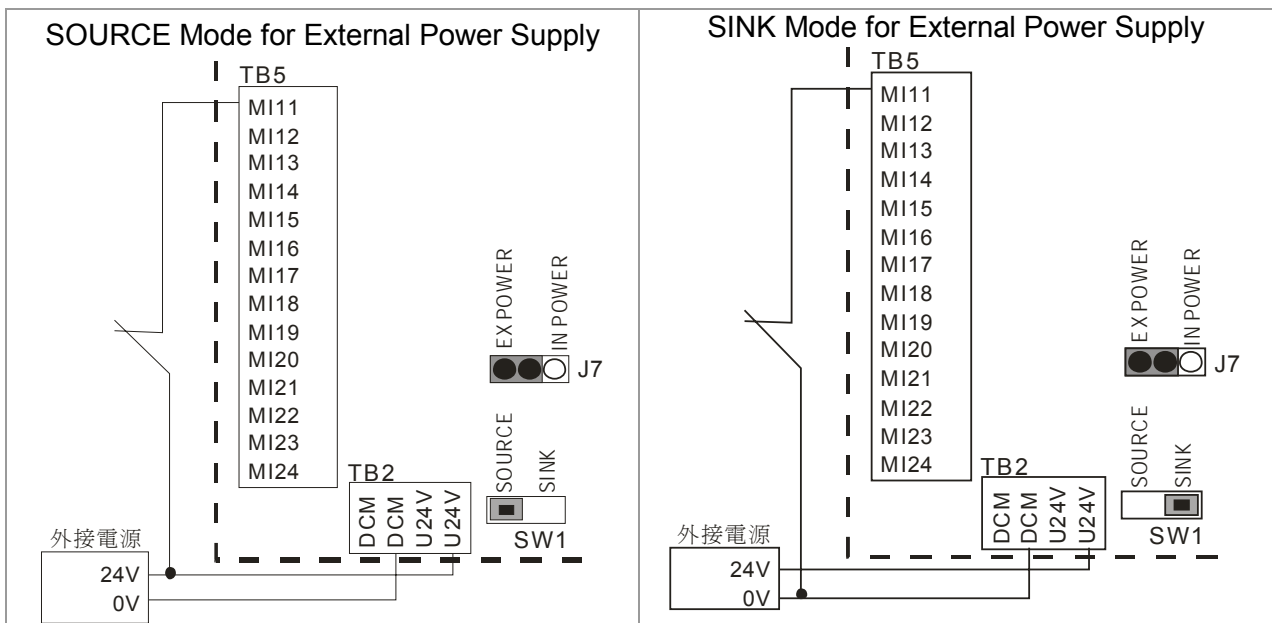
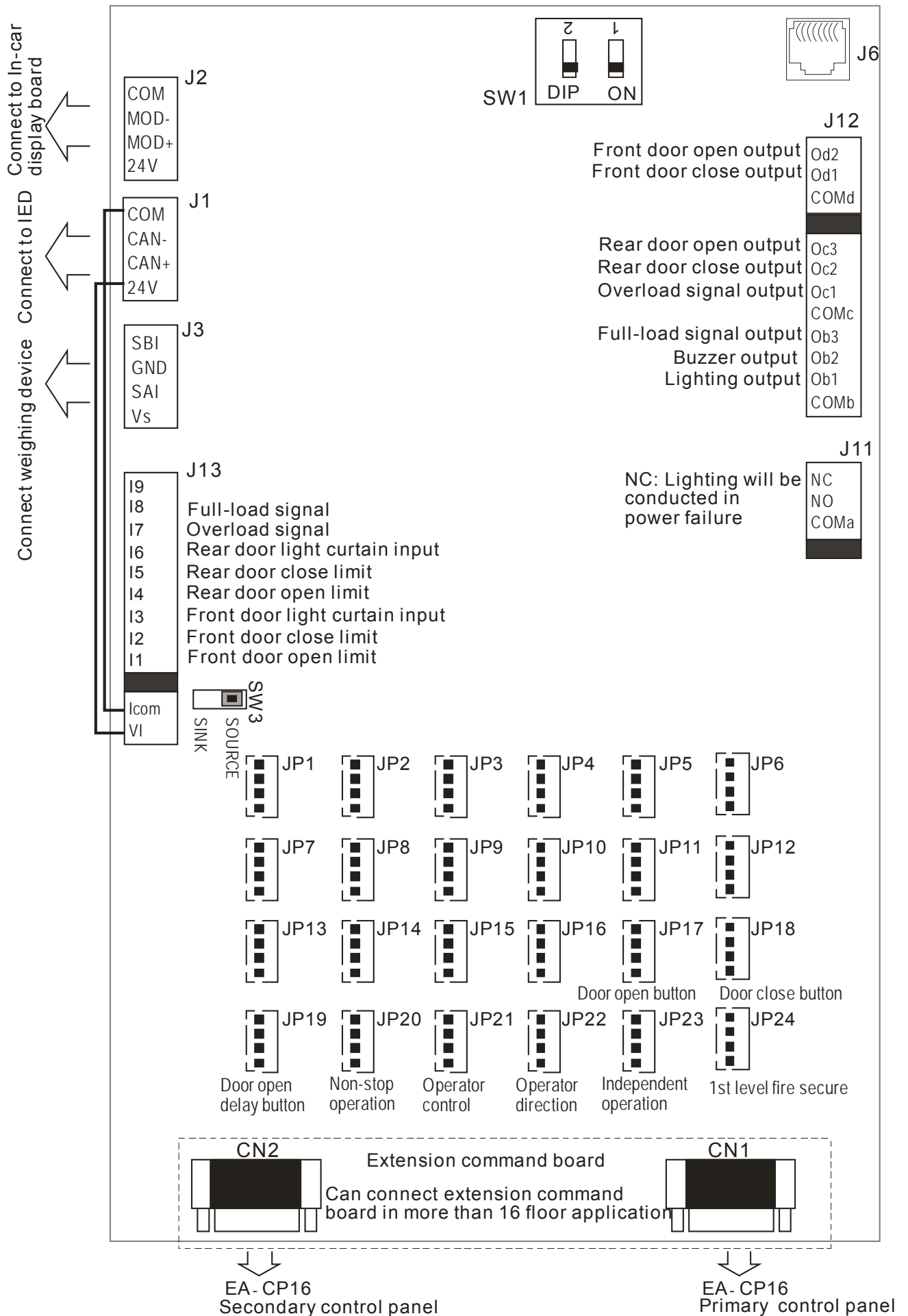


Figure D1-10

Integrated Elevator car command board (EA-CTP01) layout



Car-top board layout EA-CT01

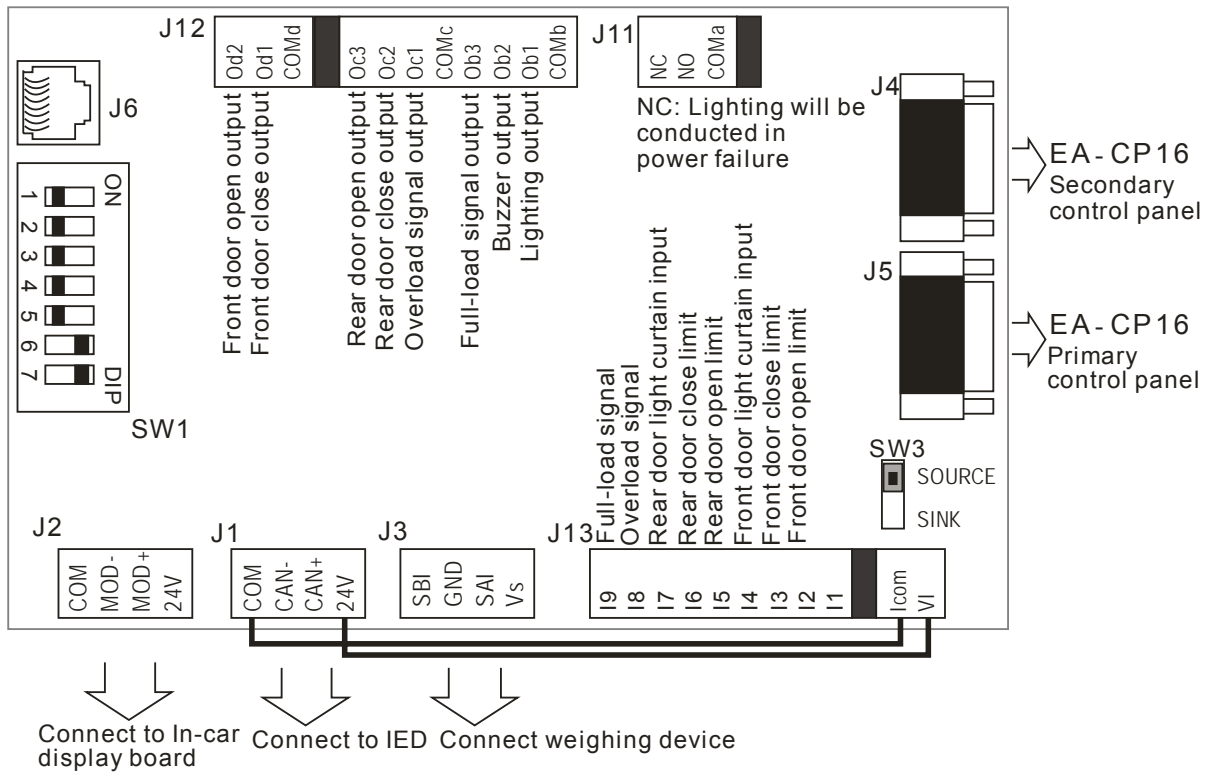


Figure D1-11

Car-top board EA-CT01 SOURCE Mode

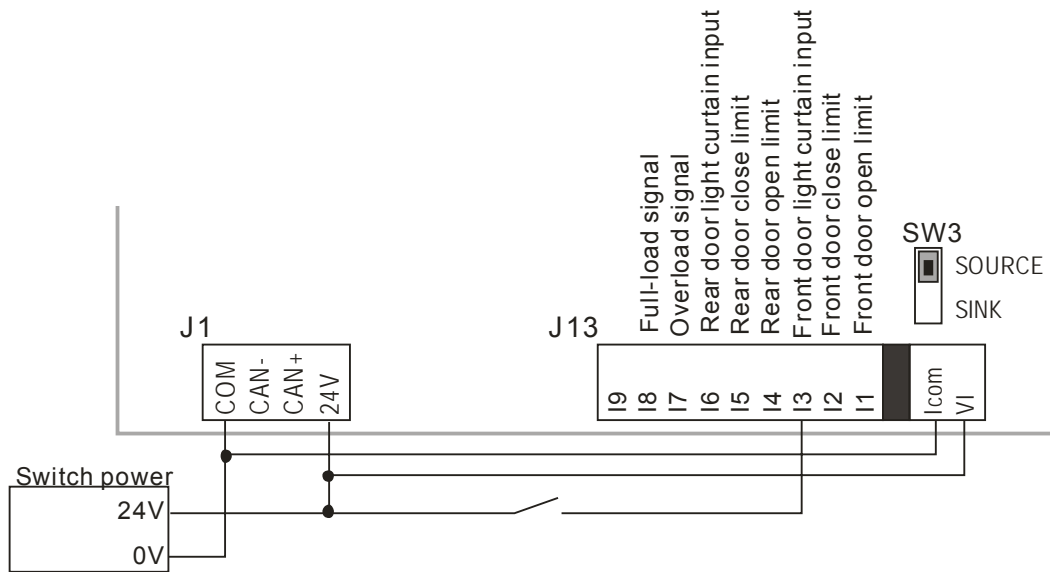


Figure D1-12

Car-top board EA-CT01 SINK Mode

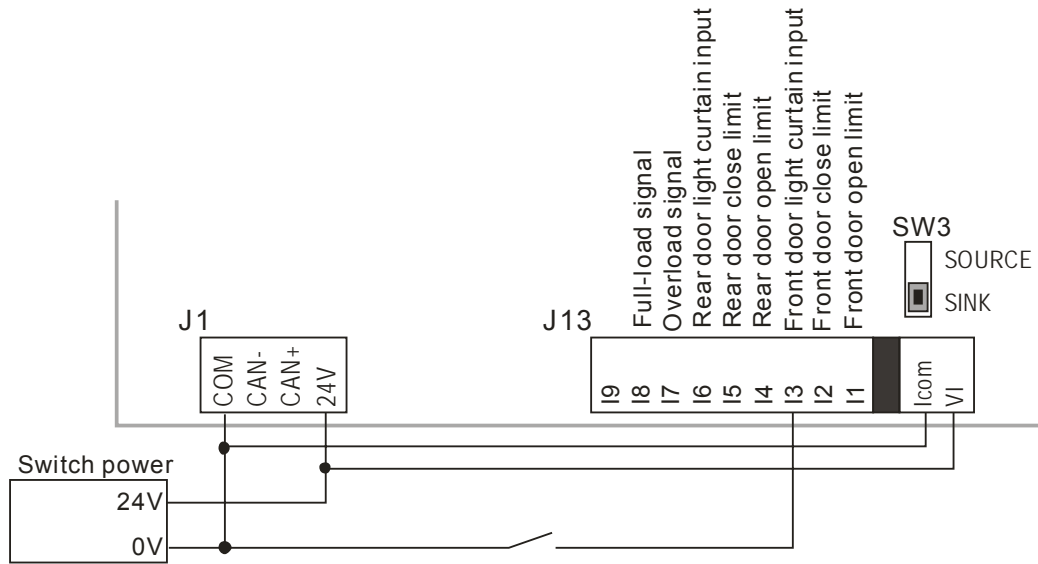


圖 D1-13

Elevator car Command board EA-CP16

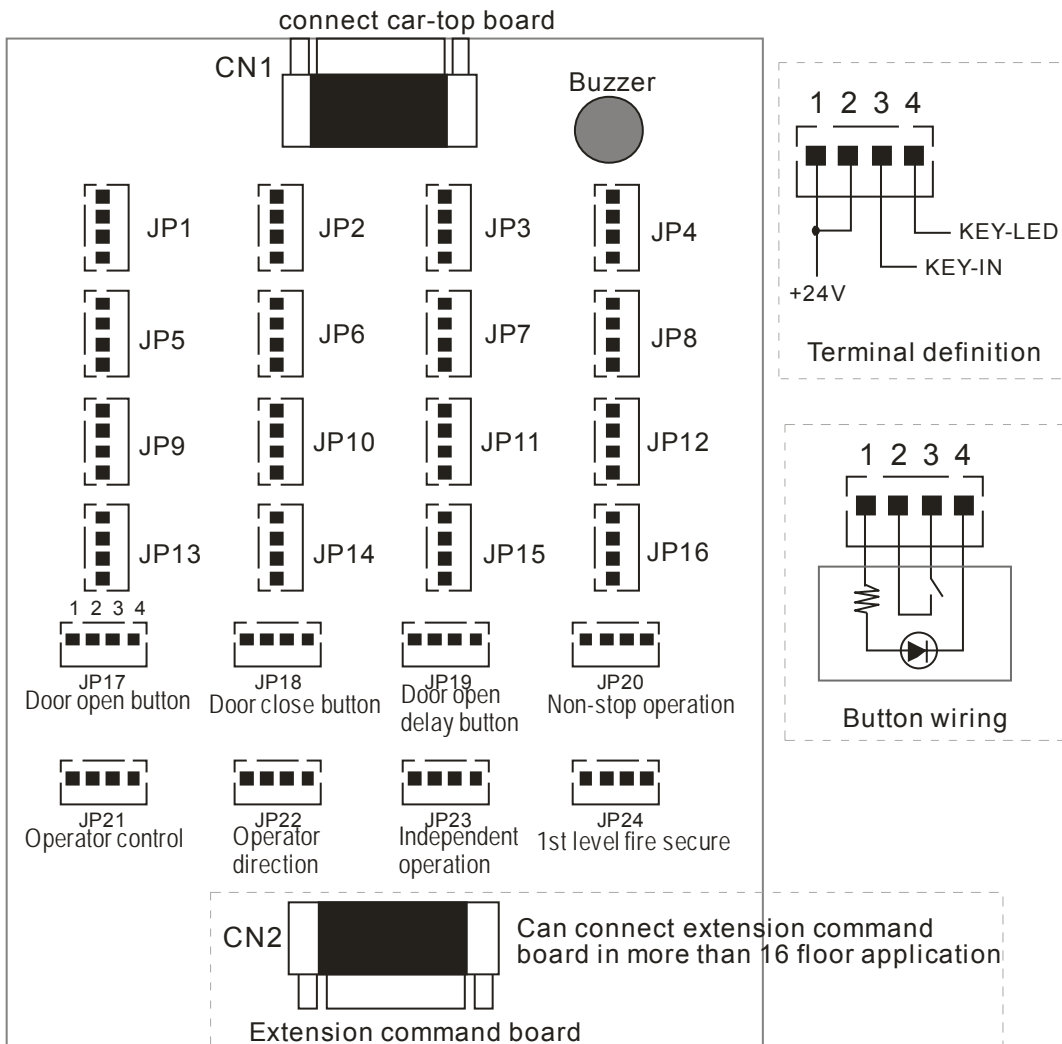


Figure D1-14

Vertical display board EA-FM02MV & Vertical/Horizontal display board EA-F02MH

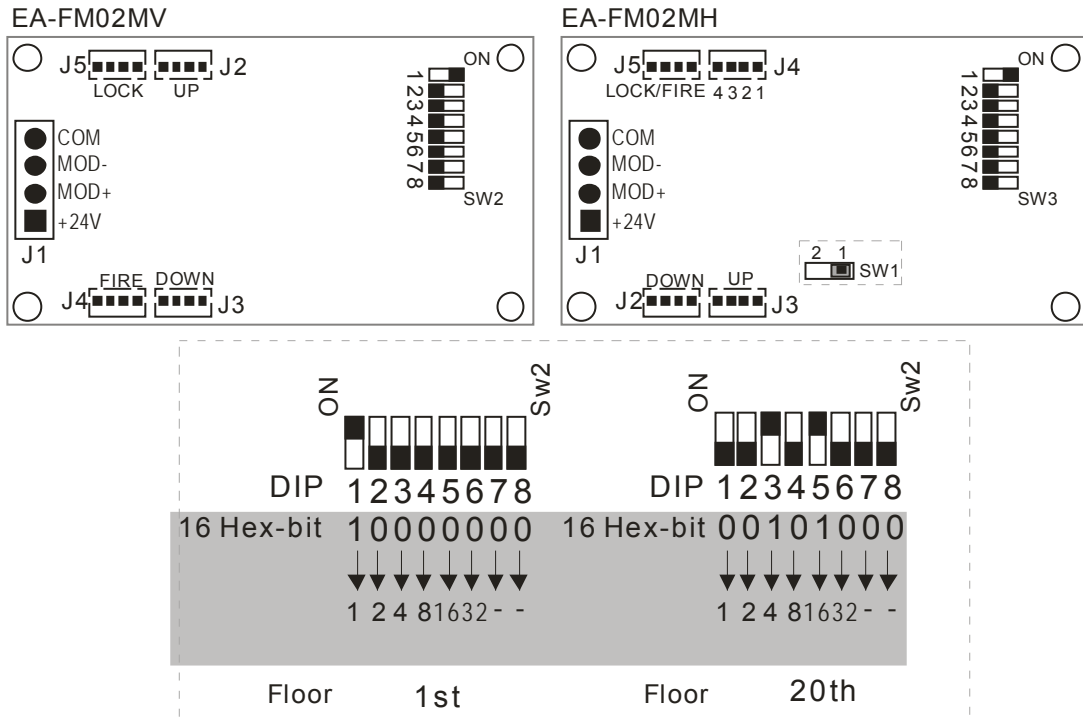
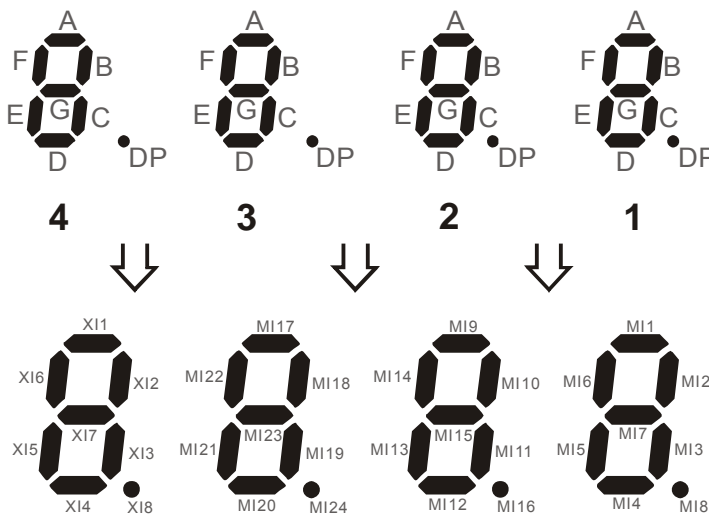


Figure D1-15

Digital Operation Panel



| LED | LED Segment | LED Segment "ON" indicates | LED Segment "OFF" indicates |
|----------|-------------|-----------------------------|-------------------------------|
| <p>1</p> | A | MI1 Input function is valid | MI1 Input function is invalid |
| | B | MI2 Input function is valid | MI2 Input function is invalid |
| | C | MI3 Input function is valid | MI3 Input function is invalid |
| | D | MI4 Input function is valid | MI4 Input function is invalid |
| | E | MI5 Input function is valid | MI5 Input function is invalid |
| | F | MI6 Input function is valid | MI6 Input function is invalid |
| | G | MI7 Input function is valid | MI7 Input function is invalid |
| | DP | MI8 Input function is valid | MI8 Input function is invalid |

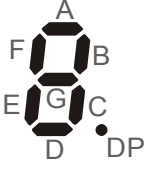
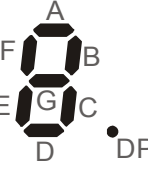
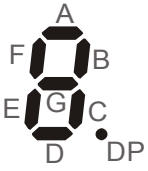
| | | | |
|---|----|------------------------------|--------------------------------|
|  2 | A | MI9 Input function is valid | MI9 Input function is invalid |
| | B | MI10 Input function is valid | MI10 Input function is invalid |
| | C | MI11 Input function is valid | MI11 Input function is invalid |
| | D | MI12 Input function is valid | MI12 Input function is invalid |
| | E | MI13 Input function is valid | MI13 Input function is invalid |
| | F | MI14 Input function is valid | MI14 Input function is invalid |
| | G | MI15 Input function is valid | MI15 Input function is invalid |
| | DP | MI16 Input function is valid | MI16 Input function is invalid |
|  3 | A | MI17 Input function is valid | MI17 Input function is invalid |
| | B | MI18 Input function is valid | MI18 Input function is invalid |
| | C | MI19 Input function is valid | MI19 Input function is invalid |
| | D | MI20 Input function is valid | MI20 Input function is invalid |
| | E | MI21 Input function is valid | MI21 Input function is invalid |
| | F | MI22 Input function is valid | MI22 Input function is invalid |
| | G | MI23 Input function is valid | MI23 Input function is invalid |
| | DP | MI24 Input function is valid | MI24 Input function is invalid |
|  4 | A | XI1 Input function is valid | XI1 Input function is invalid |
| | B | XI2 Input function is valid | XI2 Input function is invalid |
| | C | XI3 Input function is valid | XI3 Input function is invalid |
| | D | XI4 Input function is valid | XI4 Input function is invalid |
| | E | XI5 Input function is valid | XI5 Input function is invalid |
| | F | XI6 Input function is valid | XI6 Input function is invalid |
| | G | XI7 Input function is valid | XI7 Input function is invalid |
| | DP | XI8 Input function is valid | XI8 Input function is invalid |

Figure D1-16

3 Single Elevator Commissioning

Basic system settings

Basic parameters

※ Before commissioning, it is necessary to configure the following basic parameters. Basic motor parameter settings can be configured according to the motor's nameplate.

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|---|----------------------------------|--|
| 01-01 | Parameter management setting | 0 | 0: No function 1: Parameter write proof 3: Show the hidden parameter(☑) 8: Panel operation is disable 9: Parameter reset (Base frequency is 50Hz) 10: Parameter reset (Base frequency is 60Hz) |
| 01-02 | Control method | 0 | 0: V/F control 1: V/F control + Encoder (VFPG) 2: Sensorless vector control (SVC) 3: FOC vector control + Encoder (FOCPG) 4: Torque control + Encoder (TQCPG) 8: FOC PM control (FOCPM) |
| 01-03 | System control | 0480Hex | bit 0=0: No function bit 0=1: ASR automatic adjustment, PDFF enable bit 7=0: No function bit 7=1: Startup position control is enabled bit 10=0: No function bit 10 = 1: Direct parking is enabled bit 15=0: No function bit 15=1: Magnetic pole detection is disabled when power on |
| 01-04 | Elevator speed | 1.00 m/s | 0.10 ~ 4.00 m/s |
| 01-05 | Maximum Output Frequency | 60.00 Hz /50.00Hz | 10.00 ~ 400.00Hz |
| 01-08 | Carrier Frequency | 12 kHz | 2 ~ 15kHz |
| 02-00 | Motor Auto Tuning | 0 | 0: No function 1: Rolling test 2: Static test |
| 02-01 | Full-load Current of Motor | 90% of the model's rated current | (30 ~ 120%) * the model's rated current (Amps) |
| 02-02 | Rated power of Motor | #.## | 0.00 ~ 655.35kW |
| 02-03 | Rated speed of Motor (rpm) | 1710 | 0~65535 |
| 02-04 | Number of Motor Poles | 4 | 2~96 |
| 02-05 | Angle between Magnetic Pole and PG Origin | 360.0° | 0.0~360.0° |
| 02-06 | Output Direction Selection | 0 | 0: Same as the configured direction 1: Opposite to the configured direction |
| 02-07 | Encoder type selection | 0 | 0: No function 1: ABZ 2: ABZ + Hall 3: SIN/COS + Sinusoidal 4: SIN/COS + Endat 5: SIN/COS 6: SIN/COS + Hiperface |
| 02-08 | Encoder Pulse | 600 | 1~25000 |
| 02-09 | Encoder's input type setting | 0 | 0: No function 1: Phases A/B are pulse inputs: Phase A is 90 degree leading Phase B with forward rotation 2: Phases A/B are pulse inputs: Phase B is 90 degree leading Phase A with forward rotation 3: Phase A is a pulse input; Phase B is the direction input: |

| | | | |
|-------|--------------------------------------|---|--|
| | | | L is reverse direction and H is forward direction 4 : Phase A is a pulse input; Phase B is the direction input: L is forward direction and H is reverse direction 5: Single phase input |
| 02-11 | Rated frequency of Motor | 60.00 Hz /50.00 Hz | 0.00 ~ 400.00Hz |
| 02-12 | Rated voltage of Motor | 230V Series: 220.0 460V Series: 440.0 | 230V Series: 0.0V ~ 255.0V 460V Series: 0.0V ~ 510.0V |
| 02-13 | No-load current of Motor | 40% of the model's rated current | 0 ~ Motor's full-load current (Parameter 02-01) setting |
| 02-14 | Stator Resistance (Rs) of Motor | Automatic verification after motor tuning | 0.000~65.535Ω |
| 02-15 | Rotor Resistance (Rr) of Motor | Automatic verification after motor tuning | 0.000~65.535Ω |
| 02-16 | Magnetizing Inductance (Lm) of Motor | Automatic verification after motor tuning | 0.0~6553.5mH |
| 02-17 | Stator Inductance (Lx) of Motor | Automatic verification after motor tuning | 0.0~6553.5mH |
| 02-18 | Back Electromotive Force | Automatic verification after motor tuning | 0.0~6553.5Vrms |
| 06-10 | Floor search speed | 0.08 m/s | 0.10 ~ 4.00m/s |
| 06-11 | Inspection speed | 0.08 m/s | 0.10 ~ 4.00m/s |
| 06-12 | Leveling speed | 0.15 m/s | 0.10 ~ 4.00m/s |
| 06-13 | Fast operating speed | 0.25 m/s | 0.10 ~ 4.00m/s |
| 08-00 | Elevator's topmost floor | 5 | Floor 1 ~ 47 |
| 08-02 | Elevator base station | 1 | Floor 1 ~ 47 |
| 08-05 | Service floor 1 | FFFF | 0~FFFF |
| 08-06 | Service floor 2 | FFFF | 0~FFFF |
| 08-07 | Service floor 3 | FFFF | 0~FFFF |
| 08-51 | Automatic fault resets time | 0 | 0: Disable 0 ~ 30000 times |
| 08-52 | Interval of automatic reset | 0 | 0 ~ 60 seconds |
| 08-48 | Factory function 1 | 0080h | 0~65535 |
| 08-49 | Factory function 2 | 0 | 0~65535 |
| 09-02 | Door motor 1 Service Floor 1 | FFFF | 0~FFFF |
| 09-03 | Door motor 1 Service Floor 2 | FFFF | 0~FFFF |
| 09-04 | Door motor 1 Service Floor 3 | FFFF | 0~FFFF |

Multi-function input terminals: Determine whether the external terminal signal is normally open (N.O.) or normally closed (N.C.); configure the following parameters after the device is supplied with power:
 ※ Parameters 03-00=1 is used for inspection (N.O.); configure it as 101 for inspection (N.C.) (Please refer to Figure D1-5)

| Parameter | Name of the parameter | NO | NC | Parameter range |
|-----------|--|----|-----|---|
| 03-00 | Multi-function input command 1 (MI1) | 1 | 101 | 0: No function 1: Inspection signal 2: Inspection up-going 3: Inspection down-going 4: Upper leveling signal 5: Lower leveling signal 6: Door position input 7: Door inter-lock circuit feedback 8: Brake circuit feedback 9: Operation output feedback 10: Safety circuit feedback 11: Up-most limit signal 12: Upward 1 st level forced deceleration 13: Upward 2 nd level forced deceleration 14: Upward 3 rd level forced deceleration 15: Down-most limit signal 16: Downward 1 st level forced deceleration 17: Downward 2 nd level forced deceleration 18: Downward 3 rd level forced deceleration 19: Door pre-opening output feedback 20: Safety circuit feedback 2 21: Brake close feedback 2 22: Door close circuit feedback 2 23: Overload input 24: Full-load input 25: Fire signal 26: Fire mode 27: Light curtain signal 1 28: Light curtain signal 2 29: Elevator lock signal 30: Emergency power supply feedback |
| 03-01 | Multi-function input command 2 (MI2) | 2 | 102 | |
| 03-02 | Multi-function input command 3 (MI3) | 3 | 103 | |
| 03-03 | Multi-function input command 4 (MI4) | 4 | 104 | |
| 03-04 | Multi-function input command 5 (MI5) | 5 | 105 | |
| 03-05 | Multi-function input command 6 (MI6) | 6 | 106 | |
| 03-06 | Multi-function input command 7 (MI7) | 7 | 107 | |
| 03-07 | Multi-function input command 8 (MI8) | 8 | 108 | |
| 03-08 | Multi-function input command 9 (MI9) | 9 | 109 | |
| 03-09 | Multi-function input command 10 (MI10) | 10 | 110 | |
| 03-10 | Multi-function input command 11 (MI11) | 11 | 111 | |
| 03-11 | Multi-function input command 12 (MI12) | 12 | 112 | |
| 03-12 | Multi-function input command 13 (MI13) | 13 | 113 | |
| 03-13 | Multi-function input command 14 (MI14) | 14 | 114 | |
| 03-14 | Multi-function input command 15 (MI15) | 15 | 115 | |
| 03-15 | Multi-function input command 16 (MI16) | 16 | 116 | |
| 03-16 | Multi-function input command 17 (MI17) | 17 | 117 | |
| 03-17 | Multi-function input command 18 (MI18) | 18 | 118 | |
| 03-18 | Multi-function input command 19 (MI19) | 0 | 0 | |
| 03-19 | Multi-function input command 20 (MI20) | 0 | 0 | |
| 03-20 | Multi-function input command 21 (MI21) | 0 | 0 | |
| 03-21 | Multi-function input command 22 (MI22) | 0 | 0 | |
| 03-22 | Multi-function input command 23 (MI23) | 0 | 0 | |
| 03-23 | Multi-function input command 24 (MI24) | 0 | 0 | |

Multi-function input terminals: Determine whether the external terminal signal is normally open (N.O.) or normally closed (N.C.); configure the following parameters after the device is supplied with power:

※ Please refer to Figure D1-5

| Parameter | Name of the parameter | NO | NC | Parameter range |
|-----------|---------------------------|----|-----|---|
| 03-40 | Multi-function output RA | 1 | 101 | 0: No function |
| 03-41 | Multi-function output MRA | 2 | 102 | 1: Motor's solenoid valve control output |
| 03-42 | Multi-function output R1A | 3 | 103 | 2: Mechanical brake release |
| 03-43 | Multi-function output R2A | 0 | 0 | 3: Mechanical brake enhanced release |
| 03-44 | Multi-function output R3A | 0 | 0 | 4: Mechanical brake, electromagnetic contactor normal |
| 03-45 | Multi-function output R4A | 0 | 0 | 5: Fault output |
| 03-46 | Multi-function output R5A | 0 | 0 | 6: Operation monitoring |
| 03-47 | Multi-function output R6A | 0 | 0 | 7: Group control ready |
| | | | | 8: Door pre-opening contactor output |
| | | | | 9: Door motor 1 open |
| | | | | 10: Door motor 1 close |
| | | | | 11: Door motor 2 open |
| | | | | 12: Door motor 2 close |
| | | | | 13: Door inter-lock circuit output |
| | | | | 14: Emergency power output |
| | | | | 15: PM motor three-phase short circuit output |

Settings for various accessory cards

Car-top board EA-CT01 input terminals & Command board EA-CP16 Input Terminals

※ Please refer to Figures D1-6 ~ D1-12

| Parameter | Name of the parameter | NO | NC | Parameter range |
|-----------|--------------------------------|----|-----|--|
| 10-00 | Car-top board input command I1 | 1 | 101 | 0: No function |
| 10-01 | Car-top board input command I2 | 2 | 102 | 1: Front door open limit |
| 10-02 | Car-top board input command I3 | 3 | 103 | 2: Front door close limit |
| 10-03 | Car-top board input command I4 | 5 | 105 | 3: Front door light curtain input |
| 10-04 | Car-top board input command I5 | 6 | 106 | 4: Front door open request |
| 10-05 | Car-top board input command I6 | 7 | 107 | 5: Rear door open limit |
| 10-06 | Car-top board input command I7 | 9 | 109 | 6: Rear door close limit |
| 10-07 | Car-top board input command I8 | 10 | 110 | 7: Rear door light curtain input |
| 10-16 | Command board 1 JP17 | 11 | 111 | 8: Rear door open request |
| 10-17 | Command board 1 JP18 | 12 | 112 | 9: Overload input |
| 10-18 | Command board 1 JP19 | 13 | 113 | 10: Full-load input |
| 10-19 | Command board 1 JP20 | 14 | 114 | 11: Front door open button |
| 10-20 | Command board 1 JP21 | 15 | 115 | 12: Front door close button |
| 10-21 | Command board 1 JP22 | 16 | 116 | 13: Front door open delay button |
| 10-22 | Command board 1 JP23 | 17 | 117 | 14: VIP mode switch |
| | | | | 15: Operator control switch |
| | | | | 16: Operator non-stop control switch |
| | | | | 17: Independent operation switch |
| | | | | 18: 1 st level fire rescue switch |
| | | | | 19: Car-top inspection switch |
| | | | | 20: Car-top inspection up-going |
| | | | | 21: Car-top inspection down-going |
| | | | | 22: Emergency stop input |
| | | | | 23: Light control input |
| | | | | 24: Fan control input |
| | | | | 25: Rear door open button |
| | | | | 26: Rear door close button |
| | | | | 27: Rear door open delay button |
| | | | | 28: Operator direction up-going switch |
| | | | | 29: Operator direction down-going switch |

| | | | | |
|-------|----------------------|----|-----|--|
| 10-23 | Command board 1 JP24 | 18 | 118 | 30: Jog up-going 31: Jog down-going 32: Light load switch input 33: Front door safety panel 34: Rear door safety panel |
|-------|----------------------|----|-----|--|

Car-top board EA-CT01 output terminals & Command board EA-CP16 Output Terminals

※ Please refer to Figures D1-6 ~ D1-12

| Parameter | Name of the parameter | NO | NC | Parameter range |
|-----------|----------------------------------|-------|---------|---|
| 10-24 | Car-top board output command Od2 | 1 | 101 | 0: No function |
| 10-25 | Car-top board output command Od1 | 2 | 102 | 1: Front door open output |
| 10-26 | Car-top board output command Oc3 | 3 | 103 | 2: Front door close output |
| 10-27 | Car-top board output command Oc2 | 5 | 105 | 3: Rear door open output |
| 10-28 | Car-top board output command Oc1 | 6 | 106 | 4: Rear door close output |
| 10-29 | Car-top board output command Ob3 | 7 | 107 | 5: Overload signal output |
| 10-30 | Car-top board output command Ob2 | 9 | 109 | 6: Full-load signal output |
| 10-31 | Car-top board output command Ob1 | 10 | 110 | 7: Buzzer output |
| 10-48 | Car-top board output command Oa | 0 | 0 | 8: Light output |
| 10-40 | Command board 1 JP17 | 10 | 110 | 9: Fan output |
| 10-41 | Command board 1 JP18 | 11 | 111 | 10: Front door is opening |
| 10-42 | Command board 1 JP19 | 12 | 112 | 11: Front door is closing |
| 10-43 | Command board 1 JP20 | 13 | 113 | 12: Front door open delay display |
| 10-44 | Command board 1 JP21 | 14 | 114 | 13: Non-stop operation display |
| 10-45 | Command board 1 JP22 | 15 | 115 | 14: Operator control output |
| 10-46 | Command board 1 JP23 | 16 | 116 | 15: Operator direction change display |
| 10-47 | Command board 1 JP24 | 17 | 117 | 16: Independent operation display |
| 10-49 | Car-top input direction 1 | 0000H | 0~66535 | 17: 1 st level fire rescue display |
| 10-50 | Car-top input direction 2 | 0000H | 0~66535 | 18: Elevator landing |
| 10-51 | Car-top output direction 1 | 0000H | 0~66535 | 19: Elevator stop |
| 10-52 | Car-top output direction 2 | 0000H | 0~66535 | 20: Elevator up-going output |

Door control parameter settings

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|---|---------------|---|
| 09-00 | Number of door motors | 0 | 0: 1 unit 1: 2 units |
| 09-01 | Car-top board software version | 0 | 0~99 |
| 09-02 | Door motor 1 Service Floor 1 | FFFF | 0~FFFF |
| 09-03 | Door motor 1 Service Floor 2 | FFFF | 0~FFFF |
| 09-04 | Door motor 1 Service Floor 3 | FFFF | 0~FFFF |
| 09-05 | Door motor 2 Service Floor 1 | FFFF | 0~FFFF |
| 09-06 | Door motor 2 Service Floor 2 | FFFF | 0~FFFF |
| 09-07 | Door motor 2 Service Floor 3 | FFFF | 0~FFFF |
| 09-08 | Door open time protection | 10 | 5 ~ 99 seconds |
| 09-09 | Door close time protection | 15 | 5 ~ 99 seconds |
| 09-10 | Door open/close times | 0 | 0 ~ 20 times |
| 09-11 | Door status at movement base station | 0 | 0: Normal door closing 1: Open door and wait |
| 09-12 | Door open holding time by external display board | 5 | 1 ~ 30 seconds |
| 09-13 | Door open holding time by in-car display board | 3 | 1 ~ 30 seconds |
| 09-14 | Door open holding time at base station | 10 | 1 ~ 30 seconds |
| 09-15 | Delay time for arrival alarm output | 0 | 0 ~ 1000ms |

Service Floor Parameters

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|-----------------------|---------------|-----------------|
| 08-05 | Service floor 1 | FFFF | 0~FFFF |
| 08-06 | Service floor 2 | FFFF | 0~FFFF |
| 08-07 | Service floor 3 | FFFF | 0~FFFF |

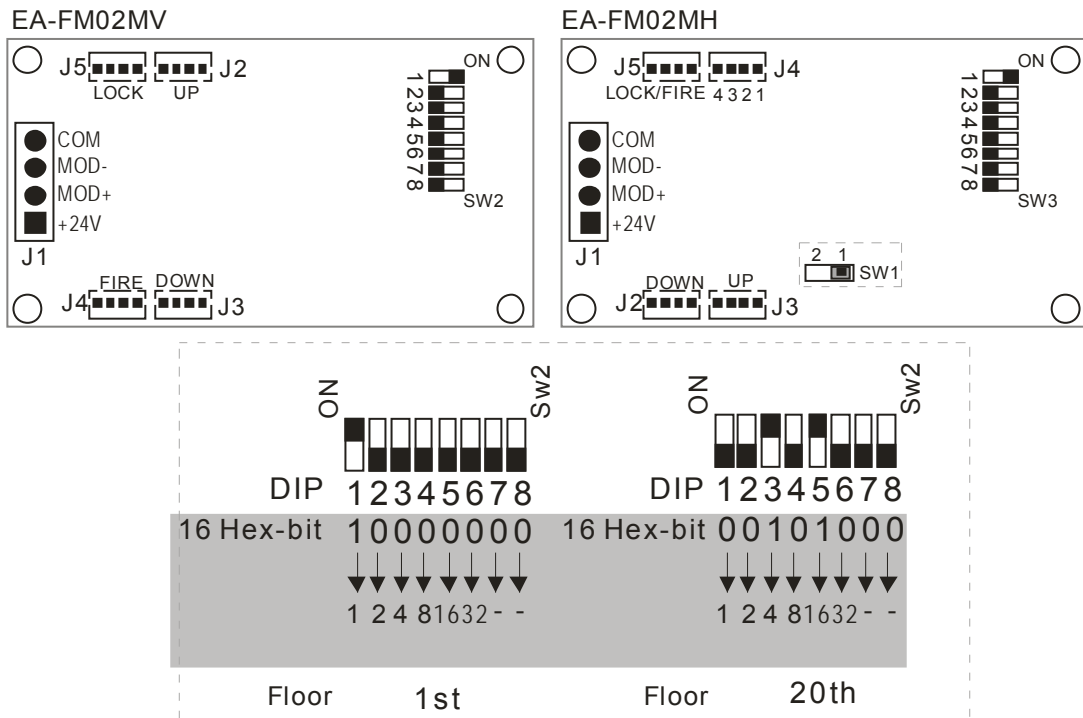
External display board/ In-car display board**External display board/ In-car display board: Installation**

Plug the connector of Modbus communication cable into J1; plug the connectors of the Upward and Downward buttons into J2 and J3, respectively; plug the connectors for the Fireman and Elevator Lock switches into J4 and J5, respectively. (Please refer to the following figure)

External display board: Floor setting

With the SW2(EA-FM02MV) & SW3 (EA-FM02MH) DIP address setting, up to 64 floors can be configured currently; the 8th bit is the termination resistor for communication; dial it to the ON position for the lowest floor. (Please refer to the following figure:)

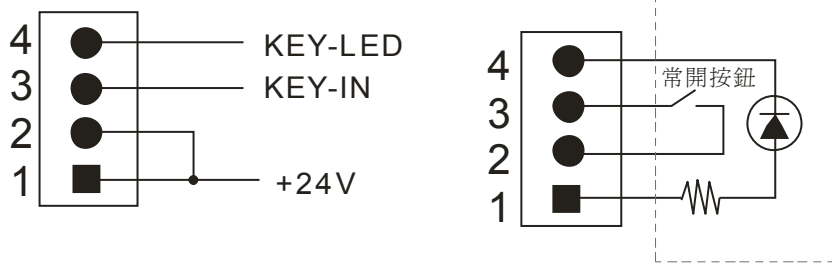
SW1 in EA-FM02MH is to switch vertical / horizontal display. When SW1 is in 1, EA-FM02MH will be vertical display; when SW1 is in 2, EA-FM02MH will be horizontal display



Input/Output Pin Assignments

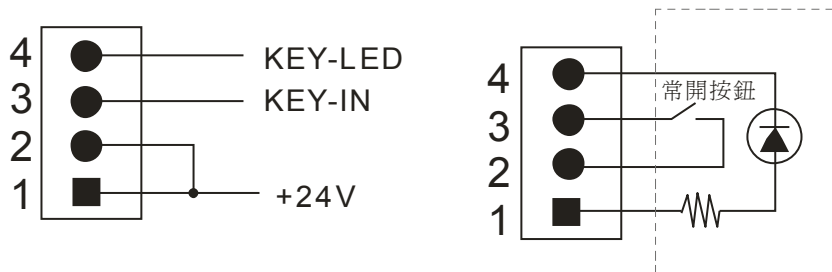
| Name of the terminal | Definition of function | Description of the terminal |
|----------------------|---|---|
| J1 | Modbus communication and power cord terminals MOD+/MOD- are the communication lead wires for Modbus +24V/COM are the 24V power and the common ground wires, respectively | Communication port and the car-top communication Power requirements: +24V±5% Load capability ≥ 400mA |
| J2 | Upward call button interface: Pin 2 and Pin 3 are wires for number of input switches; Pin 1 and Pin 4 are used for button indicator output signal control | 1 - The button is a normally open button 2 - The maximum load capability of the button indicator output is 30mA. |
| J3 | Downward call button interface: Pin 2 and Pin 3 are wires for number of input switches; Pin 1 and Pin 4 are used for button indicator output signal control | |
| J4 | EA-FM02MV : Fire button interface: Pin 2 and Pin 3 are wires for number of input switches; Pin 1 and Pin 4 are used for button indicator output signal control EA-FM02MH: For the indicator of up-going and down-going position attained | |
| J5 | EA-FM02MV: Elevator lock button interface: Pin 2 and Pin 3 are wires for number of input switches; Pin 1 and Pin 4 are used for button indicator output signal control EA-FM02MH: Door lock and fire indication are Pin 4 and Pin 3, respectively. | |

The specific assignments of the 4 pins in the 4-pin interface of the EA-FM02MV are as shown below; the definitions of the labels in the figure are: +24 V (24V power), KEY-IN (button input signal), and KEY-LED (button indicator output)

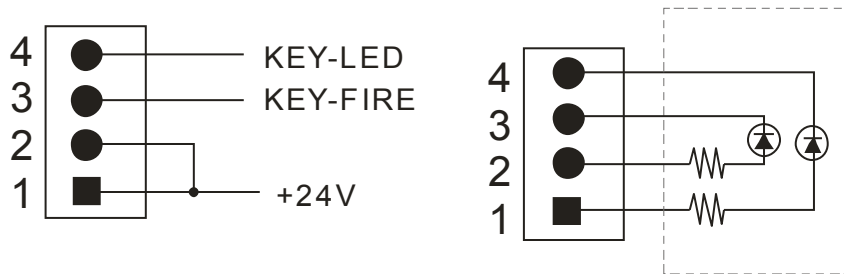


Pin assignments of the terminal interface and its external connection

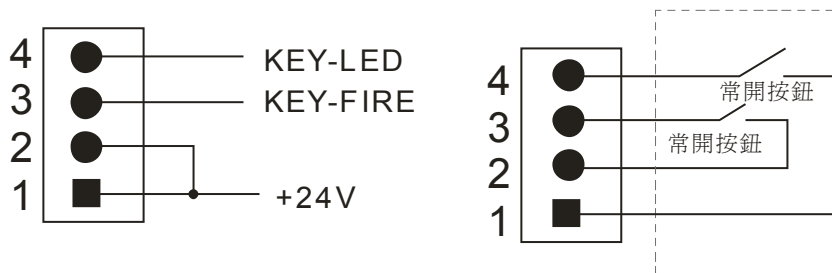
The specific assignments of the 4 pins in the 4-pin interface of the EA-FM02MH are as shown below; the definitions of the labels in the figure are: +24 V (24V power), KEY-IN (button input signal), KEY-LED (button indicator output), LED-FIRE (fire indicator output), LED-LOCK (door lock indicator output), KEY-FIRE (fire input signal), and KEY-LOCK (door lock input signal).



Pin assignments of the J2 and J3 terminal interfaces and their external connection

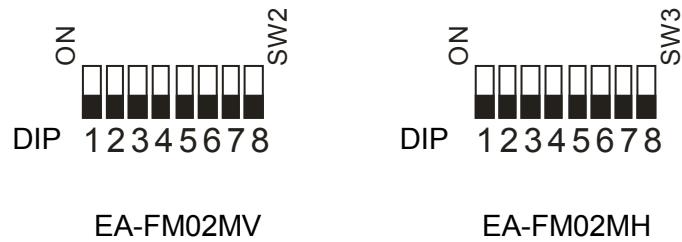


Pin assignments of the J4 terminal interface and the external connection



Pin assignments of the J5 terminal interface and its external connection


In-car display board:



1 - Floor address setting and installation

- 1) Toggle NO.1~8 DIP of SW2(EA-FM02MV) & SW3 (EA-FM02MH) to off, the in-car display mode is activated.
- 2) SW1 in EA-FM02MH is to switch vertical / horizontal display. When SW1 is in 1, EA-FM02MH will be vertical display; when SW1 is in 2, EA-FM02MH will be horizontal display.
- 3) Plug Modbus cable terminal into J1, up-going and down-going button into J2, J3 respectively, and door inter-lock and fire mode into J4, J5.



2 - EA-FM02MV display instructions

| Chart | Explanation |
|---|---|
| Upward arrow | Elevator is stopping, and about to going up |
| Upward arrow moving | Elevator is going up |
| Downward arrow | Elevator is stopping, and about to going down |
| Downward arrow moving | Elevator is going down |
| No display | Elevator is in stop mode or disconnect with IED/ Elevator lock mode |
| Display "X"  | Elevator failure or communication abnormality |



3 - EA-FM02MH display instructions

A. Horizontal display

| Chart | Explanation |
|-----------------------|---|
| Upward arrow | Elevator is stopping, and about to going up |
| Upward arrow moving | Elevator is going up |
| Downward arrow | Elevator is stopping, and about to going down |
| Downward arrow moving | Elevator is going down |
| No display | Elevator is in stop mode or disconnect with IED/ Elevator lock mode |

| | |
|---|---|
| Display "X"  | Elevator failure or communication abnormality |
| Display wrench  | Elevator is under inspection |

B. Vertical display

| Chart | Explanation |
|---|---|
| Upward arrow | Elevator is stopping, and about to going up |
| Upward arrow moving | Elevator is going up |
| Downward arrow | Elevator is stopping, and about to going down |
| Downward arrow moving | Elevator is going down |
| No display | Elevator is in stop mode or disconnect with IED/ Elevator lock mode |
| Display "X"  | Elevator failure or communication abnormality |
| Display wrench  | Elevator is under inspection |

External display board parameters

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|--------------------------------|---------------|--|
| 08-38 | Disable external display board | 0 | 0: Car-top board is valid, external display board is valid 1: Car-top board is valid, external display board is invalid 2: Car-top board is invalid, external display board is valid 3: Car-top board is invalid, external display board is invalid |
| 08-39 | Disable door open | 0 | 0: Door open is enabled 1: Door open is disabled |

The communication interface is configured by the parameter 08-38.

When the parameter 08-38 is set as 0,

external display board communication and car-top board communication are valid.

When the parameter 08-38 is set as 1,

car-top board communication is valid but the external display board communication is invalid.

When the parameter 08-38 is set as 2,

car-top board communication is invalid but external display board communication is valid.

When the parameter 08-38 is set as 3,

both external display board communication and car-top board communication are valid.

Return to the base station, fire, elevator lock

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|----------------------------|---------------|-----------------|
| 08-02 | Elevator base station | 1 | Floor 1 ~ 47 |
| 08-03 | Fire base station | 1 | Floor 1 ~ 47 |
| 08-04 | Elevator lock base station | 1 | Floor 1 ~ 47 |

Floor indication

※ Please refer to the description of terminals of Encode EMED-PGHSD

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|------------------------------|---------------|--|
| 05-00 | Physical floor 1 indication | 1 | 0~9999 Settings: XX YY XX: Tens digit YY: Units digit 00='0' 01='1' 02='2' 03='3' 04='4' 05='5' 06='6' 07='7' |
| 05-01 | Physical floor 2 indication | 2 | |
| 05-02 | Physical floor 3 indication | 3 | |
| 05-03 | Physical floor 4 indication | 4 | |
| 05-04 | Physical floor 5 indication | 5 | |
| 05-05 | Physical floor 6 indication | 6 | |
| 05-06 | Physical floor 7 indication | 7 | |
| 05-07 | Physical floor 8 indication | 8 | |
| 05-08 | Physical floor 9 indication | 9 | |
| 05-09 | Physical floor 10 indication | 100 | |
| 05-10 | Physical floor 11 indication | 101 | |
| 05-11 | Physical floor 12 indication | 102 | |
| 05-12 | Physical floor 13 indication | 103 | |
| 05-13 | Physical floor 14 indication | 104 | |
| 05-14 | Physical floor 15 indication | 105 | |
| 05-15 | Physical floor 16 indication | 106 | |
| 05-16 | Physical floor 17 indication | 107 | |
| 05-17 | Physical floor 18 indication | 108 | |
| 05-18 | Physical floor 19 indication | 109 | |

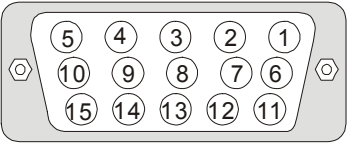
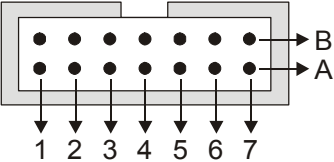
| | | | |
|-------|------------------------------|-----|--------------|
| 05-19 | Physical floor 20 indication | 200 | 08='8' |
| 05-20 | Physical floor 21 indication | 201 | 09='9' |
| 05-21 | Physical floor 22 indication | 202 | 10='A' |
| 05-22 | Physical floor 23 indication | 203 | 11='B' |
| 05-23 | Physical floor 24 indication | 204 | 12='G' |
| 05-24 | Physical floor 25 indication | 205 | 13='H' |
| 05-25 | Physical floor 26 indication | 206 | 14='L' |
| 05-26 | Physical floor 27 indication | 207 | 15='M' |
| 05-27 | Physical floor 28 indication | 208 | 16='P' |
| 05-28 | Physical floor 29 indication | 209 | 17='R' |
| 05-29 | Physical floor 30 indication | 300 | 18='-' |
| 05-30 | Physical floor 31 indication | 301 | 19="" |
| 05-31 | Physical floor 32 indication | 302 | 20='X' |
| 05-32 | Physical floor 33 indication | 303 | 21=up_icon |
| 05-33 | Physical floor 34 indication | 304 | 22=down_icon |
| 05-34 | Physical floor 35 indication | 305 | |
| 05-35 | Physical floor 36 indication | 306 | |
| 05-36 | Physical floor 37 indication | 307 | |
| 05-37 | Physical floor 38 indication | 308 | |
| 05-38 | Physical floor 39 indication | 309 | |
| 05-39 | Physical floor 40 indication | 400 | |
| 05-40 | Physical floor 41 indication | 401 | |
| 05-41 | Physical floor 42 indication | 402 | |
| 05-42 | Physical floor 43 indication | 403 | |
| 05-43 | Physical floor 44 indication | 404 | |
| 05-44 | Physical floor 45 indication | 405 | |
| 05-45 | Physical floor 46 indication | 406 | |
| 05-46 | Physical floor 47 indication | 407 | |

Encode EMED-PGHSD

※ Please refer to Figure D1-15

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|---|---------------|--|
| 02-07 | Encoder type selection | 0 | 0: No function 1: ABZ 2: ABZ + Hall 3: SIN/COS + Sinusoidal 4: SIN/COS + Endat 5: SIN/COS 6: SIN/COS + Hiperface |
| 02-08 | Number of pulses for each turn of the encoder | 600 | 1~25000 |
| 02-09 | Encoder's input type setting | 0 | 0: No function 1: Phases A/B are pulse inputs: Phase A is 90 degree leading Phase B with forward rotation 2: Phases A/B are pulse inputs: Phase B is 90 degree leading Phase A with forward rotation 3: Phase A is a pulse input; Phase B is the direction input: L is reverse direction and H is forward direction 4 : Phase A is a pulse input; Phase B is the direction input: L is forward direction and H is reverse direction 5: Single phase input |

Function of sinusoidal type ENCODER

| J3 (refer to Figure D1-10) | | Heidenhain ERN1387 | | Heidenhain ECN1313 (EnDat) |
|---|----------------------|--|----------------------|-------------------------------|
|  | |  | | |
| Terminal No. | Name of the terminal | Terminal No. | Name of the terminal | Name of the terminal |
| 1 | B- | 5a | B- | B- |
| 2 | NC | NC | NC | 0V |
| 3 | Z+ | 4b | R+ | 0V |
| 4 | Z- | 4a | R- | 0V |
| 5 | A+ | 6b | A+ | A+ |
| 6 | A- | 2a | A- | A- |
| 7 | 0V | 5b | 0V | 0V |
| 8 | B+ | 3b | B+ | B+ |
| 9 | +5V | 1b | UP | VP |
| *10 | SIN | 7b | C+ | Data- |
| *11 | SIN' | 1a | C- | Data+ |
| 12 | COS | 2b | D+ | CLOCK+ |
| 13 | COS' | 6a | D- | CLOCK- |
| 14 | NC | - | - | VP |
| 15 | NC | - | - | 0V |

※ For more information about the encoder, please refer to Appendix B B-5-2

※ EMED-PGHSD J3 supports two connection configurations; in the Table shown above, the assignments of Terminals 10 and 11 are different; when the parameter 02-12 is set as 0000h, the information shown in the table shown above are valid; when the parameter 02-12 is set as 0004h, Terminal No. 10=C- and Terminal No. 11=C+.

■ Motor Tuning

Enter the data shown on the motor nameplate

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|---|-----------------|---|
| 01-02 | Control method | 0 | 0: V/F control 1: V/F control + Encoder (VFPG) 2: Sensorless vector control (SVC) 3: FOC vector control + Encoder (FOCPG) 4: Torque control + Encoder (TQCPG) 8: FOC PM control (FOCPM) |
| 01-04 | Elevator speed | 1.00 | 0.10 ~ 4.00 m/s |
| 01-05 | Maximum Output Frequency | 60.00/ 50.00 | 10.00 ~ 400.00Hz |
| 02-00 | Motor Auto Tuning | 0 | 0: No function 1: Rolling test 2: Static test |
| 02-01 | Full-load Current OF Motor | ### | (30 ~ 120%) * the model's rated current (Amps) |
| 02-02 | Rated power of Motor | ### | 0.00 ~ 655.35kW |
| 02-03 | Rated speed of Motor (rpm) | 1710 | 0~65535 |
| 02-04 | Numbers of Motor poles | 4 | 2~96 |
| 02-05 | Angle between Magnetic Pole and PG Origin | 360.0 | 0.0~360.0° |
| 02-06 | Output Direction Selection | 0 | 0: Same as the configured direction 1: Opposite to the configured direction |
| 02-07 | Encoder type selection | 0 | 0: No function 1: ABZ 2: ABZ + Hall 3: SIN/COS + Sinusoidal 4: SIN/COS + Endat 5: SIN/COS 6: SIN/COS + Hiperface |
| 02-08 | Encoder pulses | 0 | 1~25000 |
| 02-09 | Encoder Input type setting | 600 | 0: No function 1: Phases A/B are pulse trains: Phase A is 90 degree leading Phase B with forward rotation 2: Phases A/B are pulse trains: Phase B is 90 degree leading Phase A with forward rotation 3: Phase A is a pulse train; Phase B is the direction sign: L is reverse and H is forward 4: Phase A is a pulse train; Phase B is the direction sign: L is forward and H is reverse 5: Single phase input |
| 02-10 | U, V, W input mode selection | 0 | 0: Z signal is at the falling edge of Phase U 1: Z signal is at the leading edge of Phase U |
| 02-11 | Rated frequency of Motor | 60.00/ 50.00 | 0.00 ~ 400.00Hz |
| 02-12 | Rated voltage of Motor | 220.0 440.0 | 230V Series: 0.0V ~ 255.0V 460V Series: 0.0V ~ 510.0V |
| 02-14 | Stator Resistance (Rs) of Motor | 0.000 | 0.000~65.535Ω |
| 02-17 | Stator Inductance (Lx) of Motor | 0.0 | 0.0~6553.5mH |
| 02-18 | Back Electromotive Force | 0.0 | 0.0~6553.5Vrms |
| 06-11 | Inspection speed | 0.08 | 0.10 ~ 4.00m/s |

Synchronous Motor (PM)

It is recommended to allow the motor self-learn before engaging the steel wire rope. When the U V W phase sequence of a synchronous motor is changed, the encoder is replaced, or the encoder wiring is changed, it is necessary to recognize the encoder position angle again.

Tuning process of a synchronous motor without load:

The first set parameters are usually used for test in the factory before delivery, so it is necessary to execute the tuning process for both the control cabinet and the motor at the same time. Before the test is executed, please make sure the wiring of the contracting brake, the wiring of the output relay, and the settings of the control parameters are correct.

- ※ Enter the following parameters
01-05, 02-01~02-04, 02-11, 02-12
- ※ Parameters for the encoder
02-07~02-10
Control method: 01-02=8
- ※ Please make sure that the traction wheel is not hanging with any elevator car or load.
- ※ Set 02-00=1 for self-tuning without load. Use the inspection terminals to execute the self-learning control. Press the inspection Up or Down buttons on the control panel. When the message "TUNE" is shown on the panel, execute the following two consecutive operations:
 - (1) At the same time, the contracting brake is not activated, the output relay is switched on for motor self-learning. The motor's parameters are automatically written in 02-14, 02-17, and 02-18.
 - (2) After a few seconds, the contracting brake opens, the motor is rotating, and the encoder self-learning starts. The parameter values obtained from the tuning process will be automatically written in 02-05 for the encoder's origin offset angle.
- ※ After the tuning process is complete, please set 6-11= inspection speed, open the contracting brake, and run the motor without load to check if the operating current is extraordinarily large and if the motor is running normally. For any error, execute the self-tuning process again or modify 02-09 before executing the self-tuning again.
- ※ After the self-tuning process is complete, please recover the terminal status.

Caution:

- 1) During the self-learning process of the encoder, if "PGF2" failure message occurs, please modify the parameter 02-09 (for example: if it is originally 1, you can change it to 2) before executing the motor self-tuning process again.
- 2) During the learning process of the encoder, set the inspection direction be opposite to the actual operation direction, you can set parameters 02-06 to 1 to correct this problem without exchange the output wires for the motor.

Tuning process of a synchronous motor with load:

Usually, the load is the elevator car that is hanging in the hoistway, so the motor is not able to be separated from the load. Therefore, the motor tuning process is usually executed by the **inspection control** mode. Before the test is executed, please make sure the wiring of the contracting brake, the wiring of the output relay, and the settings of the control parameters are correct.

- ※ Make sure that the elevator is in the inspection mode.
- ※ Enter the following parameters
01-05, 02-01~02-04, 02-11, 02-12
- ※ Parameters for the encoder
02-07~02-10
Control method: 01-02=8
- ※ Please make sure the directions of the upward and downward movement when the traction wheel is hanging with the elevator car for operation.
- ※ Set 02-00=2 for self-tuning with load. Use the inspection terminals to execute the self-learning control. Press the inspection Up or Down buttons on the control panel. When the message "TUNE" is shown on the panel, execute the following two consecutive operations:
 - (1) In the beginning, the contracting brake is not activated, the output relay is switched on for motor self-learning. The obtained motor's parameters are automatically written in 02-14, 02-17, and 02-18.
 - (2) After a few seconds, the contracting brake opens and the motor is rotating for 3 turns to execute the encoder self-learning process. The parameter values obtained from the tuning process will be automatically written in Parameter 02-05 for the offset angle of the encoder's origin.
- ※ After the tuning process is complete, please set 6-11= inspection speed, open the contracting brake, and run the motor with empty car to check if the operating current is extraordinarily large and if the motor is running normally. For any error, execute the self-tuning process again or modify 02-09 before executing the self-tuning again.
- ※ After the self-tuning is complete, the elevator is still in the inspection mode waiting for inspection run to inspect the activation timing of the hoistway signals.

Caution:

- ※ If the tuning is not successful, the risk of elevator sudden fall may occur. It is recommended to execute the operation by two persons together: One presses the inspection button, the other handles the emergency stop button so as to shut off the power in time in case the elevator sudden fall occurs.
- ※ During the self-learning process of the encoder, if "PGF2" failure message occurs, please modify the parameter 02-09 (for example: if it is originally 1, you can change it to 2) before executing the motor self-tuning process again.
- ※ During the learning process of the encoder, set the inspection direction be opposite to the actual operation direction, you can set parameters 02-06 to 1 to correct this problem without exchange the output wires for the motor.
- ※ The deviation angle obtained from the encoder self-learning process with load may have some bias. It is recommended to execute the learning process twice both for the upward and downward movements and then take their average value.

Asynchronous Induction Motor (IM)

- Select the control mode: When the IM motor is used by the customer, please set the parameter 01-02=3

| | |
|-----------|---|
| Parameter | 0: V/F control |
| 01-02 | 1: V/F control + Encoder (VFPG) |
| Contents | 2: Sensorless vector control (SVC) |
| | 3: FOC vector control + Encoder (FOCPG) |
| | 4: Torque control + Encoder (TQCPG) |
| | 8: FOC PM control (FOCPM) |

NOTE: Configure the parameter settings according to the motor type (PM or IM) used by the customer

- Motor parameter automatic measurement

Motor Auto Tuning

| | |
|-----------|-------------------|
| Parameter | 0: No function |
| 02-00 | 1: Rolling test |
| Contents | 2: Static testing |

NOTE: The automatic measurement process does not need to release the brake. If a solenoid valve is installed between the driver and the motor, it is necessary to energize the solenoid valve. For the static measurement with a setting range of 2, it is necessary to enter the motor 02-13. During the automatic measurement, the digital operating panel may show the warning message "Auto tuning" till the measurement is complete. Then the panel may stop displaying the warning message and store the measurement result into parameters 02-14~02-17 .

NOTE: The automatic measurement for IM motor can also provide dynamic measurement.

Full-load current of Motor

| | |
|-----------|--|
| Parameter | (30 ~ 120%) * the model's rated current (Amps) |
| 02-01 | |
| Contents | |

Rated power of Motor

| | |
|-----------|-----------------|
| Parameter | Contents |
| 02-02 | 0.00 ~ 655.35kW |

Rated speed of Motor (rpm)

| | |
|-----------|----------|
| Parameter | Contents |
| 02-03 | 0~65535 |

Numbers of Motor Poles

| | |
|-----------|----------|
| Parameter | Contents |
| 02-04 | 2~96 |

"IM motor does not need the origin deviation measurement because the magnetic pole positioning is not required for an IM motor."

Hoistway self-learning

Please confirm the following conditions before executing the hoistway self-learning:

- (1) Make sure that the elevator satisfies the inspection running condition
 - ※ IED and the Car-top board: The IED and the car-top board communicate with each other through the CAN communication. If the communication is not normal, the IED may exert error messages.
 - ※ IED and External display board: The IED and the External display board communicate with each other through the MODBUS communication based on the address configured by parameters 08-00 and 08-01. If the communication is not normal, the parameters 00-54~00-56 may show the addresses with communication time-outs. If the communication is normal, the contents of 00-54~00-56 will be 0.
- (2) Make sure that the settings for the lowest and highest elevator floors (08-00~08-01) are configured and the corresponding values are correct. In addition, the settings for the lowest and highest floors must match the physical floors.
- (3) Make sure that the elevator can move to any target floor correctly. If the settings are incorrect, the hoistway self-learning process may have errors.
- (4) Check the hoistway signals 00-15~00-17.
In the inspection mode, execute the inspection operation can check the time sequence of the hoistway signals (upper/lower limits, upward/ downward forced deceleration, upper/lower leveling or the door area signal) are correct so as to ensure that the hoistway self-learning process can be completed normally.
- (5) Configure the movement speed and the system control method 06-10~06-13

When the hoistway self-learning starts, the elevator moves downwards at the inspection speed (06-11) to search for the position of the lower limit. After triggering downward 1st level forced deceleration switch, it keeps moving downwards at the leveling speed (06-12) to continue searching for the position of the lower limit. When the lower limit signal is triggered, it will move upwards at the floor search speed (06-10) to start the hoistway self-learning process; once it triggers upper 1st level forced deceleration switch, it will move upward at the leveling speed (06-12) to continue to search for the upper limit. After the upper limit is triggered, it moves at the operation speed (06-13) back to the 1st floor to execute the hoistway position confirmation again. After the movement stops, the hoistway self-learning is complete. It is recommended that the running speed 06-13 shall be set as half of the maximum speed of the elevator for the hoistway self-learning.

- (6) The hoistway self-learning process is executed as follows:
 - A Make sure that the elevator is in the inspection mode
 - B Set the parameter 08-50 as 1
 - C Switch back to the normal mode, i.e., the automatic hoistway self-learning command
- (7) When the system executes the hoistway self-learning command automatically, it will move downward at the inspection speed to search for the position of the lower limit, and then move upward to start the self-learning

process. After the self-learning process is complete, it will move fast back and level with the lowest floor. (The elevator will execute the hoistway signal self-learning according to the aforementioned sequence, and automatically set 08-50 as 0 after the learning process is complete. During the hoistway self-learning, if it is required to stop the process, manually set 08-50 as 0 so as to stop the elevator and enter the inspection state.)

Methods for interrupting self-learning:

A Switch back to the inspection mode

B Abnormal error message is generated

C While the hoistway self-learning command is executed, the parameter is set as 08-50=1 again.

- (8) Check the hoistway parameters 04-00~04-95 and parameters 06-23~06-38.

After the hoistway self-learning is complete, check if the absolute position of the floors corresponding to the hoistway parameter 04-00~04-95 are reasonable. It is allowed to use the inspection movement to move the elevator to each floor to check if the absolute positions match the hoistway parameters.

- (9) Set the floor indications 05-00~05-46

Set the floor indications 05-00~05-46 properly according to the elevator's operation environment. Refer to the description of 05-00~05-46 for the configuration detail.

- (10) Definition of upper/lower leveling: When the elevator is moving downward, the lower leveling signal is triggered first. When the elevator is moving upward, the upper leveling signal is triggered first.

- (11) When the elevator moves downward and level with the lowest floor and continues moving down, the lower leveling signal must be released before the lower limit signal is triggered. In this case, the upper leveling signal must always be valid.

- (12) When the elevator moves upward and level with the highest floor and continues moving up, the upper leveling signal must be released before the upper limit signal is triggered. In this case, the lower leveling signal must always be valid.

- (13) Make sure that the coercion deceleration distance and the upper/lower limits are correctly installed.

- (14) If the position of the leveling plate is re-adjusted, it is necessary to execute the hoistway self-learning process again.

※ The parameters 04-02 ~ 04-95 correspond to the upper/lower leveling for the floors 1 ~ 47. For a more detailed list of these parameters, please refer to Summary of Parameters.

※

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|--|---------------|---|
| 01-04 | Elevator speed | 1.00 | 0.10 ~ 4.00 m/s |
| 08-00 | Elevator's topmost floor | 5 | Floor 1 ~ 47 |
| 08-01 | Elevator's down-most floor | 1 | Floor 1 ~ 47 |
| 08-02 | Elevator base station | 1 | Floor 1 ~ 47 |
| 08-50 | Hoistway self-learning | 0 | 0: Stop hoistway self-learning 1: Start hoistway self-learning |
| 06-11 | Inspection speed | 0.08 | 0.10 ~ 4.00m/s |
| 06-12 | Leveling speed | 0.15 | 0.10 ~ 4.00m/s |
| 06-23 | Position of lower limit - high | 0 | 0 ~ 9999m |
| 06-24 | Position of lower limit - low | 0.0 | 0.0 ~ 999.9mm |
| 06-25 | Downward 1 st level forced deceleration position - high | 0 | 0 ~ 9999m |
| 06-26 | Downward 1 st level forced deceleration position - low | 0.0 | 0.0 ~ 999.9mm |

| | | | |
|-------|--|-----|---------------|
| 06-27 | Downward 2 nd level forced deceleration position - high | 0 | 0 ~ 9999m |
| 06-28 | Downward 2 nd level forced deceleration position - low | 0.0 | 0.0 ~ 999.9mm |
| 04-00 | Landing board length | 0.0 | 0.0 ~ 999.9mm |
| 04-01 | Distance between upper and lower leveling signals | 0.0 | 0.0 ~ 999.9mm |
| 04-02 | Floor 1 position - high | 0 | 0 ~ 9999m |
| 04-03 | Floor 1 position - low | 0.0 | 0.0 ~ 999.9mm |
| 04-04 | Floor 2 position - high | 0 | 0 ~ 9999m |
| 04-05 | Floor 2 position - low | 0.0 | 0.0 ~ 999.9mm |
| ~ | ~ | ~ | ~ |
| 04-94 | Floor 47 position - high | 0 | 0 ~ 9999m |
| 04-95 | Floor 47 position - low | 0.0 | 0.0 ~ 999.9mm |

Fast car test run

※ Car's internal command test

Set the elevator in the automatic mode. Configure the parameter 08-34 by using the small keypad function menu to enter the single-floor command to check if the elevator is running according to the command.

※ Hall call command test

Set the elevator in the automatic mode. Configure the parameter 08-35 and 08-36 by using the small keypad function menu to enter the hall call up/down movement or execute the hall call command for each floor to check if the elevator is running according to the commands.

※ Door open/close function test

When the elevator reach the station at the leveling position, check if the door opens normally and the door open hold time meets the requirement: When the elevator responds to the call and starts to move, check if the door closes normally.

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|-----------------------|---------------|-----------------|
| 08-34 | Test floor 1 | 0 | Floor 1 ~ 47 |
| 08-35 | Test floor 2 | 0 | Floor 1 ~ 47 |
| 08-36 | Test floor 3 | 0 | Floor 1 ~ 47 |

Fast car movement

After the fast car test run is complete correctly, set the elevator in the inspection state, configure or add the required functions, and then starts the commissioning of fast car movement.

※ Configure 08-48 and 08-49 according to the customer's actual on-site demands.

※ According to the actual on-site conditions, adjust the parameter group 08, configure the base station, fire, elevator lock base station (08-02 ~ 08-04) and service floor (08-05 ~ 08-07), group selection method, time-sharing services, and parallel peak control.

※ Safety circuit test

If any safety switch is activated, the safety circuit relay will release.

※ Door lock circuit test

If any hall door lock or car door lock is unlocked, the door lock relay is released.

※ Contracting brake contactor sticking test

While parking, the top-pressure contracting brake contactor should be protected by the system

※ Output contactor sticking test

While parking, the top-pressure output contactor should be protected by the system

※ Slipping protection function test

Move the elevator to the middle floor in the inspection mode. Remove the system leveling signal wires (to set the signal normally open) and then switch to the automatic mode, the elevator will find leveling at a low speed. Within 45 seconds, the system automatic protection is activated.

※ Elevator lock function test

- (1) If the elevator parks at a certain floor other than the base station, the elevator lock base station's elevator lock signal is triggered and the elevator door shall immediately close and not respond to any hall call. It will move fast back to the elevator lock base station. After the car stops, the door opens for a delay time and then the door closes and the light goes out. All the commands and hall calls are shut off, and the hall external displays go off.
- (2) If the elevator is running and the elevator lock base station's elevator lock signal is triggered, all the hall call commands will disappear. After the elevator responds to all the command one by one, it will not respond to any hall call but move fast back to the elevator lock base station. As the car stops and the door opens, the door closes after a time delay, the indicator goes off, all the commands and hall calls are shut off, and the hall external displays go off.
- (3) If the elevator parks at the elevator lock base station, after the base station's elevator lock signal is triggered, the elevator shall open the door and then close the door, turn off the light, shut off all the commands and hall calls, and turn off the hall displays. But the car's internal Door Open indicator is constantly lit.

| Parameter | Name of the parameter | Default value (NO) | Parameter range |
|-----------|----------------------------|--------------------|-----------------|
| 08-02 | Elevator base station | 1 | Floor 1 ~ 47 |
| 08-03 | Fire base station | 1 | Floor 1 ~ 47 |
| 08-04 | Elevator lock base station | 1 | Floor 1 ~ 47 |
| 08-05 | Service floor 1 | FFFF | 0~FFFF |
| 08-06 | Service floor 2 | FFFF | 0~FFFF |
| 08-07 | Service floor 3 | FFFF | 0~FFFF |
| 08-48 | Factory function 1 | 0 | 0~65535 |
| 08-49 | Factory function 2 | 0 | 0~65535 |

Comfort adjustment

The comfort during the elevator's movement can be adjusted through the parameter group 06 so as to allow the elevator to provide a comfortable and smooth movement; however, the comfort of an elevator is influenced by various factors, for example, improper mechanical adjustments or parameter settings may lead to bad comfort during the elevator movement.

The mechanical factors that affect the comfort can be categorized in to several conditions listed below:

- (1) The surface smoothness of the elevator's guide rails, verticality of the installed guide rails, and the treatment of the joints between rails.
 - The verticality of the guide rails can affect not only the elevator's horizontal vibration but also its vertical vibration during movement.
 - If the joints between guide rails are not properly handled, the step-like motion at certain position may occur during the elevator's movement.

(2) Tightness of guide shoes

If the guide shoes are too tight, the step-like motion may occur as the elevator starts to move; meanwhile, the sudden braking motion may occur as the elevator is going to stop; if the guide shoes are too loose, the vibration may occur during the elevator's movement.

(3) The gap between the mechanical contracting brakes of the motor has great effect on the movement during starting and braking.

(4) The imbalance between the tensions of the elevator's steel wire ropes is usually the origin of the vibration of the elevator.

(5) Whether the mechanical vibrations-reduction rubber pads are employed in the elevator car or the traction motor is important as well.

The electrical related parameters also have effects on the comfort. Improper settings may cause vibration in the vertical direction.

(1) The motor related parameters 02-00 ~ 02-17 are the parameters mainly used by the system for controlling the motor. Incorrect motor type selection, incorrect parameter settings, or inaccurate self-learning results may cause motor's vibration or noise which in turn may affect the comfort.

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|---|---------------|--|
| 02-00 | Motor Auto Tuning | 0 | 0: No function 1: Rolling test 2: Static test |
| 02-01 | Full-load Current of Motor | ### | (30 ~ 120%) * the model's rated current (Amps) |
| 02-02 | Rated power of Motor | ### | 0.00 ~ 655.35kW |
| 02-03 | Rated speed of Motor (rpm) | 1710 | 0~65535 |
| 02-04 | Number of Motor Poles | 4 | 2~96 |
| 02-05 | Angle between Magnetic Pole and PG Origin | 360.0 | 0.0~360.0° |
| 02-06 | Output Direction Selection | 0 | 0: Same as the configured direction 1: Opposite to the configured direction |
| 02-07 | Encoder type selection | 0 | 0: No function 1: ABZ 2: ABZ + Hall 3: SIN/COS + Sinusoidal 4: SIN/COS + Endat 5: SIN/COS 6: SIN/COS + Hiperface |
| 02-08 | Encoder Pulse | 600 | 1~25000 |
| 02-09 | Encoder's input type setting | 0 | 0: No function 1: Phases A/B are pulse inputs: Phase A is 90 degree leading Phase B with forward rotation 2: Phases A/B are pulse inputs: Phase B is 90 degree leading Phase A with forward rotation 3: Phase A is a pulse input; Phase B is the direction input: L is reverse direction and H is forward direction 4 : Phase A is a pulse input; Phase B is the direction input: L is forward direction and H is reverse direction 5: Single phase input |

| | | | |
|-------|--------------------------------------|-----------------|--|
| 02-10 | U, V, W input mode selection | 0 | 0: Z signal is at the falling edge of Phase U 1: Z signal is at the leading edge of Phase U |
| 02-11 | Rated frequency of Motor | 60.00/ 50.00 | 0.00 ~ 400.00Hz |
| 02-12 | Rated voltage of Motor | 220.0 440.0 | 230V Series: 0.0V ~ 255.0V 460V Series: 0.0V ~ 510.0V |
| 02-13 | No-load current of Motor | ### | 0 ~ Motor's full load current (Parameter 02-01) setting |
| 02-14 | Stator Resistance (Rs) of Motor | 0.000 | 0.000~65.535Ω |
| 02-15 | Rotor Resistance (Rr) of Motor | 0.000 | 0.000~65.535Ω |
| 02-16 | Magnetizing Inductance (Lm) of Motor | 0.0 | 0.0~6553.5mH |
| 02-17 | Stator Inductance (Lx) of Motor | 0.0 | 0.0~6553.5mH |

- (2) The parameters 06-03 and 06-04 are the acceleration times for the rapid acceleration at starting section S1 and the rapid acceleration at the ending section S2 of the S curve movement. If the times are too short, vibrations may occur at the corresponding sections. The acceleration time for S2 may be increased properly.

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|--|---------------|----------------------|
| 06-03 | S-curve for Acceleration Departure Time S1 | 1.00 | 0.00 ~ 25.00 seconds |
| 06-04 | S-curve for Acceleration Arrival Time S2 | 1.00 | 0.00 ~ 25.00 seconds |

- (3) The parameters 06-05 and 06-06 are the deceleration times for the rapid deceleration at starting section S3 and the rapid deceleration at the ending section S4 of the S curve movement. If the times are too short, vibrations may occur at the corresponding sections. The deceleration time for S4 may be increased properly.

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|--|---------------|---------------------|
| 06-05 | S-curve for Deceleration Departure Time S3 | 2.50 | 0.30 ~ 4.00 seconds |
| 06-06 | S-curve for Deceleration Arrival Time S4 | 2.50 | 0.30 ~ 4.00 seconds |

- (4) Adjustment at startup

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|--|---------------|------------------------|
| 06-15 | Brake Release Delay Time when Elevator Starts | 0.250 | 0.000 ~ 65.000 seconds |
| 06-17 | Turn On Delay of Magnetic Contactor between Drive and Motor | 0.200 | 0.000 ~ 65.000 seconds |
| 06-18 | Turn Off Delay of Magnetic Contactor between Drive and Motor | 0.200 | 0.000 ~ 65.000 seconds |
| 06-20 | DC brake time at startup | 0.0 | 0.0 ~ 60.0 seconds |
| 07-01 | Zero-speed bandwidth | 10 | 0 ~ 40Hz |
| 07-05 | Zero-speed ASR P gain | 100.0 | 0.0~500.0% |
| 07-23 | Operation Time of Zero Speed | 0.250 | 0.000 ~ 65.535 seconds |
| 07-24 | Zero Speed Gain (P) | 80.00 | 0~655.00% |
| 07-25 | Low-pass filtering time at the starting position | 0.004 | 0.000 ~ 65.535 seconds |

- ※ At startup, the elevator may exhibit distinct vibrations. Adjust the mechanical brake release delay time 06-15 and the opening time for the contracting brake. Meanwhile, it is necessary to adjust the DC actuation time at startup and the PI value at startup so as to prevent the elevator from sudden falling.

(5) Adjustment for ordinary movement

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|--|---------------|------------------------------|
| 06-01 | Deceleration | 0.50 | 0.00 ~ 2.00m/s ² |
| 06-02 | Forced deceleration | 0.50 | 0.00 ~ 2.00m/s ² |
| 06-04 | S-curve for Acceleration Arrival Time S2 | 1.00 | 0.00 ~ 25.00 seconds |
| 06-05 | S-curve for Deceleration Departure Time S3 | 2.50 | 0.30 ~ 4.00 seconds |
| 06-06 | S-curve for Deceleration Arrival Time S4 | 2.50 | 0.30 ~ 4.00 seconds |
| 06-07 | Landing deceleration | 10.00 | 0.00 ~ 20.00m/s ² |
| 07-00 | Inertia Ratio | 40 | 1~300% |
| 07-01 | Zero-speed bandwidth | 10 | 0 ~ 40Hz |
| 07-02 | Low-speed bandwidth | 10 | 0 ~ 40Hz |
| 07-03 | High-speed bandwidth | 10 | 0 ~ 40Hz |
| 07-04 | Zero-speed bandwidth at parking | 10 | 0 ~ 40Hz |
| 07-05 | Zero-speed ASR P gain | 100.0 | 0.0~500.0% |
| 07-06 | Zero-speed ASR integration time I | 0.100 | 0.000 ~ 10.000 seconds |
| 07-07 | ASR P1 gain | 100.0 | 0.0~500.0% |
| 07-08 | ASR integration time I1 | 0.100 | 0.000 ~ 10.000 seconds |
| 07-09 | ASR P2 gain | 100.0 | 0.0~500.0% |
| 07-10 | ASR integration time I2 | 0.100 | 0.000 ~ 10.000 seconds |

- ※ If a weightlessness feeling occurs during the elevator's movement, the acceleration/deceleration time can be increased properly; if the transition from low speed to high speed or from high speed to low speed seems too rush, the corresponding times in the S curve can be modified; if vibrations always occur during normal movement, the low-speed bandwidth, high-speed bandwidth, mechanical inertia percentage and corresponding PI can be adjusted.

(6) Adjustment at stop

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|--|---------------|------------------------------|
| 06-07 | Landing deceleration | 10.00 | 0.00 ~ 20.00m/s ² |
| 06-21 | DC brake time at stop | 0.0 | 0.0 ~ 60.0 seconds |
| 06-39 | Distance margin for landing deceleration | 100.0 | 0.0 ~ 6000.0mm |
| 07-11 | Zero-speed ASR P gain at landing | 100.0 | 0.0~500.0% |
| 07-12 | Zero-speed ASR integration time I at landing | 0.100 | 0.000 ~ 10.000 seconds |
| 07-26 | Direct landing position control P gain | 10.00 | 0.0~655.00 % |
| 07-27 | Low pass filter time for direct landing position control | 0.018 | 0 ~ 1.000 seconds |

- ※ If vibrations occur at stop, in addition to the parameters listed above, the crawling speed and crawling distance can be adjusted as well (it is recommended that the leveling time shall not exceed 4 seconds).

(7) Leveling position correction

| Parameter | Name of the parameter | Default value | Parameter range |
|-----------|---|---------------|-----------------|
| 04-00 | Landing board length | 0.0 | 0.0 ~ 999.9mm |
| 04-01 | Distance between upper and lower leveling signals | 0.0 | 0.0 ~ 999.9mm |

Landing board length 04-00: (mm) the value obtained from the self-learning process

Spacing between the upper and lower leveling signals 04-01: (mm) the value obtained from the self-learning process

- ※ Fine-tuning of these two parameters can correct the distance between the elevator's car and the leveling height.

4 Group Control

Basic Parameter

- ※ Related parameters setting for group control:

| Parameter | Function of parameter | Default value | Range |
|-----------|---------------------------------------|---------------|-----------------------------|
| 08-08 | Number of elevators for group control | 1 | 1~8 |
| 08-09 | Elevator No. in group control | 1 | 1~8 |
| 08-10 | Group control selection | 0 | b0=1 : Group control enable |

- (1) The number of elevators for group control can be set in 08-08 ; 08-09 is to give serial number for the elevators in the group. The elevator is Master when 08-09 is set 1.

- ※ The numbers given to group controlled elevators must be continuous series. For example, four elevators are for group control, and their number must be 1, 2, 3, 4. If they are given 1, 3, 5, 7, then the group control can not be used.

- (2) Group control function will be enabled when 08-10 bit set as 1.

5 Summary of Parameters

00 Parameters for display

✈ The parameter can be set during operation

☑ represents that the parameter can be configured as show/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---|---|-------|---------------|----|------|-----|-------|-------|-------|
| | | | | | | | | | | |
| 00-00 | Speed command | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-01 | Output speed | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-02 | VBUS voltage | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-03 | Output current | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-04 | Output voltage | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-05 | Power factor angle | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-06 | Output power | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-07 | Reserved | | | | | | | | | |
| 00-08 | Motor speed | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-09 | Output torque | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-10 | PG feedback | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-11 | Display the IED output electrical angle | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-12 | AVI(%) | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-13 | Rectifier/power capacitor temperature | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-14 | Power module IGBT temperature | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-15 | Status of IED input terminals MI1~MI16 | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-16 | Status of IED input terminals MI17~MI24 | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-17 | Status of IED input terminals MI26~MI36 | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-18 | Status of IED output terminals RY1~RY16 | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-19 | Multi-stage speed status | 0 : Zero speed 1 : Reserved 2 : Hoistway self-learned speed 3 : Inspection speed 4 : Reverse leveling speed 5 : Fast car speed 6 : Rescue speed | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-20 | IED driving status | b5: Hidden the parameter display b10: Command source b11: Parameter lock display Others: Reserved | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-21 | IED internal error code | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-22 | IED warning code | Read only | | | ○ | ○ | ○ | ○ | ○ | ○ |
| 00-23 | Car status 1 | b0: Up-going b1: Down-going b2: Landing b3: Stop b4: Front door open b5: Front door close b6: Overload b7: Error occurs | | | ○ | ○ | ○ | ○ | ○ | ○ |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---|---|-------|---------------|----|------|-----|-------|-------|-------|
| | | b8: Reserved b9: Reserved b10: Reserved b11: Front door opening delay b12: Light output display b13: Fan output display b14: Buzzer output display b15: Reserved | | | | | | | | |
| 00-24 | Car status 2 | b0: Inspection up-going b1: Inspection down-going b2: Front door close display b3: Reserved b4: Reserved b5: Reserved b6: Full load b7: Door lock bypass feedback b8: Reserved b9: Reserved b10: Reserved b11: Reserved b12: Rear door open b13: Rear door close b14: Rear door opening delay b15: Reserved | | | o | o | o | o | o | o |
| 00-25 | Operation mode | b0: Normal mode b1: Inspection mode b2: Elevator lock mode b3: Error occurs b4: Operator mode b5: VIP mode b6: Fire emergency landing mode b7: (1 st level) Fire rescue mode b8: Twins control mode b9: Group control mode b10: Hoistway self-learning mode b11: Re-positioning b12: Leveling finding b13: Independent mode b14: Elevator jogging b15: Emergency power mode | | | o | o | o | o | o | o |
| 00-26 | Elevator door status | b0: Front door open output display b1: Front door close output display b2: Front door motor reset display b3: Front door slow operation output display b4: Rear door open output display b5: Rear door close output display b6: Rear door motor reset display b7: Rear door slow operation output display b8: Front door open limit b9: Front door close limit b10: Front door light curtain b11: Reserved b12: Rear door open limit b13: Rear door close limit b14: Rear door light curtain b15: Reserved | | | o | o | o | o | o | o |
| 00-27 | In-car display board floor command 1 (Floor 1 ~ 16) | Read only | | | o | o | o | o | o | o |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---|-----------------|-------|---------------|----|------|-----|-------|-------|-------|
| | | | | | | | | | | |
| 00-28 | In-car display board floor command 2 (Floor 17 ~ 32) | Read only | | | o | o | o | o | o | o |
| 00-29 | In-car display board floor command 3 (Floor 33 ~ 48) | Read only | | | o | o | o | o | o | o |
| 00-30 | In-car display board floor display 1 (Floor 1 ~ 16) | Read only | | | o | o | o | o | o | o |
| 00-31 | In-car display board floor display 2 (Floor 17 ~ 32) | Read only | | | o | o | o | o | o | o |
| 00-32 | In-car display board floor display 3 (Floor 33 ~ 48) | Read only | | | o | o | o | o | o | o |
| 00-33 | In-car display board up-going command 1 (Floor 1 ~ 16) | Read only | | | o | o | o | o | o | o |
| 00-34 | In-car display board up-going command 2 (Floor 17 ~ 32) | Read only | | | o | o | o | o | o | o |
| 00-35 | In-car display board up-going command 3 (Floor 33 ~ 48) | Read only | | | o | o | o | o | o | o |
| 00-36 | External display board up-going display 1 (Floor 1 ~ 16) | Read only | | | o | o | o | o | o | o |
| 00-37 | External display board up-going display 2 (Floor 17 ~ 32) | Read only | | | o | o | o | o | o | o |
| 00-38 | External display board up-going display 3 (Floor 33 ~ 48) | Read only | | | o | o | o | o | o | o |
| 00-39 | In-car display board down-going command 1 (Floor 1 ~ 16) | Read only | | | o | o | o | o | o | o |
| 00-40 | In-car display board down-going command 2 (Floor 17 ~ 32) | Read only | | | o | o | o | o | o | o |
| 00-41 | In-car display board down-going command 3 (Floor 33 ~ 48) | Read only | | | o | o | o | o | o | o |
| 00-42 | External display board down-going display 1 (Floor 1 ~ 16) | Read only | | | o | o | o | o | o | o |
| 00-43 | External display board down-going display 2 (Floor 17 ~ 32) | Read only | | | o | o | o | o | o | o |
| 00-44 | External display board down-going display 3 (Floor 33 ~ 48) | Read only | | | o | o | o | o | o | o |
| 00-45 | Current floor | Read only | | | o | o | o | o | o | o |
| 00-46 | Current position (0.1mm) | Read only | | | o | o | o | o | o | o |
| 00-47 | Current position (1m) | Read only | | | o | o | o | o | o | o |
| 00-48 | Elevator error code | Read only | | | o | o | o | o | o | o |
| 00-49 | Weighting compensation input value | Read only | | | o | o | o | o | o | o |
| 00-50 | Car-top board input terminal MI1~MI8 status | Read only | | | o | o | o | o | o | o |
| 00-51 | Car-top board input terminal RY1~RY8 status | Read only | | | o | o | o | o | o | o |
| 00-52 | Number of operations (in ten thousands) | Read only | | | o | o | o | o | o | o |
| 00-53 | Number of operations (times) | Read only | | | o | o | o | o | o | o |
| 00-54 | External display board communication status 1 (Floor 1 ~ 16) | Read only | | | o | o | o | o | o | o |
| 00-55 | External display board communication status 2 (Floor 17 ~ 32) | Read only | | | o | o | o | o | o | o |
| 00-56 | External display board | Read only | | | o | o | o | o | o | o |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|-----------------|-------|---------------|----|------|-----|-------|-------|-------|
| | communication status 3 (Floor 33 ~ 48) | | | | | | | | | |
| 00-57 | PGHS card error code | Read only | | | o | o | o | o | o | o |
| 00-58 | Direction + the most distant floor | Read only | | | o | o | o | o | o | o |
| 00-59 | Target floor | Read only | | | o | o | o | o | o | o |
| 00-60 | First error record | Read only | | | o | o | o | o | o | o |
| 00-61 | First error time (minute) | Read only | | | o | o | o | o | o | o |
| 00-62 | First error time (days) | Read only | | | o | o | o | o | o | o |
| 00-63 | Display the speed command on error | Read only | | | o | o | o | o | o | o |
| 00-64 | Display the output voltage on error | Read only | | | o | o | o | o | o | o |
| 00-65 | Display the VBUS voltage on error | Read only | | | o | o | o | o | o | o |
| 00-66 | Display output speed on error | Read only | | | o | o | o | o | o | o |
| 00-67 | Display the output current on error | Read only | | | o | o | o | o | o | o |
| 00-68 | Display the motor speed on error | Read only | | | o | o | o | o | o | o |
| 00-69 | Display the output power on error | Read only | | | o | o | o | o | o | o |
| 00-70 | Display output torque on error | Read only | | | o | o | o | o | o | o |
| 00-71 | Display the multi-function input terminal MI1~MI8 status on error | Read only | | | o | o | o | o | o | o |
| 00-72 | Display the multi-function input terminal MI9~MI22 status on error | Read only | | | o | o | o | o | o | o |
| 00-73 | Reserved | | | | | | | | | |
| 00-74 | Display the multi-function terminal RY1 ~ RY16 status on error | Read only | | | o | o | o | o | o | o |
| 00-75 | Display the driving status of IED operation fault | Read only | | | o | o | o | o | o | o |
| 00-76 | Second error record | Read only | | | o | o | o | o | o | o |
| 00-77 | Second error time (minute) | Read only | | | o | o | o | o | o | o |
| 00-78 | Second error time (days) | Read only | | | o | o | o | o | o | o |
| 00-79 | Third error record | Read only | | | o | o | o | o | o | o |
| 00-80 | Third error time (minute) | Read only | | | o | o | o | o | o | o |
| 00-81 | Third error time (days) | Read only | | | o | o | o | o | o | o |
| 00-82 | Fourth error record | Read only | | | o | o | o | o | o | o |
| 00-83 | Fourth error time (minute) | Read only | | | o | o | o | o | o | o |
| 00-84 | Fourth error time (days) | Read only | | | o | o | o | o | o | o |
| 00-85 | Fifth error record | Read only | | | o | o | o | o | o | o |
| 00-86 | Fifth error time (minute) | Read only | | | o | o | o | o | o | o |
| 00-87 | Fifth error time (days) | Read only | | | o | o | o | o | o | o |
| 00-88 | Sixth error record | Read only | | | o | o | o | o | o | o |
| 00-89 | Sixth error time (minute) | Read only | | | o | o | o | o | o | o |
| 00-90 | Sixth error time (days) | Read only | | | o | o | o | o | o | o |
| 00-91 | Data display | Read only | | | o | o | o | o | o | o |
| 00-92 | Display motor continuous running time (minutes) | Read only | | | o | o | o | o | o | o |
| 00-93 | Display motor continuous running time (days) | Read only | | | o | o | o | o | o | o |
| 00-94 | Rated current | Read only | | | o | o | o | o | o | o |
| 00-95 | Firmware version | Read only | | | o | o | o | o | o | o |

01 System Parameters

✎ The parameter can be set during operation

☑ represents that the parameter can be configured as show/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|--|-------|-----------------|----|-----|-----|-------|-------|-------|
| | | | | | | | | | | |
| 01-00 | Identity code of IED | 8: 230V, 3HP 10 : 230V, 5HP 11 : 460 V, 5HP (4.0kW) 12 : 230V, 7.5HP 13 : 460 V, 7.5HP 14 : 230V, 10HP 15 : 460V, 10HP 16 : 230V, 15HP 17 : 460V, 15HP 18 : 230V, 20HP 19 : 460V, 20HP 20 : 230V, 25HP 21 : 460V, 25HP 22 : 230V, 30HP 23 : 460V, 30HP 24 : 230V, 40HP 25 : 460V, 40HP 26 : 230V, 50HP 27 : 460V, 50HP 29 : 460V, 60HP 31 : 460V, 75HP 33 : 460V, 100HP | | Read only | ○ | ○ | ○ | ○ | ○ | ○ |
| 01-01 | Parameter management setting | 0: No function 1: Parameter write proof 3: Show the hidden parameter(☑) 8: Panel operation is disabled 9: Parameter reset (Base frequency is 50Hz) 10: Parameter reset (Base frequency is 60Hz) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 01-02 | Control method | 0: V/F control 1: V/F control + Encoder (VFPG) 2: Sensorless vector control (SVC) 3: FOC vector control + Encoder (FOCPG) 4: Torque control + Encoder (TQCPG) 8: FOC PM control (FOCPM) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 01-03 | System control | bit 0=0: No function bit 0=1: ASR automatic adjustment, PDFF enable bit 7=0: No function bit 7=1: Startup position control is enabled bit 10=0: No function bit 10 = 1: Direct parking is enabled bit 15=0: No function bit 15=1: Magnetic pole detection is disabled when power on | | 0x0481h | | | | ○ | | ○ |
| ✎ 01-04 | Elevator speed | 0.10 ~ 4.00 m/s | | 1.00 | | | | ○ | | ○ |
| 01-05 | Maximum Operation Frequency | 10.00 ~ 400.00Hz | | 60.00/ 50.00 | ○ | ○ | ○ | ○ | ○ | ○ |
| ✎ 01-06 | Parameter protection unlock password input | 1~9998 , 10000~65535 0~2: Record the times of error passwords input | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ✎ 01-07 | Parameter protection password setting | 1~9998 , 10000~65535 0: Password is not set or input correct password (01-06) | ☑ | 0 | ○ | ○ | ○ | ○ | ○ | ○ |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPF | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---|---|-------------------------------------|---------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | 1: Parameters have been locked | | | | | | | | |
| 01-08 | Carrier Frequency | 2 ~ 15KHz | <input checked="" type="checkbox"/> | 12 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-09 | Automatic Voltage Rectifying (AVR) function | 0: Enable AVR 1: Disable AVR 2: Disable AVR during parking deceleration | <input checked="" type="checkbox"/> | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-10 | Fan control | 0: Fan always ON 1: 1 minute after AC motor drive stops, fan will be OFF 2: AC motor drive runs and fan ON, AC motor drive stops and fan OFF 3: Fan ON to run when preliminary heat sink temperature attained 4: Fan always OFF | <input checked="" type="checkbox"/> | 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-11 | Elevator acceleration | 0.20 ~ 2.00m/s ² | <input checked="" type="checkbox"/> | 0.75 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-12 | Motor current at Accel. | 50~200% | <input checked="" type="checkbox"/> | 150 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-13 | Monitoring data address | 0~FFFF | <input checked="" type="checkbox"/> | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-14 | Real time clock (RTM_HOURMIN) | 00~2359 | <input checked="" type="checkbox"/> | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-15 | Real time clock (RTM_WEEK) | 0~6 | <input checked="" type="checkbox"/> | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-16 | Real time clock (RTM_MONDAY) | 101~1231 | <input checked="" type="checkbox"/> | 101 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 01-17 | Real time clock (RTM_YEAR) | 0~99 | <input checked="" type="checkbox"/> | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

02 Motor Parameters

✎ : The parameter can be set during operation

☑ represents that the parameter can be configured as show/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPF | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---|--|-------|-----------------|----|------|-----|-------|-------|-------|
| 02-00 | Motor Auto Tuning | 0: No function 1: Rolling test 2: Static test | | 0 | | | ○ | ○ | ○ | ○ |
| 02-01 | Full-load Current of Motor | (30 ~ 120%) * the model's rated current (Amps) | | #.## | ○ | ○ | ○ | ○ | ○ | ○ |
| 02-02 | Rated power of Motor | 0.00 ~ 655.35kW | | #.## | | | ○ | ○ | ○ | ○ |
| 02-03 | Rated speed of Motor (rpm) | 0~65535 | | 1710 | | ○ | ○ | ○ | ○ | ○ |
| 02-04 | Number of Motor Poles | 2~96 | | 4 | ○ | ○ | ○ | ○ | ○ | ○ |
| 02-05 | Angle between Magnetic Pole and PG Origin | 0.0~360.0° | | 360.0 | | | | | | ○ |
| 02-06 | Output Direction Selection | 0: Same as the configured direction 1: Opposite to the configured direction | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 02-07 | Encoder type selection | 0: No function 1: ABZ 2: ABZ + Hall 3: SIN/COS + Sinusoidal 4: SIN/COS + Endat 5: SIN/COS 6: SIN/COS + Hiperface | | 0 | | ○ | | ○ | ○ | ○ |
| 02-08 | Encoder Pulse | 1~25000 | | 600 | | ○ | | ○ | ○ | ○ |
| 02-09 | Encoder's input type setting | 0: No function 1: Phases A/B are pulse inputs: Phase A is 90 degree leading Phase B with forward rotation 2: Phases A/B are pulse inputs: Phase B is 90 degree leading Phase A with forward rotation 3: Phase A is a pulse input; Phase B is the direction input: L is reverse direction and H is forward direction 4 : Phase A is a pulse input; Phase B is the direction input: L is forward direction and H is reverse direction 5: Single phase input | | 0 | | ○ | | ○ | ○ | ○ |
| 02-10 | U, V, W input mode selection | 0: Z signal is at the falling edge of Phase U 1: Z signal is at the leading edge of Phase U | | 0 | | ○ | | ○ | ○ | ○ |
| 02-11 | Rated frequency of Motor | 0.00 ~ 400.00Hz | | 60.00/ 50.00 | ○ | ○ | ○ | ○ | ○ | ○ |
| 02-12 | Rated voltage of Motor | 230V Series: 0.0V ~ 255.0V 460V Series: 0.0V ~ 510.0V | | 220.0 440.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 02-13 | No-load current of Motor | 0 ~ Motor's full load current (Parameter 02-01) setting | ☑ | #.## | | ○ | ○ | ○ | ○ | |
| 02-14 | Stator Resistance (Rs) of Motor | 0.000~65.535Ω | ☑ | 0.000 | | | ○ | ○ | ○ | |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCP | TQCP | FOCP |
|----------------|--|---|-------------------------------------|---------------|----|-----|-----|------|------|------|
| 02-15 | Rotor Resistance (Rr) of Motor | 0.000~65.535Ω | <input checked="" type="checkbox"/> | 0.000 | | | ○ | ○ | ○ | |
| 02-16 | Magnetizing Inductance (Lm) of Motor | 0.0~6553.5mH | <input checked="" type="checkbox"/> | 0.0 | | | ○ | ○ | ○ | |
| 02-17 | Stator Inductance (Lx) of Motor | 0.0~6553.5mH | <input checked="" type="checkbox"/> | 0.0 | | | ○ | ○ | ○ | |
| 02-18 | Back Electromotive Force | 0.0~6553.5Vrms | <input checked="" type="checkbox"/> | 0.0 | | | | | | ○ |
| 02-19 | Magnetic Pole Re-positioning | 0: Reserved 1: Reconfigure the magnetic positioning 2: Reserved | <input checked="" type="checkbox"/> | 0 | | | | | | ○ |
| 02-20 | Torque Compensation Time Constant | 0.001 ~ 10.000 seconds | <input checked="" type="checkbox"/> | 0.020 | | | ○ | | | |
| 02-21 | Slip Compensation Time Constant | 0.001 ~ 10.000 seconds | <input checked="" type="checkbox"/> | 0.100 | | | ○ | | | |
| 02-22 | Torque Compensation Gain | 0~10 | <input checked="" type="checkbox"/> | 0 | ○ | ○ | | | | |
| 02-23 | Slip Compensation Gain | 0.00~10.00 | <input checked="" type="checkbox"/> | 0.00 | ○ | ○ | ○ | | | |
| 02-24 | Slip Deviation Level | 0~1000% (0: not detecting) | <input checked="" type="checkbox"/> | 0 | | ○ | ○ | ○ | | |
| 02-25 | Detection Time of Slip Deviation | 0.0 ~ 10.0 seconds | <input checked="" type="checkbox"/> | 1.0 | | ○ | ○ | ○ | | |
| 02-26 | Over Slip Treatment | 0: Warn and keep operation 1: Warn and ramp to stop 2: Warn and coast to stop | <input checked="" type="checkbox"/> | 0 | | ○ | ○ | ○ | | |
| 02-27 | Hunting Gain | 0~10000 (0: not activated) | <input checked="" type="checkbox"/> | 2000 | ○ | ○ | ○ | | | |
| 02-28 | Accumulative Motor Operation Time (Min.) | 00~1439 | <input checked="" type="checkbox"/> | 00 | ○ | ○ | ○ | ○ | ○ | ○ |
| 02-29 | Accumulative Drive Power on Time (day) | 00~65535 | <input checked="" type="checkbox"/> | 00 | ○ | ○ | ○ | ○ | ○ | ○ |
| 02-30 | 2 nd Output Frequency Setting 1 | 0.00 ~ 400.00Hz | <input checked="" type="checkbox"/> | 0.50 | ○ | ○ | | | | |
| 02-31 | 2 nd Output Voltage Setting 1 | 230V Series: 0.0V ~ 255.0V 460V Series: 0.0V ~ 510.0V | <input checked="" type="checkbox"/> | 5.0 10.0 | ○ | ○ | | | | |
| 02-32 | 3 rd Output Frequency Setting 1 | 0.00 ~ 400.00Hz | <input checked="" type="checkbox"/> | 0.50 | ○ | ○ | | | | |
| 02-33 | 3 rd Output Voltage Setting 1 | 230V Series: 0.0V ~ 255.0V 460V Series: 0.0V ~ 510.0V | <input checked="" type="checkbox"/> | 5.0 10.0 | ○ | ○ | | | | |
| 02-34 | 4 th Output Frequency Setting 1 | 0.00 ~ 400.00Hz | <input checked="" type="checkbox"/> | 0.00 | ○ | ○ | ○ | ○ | ○ | |
| 02-35 | 4 th Output Voltage Setting 1 | 230V Series: 0.0V ~ 255.0V 460V Series: 0.0V ~ 510.0V | <input checked="" type="checkbox"/> | 0.0 0.0 | ○ | ○ | | | | |
| 02-36 | Start Frequency | 0.00 ~ 400.00Hz | <input checked="" type="checkbox"/> | 0.00 | ○ | ○ | ○ | ○ | | |

03 Multi-function Output/Input Function Parameters

✎ The parameter can be set during operation

☑ represents that the parameter can be configured as show/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|--|-------|---------------|----|------|-----|-------|-------|-------|
| | | | | | | | | | | |
| 03-00 | Multi-function input command 1 (MI1) | 0: No function (Normal Open) | | 101 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-01 | Multi-function input command 2 (MI2) | 1: Inspection signal (Normal Open) | | 2 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-02 | Multi-function input command 3 (MI3) | 2: Inspection up-going (Normal Open) | | 3 | | | | | ○ | |
| 03-03 | Multi-function input command 4 (MI4) | 3: Inspection down-going (Normal Open) | | 4 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-04 | Multi-function input command 5 (MI5) | 4: Upper leveling signal (Normal Open) | | 5 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-05 | Multi-function input command 6 (MI6) | 5: Lower leveling signal (Normal Open) | | 6 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-06 | Multi-function input command 7 (MI7) | 6: Door position input (Normal Open) | | 7 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-07 | Multi-function input command 8 (MI8) | 7: Door inter-lock circuit feedback (Normal Open) | | 8 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-08 | Multi-function input command 9 (MI9) | 8: Brake circuit feedback (Normal Open) | | 9 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-09 | Multi-function input command 10 (MI10) | 9: Operation output feedback (Normal Open) | | 101 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-10 | Multi-function input command 11 (MI11) | 10: Safety circuit feedback (Normal Open) | | 111 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-11 | Multi-function input command 12 (MI12) | 11: Up-most limit signal (Normal Open) | | 112 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-12 | Multi-function input command 13 (MI13) | 12: Upward 1 st level forced deceleration (Normal Open) | | 113 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-13 | Multi-function input command 14 (MI14) | 13: Upward 2 nd level forced deceleration (Normal Open) | | 114 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-14 | Multi-function input command 15 (MI15) | 14: Upward 3 rd level forced deceleration (Normal Open) | | 115 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-15 | Multi-function input command 16 (MI16) | 15: Down-most limit signal (Normal Open) | | 116 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-16 | Multi-function input command 17 (MI17) | 16: Downward 1 st level forced deceleration (Normal Open) | | 117 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-17 | Multi-function input command 18 (MI18) | 17: Downward 2 nd level forced deceleration (Normal Open) | | 118 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-18 | Multi-function input command 19 (MI19) | 18: Downward 3 rd level forced deceleration (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-19 | Multi-function input command 20 (MI20) | 19: Door pre-opening output feedback (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-20 | Multi-function input command 21 (MI21) | 20: Safety circuit feedback 2 (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-21 | Multi-function input command 22 (MI22) | 21: Brake close feedback 2 (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-22 | Multi-function input command 23 (MI23) | 22: Door close circuit feedback 2 (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-23 | Multi-function input command 24 (MI24) | 23: Overload input (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-24 | Extension Multi-function input command 1 (XI1) | 24: Full-load input (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|--|--|--|-------|---------------|----|-----|-----|-------|-------|-------|
| | | | | | | | | | | |
| 03-25 | Extension Multi-function input command 2 (XI2) | 25: Fire signal (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-26 | Extension Multi-function input command 3 (XI3) | 26: Fire mode (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-27 | Extension Multi-function input command 4 (XI4) | 27: Light curtain signal 1 (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-28 | Extension Multi-function input command 5 (XI5) | 28: Light curtain signal 2 (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-29 | Extension Multi-function input command 6 (XI6) | 29: Elevator lock signal (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-30 | Extension Multi-function input command 7 (XI7) | 30: Emergency power supply feedback (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-31 | Extension Multi-function input command 8 (XI8) | 101: Inspection signal (Normal Close) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-32 | Extension Multi-function input command 9 (XI9) | 102: Inspection up-going (Normal Close) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-33 | Extension Multi-function input command 10 (XI10) | 103: Inspection down-going (Normal Close) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-34 | Extension Multi-function input command 11 (XI11) | 104: Upper leveling signal (Normal Close) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 03-35 | Extension Multi-function input command 12 (XI12) | 105: Lower leveling signal (Normal Close) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| | | 106: Door position input (Normal Close) | | | | | | | | |
| | | 107: Door inter-lock circuit feedback (Normal Close) | | | | | | | | |
| | | 108: Brake circuit feedback (Normal Close) | | | | | | | | |
| | | 109: Operation output feedback (Normal Close) | | | | | | | | |
| | | 110: Safety circuit feedback (Normal Close) | | | | | | | | |
| | | 111: Up-most limit signal (Normal Close) | | | | | | | | |
| | | 112: Upward 1 st level forced deceleration (Normal Close) | | | | | | | | |
| | | 113: Upward 2 nd level forced deceleration (Normal Close) | | | | | | | | |
| | | 114: Upward 3 rd level forced deceleration (Normal Close) | | | | | | | | |
| | | 115: Down-most limit signal (Normal Close) | | | | | | | | |
| | | 116: Downward 1 st level forced deceleration (Normal Close) | | | | | | | | |
| | | 117: Downward 2 nd level forced deceleration (Normal Close) | | | | | | | | |
| | | 118: Downward 3rd level forced deceleration (Normal Close) | | | | | | | | |
| | | 119: Door pre-opening output feedback (Normal Close) | | | | | | | | |
| | | 120: Safety circuit feedback 2 (Normal Close) | | | | | | | | |
| | | 121: Brake close feedback 2 (Normal Close) | | | | | | | | |
| | | 122: Door close circuit feedback 2 (Normal Close) | | | | | | | | |
| | | 123: Overload input (Normal Close) | | | | | | | | |
| | | 124: Full-load input (Normal Close) | | | | | | | | |
| 125: Fire signal (Normal Close) | | | | | | | | | | |
| 126: Fire mode (Normal Close) | | | | | | | | | | |
| 127: Light curtain signal 1 (Normal Close) | | | | | | | | | | |
| 128: Light curtain signal 2 (Normal Close) | | | | | | | | | | |
| 129: Elevator lock signal (Normal Close) | | | | | | | | | | |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--------------------------------------|--|-------|---------------|----|-----|-----|-------|-------|-------|
| | | 130: Emergency power supply feedback (Normal Close) | | | | | | | | |
| 03-36 | Digital input direction 1 | 0~65535 | | 0 | o | o | o | o | o | o |
| 03-37 | Digital input direction 2 | 0~65535 | | 0 | o | o | o | o | o | o |
| 03-38 | Digital input direction 3 | 0~65535 | | 0 | o | o | o | o | o | o |
| 03-39 | Digital input response time | 0.001 ~ 30.000 seconds | | 0.005 | o | o | o | o | o | o |
| 03-40 | Multi-function output Relay 1 (RA) | 0: No function | | 1 | o | o | o | o | o | o |
| 03-41 | Multi-function output Relay 2 (MRA) | 1: Motor's solenoid valve control output | | 2 | o | o | o | o | o | o |
| 03-42 | Multi-function output Relay 3 (R1A) | 2: Mechanical brake release | | 3 | o | o | o | o | o | o |
| 03-43 | Multi-function output Relay 4 (R2A) | 3: Mechanical brake enhanced release | | 0 | o | o | o | o | o | o |
| 03-44 | Multi-function output Relay 5 (R3A) | 4: Mechanical brake, electromagnetic contactor normal | | 0 | o | o | o | o | o | o |
| 03-45 | Multi-function output Relay 6 (R4A) | 5: Fault output | | 0 | o | o | o | o | o | o |
| 03-46 | Multi-function output Relay 7 (R5A) | 6: Operation monitoring | | 0 | o | o | o | o | o | o |
| 03-47 | Multi-function output Relay 8 (R6A) | 7: Group control ready | | 0 | o | o | o | o | o | o |
| 03-48 | Multi-function output Relay 9 | 8: Door pre-opening contactor output | | 0 | o | o | o | o | o | o |
| 03-49 | Multi-function output Relay 10 | 9: Door motor 1 open | | 0 | o | o | o | o | o | o |
| 03-50 | Multi-function output Relay 11 | 10: Door motor 1 close | | 0 | o | o | o | o | o | o |
| 03-51 | Multi-function output Relay 12 | 11: Door motor 2 open | | 0 | o | o | o | o | o | o |
| 03-52 | Multi-function output Relay 13 | 12: Door motor 2 close | | 0 | o | o | o | o | o | o |
| 03-53 | Multi-function output Relay 14 | 13: Door inter-lock circuit output | | 0 | o | o | o | o | o | o |
| 03-54 | Multi-function output Relay 15 | 14: Emergency power output | | 0 | o | o | o | o | o | o |
| 03-55 | Multi-function output Relay 16 | 15: PM motor three-phase short circuit output | | 0 | o | o | o | o | o | o |
| 03-56 | Digital output direction | 0~65535 | | 0 | o | o | o | o | o | o |
| 03-57 | AUI1 analog input function selection | 0: No function 1: Preload input 2: PTC thermistor input 3~10: reserved | | 1 | o | o | o | o | o | o |
| 03-58 | AUI1 analog input bias | -100.0~100.0% | | 0.0 | o | o | o | o | o | o |
| 03-59 | AUI1 analog input gain | -500.0~500.0% | | 100.0 | o | o | o | o | o | o |
| 03-60 | Torque Offset Selection (TOROFSE) | 0: No weighting signal 1: Signal from Analog input 2: Signal from Car-top board input 3: Reserved | | 0 | | | o | o | o | o |

04 Floor Position Parameters

✎ The parameter can be set during operation

☑ represents that the parameter can be configured as show/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---|-----------------|-------|---------------|--------------------------|--------------------------|--------------------------|--------------------------|-------|--------------------------|
| 04-00 | Landing board length | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-01 | Distance between upper and lower leveling signals | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-02 | Floor 1 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-03 | Floor 1 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-04 | Floor 2 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-05 | Floor 2 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-06 | Floor 3 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-07 | Floor 3 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-08 | Floor 4 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-09 | Floor 4 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-10 | Floor 5 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-11 | Floor 5 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-12 | Floor 6 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-13 | Floor 6 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-14 | Floor 7 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-15 | Floor 7 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-16 | Floor 8 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-17 | Floor 8 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-18 | Floor 9 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-19 | Floor 9 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-20 | Floor 10 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-21 | Floor 10 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-22 | Floor 11 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-23 | Floor 11 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-24 | Floor 12 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-25 | Floor 12 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-26 | Floor 13 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-27 | Floor 13 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-28 | Floor 14 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-29 | Floor 14 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-30 | Floor 15 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-31 | Floor 15 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-32 | Floor 16 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-33 | Floor 16 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-34 | Floor 17 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-35 | Floor 17 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-36 | Floor 18 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-37 | Floor 18 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-38 | Floor 19 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-39 | Floor 19 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-40 | Floor 20 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-41 | Floor 20 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-42 | Floor 21 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-43 | Floor 21 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-44 | Floor 22 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-45 | Floor 22 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-46 | Floor 23 position - high | 0 ~ 9999m | | 0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 04-47 | Floor 23 position - low | 0.0 ~ 999.9mm | | 0.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---------------------------|-----------------|-------|---------------|----|-----|-----|-------|-------|-------|
| 04-48 | Floor 24 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-49 | Floor 24 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-50 | Floor 25 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-51 | Floor 25 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-52 | Floor 26 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-53 | Floor 26 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-54 | Floor 27 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-55 | Floor 27 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-56 | Floor 28 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-57 | Floor 28 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-58 | Floor 29 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-59 | Floor 29 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-60 | Floor 30 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-61 | Floor 30 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-62 | Floor 31 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-63 | Floor 31 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-64 | Floor 32 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-65 | Floor 32 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-66 | Floor 33 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-67 | Floor 33 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-68 | Floor 34 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-69 | Floor 34 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-70 | Floor 35 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-71 | Floor 35 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-72 | Floor 36 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-73 | Floor 36 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-74 | Floor 37 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-75 | Floor 37 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-76 | Floor 38 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-77 | Floor 38 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-78 | Floor 39 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-79 | Floor 39 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-80 | Floor 40 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-81 | Floor 40 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-82 | Floor 41 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-83 | Floor 41 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-84 | Floor 42 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-85 | Floor 42 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-86 | Floor 43 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-87 | Floor 43 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-88 | Floor 44 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-89 | Floor 44 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-90 | Floor 45 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-91 | Floor 45 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-92 | Floor 46 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-93 | Floor 46 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |
| 04-94 | Floor 47 position - high | 0 ~ 9999m | | 0 | o | o | o | o | | o |
| 04-95 | Floor 47 position - low | 0.0 ~ 999.9mm | | 0.0 | o | o | o | o | | o |

05 Parameters for Floor Display

↗: The parameter can be set during operation

☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|------------------------------|-----------------|-------|---------------|----|------|-----|-------|-------|-------|
| | | | | | | | | | | |
| 05-00 | Physical floor 1 indication | 0~9999 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 05-01 | Physical floor 2 indication | | | 2 | ○ | ○ | ○ | ○ | | ○ |
| 05-02 | Physical floor 3 indication | Settings: XX YY | | 3 | ○ | ○ | ○ | ○ | | ○ |
| 05-03 | Physical floor 4 indication | XX: Tens digit | | 4 | ○ | ○ | ○ | ○ | | ○ |
| 05-04 | Physical floor 5 indication | YY: Units digit | | 5 | ○ | ○ | ○ | ○ | | ○ |
| 05-05 | Physical floor 6 indication | | | 6 | ○ | ○ | ○ | ○ | | ○ |
| 05-06 | Physical floor 7 indication | 00='0' | | 7 | ○ | ○ | ○ | ○ | | ○ |
| 05-07 | Physical floor 8 indication | 01='1' | | 8 | ○ | ○ | ○ | ○ | | ○ |
| 05-08 | Physical floor 9 indication | 02='2' | | 9 | ○ | ○ | ○ | ○ | | ○ |
| 05-09 | Physical floor 10 indication | 03='3' | | 100 | ○ | ○ | ○ | ○ | | ○ |
| 05-10 | Physical floor 11 indication | 04='4' | | 101 | ○ | ○ | ○ | ○ | | ○ |
| 05-11 | Physical floor 12 indication | 05='5' | | 102 | ○ | ○ | ○ | ○ | | ○ |
| 05-12 | Physical floor 13 indication | 06='6' | | 103 | ○ | ○ | ○ | ○ | | ○ |
| 05-13 | Physical floor 14 indication | 07='7' | | 104 | ○ | ○ | ○ | ○ | | ○ |
| 05-14 | Physical floor 15 indication | 08='8' | | 105 | ○ | ○ | ○ | ○ | | ○ |
| 05-15 | Physical floor 16 indication | 09='9' | | 106 | ○ | ○ | ○ | ○ | | ○ |
| 05-16 | Physical floor 17 indication | 10='A' | | 107 | ○ | ○ | ○ | ○ | | ○ |
| 05-17 | Physical floor 18 indication | 11='B' | | 108 | ○ | ○ | ○ | ○ | | ○ |
| 05-18 | Physical floor 19 indication | 12='G' | | 109 | ○ | ○ | ○ | ○ | | ○ |
| 05-19 | Physical floor 20 indication | 13='H' | | 200 | ○ | ○ | ○ | ○ | | ○ |
| 05-20 | Physical floor 21 indication | 14='L' | | 201 | ○ | ○ | ○ | ○ | | ○ |
| 05-21 | Physical floor 22 indication | 15='M' | | 202 | ○ | ○ | ○ | ○ | | ○ |
| 05-22 | Physical floor 23 indication | 16='P' | | 203 | ○ | ○ | ○ | ○ | | ○ |
| 05-23 | Physical floor 24 indication | 17='R' | | 204 | ○ | ○ | ○ | ○ | | ○ |
| 05-24 | Physical floor 25 indication | 18='-' | | 205 | ○ | ○ | ○ | ○ | | ○ |
| 05-25 | Physical floor 26 indication | 19='' | | 206 | ○ | ○ | ○ | ○ | | ○ |
| 05-26 | Physical floor 27 indication | 20='X' | | 207 | ○ | ○ | ○ | ○ | | ○ |
| 05-27 | Physical floor 28 indication | 21=Up icon | | 208 | ○ | ○ | ○ | ○ | | ○ |
| 05-28 | Physical floor 29 indication | 22=Down icon | | 209 | ○ | ○ | ○ | ○ | | ○ |
| 05-29 | Physical floor 30 indication | | | 300 | ○ | ○ | ○ | ○ | | ○ |
| 05-30 | Physical floor 31 indication | | | 301 | ○ | ○ | ○ | ○ | | ○ |
| 05-31 | Physical floor 32 indication | | | 302 | ○ | ○ | ○ | ○ | | ○ |
| 05-32 | Physical floor 33 indication | | | 303 | ○ | ○ | ○ | ○ | | ○ |
| 05-33 | Physical floor 34 indication | | | 304 | ○ | ○ | ○ | ○ | | ○ |
| 05-34 | Physical floor 35 indication | | | 305 | ○ | ○ | ○ | ○ | | ○ |
| 05-35 | Physical floor 36 indication | | | 306 | ○ | ○ | ○ | ○ | | ○ |
| 05-36 | Physical floor 37 indication | | | 307 | ○ | ○ | ○ | ○ | | ○ |
| 05-37 | Physical floor 38 indication | | | 308 | ○ | ○ | ○ | ○ | | ○ |
| 05-38 | Physical floor 39 indication | | | 309 | ○ | ○ | ○ | ○ | | ○ |
| 05-39 | Physical floor 40 indication | | | 400 | ○ | ○ | ○ | ○ | | ○ |
| 05-40 | Physical floor 41 indication | | | 401 | ○ | ○ | ○ | ○ | | ○ |
| 05-41 | Physical floor 42 indication | | | 402 | ○ | ○ | ○ | ○ | | ○ |
| 05-42 | Physical floor 43 indication | | | 403 | ○ | ○ | ○ | ○ | | ○ |
| 05-43 | Physical floor 44 indication | | | 404 | ○ | ○ | ○ | ○ | | ○ |
| 05-44 | Physical floor 45 indication | | | 405 | ○ | ○ | ○ | ○ | | ○ |
| 05-45 | Physical floor 46 indication | | | 406 | ○ | ○ | ○ | ○ | | ○ |
| 05-46 | Physical floor 47 indication | | | 407 | ○ | ○ | ○ | ○ | | ○ |

06 Parameters for Speed Control

↗: The parameter can be set during operation

☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|-----------------------------|-------|---------------|----|-----|-----|-------|-------|-------|
| ↗ 06-00 | Acceleration | 0.00 ~ 2.00m/s ² | | 0.50 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-01 | Deceleration | 0.00 ~ 2.00m/s ² | | 0.50 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-02 | Forced deceleration | 0.00~2.00 m/s ² | | 0.75 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-03 | S-curve for Acceleration Departure Time S1 | 0.00 ~ 25.00 seconds | | 2.00 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-04 | S-curve for Acceleration Arrival Time S2 | 0.00 ~ 25.00 seconds | | 2.00 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-05 | S-curve for Deceleration Departure Time S3 | 0.30 ~ 4.00 seconds | | 2.00 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-06 | S-curve for Deceleration Arrival Time S4 | 0.30 ~ 4.00 seconds | | 2.00 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-07 | Landing deceleration | 0.00~20.00 m/s ² | | 20.00 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-08 | Reserved speed (zero speed) | 0.10 ~ 4.00 m/s | | 0.00 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-09 | Reserved speed (stepless) | 0.10 ~ 4.00 m/s | | 0.02 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-10 | Floor searching speed | 0.10 ~ 4.00 m/s | | 0.10 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-11 | Inspection speed | 0.10 ~ 4.00 m/s | | 0.10 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-12 | Leveling speed | 0.10 ~ 4.00 m/s | | 0.05 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-13 | Fast operation speed | 0.10 ~ 4.00 m/s | | 1.00 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-14 | Rescue speed | 0.10 ~ 4.00 m/s | | 0.10 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-15 | Brake Release Delay Time when Elevator Starts | 0.000 ~ 65.000 seconds | | 0.250 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 06-16 | Brake Engage Delay Time when Elevator Stops | 0.000 ~ 65.000 seconds | | 0.250 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 06-17 | Turn On Delay of Magnetic Contactor between Drive and Motor | 0.000 ~ 65.000 seconds | | 0.200 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 06-18 | Turn Off Delay of Magnetic Contactor between Drive and Motor | 0.000 ~ 65.000 seconds | | 0.200 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 06-19 | DC brake current level | 0~100% | | 0 | ○ | ○ | ○ | | | |
| ↗ 06-20 | DC brake time at startup | 0.0 ~ 60.0 seconds | | 1.0 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-21 | DC brake time at stop | 0.0 ~ 60.0 seconds | | 0.0 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 06-22 | Time for Decreasing Torque at Stop | 0.000 ~ 5.000 seconds | | 0.000 | | | | ○ | ○ | ○ |
| 06-23 | Position of lower limit - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 06-24 | Position of lower limit - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | | ○ |
| 06-25 | Downward 1 st level forced deceleration position - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 06-26 | Downward 1 st level forced deceleration position - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | | ○ |
| 06-27 | Downward 2 nd level forced deceleration position - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 06-28 | Downward 2 nd level forced deceleration position - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | | ○ |

| | | | | | | | | | | |
|-------|--|----------------|--|-------|---|---|---|---|---|---|
| 06-29 | Downward 3rd level forced deceleration position - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-30 | Downward 3rd level forced deceleration position - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-31 | Position of upper limit - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-32 | Position of upper limit - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-33 | Upward 1 st level forced deceleration position - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-34 | Upward 1 st level forced deceleration position - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-35 | Upward 2 nd level forced deceleration - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-36 | Upward 2 nd level forced deceleration - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-37 | Upward 3 rd level forced deceleration - high | 0 ~ 9999m | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-38 | Upward 3 rd level forced deceleration - low | 0.0 ~ 999.9mm | | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 06-39 | Distance margin for landing deceleration | 0.0 ~ 6000.0mm | | 100.0 | ○ | ○ | ○ | ○ | ○ | ○ |

07 Parameters for Advanced Speed Control

↗: The parameter can be set during operation

☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|-------------------------------|-------|---------------|----|-----|-----|-------|-------|-------|
| ↗ 07-00 | Inertia Ratio | 1~300% | | 60 | | | | ○ | | ○ |
| ↗ 07-01 | Zero-speed bandwidth | 0 ~ 40Hz | | 10 | | | | ○ | | ○ |
| ↗ 07-02 | Low-speed bandwidth | 0 ~ 40Hz | | 10 | | | | ○ | | ○ |
| ↗ 07-03 | High-speed bandwidth | 0 ~ 40Hz | | 10 | | | | ○ | | ○ |
| ↗ 07-04 | Zero-speed bandwidth at landing | 0 ~ 40Hz | | 10 | | | | ○ | | ○ |
| ↗ 07-05 | Zero-speed ASR P gain | 0.0~500.0% | | 100.0 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-06 | Zero-speed ASR integration time I | 0.000 ~ 10.000 seconds | | 0.100 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-07 | ASR P1 gain | 0.0~500.0% | | 100.0 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-08 | ASR integration time I1 | 0.000 ~ 10.000 seconds | | 0.100 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-09 | ASR P2 gain | 0.0~500.0% | | 100.0 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-10 | ASR integration time I2 | 0.000 ~ 10.000 seconds | | 0.100 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-11 | Zero-speed ASR P gain at landing | 0.0~500.0% | | 100.0 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-12 | Zero-speed ASR integration time I at landing | 0.000 ~ 10.000 seconds | | 0.100 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-13 | Low/high speed switching frequency | 0.00 ~ 6.67m/s (0: no effect) | | 0.12 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-14 | ASR Primary Low Pass Filter Gain | 0.000 ~ 0.350 seconds | | 0.008 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 07-15 | Zero-speed/Low-speed bandwidth adjustment | 0.00 ~ 6.67m/s | | 0.08 | | | | | | ○ |
| ↗ 07-16 | Low-speed/High-speed bandwidth adjustment | 0.00 ~ 6.67m/s | | 0.08 | | ○ | | ○ | | ○ |
| ↗ 07-17 | Forward Motor Torque limit | 0~300% | | 200 | | | | ○ | ○ | ○ |
| ↗ 07-18 | Forward Regenerative Torque Limit | 0~300% | | 200 | | | | ○ | ○ | ○ |
| ↗ 07-19 | Reverse Motor Torque Limit | 0~300% | | 200 | | | | ○ | ○ | ○ |
| ↗ 07-20 | Reverse Regenerative Torque Limit | 0~300% | | 200 | | | | ○ | ○ | ○ |
| ↗ 07-21 | PDFF gain | 0~200% | | 30 | | | | ○ | | ○ |
| ↗ 07-22 | Gain for Speed Feed Forward | 0~500% | | 0 | | | | ○ | | ○ |
| ↗ 07-23 | Operation Time of Zero Speed | 0.000 ~ 65.535 seconds | | 0.450 | | | | | | ○ |
| ↗ 07-24 | Zero Speed Gain (P) | 0~655.00% | | 100.00 | | | | | | ○ |
| ↗ 07-25 | Low pass filter time at the starting position | 0.000 ~ 65.535 seconds | | 0.800 | | | | | | ○ |
| ↗ 07-26 | Direct landing position control P gain | 0.0~655.00 % | | 2.00 | | | | ○ | | ○ |
| ↗ 07-27 | Low pass filter time for direct landing position control | 0 ~ 1.000 seconds | | 0.018 | | | | ○ | | ○ |
| ↗ 07-28 | Position control ASR P gain | 0.0~1000.0 | | 100.0 | | | | | | |
| ↗ 07-29 | Position control ASR integration time I | 0.000 ~ 10.000 seconds | | 0.100 | | | | | | |

08 Parameters for Elevator Functions

↗: The parameter can be set during operation

☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFPG | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|--|-------|---------------|----|------|-----|-------|-------|-------|
| 08-00 | Elevator's topmost floor | Floor 1 ~ 47 | | 5 | ○ | ○ | ○ | ○ | | ○ |
| 08-01 | Elevator's down-most floor | Floor 1 ~ 47 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-02 | Elevator base station | Floor 1 ~ 47 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-03 | Fire base station | Floor 1 ~ 47 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-04 | Elevator lock base station | Floor 1 ~ 47 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-05 | Service floor 1 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-06 | Service floor 2 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-07 | Service floor 3 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-08 | Number of elevators for group control | 1~8 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-09 | Elevator No. in group control | 1~8 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-10 | Group control selection | b0: 1: Group control | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-11 | Leveling sensor delay time | 10 ~ 50ms | | 14 | ○ | ○ | ○ | ○ | | ○ |
| 08-12 | Security floor | Floor 1 ~ 47 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| ↗ 08-13 | Collective selection method | 0: Collectively select all 1: Lower collective selection 2: Upper collective selection | | | ○ | ○ | ○ | ○ | | ○ |
| 08-14 | Lower collective selection 1 start time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-15 | Lower collective selection 1 end time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-16 | Lower collective selection 2 start time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-17 | Lower collective selection 2 end time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-18 | Time Period service 1 start (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-19 | Time Period service 1 end (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-20 | Time Period service 1 service floor 1 | Hexadecimal: 01~16 floors. Set 1 for enable answering command | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-21 | Time Period service 1 service floor 2 | Hexadecimal: 17~32 floors. Set 1 for enable answering command | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-22 | Time Period service 1 service floor 3 | Hexadecimal: 33~48 floors. Set 1 for enable answering command | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-23 | Time Period service 2 start (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-24 | Time Period service 2 end (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-25 | Time Period service 2 service floor 1 | Hexadecimal: 01~16 floors. Set 1 for enable answering command | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-26 | Time Period service 2 service floor 2 | Hexadecimal: 17~32 floors. Set 1 for enable answering command | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 08-27 | Time Period service 2 service floor 3 | Hexadecimal: 33~48 floors. Set 1 for enable answering command | | FFFFh | ○ | ○ | ○ | ○ | | ○ |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|---|-------|---------------|----|-----|-----|-------|-------|-------|
| 08-28 | Peak 1 start time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-29 | Peak 1 end time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-30 | Peak 1 floor | Floor 1 ~ 47 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-31 | Peak 2 start time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-32 | Peak 2 end time (hr/min) | 00.00~23.59 | | 00.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-33 | Peak 2 floor | Floor 1 ~ 47 | | 1 | ○ | ○ | ○ | ○ | | ○ |
| 08-34 | Test floor 1 | Floor 1 ~ 47 | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-35 | Test floor 2 | Floor 1 ~ 47 | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-36 | Test floor 3 | Floor 1 ~ 47 | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-37 | Times of test | 0~60000 : Times of test >60000: Infinite number of tests | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-38 | Disable external display board | 0: Car-top board is valid, external display board is valid 1: Car-top board is valid, external display board is invalid 2: Car-top board is invalid, external display board is valid 3: Car-top board is invalid, external display board is invalid | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-39 | Disable door open | 0: Door open is enabled 1: Door open is disabled 2: Door motor jog test (under inspection mode) | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-40 | Overload function selection | 0: Disable overload operation 1: Enable overload operation | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-41 | Disable limit switches | 0: Limit switches are enabled 1: Limit switches are disabled | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-42 | Anti-nuisance function | 0: This function is disabled 1: This function is enabled | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-43 | Operation speed under emergency power supply | 0.00 ~ 6.67m/s | | 0.00 | ○ | ○ | ○ | ○ | | ○ |
| 08-44 | Options at power shut off | 0: Motor does not run 1: Motor runs under UPS power supply | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-45 | Time for returning to base station when being idle | 1 ~ 240min | | 10 | ○ | ○ | ○ | ○ | | ○ |
| 08-46 | Time for turning off fans and lights | 0 ~ 60000 seconds | | 300 | ○ | ○ | ○ | ○ | | ○ |
| 08-47 | Allowed Time interval for floor movement | 0 ~ 45 seconds | | 45 | ○ | ○ | ○ | ○ | | ○ |
| 08-48 | Factory function 1 | b9: disabled people mode setting 1 : Enabled b10:Emergency power supply PM motor self-sliding mode setting 1: Enabled b11: Emergency power supply post-stop action. Setting 1: Door open till hold time, and then door closed to position, then shut off the power 0: Door open to position and does not shut off the power b12: Door leveling after open b13: External display board continuing triggering mode | | 0080h | ○ | ○ | ○ | ○ | | ○ |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|-----------------------------|--|-------|---------------|----|-----|-----|-------|-------|-------|
| 08-49 | Factory function 2 | b0: Automatic fire operation mode enable b3: Stop output after the door motor attains to the limit b5: Operator control mode with non-stop switch setting: 1 built-in b12: Ignore returning base station after power recovery b13: For home elevator only: (no inner door) door motor handling mode b15: Output/Input display (0: terminal function status 1: terminal external status) | | 0000h | ○ | ○ | ○ | ○ | | ○ |
| 08-50 | Hoistway self-learning | 0: Stop hoistway self-learning 1: Start hoistway self-learning | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-51 | Automatic fault resets time | 0: No automatic reset function 0 ~ 30000 times | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 08-52 | Interval of automatic reset | 0 ~ 60 seconds | | 3 | ○ | ○ | ○ | ○ | | ○ |

09 Parameters for Door Control

↗: The parameter can be set during operation

☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--|---|-------|---------------|----|-----|-----|-------|-------|-------|
| | | | | | | | | | | |
| 09-00 | Number of door motors | 0: 1 units 1: 2 units | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 09-01 | Car-top board software version | 0~99 | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 09-02 | Door motor 1 Service Floor 1 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 09-03 | Door motor 1 Service Floor 2 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 09-04 | Door motor 1 Service Floor 3 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 09-05 | Door motor 2 Service Floor 1 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 09-06 | Door motor 2 Service Floor 2 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 09-07 | Door motor 2 Service Floor 3 | 0 ~ FFFFh | | FFFFh | ○ | ○ | ○ | ○ | | ○ |
| 09-08 | Door open time protection | 5 ~ 99 seconds | | 10 | ○ | ○ | ○ | ○ | | ○ |
| 09-09 | Door close time protection | 5 ~ 99 seconds | | 15 | ○ | ○ | ○ | ○ | | ○ |
| 09-10 | Door open/close times | 0 ~ 20 times | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 09-11 | Door status at movement base station | 0: Normal door closing 1: Open door and wait | | 0 | ○ | ○ | ○ | ○ | | ○ |
| 09-12 | Door open holding time by external display board | 1 ~ 30 seconds | | 5 | ○ | ○ | ○ | ○ | | ○ |
| 09-13 | Door open holding time by in-car display board | 1 ~ 30 seconds | | 3 | ○ | ○ | ○ | ○ | | ○ |
| 09-14 | Door open holding time at base station | 1 ~ 30 seconds | | 10 | ○ | ○ | ○ | ○ | | ○ |
| 09-15 | Delay time for arrival alarm output | 0 ~ 1000ms | | 0 | ○ | ○ | ○ | ○ | | ○ |

10 Parameters for Car-top Board Multi-function Output/Input

↗: The parameter can be set during operation

☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|---------------------------------|--|-------|---------------|----|-----|-----|-------|-------|-------|
| 10-00 | Car-top board input command 1 | 0: No function | | 101 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-01 | Car-top board input command 2 | 1: Front door open limit (Normal Open) | | 102 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-02 | Car-top board input command 3 | 2: Front door close limit (Normal Open) | | 103 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-03 | Car-top board input command 4 | 3: Front door light curtain input (Normal Open) | | 105 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-04 | Car-top board input command 5 | 4: Front door open request (Normal Open) | | 106 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-05 | Car-top board input command 6 | 5: Rear door open limit (Normal Open) | | 107 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-06 | Car-top board input command 7 | 6: Rear door close limit (Normal Open) | | 9 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-07 | Car-top board input command 8 | 7: Rear door light curtain input (Normal Open) | | 10 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-08 | Command board 2 input command 1 | 8: Rear door open request (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-09 | Command board 2 input command 2 | 9: Overload input (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-10 | Command board 2 input command 3 | 10: Full load input (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-11 | Command board 2 input command 4 | 11: Front door open button (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-12 | Command board 2 input command 5 | 12: Front door close button (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-13 | Command board 2 input command 6 | 13: Front door open delay button (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-14 | Command board 2 input command 7 | 14: VIP mode switch (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-15 | Command board 2 input command 8 | 15: Operator control switch (Normal Open) | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-16 | Command board 1 input command 1 | 16: Operator non-stop control switch (Normal Open) | | 11 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-17 | Command board 1 input command 2 | 17: Independent operation switch (Normal Open) | | 12 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-18 | Command board 1 input command 3 | 18: 1 st level fire rescue switch (Normal Open) | | 13 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-19 | Command board 1 input command 4 | 19: Car-top inspection switch (Normal Open) | | 14 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-20 | Command board 1 input command 5 | 20: Car-top inspection up-going (Normal Open) | | 15 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-21 | Command board 1 input command 6 | 21: Car-top inspection down-going (Normal Open) | | 16 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-22 | Command board 1 input command 7 | 22: Emergency stop input (Normal Open) | | 17 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-23 | Command board 1 input command 8 | 23: Light control input (Normal Open) | | 18 | ○ | ○ | ○ | ○ | ○ | ○ |
| | | 24: Fan control input (Normal Open) | | | | | | | | |
| | | 25: Rear door open button (Normal Open) | | | | | | | | |
| | | 26: Rear door close button (Normal Open) | | | | | | | | |
| | | 27: Rear door open delay button (Normal Open) | | | | | | | | |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|--------------------------------|--|-------|---------------|----|-----|-----|-------|-------|-------|
| | | | | | | | | | | |
| | | 28: Operator direction up-going switch (Normal Open) | | | | | | | | |
| | | 29: Operator direction down-going switch (Normal Open) | | | | | | | | |
| | | 30: Jog up-going (Normal Open) | | | | | | | | |
| | | 31: Jog down-going (Normal Open) | | | | | | | | |
| | | 32: Light load switch input (Normal Open) | | | | | | | | |
| | | 33: Front door safety panel (Normal Open) | | | | | | | | |
| | | 34: Rear door safety panel (Normal Open) | | | | | | | | |
| | | 101: Front door open limit (Normal Close) | | | | | | | | |
| | | 102: Front door close limit (Normal Close) | | | | | | | | |
| | | 103: Front door light curtain input (Normal Close) | | | | | | | | |
| | | 104: Front door open request (Normal Close) | | | | | | | | |
| | | 105: Rear door open limit (Normal Close) | | | | | | | | |
| | | 106: Rear door close limit (Normal Close) | | | | | | | | |
| | | 107: Rear door light curtain input (Normal Close) | | | | | | | | |
| | | 108: Rear door open request (Normal Close) | | | | | | | | |
| | | 109: Overload input (Normal Close) | | | | | | | | |
| | | 110: Full load input (Normal Close) | | | | | | | | |
| | | 111: Front door open button (Normal Close) | | | | | | | | |
| | | 112: Front door close button (Normal Close) | | | | | | | | |
| | | 113: Front door open delay button (Normal Close) | | | | | | | | |
| | | 114: VIP mode switch (Normal Close) | | | | | | | | |
| | | 115: Operator control switch (Normal Close) | | | | | | | | |
| | | 116: Operator non-stop control switch (Normal Close) | | | | | | | | |
| | | 117: Independent operation switch (Normal Close) | | | | | | | | |
| | | 118: 1 st level fire rescue switch (Normal Close) | | | | | | | | |
| | | 119: Car-top inspection switch (Normal Close) | | | | | | | | |
| | | 120: Car-top inspection up-going (Normal Close) | | | | | | | | |
| | | 121: Car-top inspection down-going (Normal Close) | | | | | | | | |
| | | 122: Emergency stop input (Normal Close) | | | | | | | | |
| | | 123: Light control input (Normal Close) | | | | | | | | |
| | | 124: Fan control input (Normal Close) | | | | | | | | |
| | | 125: Rear door open button (Normal Close) | | | | | | | | |
| | | 126: Rear door close button (Normal Close) | | | | | | | | |
| | | 127: Rear door open delay button (Normal Close) | | | | | | | | |
| | | 128: Operator direction up-going switch (Normal Close) | | | | | | | | |
| | | 129: Operator direction down-going switch (Normal Close) | | | | | | | | |
| | | 130: Jog up-going (Normal Close) | | | | | | | | |
| | | 131: Jog down-going (Normal Close) | | | | | | | | |
| | | 132: Light load switch input (Normal Close) | | | | | | | | |
| | | 133: Front door safety panel (Normal Close) | | | | | | | | |
| | | 134: Rear door safety panel (Normal Close) | | | | | | | | |
| 10-24 | Car-top board output command 1 | 0: No function | | 1 | o | o | o | o | o | o |
| 10-25 | Car-top board output command 2 | 1: Front door open output (Normal Open) | | 2 | o | o | o | o | o | o |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|--|----------------------------------|---|-------|---------------|----|-----|-----|-------|-------|-------|
| | | | | | | | | | | |
| 10-26 | Car-top board output command 3 | 2: Front door close output (Normal Open) | | 3 | o | o | o | o | o | o |
| 10-27 | Car-top board output command 4 | 3: Rear door open output (Normal Open) | | 4 | o | o | o | o | o | o |
| 10-28 | Car-top board output command 5 | 4: Rear door close output (Normal Open) | | 5 | o | o | o | o | o | o |
| 10-29 | Car-top board output command 6 | 5: Overload signal output (communication)(Normal Open) | | 6 | o | o | o | o | o | o |
| 10-30 | Car-top board output command 7 | 6: Full-load signal output (Normal Open) | | 7 | o | o | o | o | o | o |
| 10-31 | Car-top board output command 8 | 7: Buzzer output (Normal Open) | | 8 | o | o | o | o | o | o |
| 10-32 | Command board 2 output command 1 | 8: Light output (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-33 | Command board 2 output command 2 | 9: Fan output (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-34 | Command board 2 output command 3 | 10: Front door is opening (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-35 | Command board 2 output command 4 | 11: Front door is closing (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-36 | Command board 2 output command 5 | 12: Front door open delay display (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-37 | Command board 2 output command 6 | 13: Non-stop operation display (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-38 | Command board 2 output command 7 | 14: Operation control display (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-39 | Command board 2 output command 8 | 15: Operation direction change display (Normal Open) | | 0 | o | o | o | o | o | o |
| 10-40 | Command board 1 output command 1 | 16: Independent operation display (Normal Open) | | 10 | o | o | o | o | o | o |
| 10-41 | Command board 1 output command 2 | 17: 1 st level fire rescue display (Normal Open) | | 11 | o | o | o | o | o | o |
| 10-42 | Command board 1 output command 3 | 18: Elevator landing (Normal Open) | | 12 | o | o | o | o | o | o |
| 10-43 | Command board 1 output command 4 | 19: Elevator stops (Normal Open) | | 13 | o | o | o | o | o | o |
| 10-44 | Command board 1 output command 5 | 20: Elevator up-going output (Normal Open) | | 14 | o | o | o | o | o | o |
| 10-45 | Command board 1 output command 6 | 21: Elevator down-going output (Normal Open) | | 15 | o | o | o | o | o | o |
| 10-46 | Command board 1 output command 7 | 22: Error display output (Normal Open) | | 16 | o | o | o | o | o | o |
| 10-47 | Command board 1 output command 8 | 23: Front door reset output (Normal Open) | | 17 | o | o | o | o | o | o |
| 10-48 | Car-top board output command 9 | 24: Front door slow close output (Normal Open) | | 0 | o | o | o | o | o | o |
| | | 25: Rear door reset output (Normal Open) | | | | | | | | |
| | | 26: Rear door slow close output (Normal Open) | | | | | | | | |
| | | 27: Rear door is opening (Normal Open) | | | | | | | | |
| | | 28: Rear door is closing (Normal Open) | | | | | | | | |
| | | 29: Rear door open delay display (Normal Open) | | | | | | | | |
| | | 101: Front door open output (Normal Close) | | | | | | | | |
| | | 102: Front door close output (Normal Close) | | | | | | | | |
| 103: Rear door open output (Normal Close) | | | | | | | | | | |
| 104: Rear door close output (Normal Close) | | | | | | | | | | |

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCPG | TQCPG | FOCPM |
|----------------|-------------------------------------|---|-------|---------------|----|-----|-----|-------|-------|-------|
| | | | | | | | | | | |
| | | 105: Overload signal output (communication)(Normal Close) | | | | | | | | |
| | | 106: Full-load signal output (Normal Close) | | | | | | | | |
| | | 107: Buzzer output (Normal Close) | | | | | | | | |
| | | 108: Light output (Normal Close) | | | | | | | | |
| | | 109: Fan output (Normal Close) | | | | | | | | |
| | | 110: Front door is opening (Normal Close) | | | | | | | | |
| | | 111: Front door is closing (Normal Close) | | | | | | | | |
| | | 112: Front door open delay display (Normal Close) | | | | | | | | |
| | | 113: Non-stop operation display (Normal Close) | | | | | | | | |
| | | 114: Operation control display (Normal Close) | | | | | | | | |
| | | 115: Operation direction change display (Normal Close) | | | | | | | | |
| | | 116: Independent operation display (Normal Close) | | | | | | | | |
| | | 117: 1 st level fire rescue display (Normal Close) | | | | | | | | |
| | | 118: Elevator landing (Normal Close) | | | | | | | | |
| | | 119: Elevator stops (Normal Close) | | | | | | | | |
| | | 120: Elevator up-going output (Normal Close) | | | | | | | | |
| | | 121: Elevator down-going output (Normal Close) | | | | | | | | |
| | | 122: Error display output (Normal Close) | | | | | | | | |
| | | 123: Front door reset output (Normal Close) | | | | | | | | |
| | | 124: Front door slow close output (Normal Close) | | | | | | | | |
| | | 125: Rear door reset output (Normal Close) | | | | | | | | |
| | | 126: Rear door slow close output (Normal Close) | | | | | | | | |
| | | 127: Rear door is opening (Normal Close) | | | | | | | | |
| | | 128: Rear door is closing (Normal Close) | | | | | | | | |
| | | 129: Rear door open delay display (Normal Close) | | | | | | | | |
| 10-49 | Digital input Operation direction 1 | 0 ~ FFFFh | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-50 | Digital input Operation direction 2 | 0 ~ FFFFh | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-51 | Digital output direction 1 | 0 ~ FFFFh | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| 10-52 | Digital output direction 2 | 0 ~ FFFFh | | 0 | ○ | ○ | ○ | ○ | ○ | ○ |

11 Parameters for Protection

↗: The parameter can be set during operation

☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | FOCP | TQCP | FOCPM |
|----------------|--|--|-------|----------------|----|-----|-----|------|------|-------|
| | | | | | | | | | | |
| ↗ 11-00 | Detection Time of Mechanical Brake | 0.00 ~ 10.00 seconds | | 0.00 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-01 | Detection Time of contactor | 0.00 ~ 10.00 seconds | | 0.00 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-02 | Brake Chopper Level | 230Vseries: 350.0 ~ 450.0Vdc 460Vseries: 700.0 ~ 900.0Vdc | | 380.0 760.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-03 | Low voltage level | 230Vseries: 160.0 ~ 220.0Vdc 460Vseries: 320.0 ~ 440.0Vdc | ☑ | 180.0 360.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-04 | Phase-loss protection | 0: Warn and keep operation 1: Warn and ramp to stop 2: Warn and coast to stop | ☑ | 2 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-05 | Current limit | 0~200% | ☑ | 150 | | | | ○ | ○ | ○ |
| ↗ 11-06 | Heat Sink Over-heat (OH) Warning | 0~110.0℃ | ☑ | 90.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-07 | PTC (Positive Temperature Coefficient) Detection Treatment | 0: Warn and keep operation 1: Warn and ramp to stop | ☑ | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-08 | PTC level | 0.0~100.0% | ☑ | 50.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-09 | Filter Time for PTC Detection | 0.00 ~ 10.00 seconds | ☑ | 0.20 | ○ | ○ | ○ | ○ | ○ | ○ |
| | 11-10 | Power supply voltage under emergency operation | ☑ | 48.0 96.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| | 11-11 | Power supply capacity under emergency operation | ☑ | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ |
| | 11-12 | Phase loss detection of motor output | ☑ | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-13 | Error action treatment | bit0 = 0: Low-voltage error and coast to stop bit0 = 1: Low-voltage warning and coast to stop bit1 = 0: Fan error and coast to stop bit1 = 1: Fan warning and coast to stop | ☑ | 2 | ○ | ○ | ○ | ○ | ○ | ○ |
| | 11-14 | Check Torque Output Function | ☑ | 0 | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 11-15 | Encoder feedback signal error treatment | 0: Warn and keep operation 1: Warn and ramp to stop 2: Warn and stop operation | ☑ | 2 | | ○ | | ○ | ○ | |
| ↗ 11-16 | Detection time for encoder feedback fault | 0.0 ~ 10.0 seconds | ☑ | 1.0 | | ○ | | ○ | ○ | |
| ↗ 11-17 | Encoder stall level | 0 ~ 120%/s (0: no effect) | ☑ | 115 | | ○ | ○ | ○ | | ○ |
| ↗ 11-18 | Encoder stall detection time | 0.0 ~ 2.0 seconds | ☑ | 0.1 | | ○ | ○ | ○ | | ○ |
| ↗ 11-19 | Encoder slip range | 0 ~ 50%/s (0: no effect) | ☑ | 50 | | ○ | ○ | ○ | | ○ |
| ↗ 11-20 | Encoder slip detection time | 0.0 ~ 10.0 seconds | ☑ | 0.5 | | ○ | ○ | ○ | | ○ |
| ↗ 11-21 | Encoder stall and slip treatment | 0: Warn and keep operation 1: Warn and ramp to stop 2: Warn and coast to stop | ☑ | 2 | | ○ | ○ | ○ | | |

12 Parameters for Communication

↗: The parameter can be set during operation

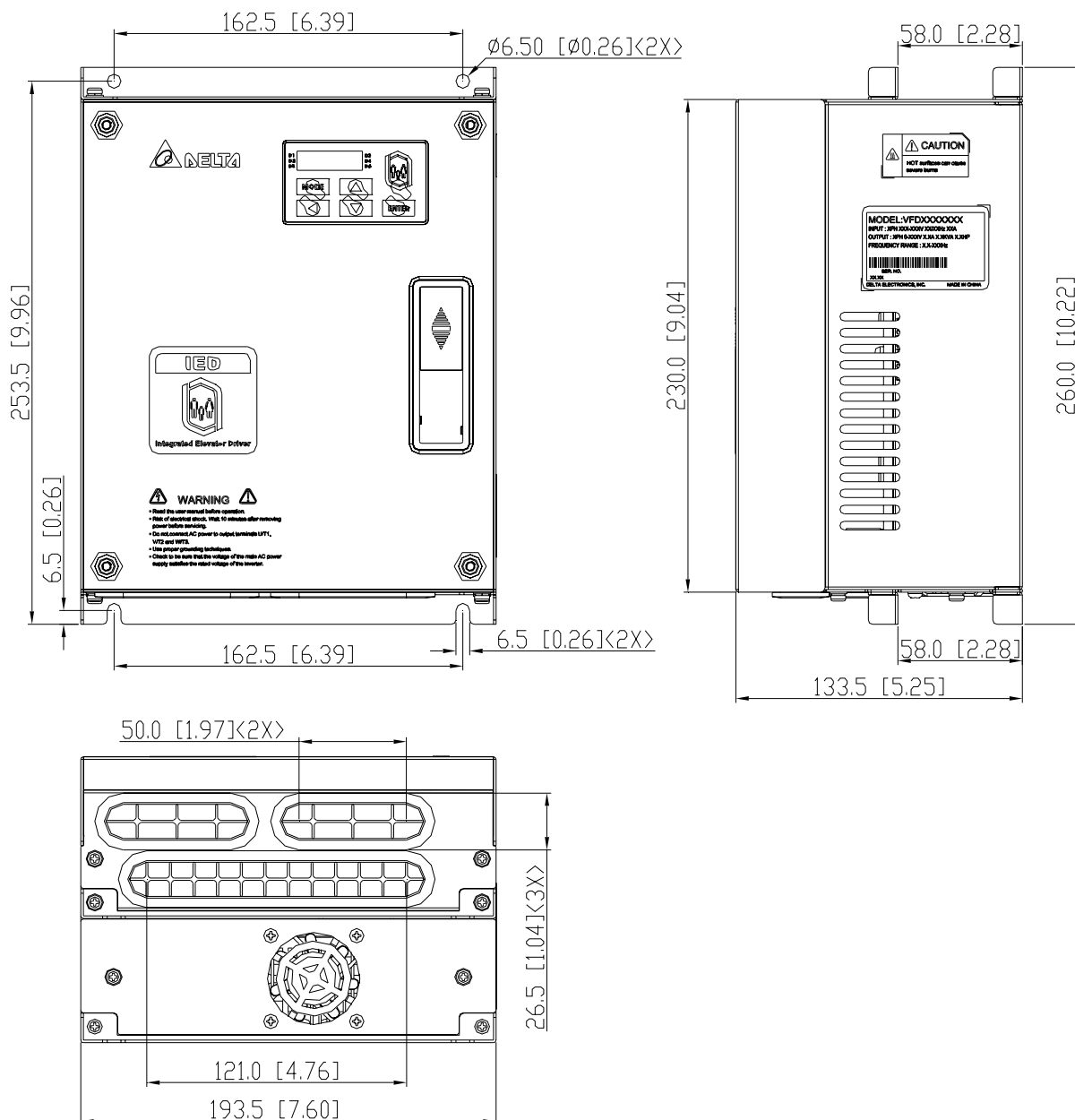
☑ represents that the parameter can be configured as shown/hidden

| Parameter code | Function of the parameter | Parameter range | level | Default value | VF | VFP | SVC | LDL | LDL | LDL | LDL | LDL | LDL |
|----------------|--|--|-------|---------------|----|-----|-----|-----|-----|-----|-----|-----|-----|
| ↗ 12-00 | Communication address | 1~254 | | 1 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-01 | Communication transmission rate (Keypad) | 4.8 ~ 115.2Kbps | | 19.2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-02 | Transmission fault treatment (Keypad) | 0: Warn and continue operation 1: Warn and ramp to stop 2: Reserved 3: Bypass without treatment | | 13 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-03 | Communication transmission rate (Remote) | 4.8 ~ 115.2Kbps | | 19.2 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-04 | Communication format (Remote) | 0: 7N1 (ASCII) 1: 7N2 (ASCII) 2: 7E1 (ASCII) 3: 7O1 (ASCII) 4: 7E2 (ASCII) 5: 7O2 (ASCII) 6: 8N1 (ASCII) 7: 8N2 (ASCII) 8: 8E1 (ASCII) 9: 8O1 (ASCII) 10: 8E2 (ASCII) 11: 8O2 (ASCII) 12: 8N1 (RTU) 13: 8N2 (RTU) 14: 8E1 (RTU) 15: 8O1 (RTU) 16: 8E2 (RTU) 17: 8O2 (RTU) | | 13 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-05 | Transmission fault treatment (Keypad) | 0: Warn and continue operation 1: Warn and ramp to stop 2: Reserved 3: Bypass without treatment | ☑ | 3 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-06 | Time-out detection (Keypad) | 0.0 ~ 100.0 seconds | ☑ | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-07 | Transmission fault treatment (Remote) | 0: Warn and continue operation 1: Warn and ramp to stop 2: Reserved 3: Bypass without treatment | ☑ | 3 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-08 | Time-out detection (Remote) | 0.0 ~ 100.0 seconds | ☑ | 0.0 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| ↗ 12-09 | Communication response delay time | 0.0 ~ 200ms | ☑ | 2.0 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

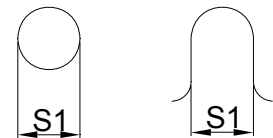
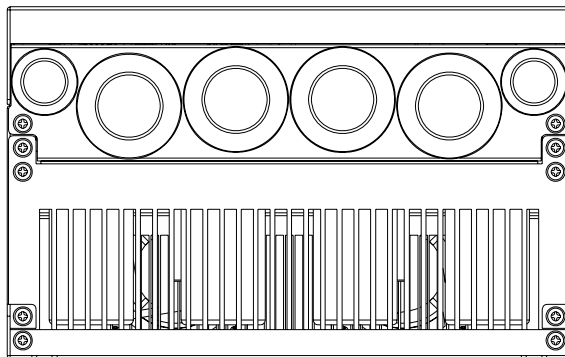
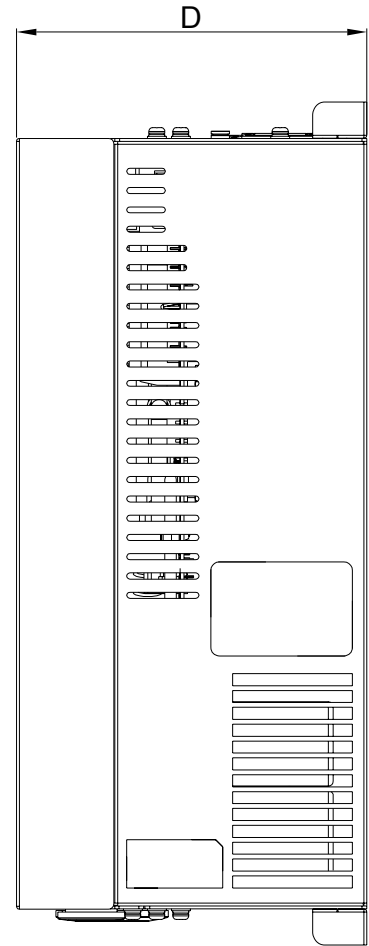
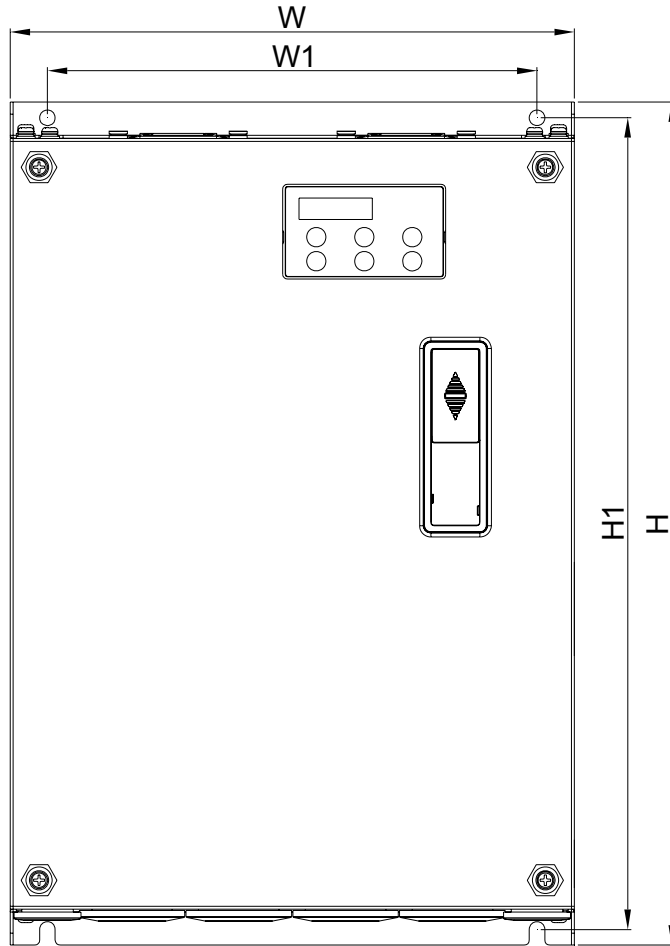
5 Product Dimensions

Frame No. B

IED022A21A, IED037A21A, IED040A23A, IED040A43A



Frame No. C



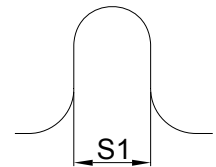
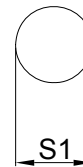
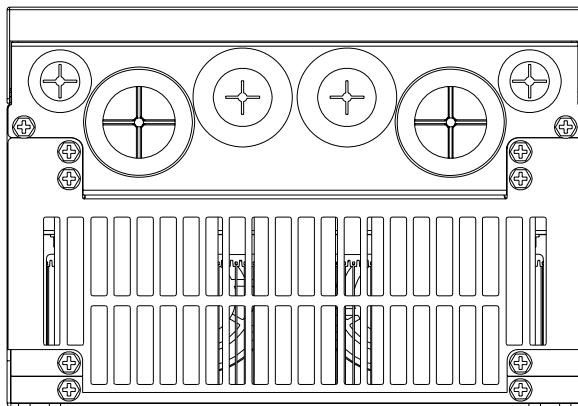
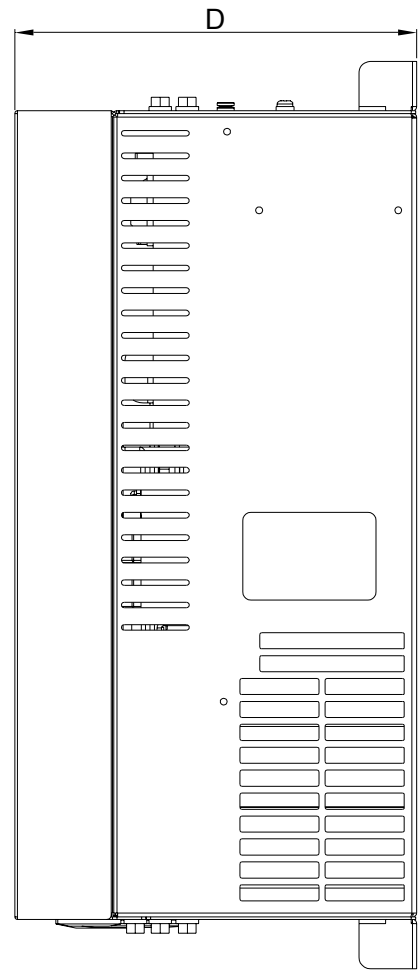
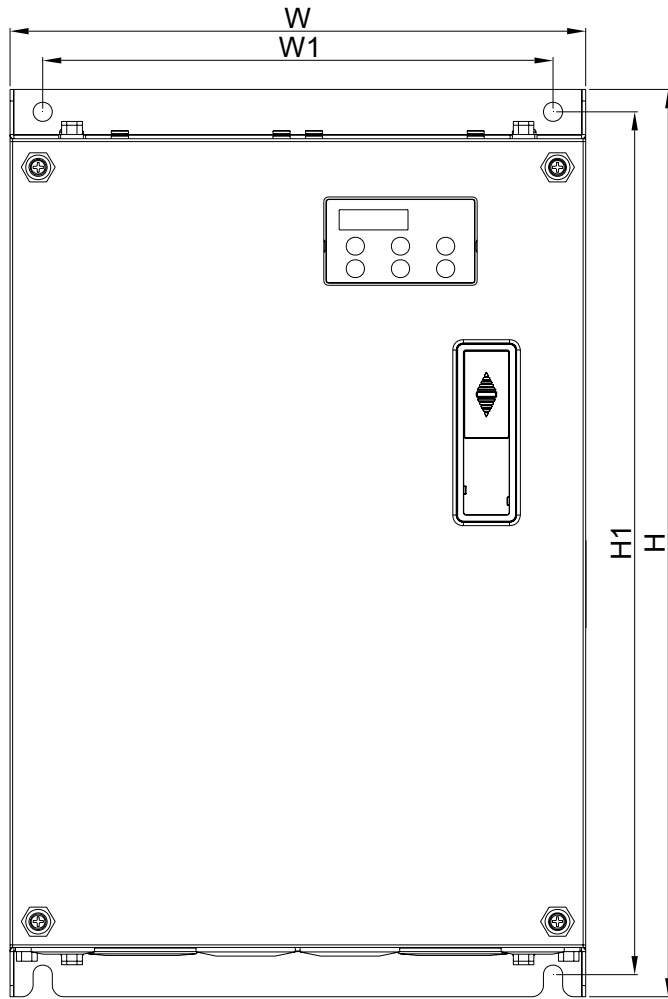
Unit: mm [inch]

| Frame No. | W | W1 | H | H1 | H2 | H3 | D | Ø | Ø1 | Ø2 | Ø3 |
|-----------|---------------|---------------|----------------|----------------|----------------|----|---------------|---------------|----|--------------|--------------|
| C | 235 [9.25] | 204 [8.03] | 350 [13.78] | 337 [13.27] | 320 [12.60] | - | 136 [5.35] | 6.5 [0.26] | - | 34 [1.34] | 22 [0.87] |

NOTE

Frame No. C: IED055A23A/43A, IED075A23A/43A, IED110A23A/43A,

Frame No. D



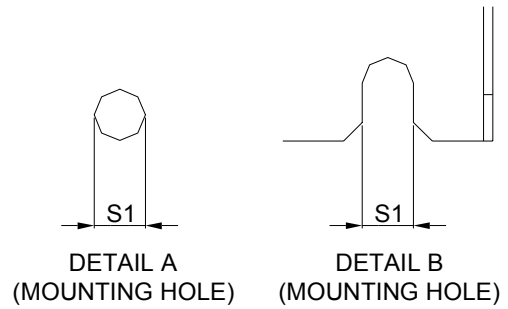
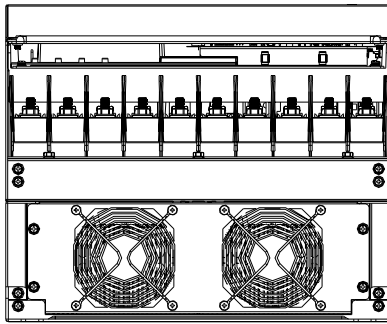
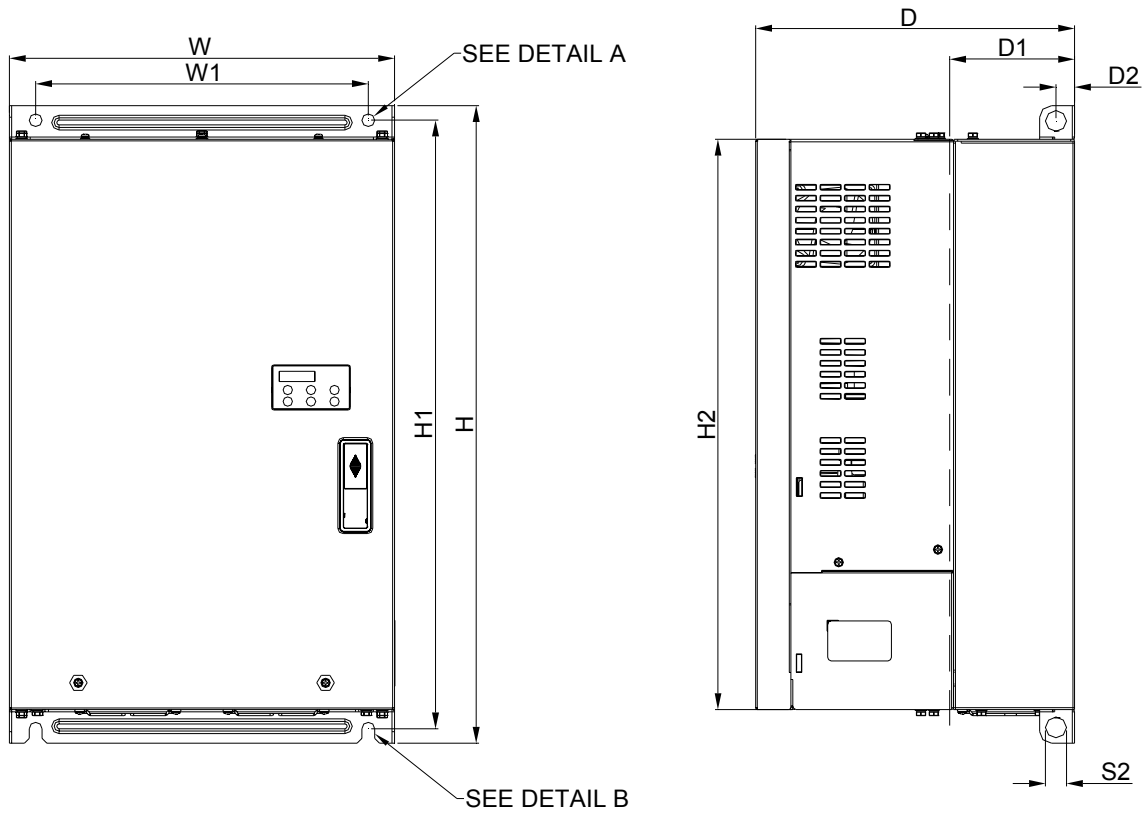
Unit: mm [inch]

| Frame No. | W | W1 | H | H1 | H2 | H3 | D | Ø | Ø1 | Ø2 | Ø3 |
|-----------|------------------|-----------------|------------------|------------------|------------------|----------------|-----------------|---------------|--------------|--------------|--------------|
| D | 255.0 [10.04] | 226.0 [8.90] | 403.8 [15.90] | 384.0 [15.12] | 360.0 [14.17] | 21.9 [0.86] | 168.0 [6.61] | 8.5 [0.33] | 44 [1.73] | 34 [1.34] | 22 [0.87] |

 **NOTE**

Frame No. D: IED150A23A/43A, IED185A23A/43A, IED220A23A/43A,

Frame No. E



Unit: mm [inch]

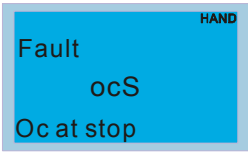
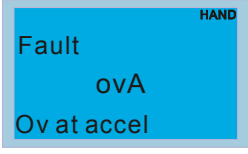
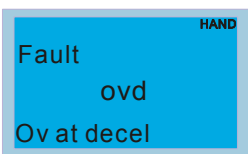
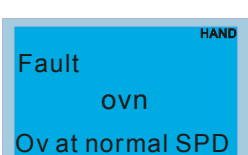
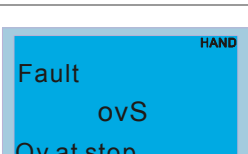
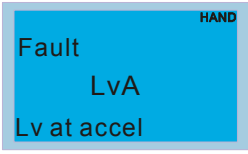
| Frame No. | W | W1 | H | H1 | H2 | D | D1: | D2: | S1 | S2 | S3 |
|-----------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|----------------|----------------|----------------|----------------|
| E1 | 370.0 [14.57] | 335.0 [13.19] | 550.0 [21.65] | 589.0 [23.19] | 560.0 [22.05] | 260.0 [10.24] | 132.5 [5.22] | 18.0 [0.71] | 13.0 [0.51] | 13.0 [0.51] | 18.0 [0.71] |

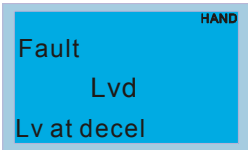
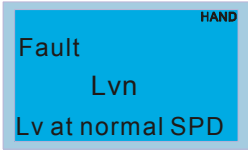
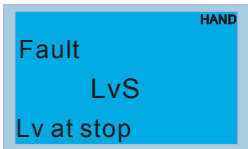
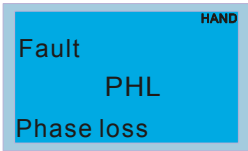
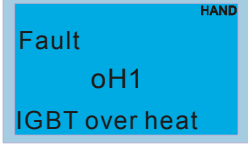
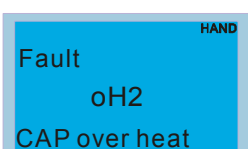
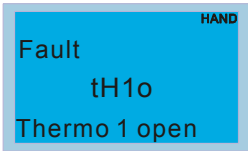
NOTE

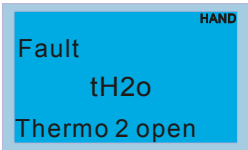
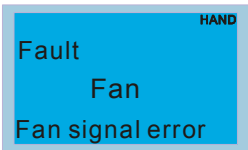
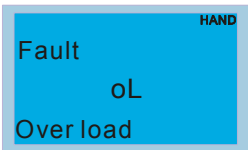
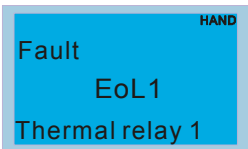
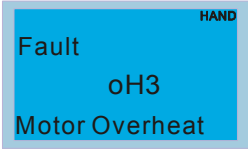
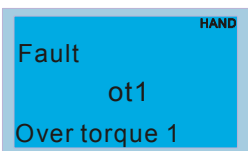
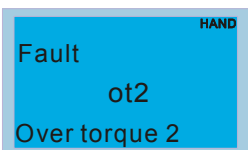
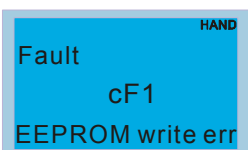
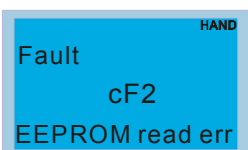
Frame No. E1: IED300A43A, IED370A43A, IED450A43A,

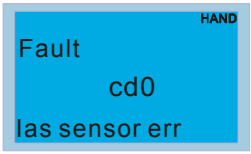
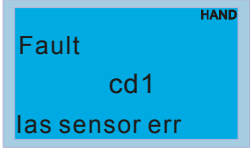
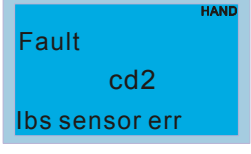
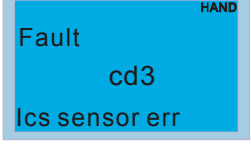
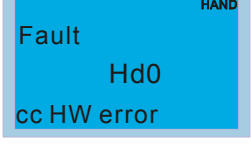
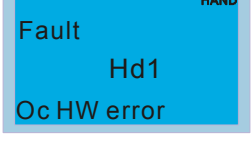
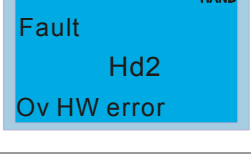
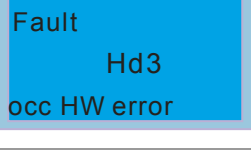
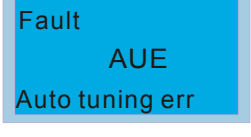
6 Error Codes

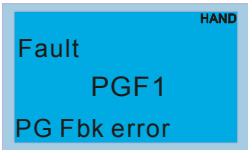
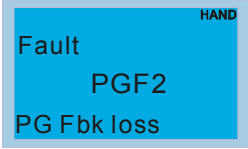
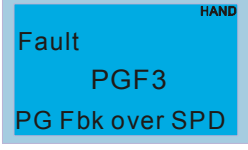
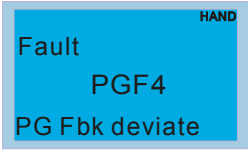
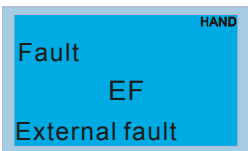

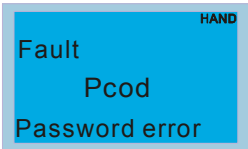
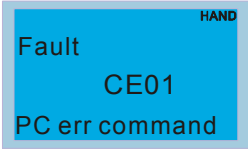
| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|----------------------------------|---|--|
| <i>ocA</i> | Fault ocA Oc at accel | Over current during acceleration | Check if the bolts on the AC motor driver and the motor are loose. Check the connection from U-V-W to the motor for any improper insulation. Increase the acceleration time. Replace with an AC motor driver with a larger output capacity. |
| <i>ocd</i> | Fault ocd Oc at decel | Over current during deceleration | Check the connection from U-V-W to the motor for any improper insulation. Increase the deceleration time. Replace with an AC motor driver with a larger output capacity. |
| <i>ocn</i> | Fault ocn Oc at normal SPD | Over current during movement | Check the connection from U-V-W to the motor for any improper insulation. Check if the motor is jammed. Replace with an AC motor driver with a larger output capacity. |
| <i>GFF</i> | Fault GFF Ground fault | Ground protection is activated. When the AC motor driver detects the output end is grounded and the grounding current is larger than 50% of the AC motor driver's rated current. Note: Such a protection is used for protecting the AC motor driver not for human body. | Check the connection to the motor for short circuit or ground. Make sure if the IGBT power module is damaged. Check the connection at the output side is improperly insulated. |
| <i>occ</i> | Fault occ Short Circuit | AC motor driver detects short circuit between the IGBT module's upper and lower bridges. | Return to factory for repair. |

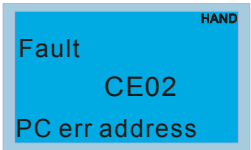
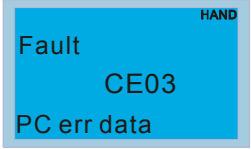
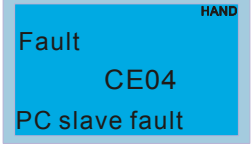
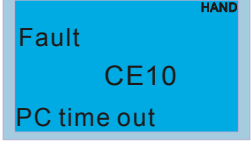
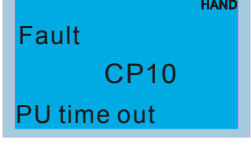
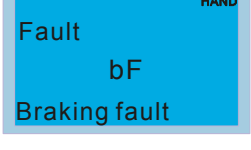
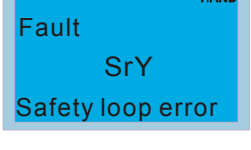
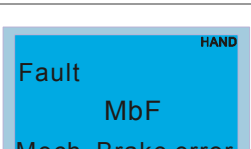
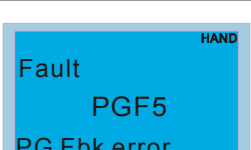
| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|--|--|
| ocS |  | Over current when the elevator stops. Malfunction of the voltage detection circuit. | Return to factory for repair. |
| ovA |  | During acceleration, the AC motor driver detects over current at the internal DC high-voltage side. 230V: 450Vdc ; 460V: 900Vdc. | Check if the input voltage is within the AC motor driver's rated voltage range; and monitor if there is any voltage surge. If the voltage surge due to the motor's inertia causes over-voltage at the AC motor driver's internal DC high-voltage side, please increase the deceleration time or install a brake resistor (optional). |
| ovd |  | During deceleration, the AC motor driver detects over current at the internal DC high-voltage side. 230V: 450Vdc; 460V: 900Vdc. | Check if the input voltage is within the AC motor driver's rated voltage range; and monitor if there is any voltage surge. If the voltage surge due to the motor's inertia causes over-voltage at the AC motor driver's internal DC high-voltage side, please increase the deceleration time or install a brake resistor (optional). |
| ovn |  | During constant-speed movement, the AC motor driver detects over current at the internal DC high-voltage side. 230V: 450Vdc ; 460V: 900Vdc. | Check if the input voltage is within the AC motor driver's rated voltage range; and monitor if there is any voltage surge. If the voltage surge due to the motor's inertia causes over-voltage at the AC motor driver's internal DC high-voltage side, please increase the deceleration time or install a brake resistor (optional). |
| ovS |  | Over-voltage when the elevator stops. Malfunction of the voltage detection circuit | Check if the input voltage is within the AC motor driver's rated voltage range; and monitor if there is any voltage surge. |
| LvA |  | During acceleration, the AC motor driver detects that the voltage at the internal DC high-voltage side is lower than the setting of Parameter 11-03. | Check if the voltage of the input power supply is normal. Check if there is any sudden heavy load. |

| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|---|---|
| Lvd |  HANDB Fault Lvd Lv at decel | During deceleration, the AC motor driver detects that the voltage at the internal DC high-voltage side is lower than the setting of Parameter 11-03. | Check if the voltage of the input power supply is normal. Check if there is any sudden heavy load. |
| Lvn |  HANDB Fault Lvn Lv at normal SPD | During constant-speed movement, the AC motor driver detects that the voltage at the internal DC high-voltage side is lower than the setting of Parameter 11-03. | Check if the voltage of the input power supply is normal. Check if there is any sudden heavy load. |
| Lvs |  HANDB Fault Lvs Lv at stop | When the elevator stops, the AC motor driver detects that the voltage at the internal DC high-voltage side is lower than the setting of Parameter 11-03. | Check if the voltage of the input power supply is normal. Check if there is any sudden heavy load. |
| PHL |  HANDB Fault PHL Phase loss | Phase loss protection | Check if the single-phase input is used for the three-phase model or there is any phase loss. |
| oH1 |  HANDB Fault oH1 IGBT over heat | AC motor driver detects overheat of the IGBT with a temperature higher than the protection level 1 ~ 15HP: 90°C 20 ~ 100HP: 100°C | Check if the ambient temperature is too high. Check if the heat dissipation plate for any external objects. Check if the fan is running. Check if the AC motor driver has sufficient space. |
| oH2 |  HANDB Fault oH2 CAP over heat | AC motor driver detects overheat of the IGBT with a temperature higher than the protection level (90°C) | Check if the ambient temperature is too high. Check if the heat dissipation plate for any external objects. Check if the fan is running. Check if the AC motor driver has sufficient space. |
| tH1o |  HANDB Fault tH1o Thermo 1 open | IGBT temperature sensing circuit has malfunction | Return to factory for repair. |

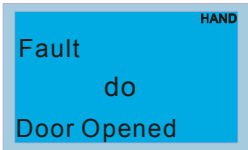
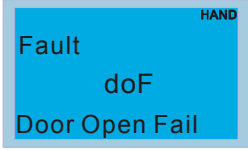
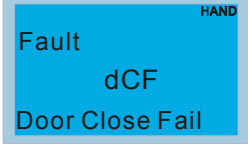
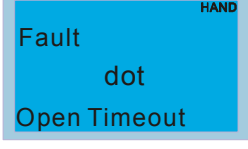
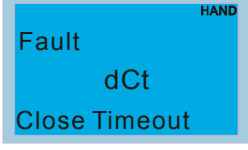
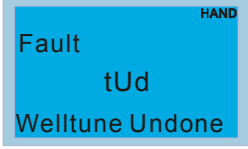
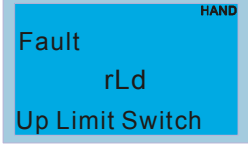
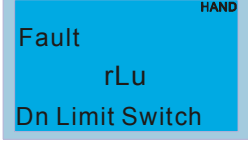
| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|--|---|---|
| tH2o |  Fault tH2o Thermo 2 open | Capacitor module temperature sensing circuit has malfunction | Return to factory for repair. |
| FAn |  Fault Fan Fan signal error | Fan has a malfunction. | Check if the fan is blocked. Return to factory for repair. |
| oL |  Fault oL Over load | The output current is higher than the withstand current of the AC motor driver. | Check if the motor is overloaded. Increase the output capacity of the AC motor driver. |
| EoL1 |  Fault EoL1 Thermal relay 1 | Electronic thermally actuated relay 1 protection is activated | Check if Motor 1 is overloaded. Check if the (02-01) motor's rated current setting is proper. |
| oH3 |  Fault oH3 Motor Overheat | AC motor driver detects internal overheat which is higher than the protection level (11-08 PTC level) | Check if the motor is jammed. Check if the ambient temperature is too high. Increase the motor's capacity. |
| ot1 |  Fault ot1 Over torque 1 | Electronic thermally actuated relay 1 protection is activated | Check if the motor is overloaded. Check if the (02-01) motor's rated current setting is proper. Increase the motor's capacity. |
| ot2 |  Fault ot2 Over torque 2 | Electronic thermally actuated relay 2 protection is activated. | Check if the motor is overloaded. Check if the (02-01) motor's rated current setting is proper. Increase the motor's capacity. |
| cF1 |  Fault cF1 EEPROM write err | Memory write error. | Press the RESET button to reset the parameters to factory defaults. If this method is not working, return to factory for repair. |
| cF2 |  Fault cF2 EEPROM read err | Memory read error. | Press the RESET button to reset the parameters to factory defaults. If this method neither is nor working, return to factory for repair. |

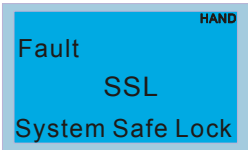
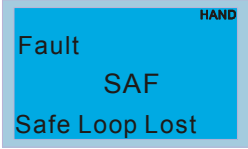
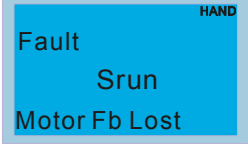
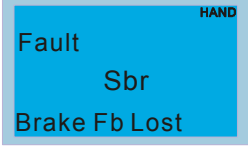
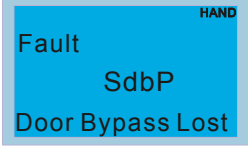
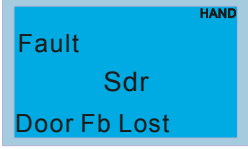
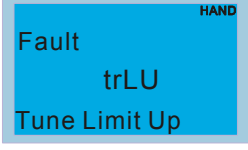
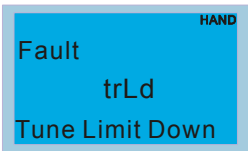
| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|--|--|---|
| <i>cd0</i> |  A blue rectangular display showing the text "Fault", "cd0", and "las sensor err" in a white font. A small "HAND" icon is in the top right corner. | Current detection circuit error. | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>cd1</i> |  A blue rectangular display showing the text "Fault", "cd1", and "las sensor err" in a white font. A small "HAND" icon is in the top right corner. | U-phase current detection error. | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>cd2</i> |  A blue rectangular display showing the text "Fault", "cd2", and "lbs sensor err" in a white font. A small "HAND" icon is in the top right corner. | V-phase current detection error. | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>cd3</i> |  A blue rectangular display showing the text "Fault", "cd3", and "lcs sensor err" in a white font. A small "HAND" icon is in the top right corner. | W-phase current detection error. | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>Hd0</i> |  A blue rectangular display showing the text "Fault", "Hd0", and "cc HW error" in a white font. A small "HAND" icon is in the top right corner. | cc protection hardware circuit error . | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>Hd1</i> |  A blue rectangular display showing the text "Fault", "Hd1", and "Oc HW error" in a white font. A small "HAND" icon is in the top right corner. | oc protection hardware circuit error. | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>Hd2</i> |  A blue rectangular display showing the text "Fault", "Hd2", and "Ov HW error" in a white font. A small "HAND" icon is in the top right corner. | ov protection hardware circuit error. | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>Hd3</i> |  A blue rectangular display showing the text "Fault", "Hd3", and "occ HW error" in a white font. A small "HAND" icon is in the top right corner. | occ protection hardware circuit error. | After re-connecting the power supply, if the error still exists, return to factory for repair. |
| <i>AUE</i> |  A blue rectangular display showing the text "Fault", "AUE", and "Auto tuning err" in a white font. A small "HAND" icon is in the top right corner. | Motor parameter auto-tuning error. | Check if the motor's connection is correct. Check if the motor's capacity and the parameter settings are correct. Re-test |

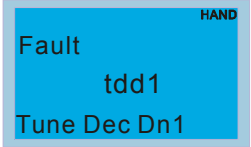
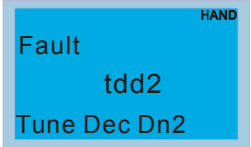
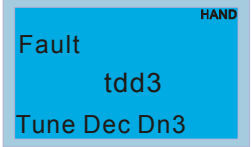
| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|--|--|
| PGF1 |  | PG feedback error | If PG feedback control is enabled, check if the Encoder's parameter setting is correct (02-07≠0). |
| PGF2 |  | PG feedback is disconnected. | Check the PG feedback connection. |
| PGF3 |  | PG feedback over speed | Check the PG feedback connection. Check if the PI gain and the acceleration/deceleration settings are proper. Adjust the stall detection parameters (Parameters 11-17 ~ 11-18). Return to factory for repair. |
| PGF4 |  | PG feedback deviation error. | Check the PG feedback connection. Check if the PI gain and the acceleration/deceleration settings are proper. Adjust the stall detection parameters (Parameters 11-17 ~ 11-18). Return to factory for repair. |
| EF |  | When the external EF terminals close, the AC motor driver stops output. | After clearing the cause of the error, press the "RESET" button. |
| EF1 |  | When the external multi-function input terminals are setting emergency stop, the AC motor driver stops output. | After clearing the cause of the error, press the "RESET" button. |
| Pcod |  | Password error for three times. | Refer to the settings of parameters 01-6 ~ 01-07. Please turn off the power, re-start, and then enter the correct password. |
| CE01 |  | Invalid communication command. | Check if the communication command is correct (the communication command must be 03, 06, 10, and 63). |

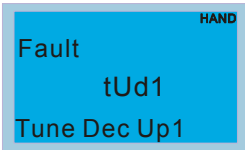
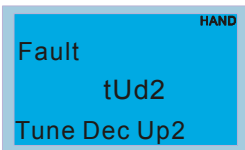
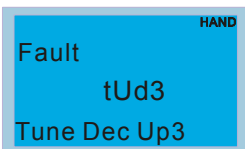
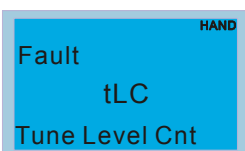
| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|---|--|
| CE02 |  Fault CE02 PC err address | Invalid communication data address (00H ~ 254H). | Check if communication data length is correct. |
| CE03 |  Fault CE03 PC err data | Invalid communication data values. | Check if the communication data values exceed the maximum/minimum values. |
| CE04 |  Fault CE04 PC slave fault | Write data to the read-only address. | Check if the communication address is correct. |
| CE 10 |  Fault CE10 PC time out | Communication time-out. | Check if the communication connection is normal. |
| CP 10 |  Fault CP10 PU time out | Digital control panel KPVL-CC01 communication time-out. | Check if the communication connection is normal. Check if the digital control unit is working normally. |
| bF |  Fault bF Braking fault | Driver detects errors from the braking transistor. | After press the RESET button, if the message bF still exists, please return to factory for repair. |
| SrY |  Fault SrY Safety loop error | IED safety loop detection error. | Check if the safety loop detection is selected correctly (SW3). Check if the IED safety loop is installed correctly (J8). Check if the output operation is normal. |
| MbF |  Fault MbF Mech. Brake error | Mechanical brake feedback signal does not match the release signal. | Make sure if the mechanical brake signal is correct. Make sure if the mechanical brake operation detection time (11-00) is configured correctly. |
| PGF5 |  Fault PGF5 PG Fbk error | PG hardware detection error. | Check the PG feedback connection. After the PG feedback is corrected, if this error message still exists, please return to factory for repair. |

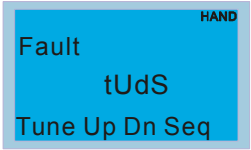
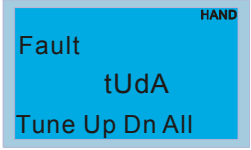
| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|-----------------------------------|--|--|
| <i>nCF</i> | Fault MCF contactor Fail | Solenoid valve actuation signal does not match the release signal. | Make sure if the solenoid valve actuation signal is correct. Make sure if the solenoid valve operation detection time (11-01) is configured correctly. |
| <i>nPHL</i> | Fault MPHL Motor Phase Loss | Output phase loss. | Make sure if the connection from the IED to the motor is normal. Return to factory for repair. |
| <i>CO</i> | Fault CO CAN overwrite | CAN communication packet error. | Check if the connection for CAN communication is correct without any noise. |
| <i>cto</i> | Fault cto CAN timeout | CAN communication time-out. | Check if the connection for CAN communication is correct without any noise. |
| <i>Ldr</i> | Fault Ldr Door Zone Err | No leveling signal is received at stop. The stop position does not match the value from the hoistway self-learning process. | Check if the leveling signal is normal. Check if the leveling time-out parameter is configured correctly. Check the elevator for possible slip. |
| <i>Lto</i> | Fault Lto Leveling Timeout | No leveling signal is received for a time longer than the leveling signal time-out setting. | Check if the leveling signal is normal. Check if the leveling time-out parameter is configured correctly. Check the elevator for possible slip. |
| <i>Lu</i> | Fault Lu Level Up Error | Upper leveling signal is not received at stop. | Check if the upper leveling signal is normal. Check if the leveling plate has sufficient length. Check the parking deceleration parameter setting; decrease the deceleration; increase the parking time. |
| <i>Ld</i> | Fault Ld Level Down Error | Down leveling signal is not received at stop. | Check if the lower leveling signal is normal. Check if the leveling plate has sufficient length. Check the parking deceleration parameter setting; decrease the deceleration; increase the parking time. |

| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|--|--|--|
| <i>do</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "do" is in the middle, and "Door Opened" is at the bottom, all in a black monospace font. | Door close limit has malfunction during movement. | Check if the door close limit signal is normal. Check if the communication between the IED and the car-top board is normal. |
| <i>dof</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "doF" is in the middle, and "Door Open Fail" is at the bottom, all in a black monospace font. | The automatic re-tries for door open exceed the parameter setting. | |
| <i>dCF</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "dCF" is in the middle, and "Door Close Fail" is at the bottom, all in a black monospace font. | The automatic re-tries for door close exceed the parameter setting. | |
| <i>dot</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "dot" is in the middle, and "Open Timeout" is at the bottom, all in a black monospace font. | When the door is opening, the door open signal is not received for a time longer than the setting of the parameter 09-08. | Check if the door close limit signal is normal. Check if the door motor is working normally. Check if the communication between the IED and the car-top board is normal. |
| <i>dCt</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "dCt" is in the middle, and "Close Timeout" is at the bottom, all in a black monospace font. | When the door is closing, the door close to position signal is not received for a time longer than the setting of the parameter 09-09. | Check if the door close limit signal is normal. Check if the door motor is working normally. Check if the communication between the IED and the car-top board is normal. |
| <i>tUd</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "tUd" is in the middle, and "Welltune Undone" is at the bottom, all in a black monospace font. | Hoistway self-learning error. | Re-execute the hoistway self-learning process. Make sure if the hoistway signal is normal. |
| <i>rLd</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "rLd" is in the middle, and "Up Limit Switch" is at the bottom, all in a black monospace font. | Upper limit signal is triggered during movement. | Check the elevator for possible slip. Check the corresponding terminals on the IED. Check if the limit switch signal is normal. |
| <i>rLu</i> |  A blue rectangular box with a light blue border. At the top right corner, the word "HAND" is written in small, bold, black capital letters. Inside the box, the text "Fault" is at the top, "rLu" is in the middle, and "Dn Limit Switch" is at the bottom, all in a black monospace font. | Move down to the lower limit. | Check the elevator for possible slip. Check the corresponding terminals on the IED. Check if the limit switch signal is normal. |

| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|---|---|
| SSL |  Fault SSL System Safe Lock | IED hardware error. | Check if the IED can still work. Return to factory for repair. |
| SAF |  Fault SAF Safe Loop Lost | Safety loop signal error. | Check if all the switches in the external safety loop are normal. |
| Srun |  Fault Srun Motor Fb Lost | Output contact feedback signal error | Make sure if the input terminal from the output feedback signal to the IED is normal without any sticking. Make sure if the corresponding relay output is normal. |
| Sbr |  Fault Sbr Brake Fb Lost | Contracting brake contact feedback signal error. | Make sure if the input terminal from the contracting brake feedback signal to the IED is normal without any sticking. Make sure if the contracting brake relay output is normal. |
| SdbP |  Fault SdbP Door Bypass Lost | Door open bypass contact feedback signal error. | Make sure if the input terminal from the door open bypass feedback signal to the IED is normal without any sticking. Make sure if the door open bypass relay has normal output. |
| Sdr |  Fault Sdr Door Fb Lost | Door lock feedback signal error. | Make sure if all the switches in the door lock circuit are normal. |
| trLU |  Fault trLU Tune Limit Up | Upper limit function is not configured. When the upper limit is valid, both the two leveling signals are valid. The upper limit switch is installed at a too low position. | Make sure if the input function is configured correctly: upper limit switch. Adjust the position of the upper limit switch. |
| trLd |  Fault trLd Tune Limit Down | Lower limit function is not configured. When the lower limit is valid, both the two leveling signals | Make sure if the input function is configured correctly: lower limit switch. Adjust the position of the lower limit switch. |

| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|--|---|
| | | are valid. The lower limit switch is installed at too high a position. | |
| t d d 1 |  | <p>Coercionary deceleration position is determined from self-learning, but the signal is not received. The signal is not stable.</p> <p>The sequence of the hoistway signals are not correct; this input function is configured but there is no such switch in the hoistway.</p> | <p>Make sure the switch is installed correctly, and the signal is stably transmitted.</p> <p>Make sure the signal wire is connected to the correct input terminal; check the parameter setting of the multi-function input.</p> |
| t d d 2 |  | <p>Coercionary deceleration position is determined from self-learning, but the signal is not received. The signal is not stable.</p> <p>The sequence of the hoistway signals are not correct; this input function is configured but there is no such switch in the hoistway.</p> | <p>Make sure the switch is installed correctly, and the signal is stably transmitted.</p> <p>Make sure the signal wire is connected to the correct input terminal; check the parameter setting of the multi-function input.</p> |
| t d d 3 |  | <p>Coercionary deceleration position is determined from self-learning, but the signal is not received. The signal is not stable.</p> <p>The sequence of the hoistway signals are not correct; this input function is configured but there is no such switch in the hoistway.</p> | <p>Make sure the switch is installed correctly, and the signal is stably transmitted.</p> <p>Make sure the signal wire is connected to the correct input terminal; check the parameter setting of the multi-function input.</p> |

| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|---|---|
| tUd1 |  | <p>Coercionary deceleration position is determined from self-learning, but the signal is not received. The signal is triggered several times. The signal is not stable.</p> <p>The sequence of the hoistway signals are not correct; this input function is configured but there is no such switch in the hoistway.</p> | <p>Make sure the switch is installed correctly, and the signal is stably transmitted.</p> <p>Make sure the signal wire is connected to the correct input terminal; check the parameter setting of the multi-function input.</p> |
| tUd2 |  | <p>Coercionary deceleration position is determined from self-learning, but the signal is not received. The signal is triggered several times. The signal is not stable.</p> <p>The sequence of the hoistway signals are not correct; this input function is configured but there is no such switch in the hoistway.</p> | <p>Make sure the switch is installed correctly, and the signal is stably transmitted.</p> <p>Make sure the signal wire is connected to the correct input terminal; check the parameter setting of the multi-function input.</p> |
| tUd3 |  | <p>Coercionary deceleration position is determined from self-learning, but the signal is not received. The signal is triggered several times. The signal is not stable.</p> <p>The sequence of the hoistway signals are not correct; this input function is configured but there is no such switch in the hoistway.</p> | <p>Make sure the switch is installed correctly, and the signal is stably transmitted.</p> <p>Make sure the signal wire is connected to the correct input terminal; check the parameter setting of the multi-function input.</p> |
| tLC |  | <p>Number of floors does not match the parameter setting.</p> | <p>Make sure the parameter settings, and make sure that the leveling switches/plates are installed correctly.</p> |

| KPED-CE01 Displayed Code | KPED-CE01 Displayed Code | Description of Failure | Solutions |
|--------------------------------|---|--|---|
| tUdS |  | Triggering sequence of the leveling switches is not correct. | Make sure that the upper/lower signals are installed to the correct input terminals. |
| tUdA |  | Two leveling switches are triggered at the same time. | Make sure that the upper/lower leveling signals are installed to the correct input terminals. Make sure that the two signal wires are not short-circuiting. |